

Sustainable Green Building Municipal Guide

Presented By

United States Green
Building Council
South Florida Chapter





SOUTH FLORIDA CHAPTER

Sustainable City Guide

The US Green Building Council South Florida Chapter is pleased to provide the following information for government education and evaluation. The intent of this document is to provide information on model programs that municipalities may consider adopting in order to meet the goals of the US Conference of Mayors Climate Protection Agreement. We have divided the material into 5 discreet areas of attention. They are as follows:

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- I. Model Programs for City adoption of LEED Standards
- II. Model codes and ordinances to require minimum levels of sustainability
- III. Model educational programs
- IV. Model programs to encourage Green Buildings
- V. Model language to encourage private sector development of Green Building to LEED standard.

I. Model Programs for City Adoption of LEED Standards

Significance - Because there are numerous jurisdictions throughout the country that have adopted LEED as a standard for publicly funded building projects, there is ample precedent for the City to require that all city-funded new construction meet or exceed the requirements for LEED Silver Certification. In this approach all city-funded projects register with the USGBC and receive certification. This method ensures that the project has met the standards established by the rating system. The advantage of this approach is that the City can rely on the USGBC to verify that the desired performance standards are met without creating a verification system of its own. The disadvantage is that the city is in effect outsourcing its quality control function and paying a separate entity over which it has no control to perform this function. This is the implementation method of choice for most jurisdictions requiring LEED compliant construction for all public buildings because it is simple and allows improvements and modifications to the LEED rating system to be adopted as they are developed without further legislation. In addition, this method ensures that buildings meet the standards set and is immune from real or perceived potential for corner cutting.

Examples of Model Programs for City Adoption of LEED Standards

New York City, NY – See appendix A

City of San Diego, CA – See Appendix B

Sarasota County, FL – See Appendix C



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II. Model codes and ordinances to require minimum levels of sustainability

Significance – Even with the City adoption of LEED standards for city-funded projects and the adoption of a program to encourage private sector development of Green Buildings, a significant portion of the development in the city would not seek to become sustainable. In order to increase a minimum level of sustainability the city could adopt more stringent baseline codes and standards. The simplest method of accomplishing this is to modify the zoning and building codes to reference select mandatory credits from the LEED rating system and integrate the verification process into the existing plan review process. This method would require that the planning and building departments develop the in-house expertise to verify that buildings meet the new code requirements or that the City certify outside plan reviewers to conduct LEED compliance reviews on behalf of the City. With this method, the cost of verifying that new green requirements are met is borne by the City and not the developer, minimizing the financial impact on the development community. The City could permit waiver of new requirements with payment into a Trust Fund in the event that compliance with a new green building requirement is a hardship.

Model Recommendations

Guidelines for model ordinance language for protection of water quality and quantity using Florida Friendly Lawns and Landscape – See Appendix D

Florida Green Building Coalition Model Green City Standards (in partnership with Miami Dade Department of Environmental Resources Management) <http://floridagreenbuilding.org/standard/govs/standarddocs.htm>

III. Model Educational Programs

Significance – In order for any program to become effective it is imperative that an effective program be put into place to raise awareness and educate the community about green building. The program should incorporate knowledge of green building best practices as well as promote the positive benefits of green building such as mitigating the impacts of growth by protecting the environment, conserving natural resources, and promoting public health, safety and welfare.

Model Web Based Programs

City of Seattle, WA <http://www.cityofseattle.net/dpd/GreenBuilding/default.asp>

City of Austin, TX <http://www.austinenergy.com/Energy%20Efficiency/Programs/Green%20Building/index.htm>

Model Awareness Programs

Build Green NW - <http://www.buildgreennw.com/campaign.htm>

City of Phoenix - <http://phoenix.gov/sustainability/blueprint.html>

Model Workshops

City of Austin, TX

<http://www.austinenergy.com/Energy%20Efficiency/Programs/Green%20Building/Resources/GreenByDesign/index.htm>



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IV. Model programs to encourage Green Buildings

Significance – In order to support and encourage a successful Green Building program, it is important that the municipal programs are in place to support the development. For example, LEED requires that all projects have a recycling program in place to encourage diverting waste from the landfills. It would be a burden to the building owner to search and pay for ways to dispose of recyclable materials. If the city established a recycling program to meet the community needs it would become a norm for all buildings to recycle a large portion of their waste.

Model Recommendations

City of Fort Lauderdale Recycling Program - <http://ci.ftlaud.fl.us/recycle/atwork.htm>

City of Seattle Sustainable Purchasing Program – See Appendix E

Arizona Resource Exchange - <http://www.earth911.org/usa/master.asp?s=lib&a=arex/default.asp>

V. Model language to encourage private sector development of Green Building to LEED standard

Significance – Providing incentives demonstrate to the public that the city or county is supportive of green building and is actively encouraging the recommended green building practices. Developers typically view expedited processing as the most valuable incentive. But providing preferential treatment during the permitting process is not always possible due to staffing. More importantly, it is difficult to expedite processing consistently in all departments. Other possible incentives are reduced permit fees, the most common being a waiver of the energy-related review. Other incentives include property tax reductions, density or floor area ratio bonuses, and parking reductions. Finally, public recognition through awards programs, articles in the local newspaper, and visits to the project by the mayor or other elected officials can be valuable from a marketing perspective, for both the project and for the developer. The heightened attention can increase sales or accelerate the lease-up period.

Examples of Model Density Bonus Incentive Ordinances

Arlington, VA

Introduction

In October 1999, the County Board adopted a Pilot Green Building Incentive Program based on the U. S. Green Building Council's Leadership in Energy and Environmental Design (LEEDTM) Green Building Rating System to evaluate special exception site plan requests for bonus density and/or height. The original incentive program was implemented in April 2000.

The purpose of the incentive program is to encourage construction of more environmentally-friendly buildings. Although many developers expressed interest in the pilot program, only one (The Navy League) applied and received bonus density in exchange for a silver LEED rating. In 2003, after more than three years of experience and feedback, Arlington County updated and expanded the Green Building Density Incentive Program.

An interdepartmental team of staff from the Department of Environmental Services, the Department of Economic Development, the Department of Community Planning, Housing and Development, the Office of Support Services, the County Manager's Office and the County Attorney's Office was convened to develop the original policy. The team was



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reconvened to address the 2003 update. The staff team has sought feedback from the Planning Commission, the Environmental and Energy Conservation Commission, and the building community throughout the program. Read a [brochure about Arlington County's Green Building](#) (1 MB, [PDF format](#)) program.

Components of the Expanded Incentive Program

Applicable Projects

- The program was expanded in 2003 to include all types of development, not just commercial office projects.
- The threshold for consideration of the bonus requests includes the full range of LEED certifications. This means that buildings seeking to achieve the Certified, Silver, Gold, and Platinum award levels of the LEED rating system will be eligible.
- The program will allow the County Board to consider the provision of LEED-certified green building components as justification for bonus density and/or bonus height requests in special exception site plan proposals for office development.

Additional Density

- Consistent with Section 36.H.5. of the Zoning Ordinance, the program will allow the County Board to consider a modification of use regulations for additional density between .15 and .35 FAR and/or additional height up to 3 stories for special exception site plan requests. The site plan proposal must guarantee a LEED rating at the Certified award level or above (Silver, Gold or Platinum).
- The provision of LEED-certified green building components does not guarantee additional density and/or height, or any particular amount of density or height. Site plan requests for bonus density and/or height will be analyzed on a case-by-case basis based on the characteristics of individual sites.
- The provision of LEED-certified green building components will be a part of the typical site plan negotiations for environmental amenities in exchange for the requested bonuses.
- Based on the range of the LEED Silver award point system, a range of bonus density will also be considered, from .15 FAR for the Certified award level (26 to 32 points) up to .35 FAR for LEED awards of gold or platinum.
- As with the original program, projects achieving the LEED Silver award will be eligible for up to .25 FAR.
- For site plan proposals in which the LEED-certified Gold or Platinum award levels are being sought, bonus density greater than .35 FAR may be considered utilizing the environmental amenities provision of Section 36.H.5.a. (1) of the Zoning Ordinance.

Other Considerations

- It is not the intent of this policy to compete with the affordable housing bonus density provisions of Section 36.H.5. The combination of green building and affordable housing incentives can be considered and utilized in a single site plan proposal.



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- Under the “C-O-Rosslyn” District, the modification of use provisions of Section 36.H.5 cannot be applied to permit densities or heights greater than the district requirements of 10 FAR and 300 feet, respectively. In order to encourage environmentally-sensitive buildings in Rosslyn, density credit would be given towards the community benefit valuation for buildings which are LEED-certified at no less than the Silver award level. The amount of density credit that can be considered will be greater in ”C-O-Rosslyn”, ranging from .30 FAR to .50 FAR, for several reasons: 1) the “C-O-Rosslyn” district allows more than twice as much density as other districts, up to 10 FAR; 2) the environmental impacts of denser redevelopment will be greater; 3) the density incentive should be proportionate to the size of the building; and, 4) it will accomplish the planning goals of making Rosslyn a premiere office location.

Implementation

The Pilot Green Building Incentive Program will be implemented as follows:

1. At the time of 4.1 site plan submission, the developer will be required to submit the LEED scorecard (LEED Version 2.1 or the most recent update) along with the site plan application. The LEED Scorecard will be accompanied by an explanation of how and/or why each credit can or cannot be achieved. The LEED scorecard is a checklist of green building standards and allows the developer to voluntarily score the building against the LEED Green Building Rating System. The scorecard is the documentation supporting the developer’s request for bonus density and/or height.
2. The building registration and other required information will be filed with USGBC at the beginning of the project for LEED certification and rating.
3. The scorecard is used to select which credits the developer intends to pursue and the number of points “earned” determines the award level.
4. The proposed site plan (including the requested bonus density and/or height) will undergo the typical community review process. If the County Manager supports the project, it will include appropriate site plan condition language requiring that the green building components identified in the scorecard be constructed or installed in the building.
5. Once the site plan is approved, permit drawings will be reviewed to ensure inclusion of the approved green building components, which were previously identified in the scorecard. The County will utilize LEED-certified inspectors or architects hired by the developer during review of the permit drawings and construction of the building.
6. Permits will not be issued unless approved LEED components are included in the plan drawings.
7. The application for LEED certification and rating will be submitted to USGBC when the building construction is complete or substantially complete, depending on the credits elected.
8. If during construction of the building, the developer is unable to include all of the approved green building components previously identified in the scorecard, then the developer will be required to replace components not provided with other green building components acceptable to USGBC and the LEED Rating System.
9. During plan review and construction, the LEED-certified inspector or architect will provide documentation and submit regular reports to the County ensuring compliance (or at least flag problems early on) with the LEED standards and scorecard and the approved site plan.



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10. If during construction, the developer is unable to include required green building components, or if the inspector/architect finds that the developer failed to include these components, then the County will pursue enforcement.
11. The Master Certificate of Occupancy will be issued when the building is LEED certified (at the agreed upon level or better) by USGBC and construction is consistent with the approved site plan. Certification by USGBC will be obtained when the building is complete and the developer has constructed or installed the approved green building components previously identified.
12. The program will be reviewed in five years and updated as appropriate.

The following density incentive program from Oakland Park, FL is included for the program requiring the developer to post a bond based on the density area increase. The bond is returned to the developer after achieving LEED certification



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- 1 the future. Additional density and height may be allowed only
2 after a series of prerequisites are met in two (2) tiers.
3 (ii) As part of the site plan approval process the applicant shall do the
4 following in order to be considered for the Green Building Density
5 and Height Incentive Program:
6 1. The applicant must successfully register the project with
7 the United States Green Building Council (USGBC) and
8 have necessary documentation.
9 2. Applicant shall have a minimum of one (1) LEED
10 accredited professional on the design team. Applicant shall
11 provide a copy of the LEED accreditation certificate and
12 describe the role of the LEED accredited professional on
13 the design team.
14 3. Provide a written narrative and detailed drawings and plans
15 illustrating the applicant's intent to meet the seven (7)
16 prerequisites as described in LEED-NC version 2.2 dated
17 October 2005, or the most recent version as published by
18 the USGBC.
19 4. Provide a written narrative and detailed drawings and plans
20 illustrating the applicant's intent to meet Tier 1 and/or
21 Tier 2 as described in the USGBC's Green Building Rating
22 System for New Construction and Major Renovations,
23 (LEED-NC), version 2.2 dated October 2005.
24 5. Provide a bond for the additional density through the Green
25 Building Density and Height Incentive Program. The bond
26 requirement shall be calculated based on the additional
27 square footage of building area as described in the Green
28 Building Density and Height Program and the following:
29 a. For commercial space, the bond shall be calculated
30 on the square footage of the additional space
31 multiplied by \$150 per square foot. The bond shall
32 equal ten (10%) percent of the \$150 per SF
33 multiplied by the total incentive square feet. The
34 method of calculating the bond for additional
35 density through Green Building Density and Height
36 Incentive Program may be reviewed and adjusted
37 on an annual basis by the City Commission.
38 b. For residential space, the bond shall be calculated
39 on the square feet of the additional space multiplied
40 by \$200 per square foot. The bond shall equal ten
41 (10%) percent of the \$200 per SF multiplied by the
42 total incentive square feet. The method of
43 calculating the bond for additional density through
44 Green Building Density and Height Incentive



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- e. Density Bonus: Tier 2, Green Building Incentive Density and Height.
 - (i) Tier 2 will allow an additional 5 DU/AC in the North District and 5 DU/AC in the South District.
 - (ii) In order to be eligible for Tier 2, at least twenty-eight (28) points shall be met from Tier 1. If more points were met and granted in Tier 1, they may count towards the total of Tier 2. In order to be granted the additional density in Tier 2, at least an additional eight (8) points shall be achieved in Tier 2, or a total of thirty-six (36) points.
 - f. Specific Height Requirements: If Green Building Incentive programs are met:
 - (i) North District
 - 1. In the instance where Green Building Density and Height incentives have been met, mixed use buildings with residential uses shall not exceed one hundred (100') feet in height. Buildings over thirty-six (36') feet must include a vertical plane moderation (see Vertical Plane Moderation Section 24-50 (K)(d)).
 - (ii) South District
 - 1. In the instance where Green Building Density and Height incentives have been met, mixed use buildings with residential uses shall not exceed one hundred and twenty (120') feet in height. Buildings over thirty-six (36') feet must include a vertical plane moderation (see Vertical Plane Moderation Section 24-50 (K)(d)).
 - h. Green Building Density and Height Incentives. All development, including but not limited to, buildings that are requesting additional height and density through the Green Building are subject to the criteria stated in the 24-50 Federal Highway Mixed Use Business and Entertainment Overlay District. The City Commission shall approve all development in the Federal Highway Mixed Use Business and Entertainment Overlay District that is requesting additional density and height in accordance with the United States Green Building (USGBC) LEED-NC for New Construction or Major Renovations Version 2.2, dated October 2005 and Tier 1 and Tier 2 as described herein Section 24-50 Federal Highway Mixed Use Business and Entertainment Overlay District. The USGBC LEED-NC version 2.2, dated October 2005 include criteria for Green Building.
 - i. The USGBC LEED-NC is hereby adopted by reference and as may be amended in the future.
- S. 4:00 a.m. Operational license
- a. Entertainment Establishments, Restaurants including Sexually Oriented Businesses (See Permitted Uses Table, Section 24-41) entertainment uses



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[Appendix A – City of New York LEED ordinance](#)

By The Speaker (Council Member Miller) and Council Members Gennaro, Brewer, Clarke, Fidler, Gerson, Gioia, James, Koppell, Liu, Martinez, Nelson, Recchia Jr., Sanders Jr., Stewart, Weprin, Gonzalez, Yassky, Moskowitz, Reyna, Foster, Perkins, McMahon, Addabbo Jr., Monserrate, Gentile, DeBlasio, Baez, Palma, Katz, Avella, Reed, Jackson, Vallone Jr., Quinn, Rivera, Barron and The Public Advocate (Ms. Gotbaum)

A Local Law to amend the New York city charter, in relation to green building standards for certain capital projects.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. Probably no urban activity has greater impact on human health and the environment than building construction and use. Enormous quantities of resources are used during building construction, renovation and operation, and the production of these resources has substantial environmental impacts. It is estimated that 40% of raw materials consumed globally are used for buildings. In addition, in the United States, commercial and residential buildings are responsible for approximately 65% of electricity consumption, 30% of greenhouse gas emissions, 12% of potable water use and 136 million tons of construction and demolition waste annually. Also, many indoor building materials release hazardous toxins, impairing indoor air quality and reducing occupant health and productivity.

Since most of New York City's electricity is produced within the City and many buildings use oil or natural gas for their heating and hot water, energy consumption in building operation translates into greater local pollution, including emissions of sulfur dioxide, nitrogen oxides, particulate matter, carbon dioxide, and mercury. These pollutants contribute to respiratory disease, heart disease, smog, acid rain, and climate change. Moreover, as energy demand rises, so does our reliance on dirty, inefficient power plants, as well as the nation's dependence on foreign oil and natural gas.

Modern architects and engineers can reduce the health and environmental impacts of buildings by designing "high-performance buildings" or "green buildings." The United States Green Building Council, the nation's foremost coalition of real estate and environmental organizations working to promote green buildings, has developed a green building rating system known as LEED (Leadership in Energy and Environmental Design). Buildings receive LEED certification if their designs score sufficient "points" in five general design areas including siting, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality. Thousands of residential and commercial buildings, ranging from single-family homes to large corporate headquarters, have been designed and constructed throughout the United States utilizing green building principles. Significant local examples include 4 Times Square and 20 River Terrace. A recent study conducted for the State of California concluded that, on average, green buildings show a ten times return on the investment in green building design. This comprehensive analysis of 33 green buildings revealed an average green cost premium of less than 2%, with only a 0.66% premium for buildings that achieved the most basic level of LEED certification.

Numerous municipalities, including Atlanta, Austin, Boston, Boulder, Chicago, Dallas, Los Angeles, Portland (Oregon), San Diego, San Francisco, San José, and Seattle, have adopted LEED or have otherwise required that city-owned buildings be built according to green building criteria. Some localities have created incentive programs for privately-owned green building construction, including the use of direct subsidies, density bonuses and expedited permitting. Indeed, Boston will soon require private sector buildings of over 50,000 square feet to be LEED-certifiable.

In New York City, numerous governmental bodies have also embraced green building concepts. The Battery Park City Authority has begun utilizing green building guidelines modeled on LEED for all commercial and residential building construction in Battery Park City. The Department of Design and Construction has also developed High Performance Building Guidelines and has begun applying the guidelines for libraries and other facilities. The New York City Transit Authority has adopted green building guidelines for all new transit facilities, including the Second Avenue Subway. Moreover, the Lower Manhattan Development Corporation and the Port Authority of New York and New Jersey have developed sustainable design guidelines and have designated "environmental planning" as one of five general requirements for the redevelopment of the World Trade Center site and surrounding area.



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Likewise, many states, such as California, Connecticut, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Rhode Island, have begun utilizing LEED for state-owned buildings. The State of New York provides tax credits for buildings that meet defined green building criteria and, under Executive Order 111, state agencies are directed to reduce energy use and carbon dioxide emissions and to utilize green building principles.

The City owns approximately 1,300 buildings and leases over 12.8 million square feet of office space, and this legislation will affect approximately \$12 billion in construction over the City's ten-year capital plan. Considering the size of the City's real estate portfolio, the Council finds that the use of green building criteria for City capital projects will substantially reduce New York City's electricity consumption, air pollution and water use, as well as improve occupant health and worker productivity and encourage market transformation. The Council further finds that reducing overall energy demand through green building techniques will reduce our dependence on foreign oil. Finally, the Council finds that green buildings are a sound investment of public dollars. The Council's financial analysis indicates that, without taking any other savings or social benefits into account, savings in water and energy cost will offset debt service payments on any increase in capital expenditures resulting from this legislation. Accordingly, the Council declares that it is reasonable and necessary to employ green building standards in the construction and renovation of City-owned and City-funded buildings and that these standards be utilized in an orderly and timely fashion.

§2. The New York city charter is amended by adding a new section 224.1, to read as follows:

§224.1 Green building standards. a. As used in this section the following terms shall have the following meanings:

- (1) The term "capital project" shall mean a capital project as defined in section 210 of this chapter that is paid for in whole or in part from the city treasury.
- (2) The term "city agency" shall mean a city, county, borough, or other office, position, administration, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid, in whole or in part, from the city treasury.
- (3) The term "construction work" shall mean any work or operations necessary or incidental to the erection, demolition, assembling, alteration, installing, or equipping of any building.
- (4) The term "green building standards" shall mean design guidelines, a rating system or rules for constructing buildings that ensure site planning, water efficiency, energy efficiency and renewable energy, conservation of materials and resources and indoor environmental quality.
- (5) The term "inflation" shall mean the annual twelve (12) month average of the consumer price index published by the United States department of labor.
- (6) The term "LEED energy and atmosphere credit 1" shall mean the credit point under LEED for New Construction version 2.1 intended to achieve increased energy performance.
- (7) The term "LEED green building rating system" shall mean a version of the Leadership in Energy and Environmental Design (LEED) building rating system published by the United States Green Building Council, not less stringent than the selected green building rating system, including a standard developed by or for the city consisting of practices and technologies derived from the LEED rating system that are reasonable and appropriate for building in New York city.
- (8) The term "LEED water efficiency credit 3.2" shall mean the credit point under the LEED for New Construction version 2.1 intended to achieve water use reduction.
- (9) The term "not less stringent" shall mean providing no less net environmental and health benefits.
- (10) The term "rehabilitation work" shall mean any restoration, replacement or repair of any materials, systems and/or components.
- (11) The term "selected green building rating system" shall mean the current and most appropriate building rating system published by the United States Green Building Council; provided, however, at the mayor's discretion, the term "selected green building rating system" shall mean New Construction version 2.1, Existing Buildings version 2 or Commercial Interiors version 2, whichever is most appropriate for the project under United States Green Building Council guidelines.
- (12) The term "substantial reconstruction" shall mean a capital project in which the scope of work includes rehabilitation work in at least two of the three major systems, electrical, HVAC (heating, ventilating and air conditioning) and plumbing, of a building and construction work affects at least fifty percent (50%) of the building's floor area.

b. (1) Each capital project with an estimated construction cost of two million dollars (\$2,000,000) or more involving (i) the construction of a new building, (ii) an addition to an existing building, or (iii) the substantial reconstruction of an existing building shall be designed and constructed to comply with green building standards not less stringent than the standards prescribed for buildings designed in accordance with the LEED green building rating system to achieve a LEED silver or higher rating, or,



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with respect to buildings classified in occupancy groups G or H-2, to achieve a LEED certified or higher rating. If the mayor elects to utilize green building standards other than the LEED green building rating system, the mayor shall publish findings demonstrating that such other green building standards are not less stringent than the LEED standards described above for achievement of a LEED silver or, if applicable, a LEED certified rating. The green building standards utilized by the city in accordance with this section shall be reviewed and updated, as necessary, by the mayor no less often than once every three years.

(2) In addition, if the estimated construction cost of a project required to comply with green building standards in accordance with paragraph one of this subdivision is 12 million dollars (\$12,000,000) or more such project shall be designed and constructed to reduce energy cost as follows:

- (i) Capital projects, other than buildings classified in occupancy group G, with an estimated construction cost of 12 million dollars (\$12,000,000) or more but less than 30 million dollars (\$30,000,000) shall be designed and constructed to reduce energy cost by a minimum of twenty percent (20%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent. In addition to such twenty percent (20%) reduction in energy cost, the design agency shall make investments in energy efficiency that reduce energy cost by an additional five percent (5%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years.
- (ii) Capital projects, other than buildings classified in occupancy group G, with an estimated construction cost of 30 million dollars (\$30,000,000) or more shall be designed and constructed to reduce energy cost by a minimum of twenty-five percent (25%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent. In addition to such twenty-five percent (25%) reduction in energy cost, the design agency shall make investments in energy efficiency that reduce energy cost by an additional five percent (5%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years.
- (iii) Capital projects involving buildings classified in occupancy group G with an estimated construction cost of 12 million dollars (\$12,000,000) or more shall be designed and constructed to reduce energy cost by a minimum of twenty percent (20%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent. In addition to such twenty percent (20%) reduction in energy cost, the design agency shall make investments in energy efficiency that reduce energy cost by an additional five percent (5%) if it finds that the payback on such investment through savings in



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energy cost would not exceed seven years or, in the alternative, the design agency shall make investments in energy efficiency that reduce energy cost by an additional ten percent (10%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years.

c. Capital projects, other than those required to comply with green building standards in accordance with subdivision b of this section, shall be subject to the following:

(1) Each capital project that includes the installation or replacement of a boiler at an estimated construction cost for such installation or replacement of two million dollars (\$2,000,000) or more, or that involves the installation or replacement of lighting systems in a building at an estimated construction cost for such installation or replacement of one million dollars (\$1,000,000) or more, shall be designed and constructed to reduce energy cost by a minimum of ten percent (10%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent.

(2) Each capital project, other than a project required to comply with paragraph one of this subdivision, that involves the installation or replacement of HVAC comfort controls at an estimated construction cost for such installation or replacement of two million dollars (\$2,000,000) or more, shall be designed and constructed to reduce energy cost by a minimum of five percent (5%) as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent.

d. In addition to complying with any other applicable subdivision in this section, each capital project involving the installation or replacement of plumbing systems that includes the installation or replacement of plumbing fixtures at an estimated construction cost for such installation or replacement of plumbing systems of five hundred thousand dollars (\$500,000) or more shall be designed and constructed to reduce potable water consumption in the aggregate by a minimum of thirty percent (30%), as determined by a methodology not less stringent than that prescribed in LEED water efficiency credit 3.2; provided, however, that such percentage shall be reduced to a minimum of 20% if the department of buildings rejects an application for the use of waterless urinals for the project.



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e. This section shall apply only to capital projects involving buildings classified in occupancy groups B-1, B-2, C, E, F-1a, F-1b, F-3, F-4, G, H-1 and H-2.

f. The mayor may exempt from each provision of this section capitol projects accounting for up to 20% of the capital dollars in each fiscal year subject to such provision if in his or her sole judgment such exemption is necessary in the public interest. At the conclusion of each fiscal year the mayor shall report to the council the exemptions granted pursuant to this section.

g. This section shall not apply to capital projects of entities that are not city agencies unless fifty percent (50%) or more of the estimated cost of such project is to be paid for out of the city treasury. This exemption shall not apply to any capital project that receives ten million dollars (\$10,000,000) or more out of the city treasury.

h. This section shall not apply to capital projects that have received capital dollars from the city treasury before January 1, 2007.

i. The mayor shall promulgate rules to carry out the provisions of this section.

j. The costs listed in subdivisions b, c, d and g of this section shall be indexed to inflation.

k. Capital projects accounting for at least fifty percent (50%) of the capital dollars in each fiscal year allocated for each city agency that are subject to paragraph one of subdivision b of this section that utilize a version of the LEED green building rating system for which the United States Green Building Council will accept applications for certification, shall apply to the United States Green Building Council for certification that such projects have achieved a silver or higher rating under the LEED green building rating system or, with respect to projects involving buildings classified in occupancy groups G or H-2, a certified or higher rating under such rating system.

§3. An annual report shall be prepared no later than September 1 of each year in accordance with the procedure and format established by the department of design and construction. Such report shall include, but shall not be limited to, a list and brief description, including square footage and total cost, of any capital project subject to section 224.1 of the charter, as added by section 2 of this local law, completed during the preceding calendar year; the estimated level of LEED certification such capital projects have achieved as determined by the design agency in accordance with the LEED rating system or, if applicable, the level achieved, as certified by the United States Green Building Council; additional costs attributable to complying with the LEED green building rating system or any other green building standard; an assessment of the health, environmental and energy-related benefits achieved in comparison with a base-case code compliant project (including projected energy savings and reductions in peak load, reductions in emissions, reductions in storm water runoff and potable water use); a summary of agency findings related to additional investment in energy efficiency pursuant to subparagraphs (i), (ii), and (iii) of paragraph two of subdivision b of section 224.1 of the charter, including any additional investment in energy efficiency considered and the estimated payback time for such investment through savings in energy cost; and the total value of capital allocations in each fiscal year, by city agency, of projects subject to, and exempted by the mayor for each of paragraph one and subparagraphs (i), (ii) and (iii) of paragraph two of subdivision b, paragraphs one and two of subdivision c and subdivision d of section 224.1 of the charter, as added by section 2 of this local law, as well as a list and brief description, by agency, of such exempted projects, including square footage and project cost. The first such report shall be completed on or prior to September 1, 2008.

§4. This local law shall take effect on January 1, 2007 and shall apply to capital projects for which the final design is approved pursuant to section 223 of the New York city charter after such effective date, except that prior to such effective date the mayor shall take all actions necessary for the timely implementation of this local law, including the promulgation of rules, and shall take all practicable steps to implement this local law. Section 3 of this local law shall expire and shall be of no further force



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and effect on and after January 1, 2019. Subdivision k of section 224.1 of the charter, as added by section 2 of this local law, shall expire and shall be of no further force and effect on and after January 1, 2017.

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[Appendix B City Of San Diego LEED Policy](#)

CITY OF SAN DIEGO, CALIFORNIA

COUNCIL POLICY

CP-900-14

Page 1 of 6

SUBJECT: SUSTAINABLE BUILDING POLICY

POLICY NO.: 900-14

EFFECTIVE DATE: May 20, 2003

BACKGROUND:

Existing buildings and the building development industry consume nearly half of the total energy used in the United States. The City of San Diego's commitment to become increasingly efficient with resources, including energy, water, and materials associated with construction projects, is demonstrated in Council Policy 900-14 "Green Building Policy" adopted in 1997, Council Policy 900-16 "Community Energy Partnership," adopted in 2000, and the updated Council Policy 900-14 "Sustainable Buildings Expedite Program" adopted in 2001.

On April 16, 2002, the Mayor and City Council adopted CMR-049 which requires City projects to achieve the U.S. Green Building Council's LEED silver standard for all new buildings and major renovations over 5,000 square feet. This places San Diego among the most progressive cities in the nation in terms of sustainable building policies. As a participant in the International Council for Local Environmental Initiatives (ICLEI) Cities for Climate Protection Program, as a Charter member in the California Climate Action Registry and as an active member of the U.S. Green Building Council, the City of San Diego is committed to reducing greenhouse gas emissions by implementing more sustainable practices, including green building technologies.

PURPOSE:

The purpose of this policy is to reassert the City's commitment to green building practices in City facilities, and to provide leadership and guidance in promoting, facilitating, and instituting such practices in the community.

POLICY:

The following principles will be required for all newly constructed facilities and major building renovation projects for City facilities:

LEED (Leadership in Energy and Environmental Design):

The LEED (Leadership in Energy and Environmental Design) Green Building Rating System is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Members of the U.S. Green Building Council representing all segments of the building industry developed LEED and continue to contribute to its evolution.

The City of San Diego is committed to achieving LEED "Silver" Level Certification for all new City facilities and major building renovation projects over 5,000 square feet.

SUSTAINABLE BUILDING MEASURES:

In addition to achieving LEED "Silver" Level Certification, Council Policy 900-14 encourages the



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following sustainable building measures for all newly constructed facilities and major renovation projects regardless of square footage:

1. Design and construct mechanical and electrical systems to achieve the maximum energy efficiency achievable with current technology. Consultants shall use computer modeling programs, (Energy Pro) to analyze the effects of various design options and select the set of options producing the most efficient integrated design. Energy efficiency measures shall be selected to achieve energy efficiencies at least 22.51% better than California's Title 24.2001 standards for both new construction and major renovation projects.
2. Incorporate self-generation using renewable technologies to reduce environmental impacts associated with fossil fuel energy use. Newly constructed City facilities shall generate a minimum of 10%, with a goal of 20% from renewable technologies (e.g., photovoltaic, wind and fuel cells).
3. Eliminate the use of CFC based refrigerants in newly constructed facilities and major building renovations and retrofits for all heating, ventilation, air conditioning and refrigerant-based building systems.
4. Incorporate additional commissioning and measurement and verification procedures as outlined by LEED 2.0 Rating System, Energy and Atmospheres, credit 3 and credit 5 for all projects over 20,000 sq. ft.
5. Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to provide installer(s) and occupant(s) health and comfort. Low-emitting materials will include adhesives, paints, coatings carpet systems, composite wood and agri-fiber products.
6. In order to maximize energy efficiency measures within these requirements, projects will combine energy efficiency measures requiring longer payback periods, with measures requiring shorter payback periods to determine the overall project period.
7. Comply with the storm water development requirements in the Storm Water Management and Discharge Control Ordinance (Municipal Code § 43.03), and the City's grading and drainage regulations and implementing documents (MC § 142.01 and 142.02, respectively).

In addition to achieving the minimum sustainable building measure this Council Policy encourages the following measures be incorporated into newly constructed facilities and major renovation projects whenever possible:

1. Use high efficiency irrigation technology, drought tolerant native plants and recycled site water to reduce potable water for irrigation by 50%. Additionally, building water consumption should be reduced by 30%.
2. Limit disruption of natural water flows and minimize storm water runoff by minimizing building footprints and other impervious areas, increasing on-site infiltration, preserving and/or restoring natural drainage systems, and reducing contaminants introduced into San Diego's bays, beaches and the ocean.
3. Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills. Provide an easily accessible area that serves the entire building and is dedicated to the separation, collection and storage of materials for recycling. Recycling should include paper, glass, plastic and metals at a minimum.
4. Incorporate building products that have recycled content reducing the impacts resulting from the extraction of new materials. Newly constructed City facilities shall have a minimum of 25% of building materials that contain in aggregate, a minimum weighted average of 20% post consumer recycled content materials.
5. Reduce the use and depletion of finite raw and long-cycle renewable materials by replacing them with rapidly renewable materials. Newly constructed City facilities should consider incorporating rapidly renewable building materials for 5% of the total building materials.



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6. Establish minimum indoor air quality (IAQ) performance to prevent the development of indoor air quality problems in buildings, maintaining the health and well being of the occupants. Newly constructed City facilities will comply with IAQ by conforming to ASHRAE 62-1999.

7. City buildings will be designed to take the maximum advantage of passive and natural sources of heat, cooling, ventilation and light. The Environmental Services Department, Energy Conservation and Management Division has been designated by this Council Policy as the clearing authority for issues relating to energy for the City of San Diego. The Energy Conservation and Management Division will enter into a Memorandum of Understanding with those City Departments who design, renovate and build new city owned facilities to insure all new City facilities reflect the intent of Council Policy 900-14.

OUTREACH / EDUCATION:

1. An education and outreach effort will be implemented to make the community aware of the benefits of “Green Building” practices. 2. The City will sponsor a recognition program for innovative Green Building projects implemented in the public as well as private sector in an effort to encourage and recognize outstanding environmental protection and energy conservation projects.

IMPLEMENTATION:

The City will seek cooperation with other governmental agencies, public interest organizations, and the private sector to promote, facilitate, and implement Green Building and energy efficiency in the community.

LEGISLATION:

The City will support State and Federal legislation that promotes or allows sustainable development, conservation of natural resources, and energy efficiency technology.

REFERENCES:

Related existing Council Policies:

400-11, Water Conservation Techniques



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[Appendix C – Sarasota County LEED](#)

RESOLUTION NO. 2005 _____

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF SARASOTA COUNTY, FLORIDA

A Resolution of The Board of County Commissioners of Sarasota County, Florida which demonstrates a substantial commitment on the part of Sarasota County (herein referred to as the “County”), to finance, plan, design, construct, manager, renovate, commission, maintain, and deconstruct County facilities in accordance with sustainable building standards.

Whereas, the County has already demonstrated its commitment to sustainable principles, practices, and technologies through the County’s Sustainability Resolution No. 02-119; and

Whereas, the County is a member of the U.S. Green Building Council, The United States Department of Energy’s Rebuild America Program, the United States Environmental Protection Agency’s ENERGY STAR ® program and the Florida Green Building Coalition, all of which advocate for high performance buildings; and

Whereas, The U.S. Green Buildings Council (USGBC) has developed the Leadership in Energy and Environmental Design (LEED) rating system that is a voluntary, consensus based certification program for design of sustainable buildings. LEED buildings conserve materials, energy, water and other natural resources as well as provide occupants with healthier and more productive interior environments; and

Whereas, high performance sustainable building and development is a means of balancing economic development with the preservation of quality of life; and

Whereas, the County has set an example and demonstrated its commitment and leadership through high performance design and construction beginning with the Florida House Learning Center, the Twin Lakes Park Green Office Complex, the North County Library, and obtaining and ENERGY STAR rating for the Judicial Center; and

Whereas, private entities within Sarasota County are voluntarily building high performance or “green” sustainable buildings, beginning with the Kimal Lumber Company Learning Center, the Whole Foods Market, and the Gulf Coast Girl Scout Council Campus; and

Whereas, architects, developers, and builders within Sarasota County are voluntarily making the commitment to design and construct to green building standards beginning with Schroeder Manatee Ranch (SMR) - Lakewood Ranch, Westwater Construction, Inc. (WCI) Communities, and The Granada; and

Whereas, high performance buildings provide occupants and visitors with a healthier and more productive environment and this increase in worker productivity can produce enormous economic benefits, as worker salaries are historically an organizations largest expense; and

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Whereas, the County commits to high performance building practices that protect the quality of our air, water and other natural resources; provide employees and the public with safe and healthy indoor environments minimize our ecological footprint; reduce operating and maintenance costs over the life of the building; and serve as a model to others.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF SARASOTA COUNTY, FLORIDA, in public meeting assembled:

That shall be the policy of the COUNTY to finance, plan, design, construct, manage, renovate, commission, maintain and deconstruct its facilities and buildings to be sustainable. It is the County's intent that all buildings constructed or owned meet the highest level of high performance building certification feasible, not merely the minimum level of USGBC LEED, Florida Green Building Coalition Green Buildings certification, or any comparable performance criterion.

That any type of new COUNTY building or facility that is not applicable to the USGBC LEED Rating System shall at a minimum incorporate the USGBC LEED checklist into the planning and construction of the facility.

That all major renovations and remodels performed on COUNTY buildings or facilities incorporate sustainable design and construction guidelines in the form of the USGBC LEED Certification or another comparable certification standard is available for existing buildings.

The COUNTY will encourage voluntary green building through a "Green Building Program" as described in this resolution.

The COUNTY will be a leader in environmental design and construction in order to ensure the future property and resource independence of the community, and to lay the foundation for environmentally, socially and economically sustainable development throughout the county and state.

Sarasota County Green Building Program

Definitions. The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning.

- a) "County" means the Sarasota County, Florida;
- b) "County Commission" means the Board of County Commission of Sarasota County, Florida;
- c) "County-owned civic or office construction project" means County owned buildings; providing a public gathering place or office facilities;
- d) "construction" means any project associated with the creation, development, or erection of any building eligible for the Program;

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- e) “FGBC” means the Florida Green Building Coalition;
- f) “green building” means generally the resource efficient design, construction, and operation of buildings by employing environmentally sensible construction practices, systems, and materials;
- g) “GHDS” means the Green Home Designation Standard of the Florida Green Building Coalition;
- h) “LEED” means the most recent edition of the Leadership in Energy and Environmental Design Green Building Rating System, of the United States Green Building Council;
- i) “private” means property not owned by the County of Sarasota, Florida;
- j) “Program” means the Sarasota County Green Building Program;
- k) “program certification” means the final designation awarded to a program participant for satisfying all requirements associated with the Program for a particular project;
- l) “program participant” means any person or entity seeking program certification for a particular project;
- m) “project” means any construction associated with the creation, development, or erection of any building eligible for the Program;
- n) “Project Application Form” means the form submitted to the Inspection and Permitting Services indicating that a program participant is interested in participating in the Program for a particular project;
- o) “sub-program” means any construction covered by the Program;
- p) “USGBC” means the United States Green Building Council

Intent and Purpose

The purpose of the Program shall be to provide the Sarasota County community with a certification-based “green building” program. It is expected that the County owned civic or office construction projects will follow the program guidelines. This Program will be voluntary for all others. This program will promote sustainable and environmentally friendly design and construction practices.

Designation of Responsibility for Administration and Implementation.

The Program shall be administered by the Planning & Development Services Business Center, Inspections & Permitting Services, which shall be responsible for:

- a) Funding the Program through annual funds budgeted and appropriated by the Board of County Commission;
- b) Marketing the Program to the Sarasota County community by any reasonably effective means, including but not limited to print advertising, press releases, television advertising, or advertising in monthly mailers;
- c) Developing any appropriate or necessary application procedures, including but not limited to, the Program Application Form;
- d) Providing an incentive award to any program participant who has successfully satisfied the requirements associated with that incentive; and



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e) Resolving any disputes that may arise from implementing the Program.

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Program.

- a) For all non-county projects, the Program shall be voluntary.
- b) For any County-owned civic or office construction project, the County is expected to participate in the Program unless the Board of County Commissioners determines that the cost (e.g. time, function, or funding) associated with participating in the Program significantly outweighs the benefits,
- c) The County Administrator or designee shall develop policies and procedures to implement the Green Building Program.

Scope

The Program shall be administered on a per-unit basis. For the purpose of this section of the Program “per-unit” means each unit built, except that any multi-family dwelling or similarly clustered structure may be counted as one unit, as determined by the County Administrator or designee.

Coverage

The Program shall be comprised of the following sub-programs:

- a) New residential construction;
- b) Residential retrofitting/remodeling;
- c) New commercial/non-county construction, not including any expansions or remodeling;
- d) County-owned civic or office construction, including any major expansions or remodeling.

Standards

The Program shall be administered using standards developed by Sarasota County for certification of retrofitting/remodeling of existing residential units and standards developed by 1) the Florida Green Building Coalition (FGBC) and 2) the U.S. Green Building Council (USGBC) for certification of all other building certifications. These standards shall apply to each sub-program as follows:

- a) GHDS. For any program participant seeking program certification for new residential construction the program participant must satisfy all of the requirements associated with the current Green Home Designation Standards (GHDS) of the FGBC, including but not limited to, any monetary or certification requirements. For the purpose of this section of the Program, “current” means at the time a program participant submits a Project Application Form with the Inspections & Permitting Services.
- b) LEED. For any program participant seeking program certification for new commercial/non-county construction or new county civic or office construction, the program participant must satisfy all of the requirements associated with the most current USGBC LEED standard, including but not limited to any monetary



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or certification requirements.

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c) Review. For the purpose of this section of the Program, a program participant shall be bound by the standard designated for a particular sub-program unless the program participant both requests, to be certified under a more current version of a designated standard and the request is approved by Inspections & Permitting Services.

Incentives

The Program shall consist of incentives designed to encourage the use of the Program.

a) All sub-programs. For any program participant seeking program certification for new residential construction, residential retrofitting/remodeling, new commercial/non-county construction or new County owned civic or office construction, the County's Development Services Fund 102 shall provide the following incentives:

- 1) Fast-track permitting for building permits;
- 2) Reduced building permit fee, which shall equal fifty percent, up to a maximum of \$1,000 of the building permit fee subject to availability of funds;
- 3) No person or entity shall receive more than \$5,000 in permit fee refunds;
- 4) A maximum of \$50,000 per year shall be spent on building permit fee refunds;
- 5) Final project designation by the County.

b) Marketing for all sub-programs. For any program participant seeking program certification for new residential construction, residential retrofitting/remodeling new commercial/non-county construction, or new county owned civic or office construction projects, the County shall provide the following marketing incentives, including but not limited to:

- 1) The erection of building site signs designating a project under the Program;
- 2) The inclusion of program participants on a County webpage dedicated to the Program;
- 3) The creation of promotional packages, such as a program logo for a program participant's advertisements or brochures;
- 4) Press releases; and
- 5) Information about available financial programs, including but not limited to those associated with Fannie Mae/Freddie Mac.

c) Green Building Award. For the purpose of publicly recognizing outstanding commitment to "green building" the Program shall provide for an award called the "Green Building Award" to be awarded annually by the Board of County Commissioners to one program participant in each sub-program.



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Certification

A project shall be subject to certification by a qualified third party or County employee who has been trained and certified as a Green Home Certifying Agent or LEED Accredited Professional. For the purpose of this section of the Program, “third party” means any person or entity authorized by the FGBC or the USGBC to verify that a program participant has satisfied any or all of the requirements associated with the standard designated for a particular project.

Training

Inspections & Permitting Services shall conduct at least one training workshop per year for the purpose of educating potential or current program participants about the Program.

Program review

- a) Staff review. Inspections & Permitting Services shall initiate a review of the Program as necessary to determine the need for change in the program to increase its effectiveness.
- b) Frequency. The program shall be subject to review one year after the effective date of this resolution and thereafter at a frequency of no more than once per year.
- c) Purpose. The purpose of reviewing the Program includes but is not limited to updating program incentives, recommending program or market changes, reviewing suggestions made by program participants, and annually awarding the Green Building Award.

This resolution shall become effective on _____.

PASSED AND DULY ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS OF SARASOTA COUNTY, FLORIDA THIS _____ DAY OF _____, 2005.

ATTEST:

KAREN E. RUSHING, Clerk of the
Circuit Court and Ex-Officio Clerk of the
Board of County Commissioners of
Sarasota County, Florida

BY: _____

Deputy Clerk

**BOARD OF COUNTY COMMISSIONERS
OF SARASOTA COUNTY, FLORIDA**

BY: _____

Chairman



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Appendix D –

GUIDELINES FOR
MODEL ORDINANCE LANGUAGE
FOR PROTECTION OF WATER QUALITY AND QUANTITY
USING FLORIDA FRIENDLY LAWNS AND LANDSCAPES

Rev. 9/5/03 7:02:32 PM

This document is educational in nature and not meant to be adopted without full and public discussion of its provisions. It has been developed by a partnership of industries, agencies, local and regional representatives, and other organizations to provide a sound model for the implementation of local control of water use and nonpoint source pollution issues.

The implementation of this language is not mandated by any state or federal law. Communities have been encouraged, however, by Sections 125.568, 166.048, and 373.185, F.S., to consider adopting water-conserving ordinances. This document is only an educational tool for those communities seeking advice on preparing this type of ordinance. It also addresses issues of nonpoint source pollution not addressed by many conservation ordinances. Other model ordinances exist and should be consulted, and a full evaluation of how various provisions might mesh with existing codes is necessary. Most communities will find some features apply to land development codes, others under occupational licensing, nuisance ordinances, etc. It is not nor does it purport to be a comprehensive landscape ordinance.

The following organizations, and individuals too numerous to mention, have been involved in the creation of this product.

[Florida Nurserymen and Growers Association FDOT](#)
[1000 Friends of Florida FDCA](#)
[Green Industry Alliance FDACS](#)
[Florida Turfgrass Association FDEP](#)
[Florida Irrigation Society UF-IFAS](#)
[Landscape Maintenance Association Northwest Florida WMD](#)
[Florida Pest Management Association Suwannee River WMD](#)
[Certified Pest Control Operators St. Johns River WMD](#)
[Florida League of Cities Southwest Florida WMD](#)
[Florida Association of Counties South Florida WMD](#)
[Florida Chapter, American Society of
Landscape Architects](#)

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GUIDELINES FOR
MODEL ORDINANCE LANGUAGE
FOR PROTECTION OF WATER QUALITY AND QUANTITY
USING FLORIDA FRIENDLY LAWNS AND LANDSCAPES

September 2, 2003

1. TITLE

AN ORDINANCE OF THE (CITY/COUNTY OF) AMENDING OR REPLACING



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ORDINANCE NO.(s)_ _ OF THE GENERAL LANDSCAPE REGULATIONS BY REQUIRING FLORIDA FRIENDLY LANDSCAPE PRACTICES AND IRRIGATION SYSTEMS; BY PROVIDING FOR CONSISTENCY WITH STATE LAW AND THE (CITY/COUNTY OF) COMPREHENSIVE PLAN; PROVIDING FOR PURPOSE AND INTENT; PROVIDING FOR DEFINITIONS; PROVIDING FOR AMENDMENT OF EXISTING REGULATIONS; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; PROVIDING FOR ENFORCEMENT AND PROVIDING AN EFFECTIVE DATE.

2. FINDINGS OF FACT

WHEREAS, the Local Government Comprehensive Planning and Land Development Regulation Act, Chapter 163, Florida Statutes, (F.S.), provides for comprehensive plan implementation through the enactment of certain ordinances; and

WHEREAS, pursuant to Sections 125.568, 166.048, and 373.185, F.S., local governments should consider the adoption of water-efficient Landscape Standards and further Section 376.62, F.S., regulates the installation of rain sensor devices on automatic lawn sprinkler systems; and

WHEREAS, the Florida Watershed Restoration Act of 1999 and the NPDES municipal stormwater permitting program require local governments to reduce pollutant loads discharged from their stormwater management systems to better protect and restore surface and ground waters; and

WHEREAS, the (City/County of ___) recognizes the need for the protection of water as a natural resource through the application of Florida Friendly landscape practices; and

WHEREAS, a Florida Friendly landscape promotes the conservation of water by the use of site adapted plants and efficient watering methods which generally results in a long-term reduction of irrigation, fertilizer, and pesticide requirements, costs, energy, and maintenance; and

WHEREAS, a Florida Friendly landscape encourages a reduction of total energy expenditures such as water pumping and treatment, manufacture and shipping of fertilizers,

insecticide, and other gardening chemicals, operation and maintenance of mowers, edgers, blowers and other combustion based yard equipment, as well as labor; and

WHEREAS, community-wide Florida Friendly landscape efforts are designed to save significant amounts of water to preserve local water supplies such that cumulative benefits may reduce or postpone the need for community potable water supply expansion; and

WHEREAS, The Florida Legislature enacted Florida Statutes, Chapter 481, Part II and the Board of Landscape Architecture adopted Rule 61-G-10 Florida Administrative Code, which defines and regulates the practice of landscape architecture to protect the public health, safety, and welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE (CITY/COUNTY OF _____), FLORIDA, as follows:

3. SHORT TITLE



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This ordinance shall be known and may be referred to as the (City/County of _____) Ordinance for Protection of Water Quality and Quantity Using Florida Friendly Lawns and Landscapes.

4. AUTHORITY

This ordinance is adopted by the (City/County of __) under its home rule powers, its police powers to protect the public health, safety, and welfare, and under powers pursuant to the authority granted by Sections 125.568 (Counties) and 166.048 (Cities), Florida Statutes, in order to implement and enforce the standards, rules and regulations as set forth herein.

5. ADMINISTRATIVE STANDARDS

Whenever, in the course of administration and enforcement of this ordinance, it is necessary and desirable to make any administrative decision, then, unless other standards are in this Ordinance, the decision shall be made so that the result will not be contrary to the spirit and purpose of this ordinance or injurious to the surrounding neighborhood or the community at large.

6. PURPOSE AND INTENT

The purpose of these regulations is to establish minimum standards for the development, installation, and maintenance of landscape areas without inhibiting creative landscape design, construction and management

Specific Best Management Practices (BMPs) have been developed that include water conservation measures, the preservation of natural vegetation where applicable, and appropriate plant selection and location. Best management Practices have also been developed for the use of fertilizers, pesticides and appropriate maintenance practices such as proper pruning techniques, mowing, mulching and composting. Implementation of BMPs

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will aid in improving environmental quality and the aesthetic appearance of public, commercial, industrial, and residential areas.

These guidelines and landscape practices are established to help communities, developers, builders, contractors, businesses and homeowners be partners in improving and protecting Florida's environment.

These practices are also based on the premise that the quality of Florida's surface and ground water is affected by stormwater runoff and leachate. Improper landscape design construction and management may contribute to nonpoint source pollution that affects ground and surface water quality. Use of BMPs in proper landscape design and maintenance can reduce pollution and save water, as well as save labor, resources, and money. Application of BMPs will also help to enhance property values, improve Florida's quality of life and protect natural resources for Florida residents well into the future.

This ordinance is based on concepts of Florida Friendly Landscaping and Xeriscap^e and the use of BMPs. The Florida Friendly landscape concept is based on the principles of the *Florida Yards and Neighborhoods* (FYN) and *Environmental Landscape Management* (ELM) programs operated by the University of Florida Cooperative Extension Service, along with the Xeriscap^e programs of the State's Water Management Districts, and BMPs



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identified in the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida* (2002).

The *Florida Yards & Neighborhoods Handbook*, the Water Management Districts' *Waterwise Florida Landscape Guide*, *Xeric Landscaping with Florida Native Plants* by the Association of Florida Native Nurseries, FDEP's *Waterfront Property Owners Guide*, the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida*, and *Water Right: Conserving our Water, Preserving our Environment* published by the International Turf Producers Foundation should be referred to before making landscape and other site decisions. In general, all landscapes shall be designed to minimize adverse effects on Florida's natural systems.

No part of these guidelines shall be interpreted to restrict creative designs or the inclusion of landscape elements such as vegetable gardens, fruit trees, arbors, water gardens, or furnishings.

This ordinance incorporates several accepted principles of a Florida Friendly landscape. These principles, listed below, are included within the general provisions section for the purpose of giving guidance and direction for the administration and enforcement of the regulations contained herein. Detailed explanations of the following principles are included in the previously cited documents.

5

- Site Planning and Design
- Soils
- Land Clearing Standards and Preservation of Native Vegetation
- Appropriate Plant Selection, Location, and Arrangement
- Practical Use of Turf
- Efficient Irrigation
- Yard Waste Management, Composting and Use of Mulches
- Fertilizer Management
- Pesticide Management
- Landscape Maintenance
- Shoreline Considerations

7. APPLICABILITY

The provisions of this ordinance shall apply to the development, redevelopment, rehabilitation, and maintenance of all property within present or future incorporated areas of the (City/County of _____) which are subject to the provisions of Chapter _____, Site Plan Review; Chapter _____, Planned Unit Developments; or Chapter _____, Subdivisions and Plats of the (City/County of _____), Land Development Code. [**Guidance:** *If adopted by a county, unincorporated areas should also be included where they are subject to development.*]

No permit shall be issued for building, paving, or tree removal unless the landscape construction documents comply with the provisions hereof; and no Certificate of Occupancy shall be issued until the requirements herein are met. [**Guidance:** *Provided that such*



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documents are required to be submitted.]

All City/County facilities will be managed in accordance with these practices within one year of the approval of this Regulation. All City/County landscape service contractors will adhere to these practices. All new bid specifications and contracts will reflect this requirement beginning one year after the approval of this regulation.

All new and renovated City/County facility landscapes will be designed in accordance with these principles and be constructed and installed using Florida Friendly landscape materials.

6

If the provisions of this ordinance conflict with other ordinances or regulations, the more stringent limitation or requirement shall govern or prevail to the extent of the conflict.

Specific application of the provisions shall include, but not be limited to:

- All new, redeveloped, or rehabilitated landscapes for public agency projects and private development projects including but not limited to industrial, commercial, residential, and recreation projects, including new single-family and two-family homes;
- Developer-installed landscapes at entrances into and common areas of single-family and multi-family projects;
- Any development approved prior to the effective date of this ordinance if the governing site development plan is amended;

Exempted from the provisions of this ordinance are the following as applicable:

- Bonafide agricultural activities;
- Golf courses and specialized athletic fields; [*Guidance: These have specialized needs not addressed in the general references, and are usually managed by highly trained professionals. Specialized BMPs for Florida golf courses are expected in late 2004.*]
- Any development that is governed by an approved, final site development plan or a valid building permit issued prior to the effective date of this ordinance is exempted from retrofitting or meeting the specific provisions of Sections 9 A-F. However, existing development is not exempted from those provisions affecting management, maintenance, or the education of maintenance personnel.
- Rights-of-way for public utilities, including electrical transmission and distribution lines, and natural gas pipelines.

Conditional exemption may be granted by (to be inserted by local government) for individual projects if the applicant can demonstrate acceptable reasons for the requested exemption.

8. DEFINITIONS

For the purpose of this ordinance, the following words and phrases shall have the meanings respectively ascribed to them by this section.

All words used in the present tense include the future; all words in the singular number include the plural and the plural the singular; the word "building" includes the word "structure"; the word "shall" is mandatory and the word "person" includes a firm, corporation, county, municipal corporation, or natural person. The term "council" or

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"commission" shall mean Council or Commission of the (City/County of _____), and the word "city" or "county" shall mean the (City/County of _____) of the State of Florida. The word "used" shall be deemed to include the words "arranged", "designed", or "intended to be used", and the word "occupied" shall be deemed to include the words "arranged", "designed", or "intended to be occupied". Any word or term not interpreted or defined by this section shall be used with a common dictionary meaning of common or standard utilization.

1. **Aquascape.** The planting of aquatic and wetland plants in the enhancement, restoration, or creation of freshwater, estuarine, or marine systems.
2. **Automatic Controller.** A mechanical or electronic device, capable of automated operation of valve stations to set the time, duration and frequency of a water application
3. **Best Management Practices (BMPs).** A practice or combination of practices based on research, field-testing, and expert review, determined to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality, conserving water supplies and protecting natural resources.
4. **Constant Pressure/Flow Control.** A device that maintains a constant flow, or pressure, or both.
5. **Developed landscape area.** That portion of the property where pre-development vegetation is to be removed.
6. **Emitter.** This term primarily refers to devices used in microirrigation systems.
7. **Filter.** A device in irrigation distribution systems that separates sediment or other foreign matter.
8. **Florida Friendly.** Describes practices, materials, or actions that help to preserve Florida's natural resources and protect the environment.
9. **Florida Friendly Landscape.** See "Xeriscape" for statutory definition; A landscape that incorporates the BMPs and philosophies promoted by programs such as Florida Yards and Neighborhoods/Environmental Landscape Management.
10. **Ground Cover.** Low growing plants, other than turfgrass, used to cover the soil and form a continuous, low mass of foliage.
11. **Hardscape.** Areas such as patios, decks, driveways, paths and sidewalks that do not require irrigation.
12. **High Water Use Plants.** Plants that require irrigation to provide supplemental water on a regular basis in addition to natural rainfall, or are so identified by a regulatory agency having jurisdiction. When placed in a naturally high water table area appropriate to the
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plant such that irrigation is not required, such plants shall not be considered high water use for the purposes of this ordinance.
13. **Hydrozone.** A distinct grouping of plants with similar water needs and climatic requirements.
14. **Infiltration Rate.** The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour)



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15. **Irrigated landscape area.** All outdoor areas that require a permanent irrigation system.

16. **Irrigation System.** An artificial watering system designed to transport and distribute water to plants.

17. **Irrigation Zone.** A grouping of sprinkler heads or microirrigation emitters operated simultaneously by the control of one valve.

18. **Landscape.** Any combination of living plants (such as grass, ground cover, shrubs, vines, hedges, or trees) and non-living landscape material (such as rocks, pebbles, sand, mulch, walls, fences, or decorative paving materials).

19. **Landscape Construction Documents.** Landscape construction documents may include a planting plan, a landscape layout plan, an irrigation plan, a grading and drainage plan, detail sheets and written specifications. Plans shall be numbered, dated, North arrow indicated, scaled, and sealed by an appropriately licensed professional where required by Florida Statutes Chapter 481, Part II.

20. **Landscape Design.** Means consultation for and preparation of planting plans drawn for compensation, including specifications and installation details for plant materials, soil amendments, mulches, edging, gravel, and other similar materials. Such plans may include only recommendations for the conceptual placement of tangible objects for landscape design projects. Construction documents, details, and specifications for placement of tangible objects and irrigation systems shall be designed or approved by licensed professionals as required by law.

21. **Landscape Layout Plan.** Plans and drawings showing the location of buildings, structures, pedestrian, transportation, or environmental systems, and the detail for placement of site amenities, accessibility components, plantings and other tangible objects. Plans shall be numbered, dated, North arrow indicated, scaled, and sealed by an appropriately licensed professional where required by Florida Statutes Chapter 481, Part II.

22. **Landscaped Area.** The entire parcel; less the building footprint, driveways, hardscapes such as decks and patios, and non-porous areas. Water features are included in the calculation of the landscaped area. This landscaped area includes Xeriscap^e as defined in Chapter 373.185(1)(b), F.S.

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23. **Low-flow Point Applicators.** Irrigation applicators with output less than 60 gallons per hour (gph).

24. **Low Water Use Plants.** Plants that do not need supplemental water beyond natural rainfall, or are so identified by a regulatory agency having jurisdiction.

25. **Microclimate.** The climate of a specific area in the landscape that has substantially differing sun exposure, temperature, or wind, than surrounding areas or the area as a whole.

26. **Microirrigation (low volume).** The application of small quantities of water directly on or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Microirrigation



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encompasses a number of methods or concepts including drip, subsurface, bubbler, and spray irrigation, previously referred to as trickle irrigation, low volume, or low flow irrigation.

27. **Moderate Water Use Plants.** Plants that need supplemental water during seasonal dry periods.

28. **Moisture Sensing Device or Soil Moisture Sensor.** A device to indicate soil moisture in the root zone for the purpose of controlling an irrigation system based on the actual needs of the plant.

29. **Mulch.** Non-living, organic or synthetic materials customarily used in landscape design to retard erosion and retain moisture.

30. **Native Vegetation.** Any plant species with a geographic distribution indigenous to all, or part, of the State of Florida as identified in: Wunderlin, R. P. 1998. *Guide to the Vascular Plants of Florida*. University Press of Florida, Gainesville.

31. **Pervious Paving Materials.** A porous asphaltic, concrete or other surface and a highvoid aggregate base which allows for rapid infiltration and temporary storage of rain on, or runoff delivered to, paved surfaces.

32. **Plant Bed.** A grouping of trees, shrubs, ground covers, perennials or annuals growing together in a defined area devoid of turfgrass, normally using mulch around the plants.

33. **Plant Communities.** An association of native plants that are dominated by one or more prominent species, or a characteristic physical attribute.

34. **Point of Connection (POC).** The location where an irrigation system is connected to a water supply.

35. **Planting Plan.** Specifications and installation details for plant materials, soil

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amendments, mulches, edging, gravel, and other similar materials.

36. **Pop-up Sprays.** Spray heads that pop up with water pressure and provide a continuous spray pattern throughout a given arc of operation.

37. **Pressure Tank.** A pressurized holding tank for irrigation water coming from wells to minimize cycling of the water pump.

38. **Pump Cycling.** Irrigation pump coming on and shutting off frequently during operation of irrigation systems.

39. **Rain Sensor Device.** A low voltage electrical or mechanical component placed in the circuitry of an automatic irrigation system that is designed to turn off a sprinkler controller when precipitation has reached a pre-set quantity.

40. **Runoff.** Water that is not absorbed by the soil or landscape and flows from the area.

41. **Site Appropriate Plant.** A plant that after establishment, will thrive within the environmental conditions that are normal for a specific location without artificial supplements such as irrigation.

42. **Soil Moisture Sensor.** See Moisture Sensing Device.

43. **Soil Texture.** The classification of soil based on the percentage of sand, silt, and clay in the soil.



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44. **Turf and/or Turfgrass.** A mat layer of monocotyledonous plants such as Bahia, Bermuda, Centipede, Paspalum, St. Augustine, and Zoysia.
45. **Valve.** A device used to control the flow of water in the irrigation system.
46. **Water Use Zone.** See “Hydrozone”.
47. **"Xeriscape" or "Florida-friendly landscape".** Quality landscapes that conserve water and protect the environment and are adaptable to local conditions and which are drought tolerant. The principles of Xeriscape include planning and design, appropriate choice of plants, soil analysis which may include the use of solid waste compost, efficient irrigation, practical use of turf, appropriate use of mulches, and proper maintenance. (Ref. 373.185 F.S.)

9. GENERAL PROVISIONS AND DESIGN STANDARDS

When the construction upon or the development of a new site or the redevelopment, reconstruction, upgrading, expansion or change in use of a previously developed site is such that site plan review by the (to be inserted by the Local Government) is required prior to the issuance of a building permit, the provisions of 9A-F of this ordinance shall be applied to

11 newly disturbed areas of such site. [*Guidance: It is intended that for expansion or remodeling of existing sites, only new or modified areas would be subject to these provisions.*]

A. Site Planning and Design

Site designs and landscape construction documents shall be prepared in accordance with the requirements of all applicable Florida Statutes. All landscape and irrigation system designs shall be consistent with the principles expressed in section 9F.

The site plan shall consider natural drainage features to minimize runoff. The use of pervious surfaces and areas is preferred, therefore impervious surfaces and materials within the landscaped area shall be limited to borders, sidewalks, step stones, and other similar materials, and shall not exceed (To be inserted by the local government) % of the landscaped area. Use of pervious paving materials is strongly encouraged, and relative imperviousness will be considered.

[*Guidance: Site planning and design can affect the management and maintenance of lawns and landscapes. Some communities may wish to have detailed landscape construction documents submitted to and reviewed by the local building department. Due to the variation in local government organization, staff, and existing codes, it is not possible to develop specific language in these guidelines. As guidance, the word “should” is used in several areas below where “shall” may be more appropriate in an actual ordinance; Specific choices need to be made by the local government involved. If such plan reviews are desired, the following topics should be considered.*

Site plans should identify all vegetated areas to be preserved.

All invasive exotic plant species should be removed from each site prior to the beginning of construction. For purposes of determining plant species to remove, refer to Department of Agriculture and Consumer Services “Noxious Weeds” rule Chapter 5B-



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57, F.A.C.

Gravel, river rock, shell and similar materials should not be used as a major landscape ground cover or mulch. In no case may these materials occupy over (To be inserted by the local government) % of the landscape surface area as they increase the need for herbicide use, have no habitat value, reflect rather than absorb heat, and do not produce oxygen like plants.

The solar orientation of the property and its relationship to other properties should be considered as this may produce different microclimate exposures (e.g., sun vs. shade, southern vs. northern exposure, surrounded by heat-reflective surfaces, etc). If landscape construction documents are required, they should include, but not be limited to the following:

Location of all underground and overhead utilities;

Existing and proposed trees, shrubs, ground covers and turf areas within the developed landscape area;

Plants by botanical and common name, and where applicable, cultivar name; spacing, 12

and quantities of each type of plant by container size and by mature height and spread;

Existing and proposed property lines, streets, street names and public utilities;

Existing and proposed hardscape features such as driveway(s) and sidewalk(s) as necessary;

Existing and proposed structures such as pool(s), fountain(s), fence(s) and retaining wall(s);

Existing and proposed buildings;

Indicate in a table the total square footage(s) of the various landscape hydrozones on the plan. If more than one water meter serves the site, the total hydrozone square footages of the various hydrozones must be identified with each Point of Connection (POC) and meter providing water service.

Irrigation plans must be designed to recognize differential irrigation requirements of the landscape as described in Section F. It is suggested that As-Built construction documents be submitted prior to issuance of the Certificate of Occupancy, with a copy delivered to the homeowner. This will help to prevent later damage from digging by utility workers or the homeowner and assist the owner with understanding the system design. The irrigation plan should show the following:

Irrigation point(s) of connection and design capacity;

Water service pressure at irrigation POCs;

Water meter size;

Reduced-pressure-principle backflow-prevention devices for each irrigation POC on potable water systems;

Major components of the irrigation system, including all pumps, filters, valves, and pipe sizes and lengths.



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Precipitation rate expressed in inches per hour for each valve circuit. The preparer must attach to the Project Data Sheet the calculations for deriving precipitation rates for each irrigation valve circuit;

Total flow rate (flow velocity not to exceed 5 feet per second) in gallons per minute (gpm) and operating pressure (psi) for each individual overhead and bubbler circuit, and gallons per hour (gph) and operating pressure for low-flow point irrigation circuit;

Irrigation legend will have the following elements: Separate symbols for all irrigation equipment with different spray patterns and precipitation rates and pressure compensating devices; general description of equipment; manufacturer's name and model number for all specified equipment; recommended operating pressure per nozzle and bubbler and low-flow emitter; manufacturer's recommended overhead and bubbler irrigation nozzle rating in gallons per minute (gpm), or gallons per hour (gph) for low flow point applicators; minimum (no less than 75% of maximum spray radius) and maximum spray radius per nozzle; and manufacturer's rated precipitation rate per nozzle at specified psi;

Recycled-water piping and guidelines as required; Reclaimed or non-potable water should be used for irrigation if an acceptable source is determined to be available by the (City/County) Engineer.

Identify location of rain shut-off devices or soil moisture sensors.

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The irrigation system must take any existing slopes over 10% into account.

If a grading plan is desired, it shall indicate all finish grades, spot elevations as necessary, drainage, and existing and new contours within the developed landscape area.]

B. Soils

Soils vary from site to site and even within a given site. Soil analysis information is needed for proper selection of plants and, if needed, soil amendments. A soil analysis based on random sampling is required and will be performed by a reputable soil testing lab or University of Florida/IFAS Cooperative Extension facility.

[Guidance: *If a landscape design is required, a soil analysis satisfying the following conditions shall be submitted:*

Determination of soil texture, indicating the percentage of organic matter.

Measurement of pH, and total soluble salts.

Estimated soil infiltration rate.]

Existing horticulturally suitable topsoil shall be stockpiled and re-spread during final site grading.

Any new soil required shall be similar to the existing soil in pH, texture, permeability, and other characteristics, unless convincing evidence is provided that a different type of soil amendment approach is justified.

The use of solid waste compost as a soil amendment is encouraged where it is appropriate.



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C. Standards for land clearing and preservation of native vegetation

This section shall apply to all development permitted upon approval of this regulation. Parcels or lots independent of larger developments that are less than X acres (to be determined by local govt.) in size shall not be subject to these set-aside requirements. Individual single-family lots are exempt from this requirement; however, single family and planned unit developments are not exempt. Tree preservation ordinances and all other landscape requirements shall remain applicable to all development as described in the tree preservation and landscape ordinances.

This ordinance mandates a total of X% percent of a site planned for development be set aside for preservation. When clearing, X% (to be determined by local govt.) of the native vegetation on the site shall be preserved. If vegetation is not present on site, established open space zoning and landscape ordinance criteria shall be followed.

Vegetation that is set aside for preservation shall be protected from all on-site construction. Protective barriers shall be installed along the perimeter of all preserve
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areas. Protective barriers shall be constructed at such intervals to prevent machinery from passing between them. No equipment or materials shall be permitted to be stored within the set-aside areas, and dumping of excess soil, liquids, or any other construction debris within the preservation areas is prohibited. Removal or re-grading of soils within preservation areas is prohibited. Any damaged vegetation within the set-aside areas shall be replaced with vegetation equivalent to the vegetation destroyed before any certificates of occupancy or other approvals may be issued

Utilities, stormwater easements and right-of-ways are exempt but should avoid preserved areas. Although not specifically required, creative alternatives to common practice in these areas may be eligible for incentives.

Areas that are considered to be of *high ecological importance* should be given highest priority for protection. These areas include, but are not limited to, areas that have occurrences of federal and state listed species of flora and fauna, areas of high biological diversity, and areas that are in aquifer recharge zones.

If more than one native terrestrial plant community is present on the site, areas representing all existing plant communities shall be preserved onsite unless preserving more of one particular community is more ecologically beneficial.

High-quality areas placed in preservation shall be retained in entirety, in their current or improved natural state, and protected into perpetuity regardless of ownership. This requirement may be negotiated to create contiguous preservation among plant communities. The developer shall prove to the reviewer, through exhibits provided during the site approval process, that the highest ecologically valued land is being retained first in order to satisfy the set-aside requirement. If the preservation of the highest ecologically valued land produces undue burden on the development of the property, it is also the developer's responsibility to prove such hardship and provide an acceptable alternative for approval.



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Areas set aside for preservation should be contiguous parcels of land that are interconnected and considered viable habitat for wildlife to the extent practical. Small fragmented areas of preservation should be avoided when possible.

Rights-of-way and areas determined to be future rights-of-way in the comprehensive plan, and utility or drainage easements shall not be allowed as designated set-aside areas.

D. Appropriate Plant Selection, Location, and Arrangement

Plant selection should be based on the plant's adaptability to the existing conditions present at the landscaped area and native plant communities, particularly considering appropriate hardiness zone, soil type and moisture conditions, light, mature plant size, desired effect, color and texture. Plant species that are drought and freeze tolerant are preferred. For purposes of determining prohibited and controlled plant species refer to 15

the Department of Agriculture and Consumer Services rule, Chapter 5B-57 Florida Administrative Code. Plants named in this rule may not be used except as allowed in Chapter 5B-57.

Plants shall be grouped in accordance with their respective water and maintenance needs. Plants with similar water and cultural (soil, climate, sun, and light) requirements shall be grouped together. The water use zones (hydrozones) shall be shown on the irrigation, layout, and planting plans (where required). Where natural conditions are such that irrigation is not required, the presence of site appropriate plants shall not be considered a high water use hydrozone.

The combined size of all high water use hydrozones shall be limited to X% (to be determined by local govt.) of the total landscaped area. In landscapes irrigated with recycled water, the allowable size of all high water-use zones shall be increased to not more than X% (To be determined by local government.) of the total landscaped area. These high water-use limits do not apply to landscaped areas requiring large amounts of turf for their primary functions, e.g., ballfields and playgrounds.

E. Turf Areas

The type and location of turf areas shall be selected in the same manner as with all the other plantings. Irrigated turf areas, as opposed to non-irrigated turf areas, are considered to be a high water use hydrozone. Irrigated turf shall not be treated as a fill-in material but rather as a planned element of the landscape. Turf shall be placed so that it can be irrigated using separate zones. While turf areas provide many practical benefits in a landscape, how and where it is used can result in a significant reduction in water use. Irrigated turfgrass areas shall be consolidated and limited to those areas on the site that receive pedestrian traffic, provide for recreation use, provide cover for septic tank drainfields and required drainfield reserve areas, or provide soil erosion control such as on slopes or in swales; and where turfgrass is used as a design unifier, or other similar practical use. No turfgrass that requires mowing shall be allowed on slopes greater than 4:1 or within 6 feet of the waters edge, except where adjacent to seawalls and bulkheads or needed to control erosion. Turf areas shall be identified on the landscape plan (where



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plan is required).

One of the most common reasons for turf failure is over-irrigation. Irrigation systems shall be designed and operated in accordance with section F.

F. Efficient Irrigation

If an irrigation system is desired, it shall be designed and constructed in accordance with the technical standards contained in Appendix F of the plumbing volume of the Florida Building Code or Florida Irrigation Society (FIS) Standards, and operated and maintained according to the *Florida Green Industries Best Management Practices for Protection of*

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Water Resources in Florida (2002) or (for homeowners) the *Florida Yards and Neighborhood* program. [**Guidance:** *Use only if this optional provision (Appendix F) of the building code or FIS standards have been adopted by local government, otherwise construction and design also per the BMPs*]. Water can be conserved through the use of a properly designed and managed irrigation system. Irrigation scheduling information, with instructions for seasonal timer and sensor changes, shall be provided to the owner at the time of installation. An irrigation valve site map detailing valve locations, gallons per minute demands, precipitation rates, plant types within valve circuits, and operating pressure requirements for each valve shall be developed. This map shall be attached inside each irrigation controller or be kept in another readily available location if it is not practical to insert it in a small controller.

The irrigation system shall be designed to correlate to the organization of plants into zones as described in (C) above. The water use zones shall be shown on the Irrigation Plan (where plan is required). All plants (including turf) require watering during establishment. Temporary facilities may be installed to facilitate establishment.

Irrigation must also be conducted in accordance with WMD restrictions.

Moisture sensing and/or rain shut-off switch equipment shall be required on automatic irrigation systems to avoid irrigation during periods of sufficient soil moisture. Said equipment shall consist of an automatic mechanical or electronic sensing device or switch that will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred.

The installation of tracer wire along main lines and laterals is strongly encouraged to permit easy location and prevent inadvertent cutting of pipes.

If the water supply for the irrigation system is from a well, a constant pressure flow control device or pressure tank with adequate capacity shall be required to minimize pump "cycling".

Check valves must be installed at irrigation heads as needed to prevent low head drainage and puddling.

Nozzle precipitation rates for all heads within each valve circuit must be matched to within 20% of one another.

No water spray from irrigation systems shall be applied under roof overhangs.

Irrigated areas shall not be less than 4 feet wide, except when next to contiguous property



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or using micro or drip irrigation.

A pressure-regulating valve shall be installed and maintained if static service pressure exceeds 80 pounds per square inch. The pressure-regulating valve shall be located between the meter and the first point of water use, or first point of division in the pipe, and set at not more than 50 pounds per square inch when measured at the most elevated fixture in the structure served. This requirement may be waived if satisfactory evidence is

17 provided that high pressure is necessary in the design and that no water will be wasted as a result of high-pressure operation. [*Guidance: The purpose of this requirement is twofold, to protect against system failure during pressure surges, and to avoid wasted water due to operation of the system significantly above commonly used design values.*]

G. Yard Waste Management, Composting and Use of Mulches

Yard wastes shall not be disposed of or stored by shorelines, in ditches or swales, or near storm drains. [*Guidance: Yard wastes release nutrients as they decompose which may pollute the receiving water. Improper disposal of yard wastes can also contribute to flooding by causing stormwater runoff to backup in drainage systems. In addition, improper disposal may lead to spreading of invasive plants to new areas.*]

Shredded yard clippings and leaves should be used for mulch or be composted for use as fertilizer. However, diseased material should not be mulched and should be properly disposed of to avoid spreading disease.

Composting of yard wastes provides many benefits and is strongly encouraged. The resulting materials are excellent soil amendments and conditioners. Other recycled solid waste products are also available and should be used when appropriate. [*Guidance: Most Florida communities have these programs at their landfill. Incentives may be created to encourage their use, such as a tonnage credit for dumping based on use of composted material.*]

Grass clippings are a benefit to lawns, replacing nutrients drawn from the soil and as mulch that helps retain moisture, lessening the need to irrigate. Grass clippings should be left on your lawn. Mulching mowers are recommended, because the grass clippings are chopped very finely by special blade and shroud configurations. If a conventional mower equipped with a side discharge chute is used, the following practices should be employed. When mowing near the shoreline, direct the chute away from the waterbody. When mowing upland areas, direct the chute back onto the yard, not onto the road or driveway. Mulches applied and maintained at appropriate depths in planting beds assist soils in retaining moisture, reducing weed growth, and preventing erosion. Mulch can also be used in places where conditions aren't adequate for or conducive to growing quality turf or ground covers. Mulches are typically wood bark chips, wood grindings, pine straws, nut shells, small gravel, and shredded landscape clippings.

A layer of organic mulch 3" deep shall be specified on the landscape plans in plant beds and around individual trees in turfgrass areas. Use of byproduct or recycled mulch is recommended. Mulch is not required in annual beds. Mulch rings should extend to at



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least 3 feet around freestanding trees and shrubs. All mulch should be renewed periodically. Mulches should be kept at least 6 inches away from any portion of a building or structure, or the trunks of trees. Plastic sheeting and other impervious materials shall not be used under mulched areas.

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H. Fertilizer Management

All applications of fertilizer, other than by private homeowners on their own property, should (*shall*) be made in accordance with the most current version of the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida* and recommendations of the University of Florida Cooperative Extension Service.

[**Guidance:** *Re: should/shall. BMPs are written to be voluntary practices. In certain cases, local governmental bodies may deem it necessary to mandate practices in environmentally sensitive areas. This is a local decision.*]

Private homeowners are encouraged to utilize the recommendations of the University of Florida IFAS *Florida Yards and Neighborhoods* program and the University of Florida IFAS Fact Sheet ENH-860.

I. Pesticide Management

All landscape applications of pesticides for hire should be made in accordance with State and Federal Law and with the most current version of the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida*. [**Guidance:** *The use of “should” in the preceding sentence is required, because “shall” would create a violation of 487.051(2), Florida Statutes. Regulation of Pesticides is Pre-empted to the Florida Dept. of Agriculture and Consumer Services (FDACS) by state law.*]

Property owners and managers are encouraged to use an Integrated Pest Management Strategy as currently recommended by the University of Florida Cooperative Extension Service publications.

When utilizing pesticides, all label instructions are state and federal law and must be adhered to. **The Florida Department of Agriculture and Consumer Services is responsible for enforcement of pesticide laws.**

J. Landscape and Irrigation Maintenance

[**Guidance:** *Proper landscape and irrigation maintenance will preserve and enhance a quality landscape and help to ensure water-efficiency.*]

A regular irrigation maintenance schedule shall include but not be limited to checking, adjusting, and repairing irrigation equipment; and resetting the automatic controller according to the season.

To maintain the original performance and design integrity of the irrigation system, repair of the equipment shall be done with the originally specified materials or their equivalents. Landscape maintenance for hire should be performed in accordance with recommendations in the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida*.

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Landscape maintenance by homeowners should be performed in accordance with recommendations of the University of Florida Cooperative Extension Service and Florida Yards & Neighborhoods publications.

K. Shoreline Considerations

[Guidance: Ideally, shorelines should remain completely natural to most effectively use or absorb nutrients. Unfortunately, many waterfront property owners have removed beneficial vegetation and formed sandy beaches along their shorelines. This loss of a natural buffer may contribute to shock loads of nutrients and other pollutants affecting the waterbody and may lead to erosion. DEP Rule 62C-20.002 (1) states “No person shall attempt to control, eradicate, remove, or otherwise alter any aquatic plants in waters of the state, including those listed in s. 369.251, F.S., except as provided in a permit issued by the department unless the waters in which aquatic plant management activities are to take place are expressly exempted in Rule 62C-20.0035, F.A.C.”

Shoreline vegetation can often be restored through aquascaping. Advice regarding appropriate plants for aquascaping and locating sources for these plants in your area may be obtained by contacting the Department of Environmental Protection’s Bureau of Invasive Plant Management, the UF Cooperative Extension Service in each county and/or the UF Center for Aquatics and Invasive Plants. A simple, free of charge permit may be required from DEP’s Bureau of Invasive Plant Management for activities involving aquatic plants along freshwater shorelines.

DEP Rule 62C-52.003 (4) states “Only native aquatic plants cultured in a nursery regulated by the Department of Agriculture and Consumer Services or collected from an approved wild collection site shall be used for the revegetation, restoration, or mitigation of wetlands in sovereignty lands. No prohibited or non-native aquatic plant shall be placed in, or knowingly be distributed for use in natural waters, or waters connected to natural waters. Non-native plants not on the prohibited plant list may be used in artificially created ponds and water gardens that are not connected to natural waters.” Vegetation height should extend well above the water level. There is a direct correlation between height and a plant’s ability to absorb nutrients. Shoreline plants should not be fertilized or treated with herbicides, except in special cases.

Some developers, water management districts and local governments are designing and building stormwater wet detention systems that closely resemble natural waterbodies. In some cases, developers are offering adjacent property as premium waterfront real estate. While this is generally a very good practice that promotes sophisticated designs, it may cause some problems if people are not aware that the manmade system’s purpose is to capture and accumulate pollutants. Consequently, it may appear contaminated if it is simply doing its job. This may prompt misdirected requests for action to clean it up or even protect it. It should also be noted that man-made systems that connect to waters of the state may be regulated as waters of the state.

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Education is important so people understand that the rules and expectations for natural



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and manmade waterbodies are different.]

Grading and design of property adjacent to bodies of water shall conform to Federal, State and Local regulations which may include but is not limited to the use of berms or retention ditches to intercept surface runoff of water and debris that may contain fertilizers or pesticides.

No grasses that require mowing shall be allowed within 6 feet of the water's edge, except where seawalls and bulkheads exist or where needed for erosion control. When mowing near the shoreline, direct the chute away from the water body. Riparian or littoral zone plants that do not require mowing or fertilization should be planted in these areas. See the *Florida Waterfront Property Owners Guide* or the Department of Environmental Protection's Bureau of Invasive Plant Management for more information. Where water levels vary considerably, care must be taken in the selection of these plants.

Decks along the waters edge and into the water shall meet all local and state government regulations and any other lawful requirements. The maximum distance any structure may protrude into the water is X feet (To be inserted by local government) from the normal high water mark on the bank. The maximum total width of a deck structure along the shoreline of any lot is 20% of the waterfront footage of that lot. The remainder of the shoreline should remain as natural as possible. Lot owners located on ditches may add 20' to their front footage for calculation purposes. Special permits may be required. No structures are permitted that obstruct the flow of water.

Mangrove trimming shall be performed in accordance with Sections 403.9321 - 403.9334, Florida Statutes. The *Florida Waterfront Property Owners Guide* published by the Florida Department of Environmental Protection should be referred to for additional information about Florida Friendly shoreline practices.

10. EDUCATION

[Guidance: To assist in public information, the education of its citizens, and the effective implementation of this ordinance, the (City/County) should coordinate its efforts with those of the Water Management District and the (_____ County) Agricultural Extension Service and other agencies. These entities should jointly sponsor workshops on the design principles and standards of Florida Friendly landscapes. Informational signs should be displayed and brochures made available for public use.]

All persons providing landscape maintenance services for hire (including appropriate City/County Maintenance Operations staff) shall be trained in the Florida Yards & Neighborhoods *Environmental Landscape Management* Course and the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida* within one year of the approval of this Regulation. New employees will be trained within 180 days of starting a new position. Government facilities should serve as educational examples and demonstration sites of building, landscape, and/or design principles related to natural resource conservation including water, energy, and landscapes.

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11. INCENTIVES



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[Guidance: Local governments have a full range of options to offer incentives for development/landscape designs to exceed the design principles and standards set forth and established by this ordinance. Local governments may wish to consider any or all of the following examples, and are free to consider other alternatives.]

Any development that exceeds the water-efficient design principles and standards established by this ordinance shall receive a reduction in the (City/County) permit application fee. *[or stormwater utility rate, etc.]*

Individual home owners or residents who are not required to but voluntarily submit a development/landscape design which meets or exceeds the Florida Friendly design principles and standards established by this ordinance shall receive *[Guidance: a reduction of their stormwater utility water charges; a x% reduction in their building permit fee, property tax reduction, or other incentive within the purview of local government]*. This reduction will remain in effect provided that the landscaped areas are consistently maintained in accordance with Florida Friendly landscape principles and the total monthly water consumption does not exceed X gallons (To be inserted by local government).

Businesses that are not required to but voluntarily utilize the recommended practices shall be recognized annually through (various incentives and public recognition programs to be specified by local government).

[Guidance: These incentives are meant only to be examples. Local governments should consider what incentives are appropriate and meaningful to their constituents.]

12. ENFORCEMENT AND MONITORING

Implementation and enforcement of these regulations shall consist of:

A. Licensing

In order to obtain or renew an occupational license to provide lawn and / or landscape maintenance services, proof is required that a minimum of 4 Professional Development Hours (PDH = 50 minutes of instruction) in principles of Florida Friendly landscape management have been granted within the previous 12 months from an approved training organization. A valid pesticide license issued under Ch. 482 or Ch 487 F.S., or certification as a landscape professional by a recognized professional association or government agency that requires a minimum of 4 PDHs per year (or 8 over a two-year period) to maintain certification, shall be accepted as proof of such training. The _____ Department of the City/County shall maintain a list of approved certification programs and training organizations, including in-house corporate programs.

[Guidance: Some care may need to be taken to modify occupational license ordinances to make this section work, depending on grouping of license classes. Known or expected

statewide providers of such training are: the University of Florida Cooperative Extension Service, the Florida Nurserymen and Growers Association (FNGA), the Florida Irrigation Society (FIS), The Irrigation Association (IA), the Florida Chapter of the American Society of Landscape Architects (FC-ASLA), and the Landscape Maintenance Association (LMA). Some companies may provide such training in-house and some



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industry suppliers may offer training to their customers.]

B. Inspections

The (City/County) Code Enforcement Officer or designated inspectors shall be authorized and empowered to make inspections at reasonable hours of all land uses or activities regulated by this ordinance, in order to determine if applicable provisions of the Code of Ordinances and regulations relating to Florida Friendly landscaping are being followed.

Inspections may be made without notice, and refusal to allow such an inspection shall be deemed a violation of this ordinance. Such failure to permit an inspection shall be sufficient grounds and probable cause for a court of competent jurisdiction to issue an administrative warrant for the purpose of inspecting, surveying or examining said premises.

In the event a building, structure, or land appears to be vacant or abandoned, and the property owner cannot be readily contacted in order to obtain consent for an inspection, the Code Enforcement Officer or inspector may enter into or upon any open or unsecured portion of the premises in order to conduct an inspection thereof.

The Code Enforcement Officer or inspector shall be provided with official identification and exhibit such identification when making any inspection.

It shall be the duty of all law enforcement officers to assist in making inspections when such assistance is requested by the Code Enforcement Officer or inspector.

C. Notice of Violation, Notice of Hearing and Hearing Procedure

Whenever the Code Enforcement Officer or an inspector determines that there is a violation of this ordinance, the officer or inspector shall follow the procedures established for bringing a case before the Code Enforcement Board or any alternative code enforcement body or shall seek injunctive relief as provided below. A notice to cease a land use activity or permit issued under this ordinance shall not relieve the owner or operator of the obligation to comply with any other applicable state, regional or local code, regulation, rule ordinance, or requirement. Nor shall said notice or permit relieve any owner or operator of any liability of violation of such codes, regulations, rules, ordinances, or requirements.

D. Injunctive Relief

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If any person engages in activities regulated by this ordinance without having obtained an approved permit as provided within this ordinance or continues in violation of the provisions of this ordinance or the regulations promulgated pursuant thereto, then the (City/County) may file an action for injunctive relief in a court of competent jurisdiction.

13. FEES

Permit Fees

Prior to the issuance of a permit, the applicant shall pay a fee as set forth by the Resolution No. _____, 20___. Such fee shall be used to defray the cost of monitoring the compliance of this ordinance. [**Guidance:** or may be included in building permit fee]



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14. VARIANCES

As provided in Chapter ___ of these Land Development Regulations, the Board of Adjustment is hereby authorized to grant variances in accordance with stated provisions and can attach conditions to variances granted.

15. VIOLATIONS AND PENALTIES

For any violation which does not constitute a threat to life or property, the (City/County) shall have the authority to issue a citation and/or to withhold a certificate of occupancy. The citation shall be in the form of a written official notice issued in person or by certified mail to the owner of the property, or to his agent, or to the person doing the work. The receipt of a citation shall require that corrective action be taken within thirty (30) calendar days, unless otherwise extended at the discretion of the (City/County). If the required corrective action is not taken within the time allowed, the (City/County) may use any available civil or criminal remedies to secure compliance, including revoking a permit.

The (City/County) shall have resource to such civil and criminal remedies in law and equity as may be necessary to ensure compliance with the provisions of this section of this ordinance, including injunctive relief to rejoin and restrain any person from violating the provisions of this section of this ordinance and to recover such damages as may be incurred by the implementation of specific corrective actions.

A conviction for violation of the provisions of this section shall be punishable by a fine or imprisonment, or both such fine and imprisonment as provided in Section 125.69, Florida Statutes.

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16. CONFLICTS AND RELATIONSHIP TO OTHER LAWS

Whenever regulations or restrictions imposed by this ordinance conflict with other ordinances or regulations, or are either more or less restrictive than regulations or restrictions imposed by any governmental authority through legislation, rule or regulation, the regulations, rules or restrictions which are more restrictive or which impose the highest standards or requirements shall govern. Regardless of any other provision of this ordinance, no land shall be used and no structure erected or maintained in violation of any state or federal pollution control or environmental protection law or regulation.

17. SEVERABILITY

This ordinance and the various parts, sections, subsections and clauses thereof, are hereby declared to be severable. If any part, sentence, paragraph, subsection, section or clause is adjudged unconstitutional or invalid, it is hereby provided that the remainder of the ordinance shall not be affected thereby. If any part, sentence, paragraph, subsection, section or clause be adjudged unconstitutional or invalid as applied to a particular property, building, or other structure, it is hereby provided that the application of such portion of the ordinance to other property, buildings, or structures shall not be affected thereby.

18. INCLUSION IN CODE, CODIFICATION, SCRIVENERS ERRORS

The provisions of this ordinance shall become and be made a part of or replace the existing landscape regulations of the (City/County of _____). Sections of the ordinance may be



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renumbered or relettered and the word "ordinance" may be changed to "section", "chapter", "article", or such other appropriate word or phrase in order to accomplish such intentions. Sections of this ordinance may require the correction of typographical errors which do not affect the intent. Such corrections may be authorized without need of a Public Hearing, by filing a corrected or recodified copy of same with the clerk of the (City/County of _____).

19. REPEAL

The existing regulations of the (City/County of _____), being Chapter _____ of the City/County Code as amended, are hereby repealed. The adoption of this ordinance; however, shall not affect nor prevent any pending or future prosecution of, or action to abate, any existing violation of said Chapter, as amended, if the violation is also a violation of the provisions of this ordinance.

[**Guidance:** repeal is only necessary if existing ordinances conflict with the new ordinances.]

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20. EFFECTIVE DATE

This ordinance shall take effect _____, 20____.

PASSED ON FIRST READING (Date)

PASSED ON SECOND AND

FINAL READING AND ADOPTED (Date)

(Signature) (Name)

Mayor-Commissioner or Chairman

Attest:

_ (Signature)

(Name)

City Clerk or Clerk of Circuit Court

Approved as to form and correctness:

_ (Signature)

(Name)

City or County Attorney



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Appendix E

6.14 Sustainable Purchasing (11/06/03)

[6.14.1 Purpose](#)

To encourage the purchase and use of materials, products and services that best align with the City's fiscal, environmental, social, community and performance goals.

[6.14.2 Organizations Affected](#)

All City departments and offices that make purchases of goods and services or that contract with others to make purchases.

[6.14.3 Definitions¹](#)

Environmentally Preferable Product: *A product that has a reduced negative effect or increased positive effect on human health and the environment when compared with competing products that serve the same purpose. This comparison may consider raw materials acquisition, production, fabrication, manufacturing, packaging, distribution, reuse, operation, maintenance, and disposal of the product. This term includes, but is not limited to, recyclable products, recycled products, and reusable products.*

Performance: *The efficacy of a product, material or service to accomplish its intended task or job*

Life Cycle Assessment (LCA): *The comprehensive examination of a product's environmental impacts throughout its lifetime, including new material extraction, transportation, manufacturing, use, and disposal.*

Life Cycle Cost Assessment (LCCA): *The comprehensive accounting of the total cost of ownership, including initial costs, energy and operational costs, longevity and efficacy of service, and disposal costs.*

Recyclable Product: *A product or package made from a material for which curbside or drop-off collection systems are in place for a majority of City residents or businesses, to divert from City solid waste for use as a raw material in the manufacture of another product or the reuse of the same product.*

Recycled Content Product: *A product containing a minimum of twenty-five percent (25%) recycled materials except in those cases where the U.S. Environmental Protection Agency has adopted procurement guidelines under the Resource Conservation Recovery Act of 1976. In those cases, the minimum content of recycled material shall not be less than specified in the most current adopted issue of those guidelines.*

Reusable Product: *A product that can be used several times for an intended end use before being discarded, such as a washable food or beverage container or a refillable ballpoint pen.*

Sustainable Product: *A product that achieves performance objectives while respecting the City's values and balancing: environmental stewardship, social equity, fiscal responsibility and community enhancement.*

Sustainable Purchasing: *Purchasing materials, products, and labor in a manner that reflects fiscal responsibility, social equity, community and environmental stewardship.*

[6.14.4 Policy](#)

The City shall acquire its goods and services in a manner that complies with federal, state, City laws, and other requirements (e.g., City resolutions). The City shall purchase and use materials, products and services which are fiscally responsible, reduce resource consumption and waste, promote opportunities to lesser-advantaged segments of our community, perform adequately, and promote human health and well-being.

Environmental factors to be considered in selecting products include life cycle assessment of:²

- Pollutant releases, especially persistent bioaccumulative toxins (PBTs)
- Waste generation;
- Greenhouse gas emissions;
- Recycled content;
- Energy consumption;
- Depletion of natural resources; and
- Potential impact on human health and the environment.

¹ From SMC 3.18 or federal Executive Order

² Refer to chemical use policy for hazardous materials criteria.



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Social equity factors to be considered include, but are not limited to:

- Use of local businesses
- Use of small, minority and women-owned businesses
- Ergonomic and human health impacts

Fiscal factors to be considered include but are not limited to:

- Lowest total cost
- Leveraging our buying power
- Impact on staff time and labor
- Long-term financial/market changes
- Technological advances in a rapidly changing market

Performance is the ability of the product or service to accomplish or contribute to accomplishment of a job or task.

City departments shall use, where feasible, products that perform and have the least damaging/most beneficial environmental impact, including new environmentally preferable products, reusable products, recycled content, and recycled products. Recognizing its role as a major purchaser of goods and services, the City shall seek opportunities to encourage and influence markets for environmentally preferable products through employee education; supporting pilot testing of potential new products; adopting innovative product standards, specifications, and contracts; leveraging citywide buying expertise and buying-power through programs such as Copernicus; and embarking on cooperative ventures with other jurisdictions.

[6.14.5 Procedures and Responsibilities](#)

6.14.5.1 Product Standards

The Director of the Department of Executive Administration (DEA) shall be responsible for:

- Adopting standards that specify minimum recycled content, recyclability, reusability, or other aspects of environmental preferability, consistent with the U.S. Environmental Protection Agency (USEPA) and Washington State standards.³ In no case shall these standards be less stringent than USEPA standards. In addition, DEA may adopt standards for products that have not been addressed by USEPA or Washington State;
- Encouraging pilot testing for environmentally preferable/sustainable products; and
- Consulting with the appropriate departments regarding technical and performance specifications of products in those situations where a department has specific expertise in the use of a product or the establishment of a product's performance specifications.

6.14.5.2 Specifications and Contracts

The Director of the DEA shall be responsible for:

- Revising existing procurement policies and specifications through user groups such as commodity teams to facilitate use of environmentally preferable products.
- Considering sustainability factors through user groups such as commodity teams in evaluating responsiveness of prospective bidders in its procurement of goods and services; and

³ Recyclability shall be determined by whether in-City collection systems are in place to divert the material from solid waste for use as a material in the manufacture of another product or the reuse of the same products (SMC 3.18.908).



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- Utilizing expertise of City staff, through user-groups such as commodity teams or other means, to pilot-test environmentally preferable products and use Life Cycle Assessment (LCA) methods and tools, where appropriate, to determine total cost impacts.

The director of each City department shall promote, whenever practicable, its vendors', contractors', and consultants' use recycled-content paper of at least 35% post consumer waste on all documents submitted to the City and to use other environmentally preferable/sustainable products, as appropriate.

6.14.5.3 Education and Technical Assistance

The Directors of DEA, Seattle Public Utilities, and the Office of Sustainability and Environment (OSE) shall develop tools for disseminating information to City staff about reusable, recycled content, recyclable, and otherwise environmentally preferable/sustainable products; about vendors and City contracts for such products; and about user groups and other opportunities to test and discuss new products.

The director of each City department shall encourage:

- departmental use, where feasible, of environmentally preferable through training, information dissemination, development of internal procedures, and other means; and
- departmental participation in user groups, pilot testing programs for new products, and other citywide efforts established to implement this policy.

6.14.5.4 Data Collection and Performance Reporting

The Director of the DEA and OSE shall collaborate in:

- Working with other departments to collect data for performance tracking and evaluation of the City's environmentally responsible purchasing program; and
- Compiling records for the purposes of producing an annual summary of the City's environmentally responsible/sustainable purchasing actions, and for evaluating the effectiveness of these actions in reducing the environmental impacts of City procurement.

The director of each City department shall cooperate in information gathering for the purposes of tracking, reporting, and evaluating the sustainable purchasing program.

6.14.5.5 Market Enhancement

The Director of the DEA and OSE shall be responsible for:

- Seeking opportunities to cooperate with other jurisdictions to enhance markets for environmentally preferable/sustainable products, to obtain favorable prices, and to reduce waste packaging and product by combining purchases/contracting for the same or similar products; and
- Promoting the use of recycled-content products, recyclable products, and other environmentally preferable/sustainable products to potential vendors to the City by publicizing their availability.⁴

6.14.6 References

- Resolution 27828, directing Solid Waste to develop policies and practices to encourage, increase, and require recycling, waste reduction, and the purchase of recycled products.
- Resolution 28556, authorizing the Director of ESD to develop a "Recycled-content Procurement Plan."
- Resolution 29949 –implementation of Copernicus, encouraging the City to act as a regional partner in environmental protection

⁴ per SMC 3.18.904E.



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- Seattle Municipal Code 3.18.900 - 926 (Ordinance 116720 and 116726).

U.S. Executive Order 12873 and "*Greening the Government: A Guide to Implementing Executive Order 12873.*"