

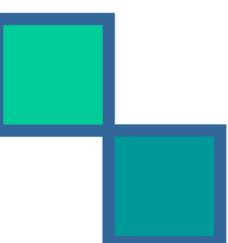
Development of IPM Training Manual for Building Managers

Todd Hancock ELS Landscape LLC Grand Prairie, TX
EPA –Pesticide Environmental Stewardship Partner





Vision Statement

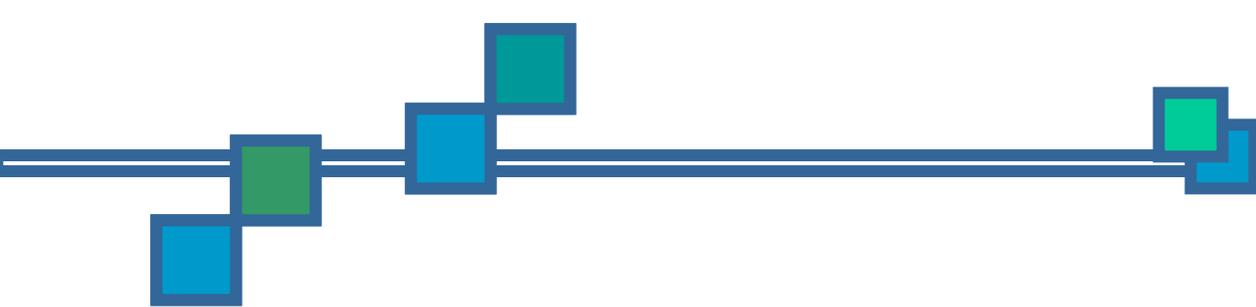
- Promote Integrated Pest Management IPM
 - The development of a basic and universal training program for Building Managers will help PESP reach urban pesticide users take a strategic approach to risk reduction and undertake specific, measurable activities toward achieving their risk reduction goals.
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Relationships

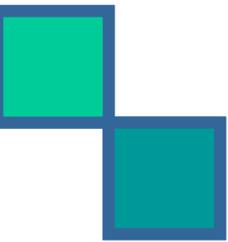


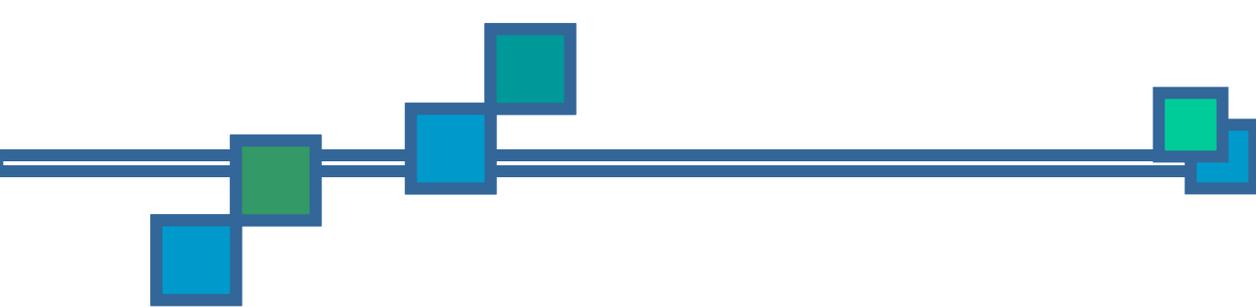
ELS Landscape LLC





Todd Hancock

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- Certified National Instructor, Building Owners & Managers Institute International (BOMI)
 - Lead Instructor for IPM and Landscaping for Dallas BOMA Education Institute (DBEI)
 - DBEI is the education arm of the Dallas Building Owners and Managers Association (BOMA)
 - Todd- Dallas BOMA Green Task Force lead for IPM and landscaping
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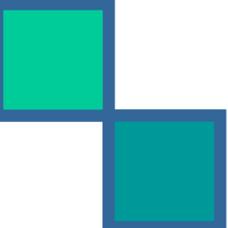


Dallas BOMA & DBEI

- Dallas BOMA (Building Owners and Managers Association) is the third largest local BOMA association in the world
 - DBEI (Dallas BOMA Education Institute) is the education arm of the Dallas Building Owners and Managers Association
 - DBEI, an educational non-profit organization, is the largest “single site” provider of education and training for office buildings
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BOMA International & Dallas BOMA

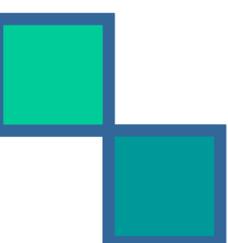
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1. 30% energy reduction by 2012
 2. Energy Star benchmark – reduce water
 3. Education
 4. Audit – Re-commission
 5. Extend equipment life
 6. Leadership – community & global warming
 7. Provide solutions for community & tenants





BOMA International & Dallas BOMA



- BOMA International Received its second Energy Star Partner of the year award in 2008 for Energy Efficiency Program Delivery.
 - The first time any Real Estate Trade Group has been recognized twice.
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BOMI INTERNATIONAL[®]
BUILDING OWNERS & MANAGERS INSTITUTE INTERNATIONAL

Adding Value to People through Education

The Building Owners Management Institute, an international certification, and educational non-profit organization.

BOMI is not affiliated with BOMA however BOMA and several other real estate trade groups recognized BOMI's educational programs.

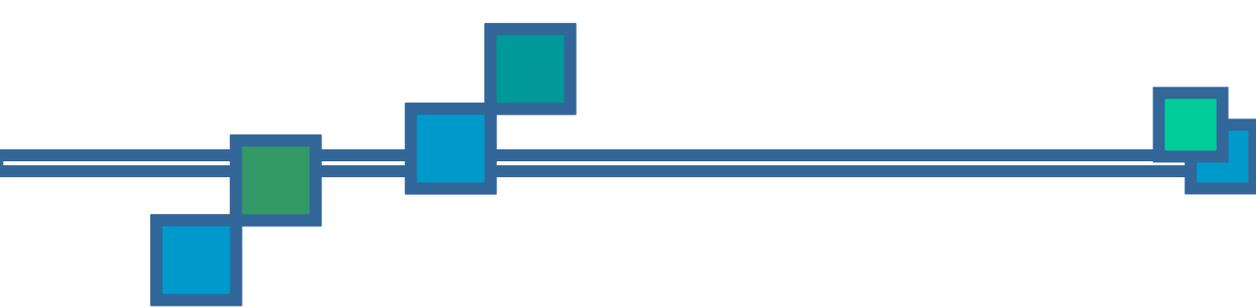


Adding Value to People through Education

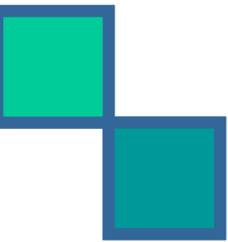
BOMI INTERNATIONAL®
BUILDING OWNERS & MANAGERS INSTITUTE INTERNATIONAL

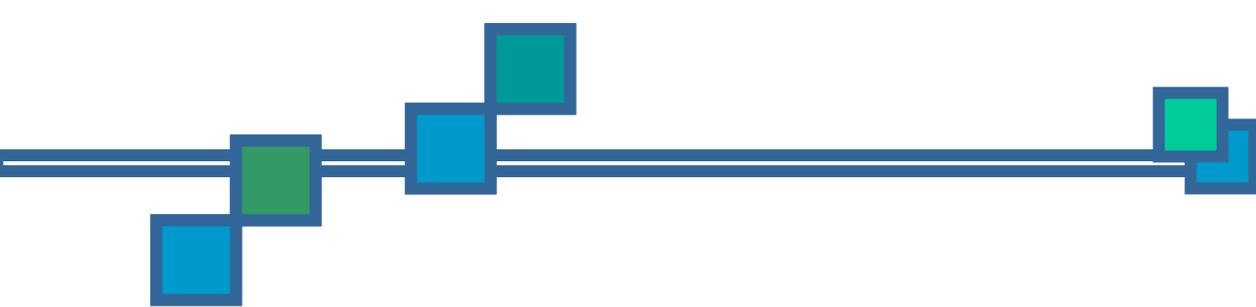
BOMI International currently offers 23, in-depth courses related to Building Management and four industry-respected designation programs:

- Real Property Administrator – RPA
- Facilities Management Administrator -FMA
- Systems Maintenance Administrator - SMA
- Systems Maintenance Technician -SMT



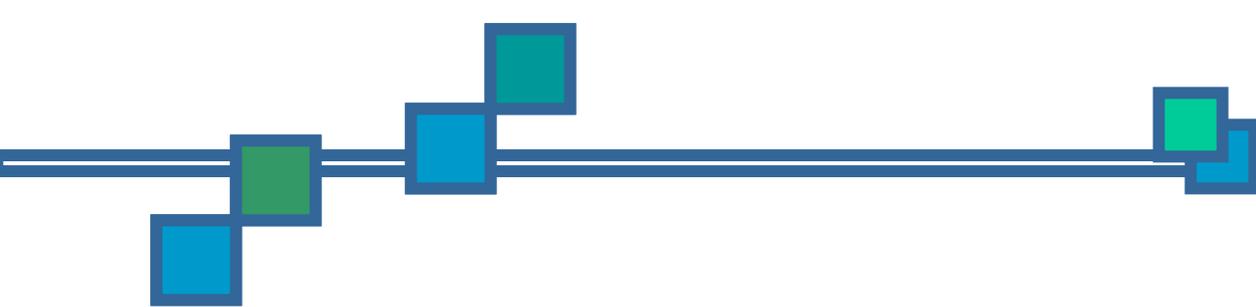
Goals

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- Improve basic understanding of IPM
 - Help managers not view IPM as an additional task
 - Understand IPM within in the context of administrative task already performed
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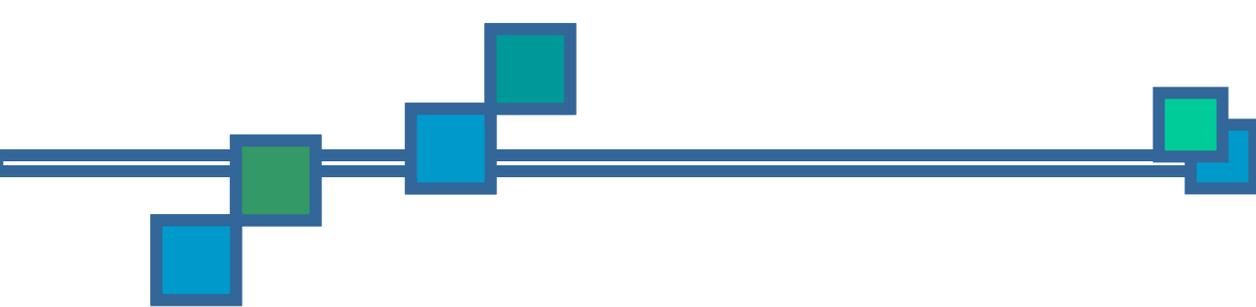
Goals

- Create universal program for Office and Commercial sectors.
 - Program add on segments to address regional or industry specific needs, IE HealthCare and Food preparation.
 - Add some basis for IPM principles in landscape which has been largely overlooked compared to Structural IPM.
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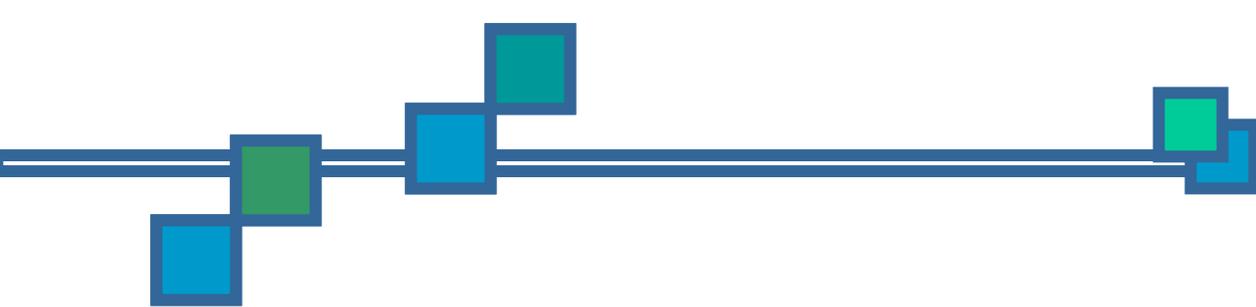
Objectives

- Reach the Urban Community
 - Partner with lead organizations concerned with Office and Commercial sectors such as BOMA local Chapters like BOMA Dallas
 - Partner with leading training providers in this sector such as BOMI International
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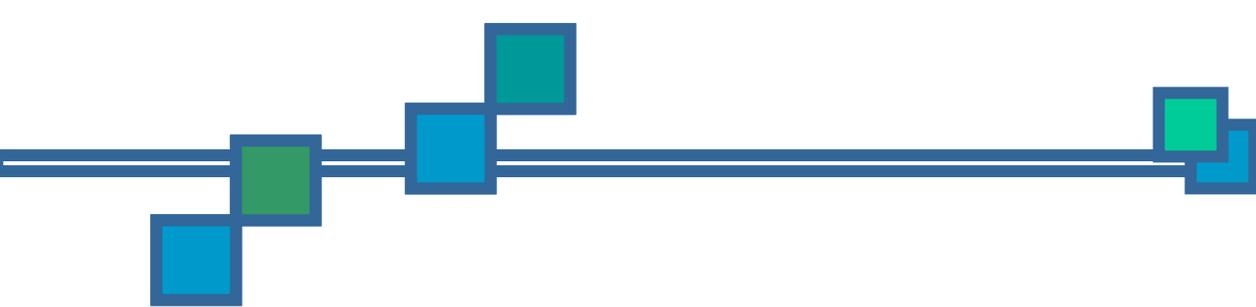
Objectives

- Discuss Success Stories
 - Review Concerns
 - Bring higher level of understanding of the issues, impacts and techniques
 - Reach a wide audience of Change Agents and Buyers in office and commercial sectors.
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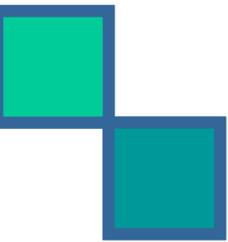


Today's Situation - Agriculture

- IPM in Agriculture is a huge success
 - Agriculture can measure cost benefits related to inputs and outputs.
 - Agriculture is still largest user of pesticides but significant reductions have been measured with increased crop outputs.
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Today's Situation - Urban

- IPM awareness and understanding is low.
 - Pesticide use per acre is higher than Agriculture
 - Cost benefits related to inputs and outputs very hard to measure.
 - Outside of the compliance label requirements imposed by the EPA, there is little empirical data or “green labeling” style guidance similar to the Energy Star or WaterSense programs to follow.
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Success Stories



- American Bald Eagle placed on the Endangered Species list in 1967 and DDT Banned
- Forty years later on June 28, 2007, the American Bald Eagle was officially removed from the Endangered Species.

Today's Concerns



- High Pesticide Concentrations in Urban Areas.
- The U.S. Geological Survey (USGS) water quality monitoring data indicate higher concentrations of pesticides in urban and suburban areas compared to agricultural areas.

Today's Concerns



Limited knowledge

- Selecting an incorrect product for the problem, Applying more than the recommended dose of a pesticide, treating symptoms of pest problems without suitable information about the causes

Today's Concerns



Improper Storage and Disposal of Pesticides for do it yourself homeowner

- Within reach of children, unreadable labels, damaged containers, disposal down storm sewer or toilet

Today's Concerns

Tick, Mosquitoes and Rodents



- Landscapes can be vectors and reservoirs for key public health pests.

Today's Concerns



- **Pesticide Exposure Incidents**
- High frequency but normally minor health effects to humans or pet according to EPA's Pesticide Incidence Data Reporting System

Today's Concerns - Dead Zones

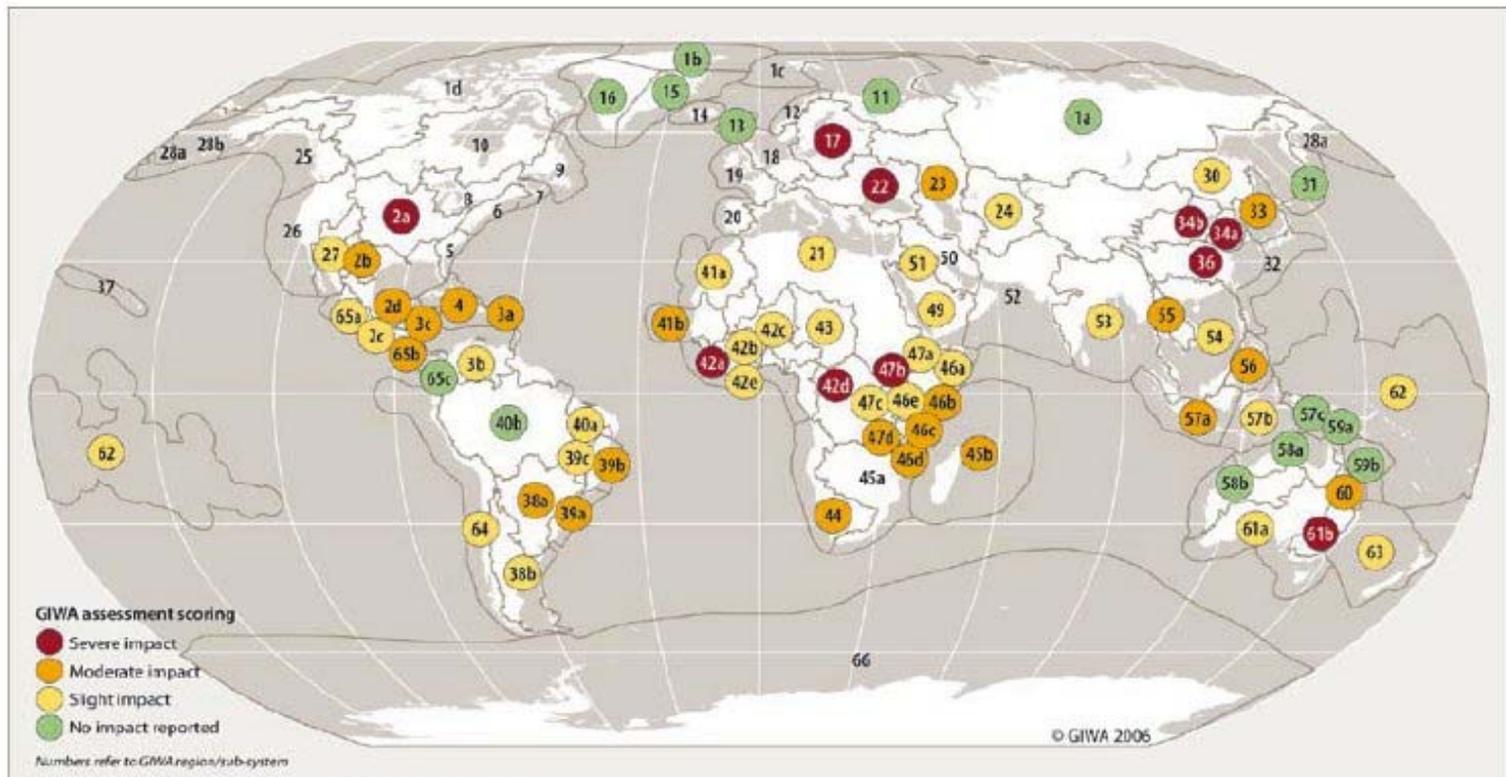
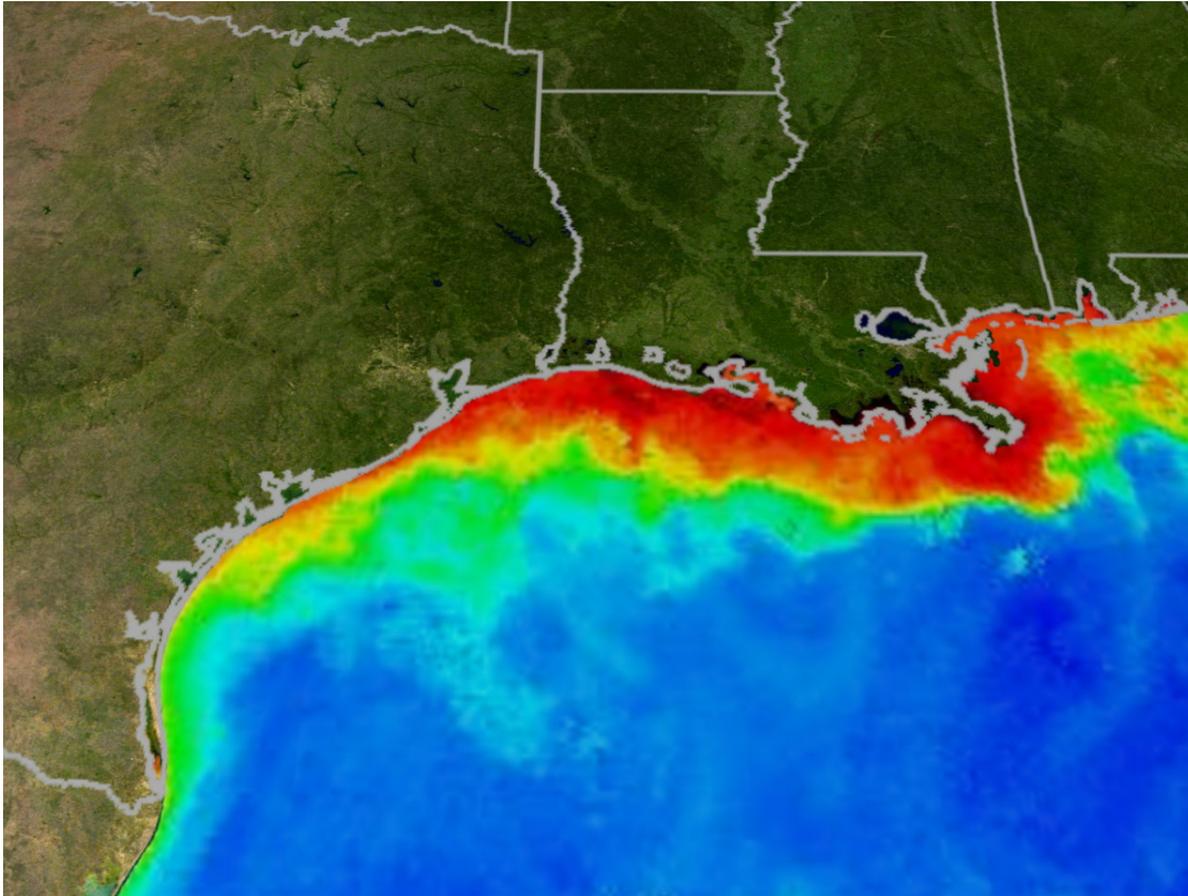


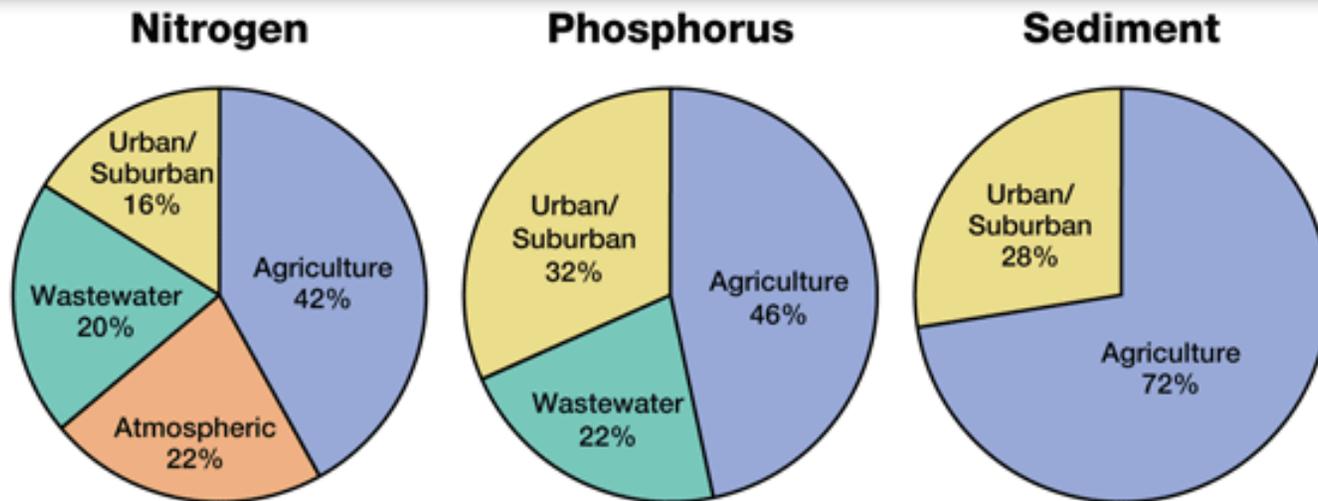
FIGURE I4. IMPACTS OF EUTROPHICATION

Gulf of Mexico Dead Zone

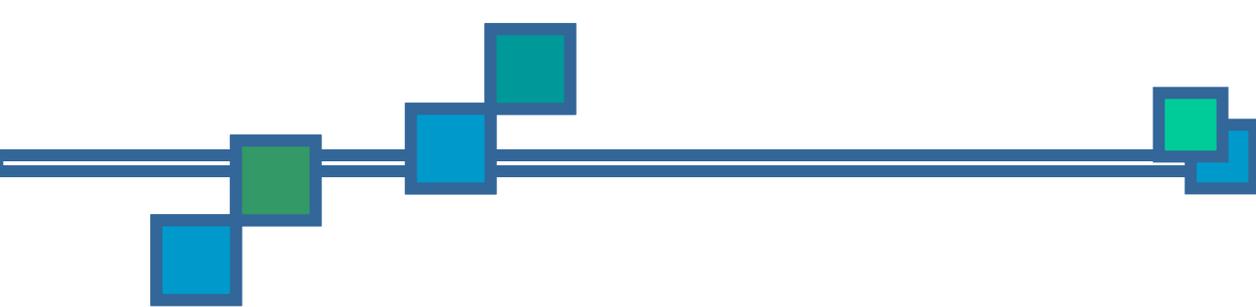


Chesapeake Bay

Relative Responsibility for Pollution Loads to the Bay (2007)



Wastewater loads based on measured discharges; the rest are based on an average-hydrology year. Does not include loads from direct deposition to tidal waters, tidal shoreline erosion or the ocean.



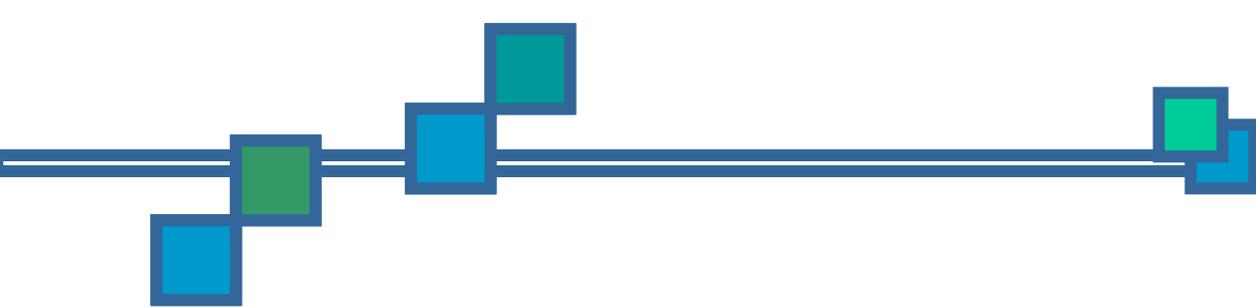
Course Overview

- Designed to be presented in > 4 hours.
 - Certificated of Completion
 - Short Quiz
 - Approximately 80 pages of formatted materials with bullet list, graphs and power points materials.
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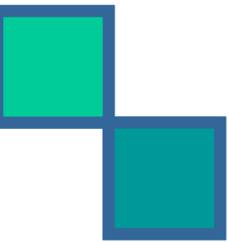


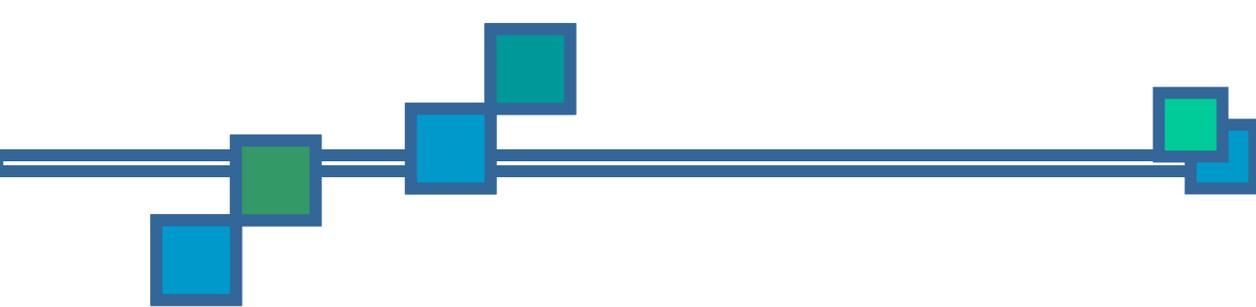
Course Overview

- Review pesticide labels including “signal words” required to indicate hazards levels.
 - Review Pesticide types.
 - Review Hazcom
 - Provide general overview of IPM principles.
 - Discuss roles and relationships between vendors, tenants and Owners / property managers responsibilities.
 - Review GSA Model – Structural IPM
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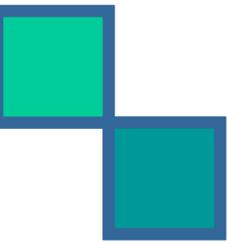


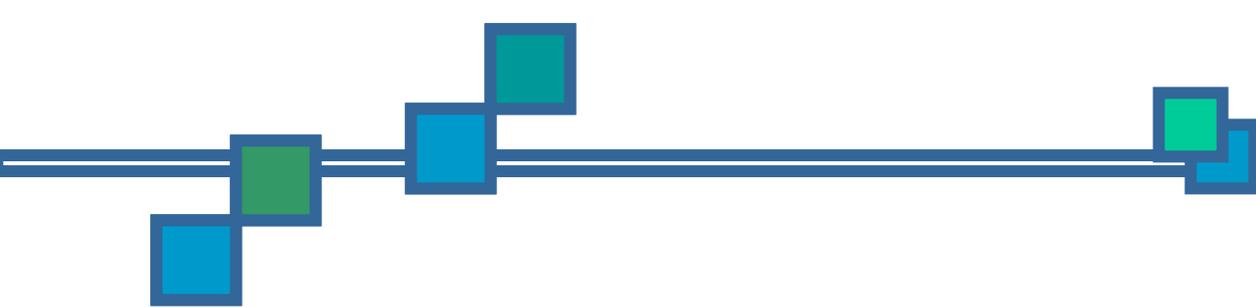
Course Overview

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- Discuss how IPM integrates with EMS/compliance
 - Green program overview
 - Discuss GreenScapes and landscape IPM
 - Discuss ANSI - RABQAS
 - Discuss LEED Program and Points
 - Discuss some strategies ideas.
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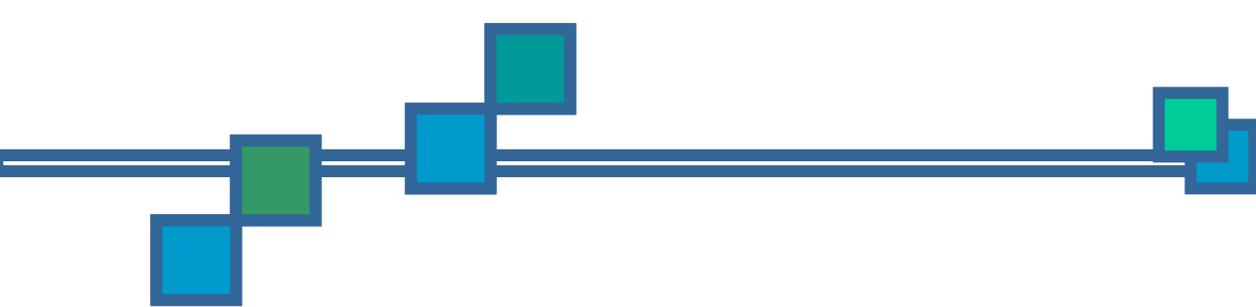
Excerpts

- Incorporating Voluntary GREEN Programs such as IPM into the Compliance and O&M Programs will streamline the process. To build the defenses necessary to survive in today's business and regulatory climates, a building's compliance program cannot be a token, such as a few dusty notebooks sitting high up on a shelf or in a file cabinet.
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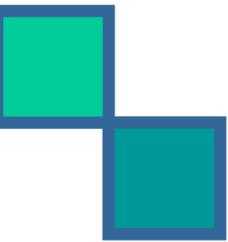


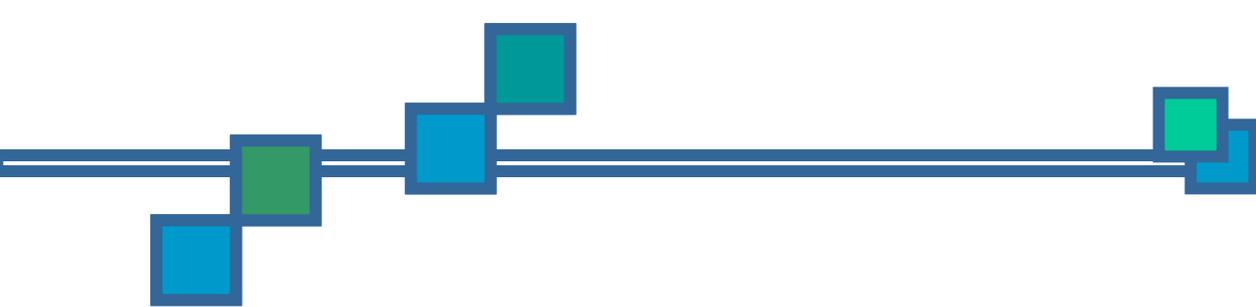
Excerpts

- The GSA IPM program uses the following criteria when assessing the pest control operations of public buildings. Organized into two sets of items: technical and administrative. The technical elements pertain to the front line service performed by the pest control contractor, which often is largely devoted to corrective actions that give immediate relief for existing pest problems. Ideally, these existing problems should diminish over time and the contractor's service becomes increasingly devoted to inspection.
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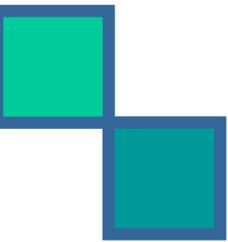


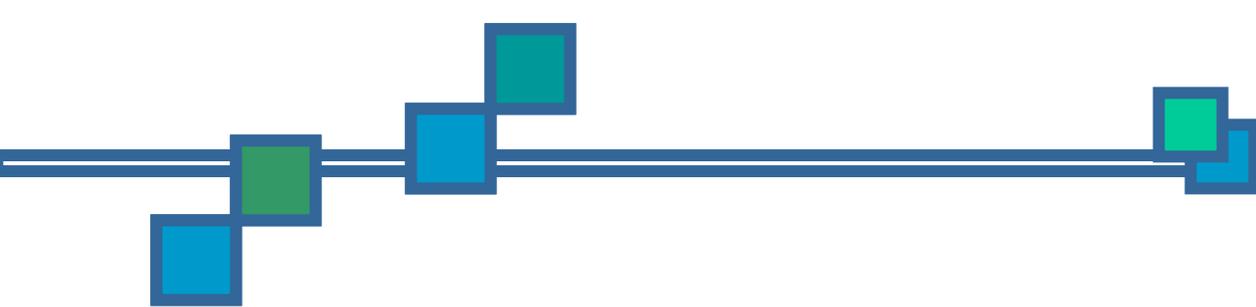
Excerpts

- The administrative elements pertain to how the program is set up and coordinated by the Manager. This includes the vital implementation of long-term, preventive actions that target the causes of the problems. Record keeping is important because some concerns are regional and seasonal as well.
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Excerpts

- Checking rest rooms for general sanitation, may also reveal dry floor drain or a missing floor drain cover, or broken floor tile and grout. Primed floor drains help to keep out roaches and sewer odors but it requires a floor drain cover to discourage rats and mice because they are excellent swimmers. Rats breed and swim in sewer systems and use the sanitary system for transportation.
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Completion of program

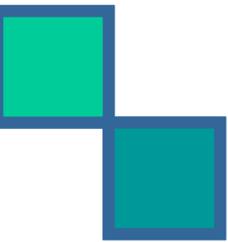
- Sending out for review by leading experts and cognitive authorities now.
 - Dallas BOMA / DBEI to help launch training program
 - BOMI to distribute Nationally
 - Eventual Web Casting
- 



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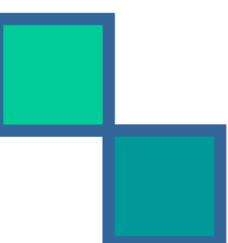
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Thank You



ELS Landscape LLC



Adding Value to People through Education

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