Preserving The Legacy: What Can You Do?

Purpose:

To help students understand ways they can help preserve Tampa Bay and its Living Legacy

Objectives:

- Students will be able to describe ways various groups of people can help the Bay
- Students will identify and describe ways they personally can help the Bay.

Correlation to Sunshine State Standards:

SC.G.2.4.5 Understands that the amount of life any environment can support is limited and that human activities can change the flow of energy and reduce the fertility of the Earth.

SC.G.2.4.4 Describe the different aquatic ecosystems and their organisms emphasizing Florida's wetlands, estuaries, coral reefs and Everglades.

Correlation to Curriculum:

Chapter 4 of the IS 1 curriculum.
Chapters 34, 35, and 36 Biology Honor's curriculum.

Background Information:

What can we as concerned citizens do to protect natural Florida? Concerned citizens can become informed and speak out at community forums, express their views to elected officials, and join organizations to protect the environment. Protecting the bay starts with an understanding of how we as citizens impact the bay daily.

Every homeowner in the watershed plays a role. Waterfront residents can play a role in habitat enhancement. Boaters have several important roles. They can avoid tearing up grass flats, properly dispose of their sewage, and avoid spillage of gas and oil. One of the critical ways everyone can support the bay is to volunteer for hands-on activities.

The ecological success story of Tampa Bay has been both dramatic and remarkable, and there is a great determination to build on this success. You can help your students find ways to play a positive role in helping to preserve Tampa Bay and its Living Legacy.

Activity 1 - How can everyone help the Bay?

Purpose - To help students gather information from the video about the roles various groups of people have in preserving Tampa Bay

Materials - *Tampa Bay: Living Legacy* DVD, student-made "Video Note Sheet", PowerPoint Notes

Duration - 20 minutes

Teacher Directions -Ask your students to make a "Video Notes Sheet" like the one below and on the PowerPoint slide to use to take notes during the video. Use the PowerPoint slide to provide directions. They should fill this in while watching the video. After they have watched the video, have them compare their notes with two neighbors.

Main Idea	Detailed Notes
How can citizens help Tampa Bay?	What is a Florida Friendly Yard and how does it help the bay? How can waterfront residents help protect habitat? What are some important things boaters can do?
How can we as individuals get involved?	What type of hands-on activities can students get involved in? How else can students help?

Activity 2 - Getting Students Involved

Purpose - To help students learn more information about groups that are helping Tampa Bay and how they can get involved.

Materials - Resource List (p.41)

Duration - 20 minutes

Teacher Directions -Assign your students to work groups. Ask each group to use the Internet to research some of the agencies and organizations that play a role in helping Tampa Bay. When the agencies and organizations have been identified, assign each work group one agency or organization for further research. Encourage them to e-mail any contacts listed asking how students might get involved in helping the bay. Each group should then compile information about their agency or organization and turn this information into a PowerPoint presentation.

Relevant Vocabulary:

- **Florida Friendly Yard** - A yard landscaped with plants that require very little water or maintenance.

- **Ecosystem** - A community of living things plus the non-living features of the environment that supports them.

Resources:

Tampa Bay Estuary Program
www.tbep.org
Florida Marine Research Institute
www.floridamarine.org
Environmental Protection Commission of Hillsborough County
www.epchc.org/
USGS Tampa Bay Study
gulfsci.usgs.gov/tampabay
USGS Coastal and Marine Geology Program
coastal.er.usgs.gov/
USF College of Marine Science
www.marine.usf.edu
Marine Sanctuary Educational Materials
www.skio.peachnet.edu/noaa.handbooks.html
Tampa Bay's Environment
www.webcoast.com/environment/mangroves.html
The Florida Mangrove
www.webcoast.com
Southwest Florida Water Management District
www.swfwmd.state.fl.us
Florida Department of Environmental Protection
www.dep.state.fl.us
Tampa Bay Watch
www.tampabaywatch.org
EPA Environmental Ed. Center
www.epa.gov/teachers
Florida Sea Grant
www.flseagrant.org
Association of National Estuary Program
www.anep.usa.org
Florida Aquarium
www.flaquarium.net
Tampa Bay Estuary Atlas
www.tampabay.wateratlas.org

People Interviewed in the Film

Bob Martinez - Former Governor and Tampa Mayor

Betty Castor - Former Hills. County Commissioner, State Senator, Florida Education Commissioner and USF President

Mary Figg - Former State Legislator

Jan Platt - Former Hillsborough County Commissioner

Rick Baker - St. Petersburg Mayor

Pam Iorio - Tampa Mayor

Jake Stowers - Former Pinellas County Administrator

Dr. Ernie Estevez - Mote Marine Laboratory

Robin Lewis - Wetlands Ecologist

Ann Paul - Audubon of Florida

Capt. Bill Miller - Longtime fishing guide and host of the "Hooked on Fishing" cable television show

Dr. Penny Hall - Seagrass Ecologist FWCC

Joe Murphy - Sierra Club

Greg Nelson - TECO Environmental Director

Gray Gordon - Spokesman for Mosaic Phosphate LLC

Sally Thompson - Longtime environmentalist

Peter Clark - Tampa BayWatch

Brandt Henningsen - Southwest Florida Water Management District (SWIM program)

Dick Eckenrod - TBEP Executive Director

Joe King - Developer and Architect

Making Sense of the Fertilizer N P Ks

Purpose:
To learn about landscape fertilizer application (backyard, schoolyard, community areas & parks, etc.) and its effects on the water quality within the Tampa Bay watershed.

Objectives:
- Students will analyze how their decisions could have a positive or negative impact on Tampa Bay.
- Students will learn the fertilizer requirements and the benefits of proper application.
- Students will analyze fertilizer issues in Tampa Bay and write an essay in support of their findings.

Correlation with State Sunshine Standards:

SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic and environmental.
LA.910.4.2.3 & LA.1112.4.2.3	Write informational/expository essays that speculate on the causes and effects of a situation, establish the connection between the postulated causes or effects, offer evidence supporting the validity of the proposed causes or effects, and include introductory, body, and concluding paragraphs.

Background Information:

A watershed is an ecological area where surface waters drain toward a common location such as a river, estuary or other body of water. Watersheds are ecologically important because the health of one area or habitat within a watershed typically affects or influences the health of the flora and fauna found in other areas or habitats in the same watershed. The Tampa Bay watershed is approximately 2,600 square miles and includes areas of Pinellas, Pasco, Hillsborough, Polk, Manatee and Sarasota counties.

Terrestrial and aquatic vegetation within the Tampa Bay Watershed require nitrogen, a naturally occurring element and necessary nutrient, for survival. However, excess nitrogen can lead to an increase in algae, decrease in water clarity (cloudy water) and a decrease in seagrasses. Excess nitrogen can enter the watershed from non-point

sources (e.g., lawns, agriculture, golf courses, etc.), industrial discharges and poorly treated sewage. Residential stormwater runoff, which includes fertilizer residue, accounts for approximately 20% of total nitrogen in stormwater.

Tampa Bay is Florida's largest open water estuary. By reducing the nitrogen input into the Tampa Bay Watershed, we can significantly improve the water quality of this important natural resource. Through the following activities, students will learn that the decisions made in their backyards, school grounds and in their community can play a significant role in protecting and improving Tampa Bay.

Activity 1 – Fertilizing Issues:

Purpose – To help students learn the fertilizing basics.

Materials – Tampa Bay: Living Legacy DVD, "Fertilizer N P Ks" PowerPoint instruction

Duration – 15 - 20 minutes

Teacher Directions – Use Fertilizer PowerPoint to introduce Fertilizer components and practical tips for proper use.

Activity 2 – Involved Citizens:

Purpose – To help students research their assigned role in the upcoming Town Hall meeting regarding potential fertilizer restrictions.

Materials – Tampa Bay: Living Legacy DVD; "Fertilizer N P Ks" PowerPoint instruction; Town Hall Roles – Pros & Cons Considerations sheet; Southwest Florida Water Management District - "Florida-Friendly Fertilizing (A Do-It-Yourself Guide)" booklet; Southwest Florida Water Management District - "Florida-Friendly Fertilizing TIPS"; Students will be suggested to bring in fertilizer related articles about the Tampa Bay area from current and past newspapers, magazines.

Duration – 15 - 20 minutes

Teacher Directions – Use Fertilizer PowerPoint to introduce student roles in upcoming Town Hall meeting. Assign each student or small group of 2-3 students their role. Students will review their "Pros & Cons" Considerations described in their assigned role and develop 2-3 "Pros" and 2-3 "Cons" to be presented at the Town Hall meeting in support of their position on fertilizer restrictions. Students can use the resource list for their research. Distribute Town Hall Roles – Pros & Cons Consideration section to each student or group. Students must use valid

sources for their research such as governmental environmental agencies, university research and publications, etc. See "Town Hall Roles – Pros & Cons Considerations" worksheet. Cut out individual sections and distribute to the applicable students assigned to those role(s).

Students may brainstorm and create their own Fertilizer interest groups (Pro or Con) to add/substitute to the list of Town Hall participants. Considerations provided for the Town Hall Pros & Cons can be supplemented by student input. Students should be encouraged to view all Town Hall Roles to improve their position by researching what other groups/persons may present at the Town Hall.

Activity 3 – Fertilizer Town Hall:

Purpose – To help students apply "their" point of view based on their assigned role and to learn other shareholders' viewpoints.

Materials – Tampa Bay: Living Legacy DVD, "Fertilizer N P Ks" PowerPoint instruction

Duration – 30 minutes to one class period

Teacher Directions – Arrange the classroom so that the Mayor and Town Commissioners can facilitate the Town Hall meeting by addressing the citizens' feedback on the potential fertilizer restrictions. Once everyone has presented their researched information for their role, the Town Commissioners decide what actions are necessary for their community. Afterwards, discuss as a class if the decision makers made the correct decision. Discuss today's fertilizer ordinances in the Tampa Bay region. Discuss how they are similar, how are they different.

Alternative or Extended Activity – Create and Submit Support Letters about Fertilizer Requirements:

Purpose – To help the students research and support their position on fertilizer requirement and submit a class set of letters or one letter that represents the class position to our local governing agency or environmental agency (e.g., letters sent to the county commissioners, Tampa Bay Estuary Program, etc.).

Materials – Tampa Bay: Living Legacy DVD; "Fertilizer N P Ks" PowerPoint instruction; Southwest Florida Water Management District - "Florida-Friendly Fertilizing (A Do-It-Yourself Guide)" booklet; Southwest Florida Water Management District - "Florida-Friendly Fertilizing TIPS"

Duration – 30 minutes

Teacher Directions – Have students investigate all of the Town Hall roles and create a letter supporting their conclusion to a local governing agency or environmental agency (e.g., letters sent to the county commissioners, Tampa Bay Estuary Program, etc.).

Assessment Component:

- Completed "Roles" research and present findings at the Town Hall meeting.
- Individual presentation at Town Hall meeting (or letter for Alternative Activity).

Relevant Vocabulary:

- **Ecosystem** - A community of living things plus the non-living features of the environment that supports them.
- **Estuary** – An area where fresh water from rivers, springs, runoff, etc. mixes with salty ocean water.
- **Florida-Friendly Yard** - A yard landscaped with plants that require very little water or maintenance.
- **Habitat** - An organism's specific environment with characteristic abiotic and biotic factors.
- **Non-Point Source Pollution** - Occurs when contaminants or pollutants are discharged and cannot be traced back to a specific or identifiable source and often originates from multiple sources over a large area (e.g., agricultural runoff from multiple farms, fertilizer runoff from multiple homes within a watershed).
- **Point Source Pollution** – Occurs when contaminants or pollutants are discharged and can be traced back to a specific or identifiable source (e.g., discharge pipe or ditch)
- **Runoff** – Water that accumulates soil, pesticides, herbicides, fertilizer and other chemicals and movable materials as it flows across the ground surface.
- **Stormwater Runoff** – During a storm, water "runs off" of rooftops, roads, parking lots, and any hard surface. As the water passes over hard surfaces, it picks up trash or chemical pollution like spilled gasoline, oil, or excess lawn fertilizer (nitrogen). The contaminated rainwater flows into creeks, canals and storm sewers. These often flow into Tampa Bay. As builders add more hard surfaces, there is less grass to soak up rain, so more stormwater runoff ends up in the Bay (and other local water bodies).
- **Watershed** - The land area that drains water into a particular stream, river, lake or bay.

Additional Resources:

- Southwest Florida Water Management District (SWFWMD) - "Florida-Friendly Fertilizing (A Do-It-Yourself Guide)" booklet http://www.swfwmd.state.fl.us/publications/files/florida-friendly-fertilizing.pdf
- Southwest Florida Water Management District (SWFWMD) - "Florida-Friendly Fertilizing TIPS" http://www.swfwmd.state.fl.us/publications/files/florida-friendly-fertilizing-tips.pdf
- "Figuring Out Fertilizer for Home Lawn," University of Florida / IFAS http://edis.ifas.ufl.edu/ep221
- "General Recommendations for Fertilization of Turfgrasses on Florida Soils," University of Florida / IFAS http://edis.ifas.ufl.edu/lh014
- Be Floridian Fertilizer Education Campaign www.BeFloridian.org
- Florida Native Plant Society http://www.fnps.org/
- Tampa Bay Estuary Atlas www.tampabay.wateratlas.org
- Tampa Bay Estuary Program www.tbep.org
- Florida Museum of Natural History - fish and seagrass pages http://www.flmnh.ufl.edu/fish/southflorida/seagrass
- Florida Fish and Wildlife Research Institute - main seagrass page http://research.myfwc.com/features/category_main.asp?id=1323

Town Hall Roles – Pros & Cons Considerations" worksheet

Mayor	**New resident to Florida**
Has been receiving complaints about local water quality	Florida has sandy soils, you have to fertilize to grow plants I had back at home
Local business may lose money if fertilizer restrictions are enacted	Was told that the best time to fertilize was right before a rain-storm to "water-in" the fertilizer
Other local businesses may lose money if fertilizer restrictions are not enacted.	Radio commercials suggest fertilizing in the summer
Lawn & Garden Store Owner	**Town Commissioner(s)**
May lose money on summer fertilizer sales	Has been receiving complaints about local water quality
May have to reduce staff because of reduced sales	Local business may lose money if fertilizer restrictions are enacted
May actually increase sales informing customers about "Florida Friendly" plant options	Other local businesses may lose money if fertilizer restrictions are not enacted.
Environmental Scientist	**Lawn Service Owner**
Fertilizer restriction are needed to improve water quality	May lose money on summer fertilizer sales
What alternatives are available instead of summer fertilizing? Or is it even necessary?	May have to reduce staff from reduced sales
What research is available to support fertilizer restrictions?	May actually increase sales informing customers about "Florida Friendly" plant options
Tax Paying Public	**Fisherman – Recreational & Commercial**
Citizens will ultimately pay for water quality improvements	Fish populations and seagrass habitats may decline if water quality decreases
	Need to bring the fishing back
	Local fishing businesses depend on healthy habitats and good fishing
Television Reporter	**Eco-tour Business Owner (kayaks/canoes)**
Would fertilizer restriction improve water quality?	As water quality decreases, tourists will go to other destinations
Why not just let the government clean up the water quality?	Reduced tourists = lost money $$
Do the citizens really understand the connection between fertilizer and water quality?	How would improved water quality increase money for all local tourist-based businesses?
Native Plant Nursery Owner	
May lose money on summer fertilizer sales	
May have to reduce staff from reduced sales	
May actually increase sales informing customers about "Florida Friendly" plant options	

Cut out each individual section and distribute to assigned students. Students should create additional Pros & Cons Considerations in additional to the suggestions listed above to increase their understanding and be able to provide a in-depth details supporting their position.

Creating Your Own Florida-Friendly Landscape: Improving the Bay One Yard at a Time

Purpose:
To introduce students to basic classification and characteristics of plants with an emphasis on Florida native plant species naturally occurring in the Tampa Bay area. To help students understand how incorporating these plants into their own backyard, school grounds or community areas creates a Florida-Friendly landscape important to the Tampa Bay watershed's overall health.

Objectives:
- Utilizing resources, students will be able to identify and chart applicable scientific terminology about native plants.
- Students will be able to differentiate basic plant classifications and characteristics of plants with emphasis on gymnosperms and angiosperms.
- Students will be able to define the 9 Principles of Florida-Friendly Landscaping™.
- Students will design a landscape that applies the plants' physical characteristics (e.g. height, color, etc.) and survival adaptations (e.g. water requirements, shade/sun tolerance, etc.) to a local landscape using the "Florida-Friendly" concept.
- Students will be able to identify and describe ways they personally can help Tampa Bay.

Correlation to the Next Generation Sunshine State Standards:

SC.912.L.14.53	Discuss basic classification and characteristics of plants. Identify bryophytes, pteridophytes, gymnosperms, and angiosperms.
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.
LA.910.4.2.1	Write in a variety of technical/informational forms, including a variety of technical documents (e.g., how-to-manuals, procedures, assembly directions)
LA.1112.4.2.1	Write in a variety of technical/informational forms, including documents using precise technical and scientific vocabulary (e.g., manuals, procedures, directions

Background Information:
Florida's climate and vast habitats provide the essentials to support its rich biodiversity. These same factors also serve as an attractant for humans to live, visit and experience Florida. Approximately 77% of the Florida's population lives in our coastal counties creating a high demand and toll on our one of our most precious resources, water.

Often, as Florida's resident and tourist populations increase, the spaces that once provided habitat for our native species are reduced, relocated or are eliminated. In addition, the demand on our natural resources such as freshwater and drinking water

can dramatically increase while our natural water recharge areas like wetlands are reduced. Minimizing or eliminating our use of water for irrigation can have an incredible positive impact on our water supply while providing needed habitat for local and migrating birds, amphibians, reptiles, small mammals and invertebrates.

In addition to more people living in our coastal areas increasing water demands and causing habitat loss, another one of our greatest issues surrounding water quality is the overwhelming amount of nutrients going into our surface and ground waters. These nutrients that enter the Tampa Bay watershed originate from multiple sources. However, the "overfeeding" of our urban yards is one of the main nonpoint sources of pollution called fertilizer runoff. Once these nutrients enter our waterways, it is much more expensive and difficult to remove them than it is to reduce the amount of nutrients before they enter our waterways.

Excessive nutrients are detrimental to not only the natural habitats and those living in it, but it is also negative for most people in the area also. Some effects of nutrient runoff include algal blooms, fish kills, reduced biodiversity of plants and wildlife including species like seagrasses and manatees, reduced or closed commercial and recreational fisheries, loss of tourism income, reduced property values, and diminished resident satisfaction with our area.

Despite the challenges, individual citizens of all ages can make a difference. People can make significant positive changes by adjusting their perspectives of what they think the community's landscapes should look like. Our waterways can become healthier just by transforming our backyards, school grounds and local common areas into Florida-Friendly landscapes. By installing a Florida-Friendly yard with plants that require less nutrients and water while placing the plants in their correct growing locations, we significantly reduce the nutrient load entering the Tampa Bay watershed, increase plant diversity, create wildlife habitats and reduce water use. Families may even expand their efforts by helping neighbors, adopting and transforming schoolyards or participating in their local municipality's landscaping meetings.

Remember that as individuals making changes to our own personal yard or school landscape helps, but alone we do not solve the large-scale problem. However, coming together as a whole community and solving this problem through sound landscape and personal behavior changes on a large scale one yard at a time, we can reduce this serious water quality problem while protecting our beautiful bay in the future.

Activity 1 – Overview with PowerPoint

Purpose – To help students learn the 9 Principles of Florida-Friendly Landscaping™ and discuss that native plants are important to wildlife survival.

Materials – "Creating Your Own Florida-Friendly Landscape" PowerPoint

Duration – 15 minutes

Teacher Directions – Use the PowerPoint presentation to build on previous knowledge of native plants and beneficial, non-invasive exotic plants and that native plants are important to wildlife survival; and discuss the 9 Principles of Florida-Friendly Landscaping™.

Activity 2 – Science Terminology Data Sheets

Purpose – To enhance student's ability to research scientific information by learning terminology about native and non-invasive exotic flora and compiling this information into a data sheet for the next activity.

Materials – "Florida-Friendly Landscaping™ Guide to Plant Selection & Landscape Design" booklet and the "Florida-Friendly Landscaping Principles" guide by Southwest Florida Water Management District; "Science Terminology Data Sheet" from PowerPoint; Pencils or pens

Duration – 30 minutes

Teacher Directions – Using the PowerPoint slides, explain how the students will compile their desired plant list on the data sheet. Follow up by providing the basic classification and characteristics of plants while applying examples that could be used in their data sheets. Discuss bryophytes (mosses, hornworts, liverworts), pteridophytes (ferns and fern allies), gymnosperms (conifers), and angiosperms (flowering plants) and explain how these might be used in a Florida-Friendly schoolyard or home landscape.

Divide the students into small groups of 3 or 4; provide them with the SWFWMD resources. Their plant research will be applied to the next activity, the landscape design, and students should remember to apply the 9 Principles of Florida-Friendly Landscaping™.

Assessment Component – Group "Science Terminology Data Sheet"

Activity 3 – Digging in the Dirt through Landscape Design

Purpose – To assist students in evaluating on a small scale how human actions such as habitat improvement in the urban landscape can positively impact the Tampa Bay area on a large scale.

Materials – "Florida-Friendly Landscaping™ Guide to Plant Selection & Landscape Design" booklet and the "Florida-Friendly Landscaping Principles" guide by Southwest Florida Water Management District; previously completed "Science Terminology Data Sheet"; Colored pencils (set with green, red, yellow, blue/purple), 1 copy of the landscape template of urban yard or school grounds or have students draw their own house or school to scale using graph paper (approximately 3 sheets per group to allow for significant errors)

Duration – 30 to 40 minutes

Teacher Directions – Using the PowerPoint slides of the landscape templates, explain how the students will create their own Florida-Friendly Landscape. Students will remain in their previous groups of 3 or 4 from the data sheet activity.

Either allow the student groups to choose landscaping a home yard or a schoolyard; or choose the site for them. Explain to students that they will use their completed plant data sheet created in the previous activity to draw an aerial view of their ideal landscape. Have students use the color pencils to represent the plant/landscape feature colors (e.g. angiosperm bloom colors, green conifers, brown snag or human-made next box, blue water, etc.). Remind students that they should focus on applying the 9 Principles of Florida-Friendly Landscaping™ to their ideal landscape design.

After their design is complete, advise the class that even with professionally designed landscapes, adjustments will need to be made as the landscape matures. Some additional considerations for plant choice and placement that were not discussed in this lesson include the following:

- Soils
- Irrigation needs and materials
- Options for composting yard waste
- Mulch use and options
- Pesticide management
- Who will maintain the landscape (e.g. at the school, who will take care of it during the growing season/summer months?)
- Can they think of any more?

Assessment Component – Group Florida-Friendly Landscape Design

Relevant Vocabulary:

- **Angiosperm –** Flowering plants; seeds enclosed in an ovary
- **Bryophytes –** Collective term for nonvascular plants including mosses, hornworts and liverworts, reproduce by spores
- **Ecosystem –** A community of living things plus the non-living features of the environment that supports them.
- **Exotic (or Non-native) –** Organism not originally from a specific area; typically considered exotic to Florida if evidence it appeared after the 1500s.
- **Florida-Friendly Yard –** A yard landscaped with plants that require very little water or maintenance.
- **Gymnosperm –** Plants with seeds on open scales, usually cones, such as the pines, spruces, cedars, and cycads

- **Habitat –** An organism's specific environment with characteristic abiotic and biotic factors.
- **Native –** Organism originally from a specific area; typically considered native to Florida if evidence it appeared prior to the 1500s.
- **Non-native (or Exotic) –** Organism not originally from a specific area; typically considered non-native to Florida if evidence it appeared after the 1500s.
- **Non-Point Source Pollution –** Occurs when contaminants or pollutants are discharged and cannot be traced back to a specific or identifiable source and often originates from multiple sources over a large area (e.g., agricultural runoff from multiple farms, fertilizer runoff from multiple homes within a watershed).
- **Point Source Pollution** – Occurs when contaminants or pollutants are discharged and can be traced back to a specific or identifiable source (e.g., discharge pipe or ditch)
- **Pteridophyte –** Collective term for vascular plants including club mosses, horse tails and ferns, reproduce by spores

Additional Resources:

FLORIDA FRIENDLY LANDSCAPE GUIDANCE MODELS for Ordinances, Covenants, and Restrictions; Department of Environmental Protection
http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/ffl-mo-ccr-1-09.pdf

Florida Native Plant Society
http://www.fnps.org/

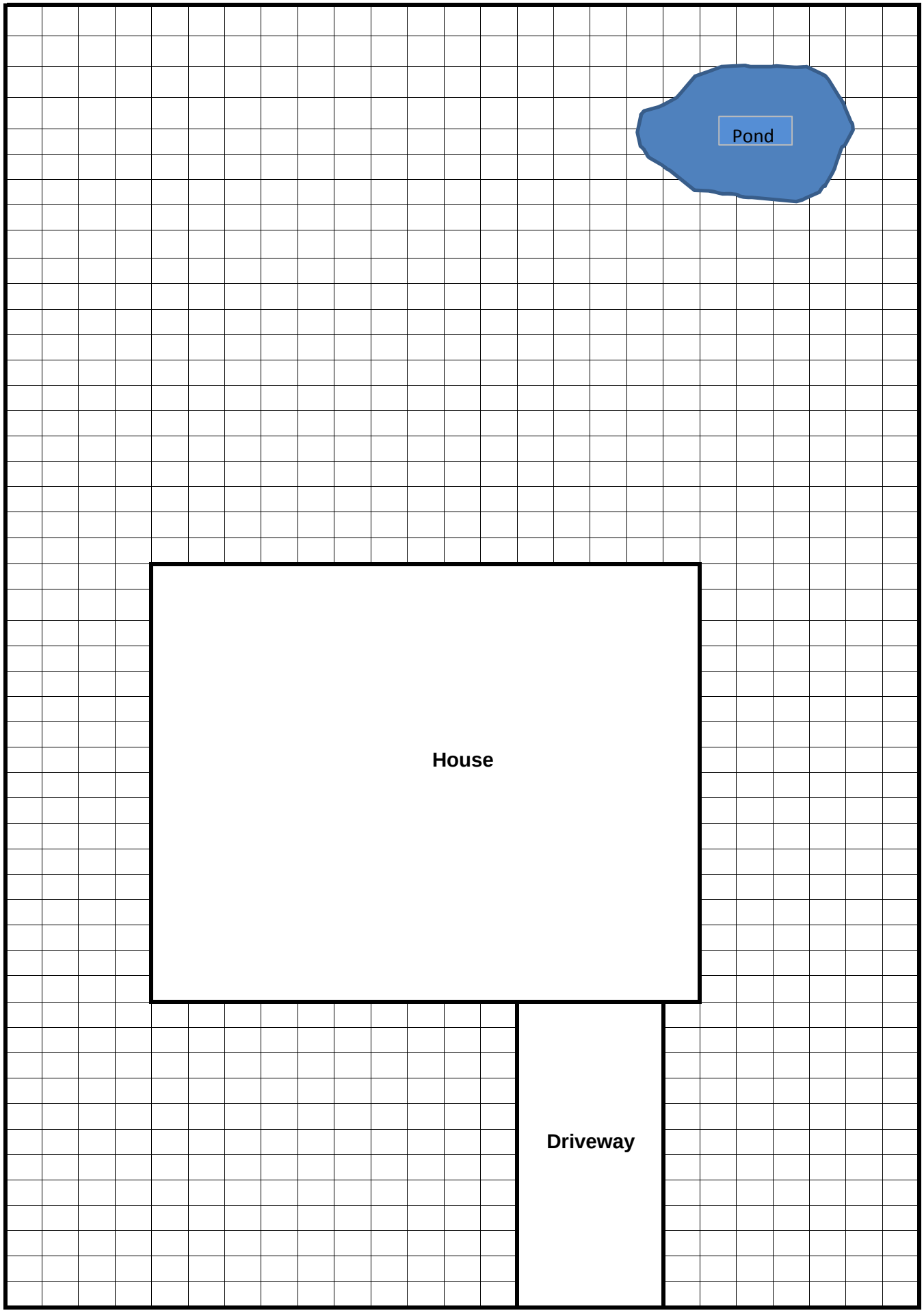
Southwest Florida Water Management District
"Florida-Friendly Landscaping™ Guide to Plant Selection & Landscape Design" Booklet
http://www.swfwmd.state.fl.us/publications/search.php?subject=landscaping
"Florida-Friendly Landscaping Principles"
http://www.swfwmd.state.fl.us/publications/search.php?subject=landscaping

Be Floridian
www.BeFloridian.org

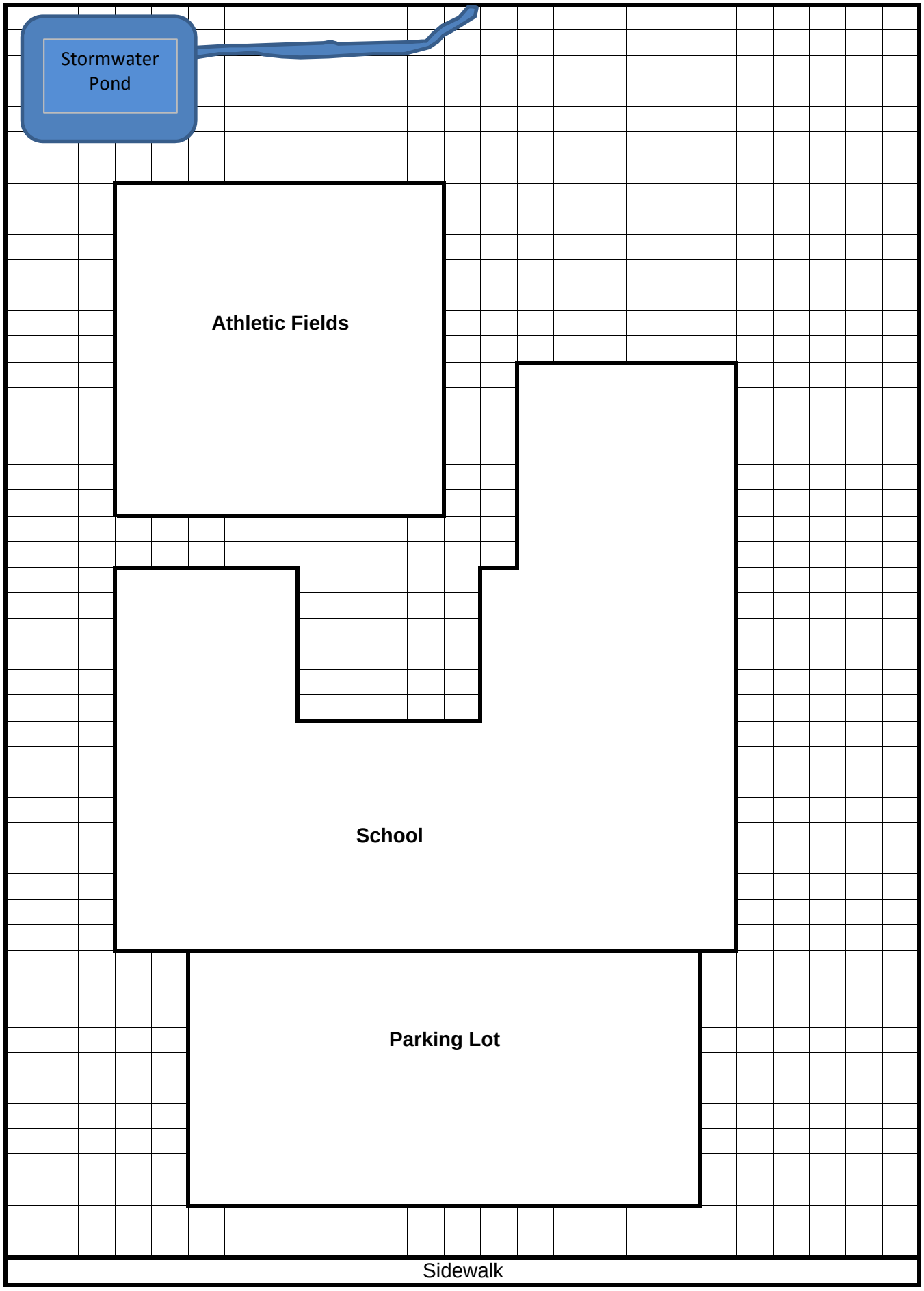
Tampa Bay Estuary Program
www.tbep.org

University of Florida: Florida-Friendly Landscaping™
http://fyn.ifas.ufl.edu/index.html

Common Name	Scientific Name	Native / Non-native	Florida Friendly (yes/no)	Bryophyte, Pteridophyte, Gymnosperm, or Angiosperm	pH Tolerance	Wildlife	Soil Moisture	Drought Tolerance



each square equals 2 sq. feet



each square equals 10 sq. feet