

Clean Water is Just Good Business:

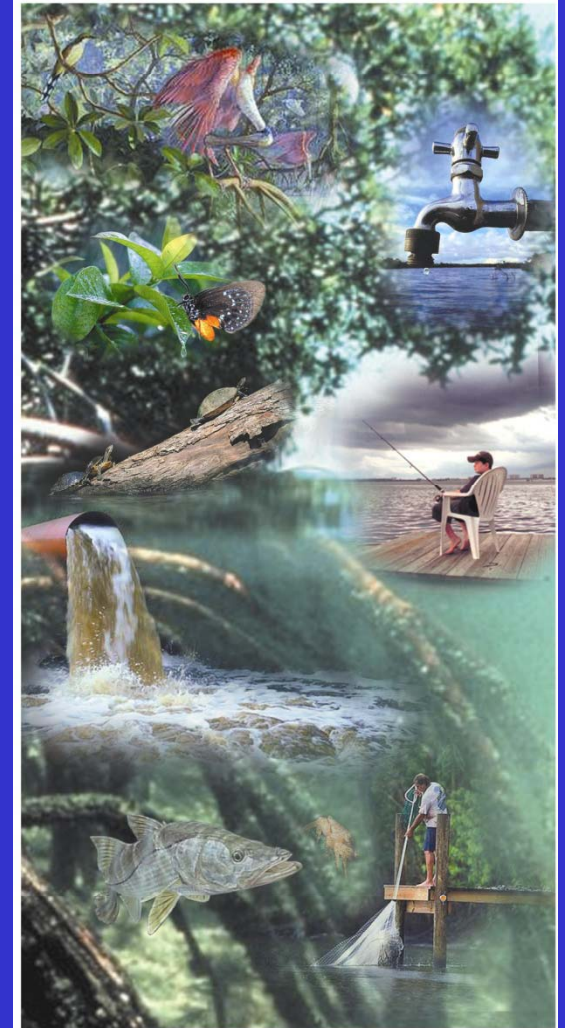
Evaluation of the Cocoa Beach Green Business Program

9th Biennial Conference on Stormwater Research and
Watershed Management
May 2 & 3, 2007

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University of Central Florida
Stormwater Management Academy

Presentation Overview

- CBGB Program Background
- Evaluation Planning
- Measures and Indicators
- Lessons Learned

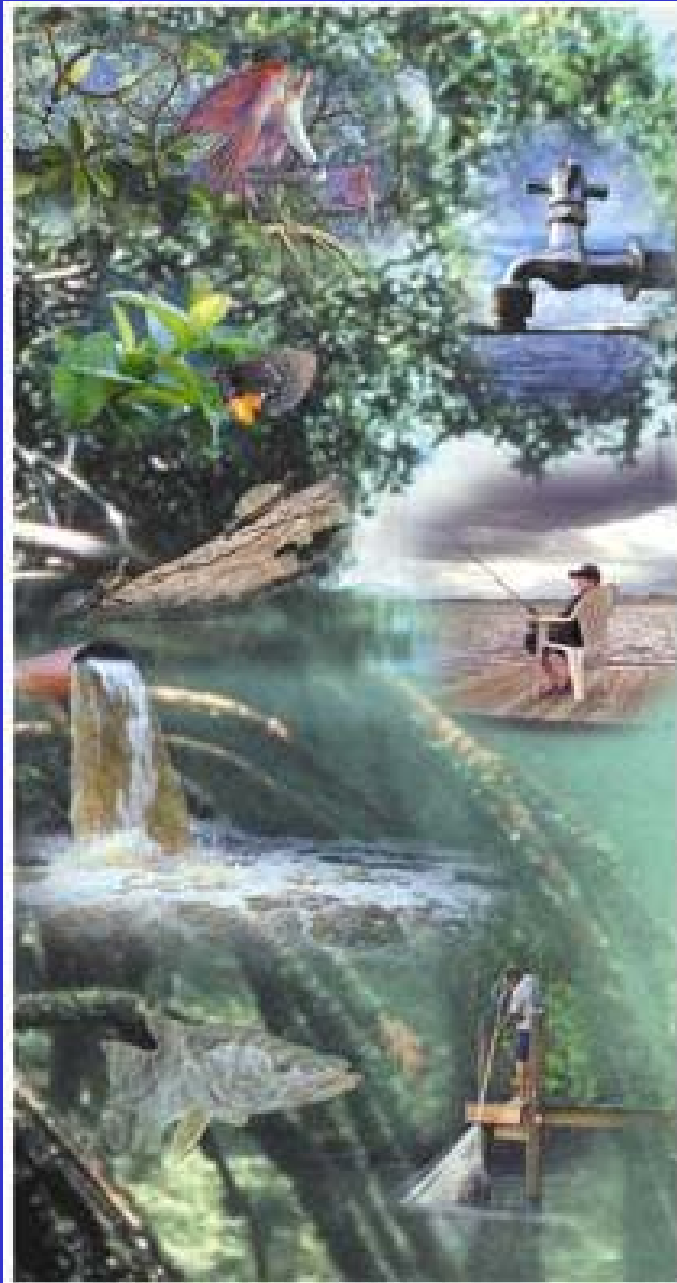


Establishing Program Need

Pollution Prevention Business Awareness Survey

- Water pollution was the respondents top environmental concern (43%).
- 83% of the respondents wanted more education on water pollution problems.
- Most businesses had not heard of the terms best management practices (54%) or nonpoint source pollution (69%).
- 78% of respondents said they would be willing to change business practices to protect water resources.

- FSU, Awareness Survey, 1999



Green Business Pilot Projects

- Use social research to target audience and test strategies.
- Test motivational theories.
- Compare two diverse locations, Cocoa Beach and Orlando.
- Distribute results and methods to guide others attempting to reach business audiences.



Program Strategy

By instilling a sense of ownership and responsibility for local water resources and providing economically solvent and manageable ways to protect water resources, businesses will be more likely to adopt practices that reduce nonpoint source pollution.

CBGB



- Initiated planning in Spring 2004
- Pilot project targeting lawn care, restaurants, and home improvement contractors
- Motivate behavior change using economic, social, and personal incentives instead of regulation.
- Funded by CWA Section 319 grant administered by FDEP!

www.cityofcocoabeach.com/greenbusiness.htm



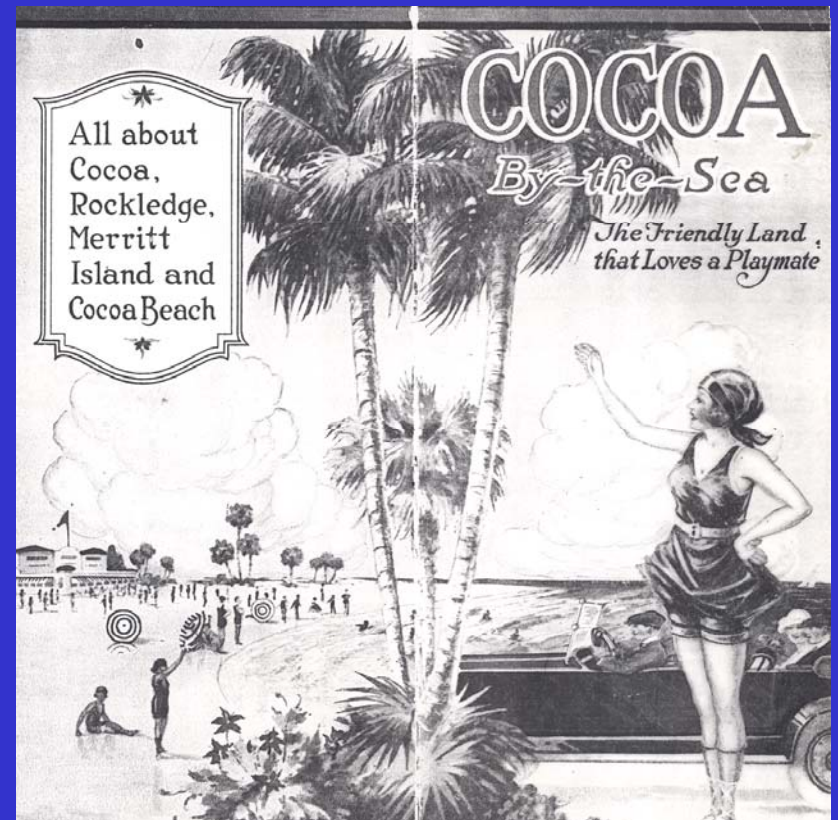
Program Location

Cocoa Beach Stormwater

- 42% Impervious area
- 9 Stormwater basins
- 760 Storm drains
- 23 Miles of storm lines
- 129 Outfalls discharging into the Indian River Lagoon

Cocoa Beach Demographic

- Stable population since the 1960s – 12,500.
- Homogenous, educated professional or retired population.
- Most residents (74%) have lived in Cocoa Beach or Brevard for over 5 years.
- Water oriented community culture (surfing, boating, fishing).



Strategies

- Make program known to target businesses and area consumers.
- Raise awareness of the fragile land-water connection.
- Increase knowledge of Pollution Prevention Best Management Practices.
- Motivate change through commitment, consumer demand, and community stewardship.
- Promote business participants.

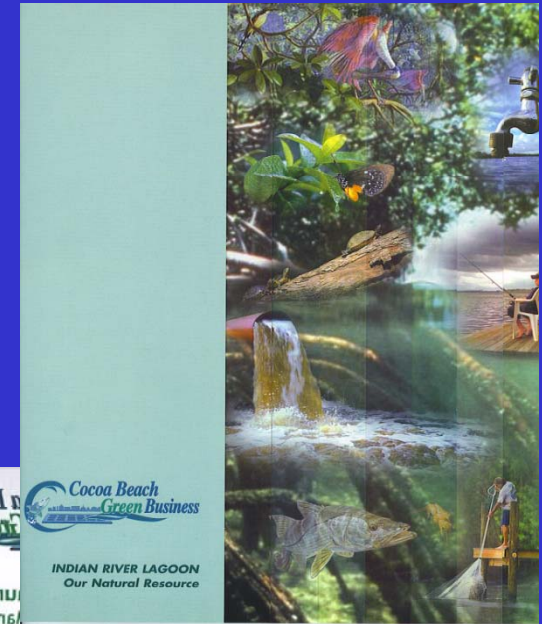
Notification Methods

- Newspaper
- Direct calls
- Personal visits
- Direct mailing
- Posters
- Flyers with occupational licenses
- City website
- Telephone hotline
- Business referral
- Community leader referral



Education & Commitment

- Read informational brochure, “Indian River Lagoon, Our Natural Resource”.
- Read and post BMPs in a prominent location for employee quick reference.
- Sign registration pledge form.
- Post CBGB logo and poster.



Cocoa Beach Green Business
CLEAN WATER IS GOOD BUSINESS!

★ Landscape & Lawn Service BMP Checklist ★

- BLOW GRASS CLIPPINGS & LEAVES BACK ONTO LAWNS for use as mulch - avoid stormdrains and paved surfaces.
- USE LOW NITROGEN or NON-TOXIC FERTILIZERS & PESTICIDES. Use sparingly and NEVER within 1 foot of curbing, driveways and waterways.
- ENCOURAGE NATIVE PLANTS, shrubs & trees.
- KEEP SEDIMENT OR YARD WASTE PILES at least 1 foot away from curb, driveway or waterway. Cover lightweight or fine material piles to keep from blowing away.
- STORE CHEMICALS OUT OF RAIN and away from roadways, stormdrains & waterways. Chemicals include fertilizers, pesticides, lubricants, waste oil, fuel, antifreeze and hydraulic oil.
- STORE MATERIALS, STOCKPILES & EQUIPMENT OUT OF RAIN & WIND when possible. If outdoors, cover with plastic sheeting. Drain fluids from equipment left for long-term storage.
- INSPECT equipment & vehicles OFTEN FOR LEAKS. TRANSFER FLUIDS CAREFULLY - USE DRIP PANS OR DROP CLOTHES to catch spills.
- NEVER HOSE DOWN SPILLS. KEEP ABSORBENT MATERIALS ONSITE (bitty litter) for prompt spill cleanup.
- CLEAN UP LEAKS & SPILLS IMMEDIATELY to prevent contamination of soils & off-site areas.

PLEASE COMPLETE QUESTIONS, INITIALS & SIGNATURES FROM FORM AND MAIL BACK TODAY.

REGISTRATION PLEDGE FORM

I, and my employees, have read the Indian River Lagoon Our Natural Resource have completed the Cocoa Beach Green Business Questionnaire and have checked all of the above Best Management Practices in the GREEN BUSINESS Landscape & Lawn Service BMP Checklist. I will make every effort to live up to my Green Business status in the City of Cocoa Beach.

Cocoa Beach Green Business

Business Name _____
Address _____
Phone Number _____
email _____
Business Owner/Contact _____

CBGB Participant Promotion

low.
The FBI refuses to say how many are being questioned, and Islamic organizations say some people fear to speak out.

And Arab, or a counterterrorism expedition under tradition of freedom from granted government intrus We say the latter.

Saving the lagoon

If you love the estuary, support Cocoa Beach Green Business anti-pollution program

Out of sight, out of mind? Not when it comes to pollutants that drain into the fragile Banana River, a part of the Indian River Lagoon.

And while we're all guilty of producing some of the destructive elements that pour from the land into the river, a change in waste-disposal practices by just three business categories could make a substantial difference in the health of the lagoon.

That's why we strongly support an experimental program called Cocoa Beach Green Business. It focuses on recruiting the city's restaurants, paint and nursery stores, and auto repair services to dispose of waste in ways that reduce harm to the river.

What's the reward? Living and working in a cleaner, more goon system, and being a residents and customers friendly Green Business.

In addition to promoting listings in the Cocoa Beach Green Business Directory, an annual information at various places, members get materials can use to show Cocoa Beach responsible community new.

Businesses that join — for a fee, call 888-3257 — deserve inside of all who love the river.

They also deserve encouragement to keep on doing what they're doing.

SEND US YOUR VIEWS

Pilot program promotes 'green' business

Consider this: The city of Cocoa Beach is only six miles long but boasts 44 miles of "shoreline." The city's 37 canals, 760 storm drains, 23 miles of storm lines and 129 outfalls empty into the Banana River, a part of the Indian River Lagoon system.

Wherever drains in, stays in. Pollutants like dirt, paint, grease, leaves, grass clippings and wastewater clog the gills of shellfish and finfish. Algae blooms form, clouding the water and robbing it of oxygen. Keeping curbs clean means keeping the lagoon's waters healthy.

A new pilot program, Cocoa Beach Green Business (CBGB), aims to educate local businesses about the link between land-based activities and their cumulative downstream effect on the lagoon. The CBGB effort is funded through a state grant promoting public stewardship of the area's natural resources.

The concept is simple: Local businesses pledge to follow pollution prevention best management practices (BMPs) and are rewarded by being promoted to the general public as a "green business."

"Cocoa Beach is the perfect place to launch this type of pilot project," says Maryann Civil, CBGB coordinator. "It's a close-knit community and, of course, is bordered on one side by the lagoon and on the other by the Atlantic."

Several prominent business leaders are already on board and have agreed to promote CBGB within the business community.

"It's easier for businesses to hear from their peers than an outside agency," Civil explains. "We're giving them the tools to help them improve their bottom line while reducing impacts to the Banana River."

Still in the

stage, CBGB on three individuals, restaurants, p

masonry construction services, learn how ch

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lagoon. For th

CBGB business

promoted in f

advertising supplements,

by inclusion in a CBGB

directory distributed to

area residents, and through

promotional information

distributed in various public

locations such as City Hall and public libraries.

"Participants also receive stickers, printed materials and pointers to advertise their business as a responsible community steward," Civil adds.

"Cocoa Beach residents have a real sense of ownership about their unique surroundings."

For more information about Cocoa Beach Green Business, call (321) 868-3257.



Green Businesses grow earth-friendly reputation

BY JIM WARDEN

FLORIDA TODAY

Scott Montagna understood that his May 2000 trip could trigger trouble in the Indian River Lagoon. So he turned green.

"I make sure we blow every-thing back into the yard," said Montagna, owner of Lovers by Sport Inc.

His green reputation started this fall from Cocoa Beach to join its new Green Business program. He's one of a dozen businesses recruited so far for the fledgling program, which targets lawn care, restaurant, painting and nursery businesses.

Those were the types of businesses that a 1998 survey revealed the most interest in joining the program, said Maryann Civil, program coordinator for the University of Central Florida's Stormwater Management Academy.

"Just small, everyday things can make a huge difference to our waterways," Civil said. "This does not cost the businesses anything."

To join, businesses promise to limit waste. Restaurants stop loading off grease pans in their parking lots. Lawn services keep lawns maintained to prevent oil leaks. Other businesses clean up trash on their property.

Workers at the New Hall restaurant, for example, have daily green cleanup lists and

are GREEN, SC

For stock brochures and investor information, log on to floridatoday.com.

City of Cocoa Beach photo

Storm water runoff off Cocoa Beach streets during a rain, storm, carrying sediments and pollutants into the Indian River Lagoon. A new problem will focus on lowering the amount of stormwater runoff.

Keep trash from areas

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To find out more
For more information
about Cocoa Beach's
Green Business program,
call 888-3257 or visit
cityofcocoabeach.com

Tips for being a green business

■ Run from, grass clippings and leaves, not stormwater runoff.

■ Wash cars and equipment on gravel areas.

■ Clean up and dispose of oil and grease properly.

■ Maintain equipment to prevent fuel and oil leaks.

■ Water drain should be a waterway, storm drain or sewer. Chemicals and paint materials harm the environment.

■ Dispose of construction wastes and hazardous materials responsibly.

■ Recycle water and equipment cleaning solutions to the sewer system.

■ Keep trash from areas

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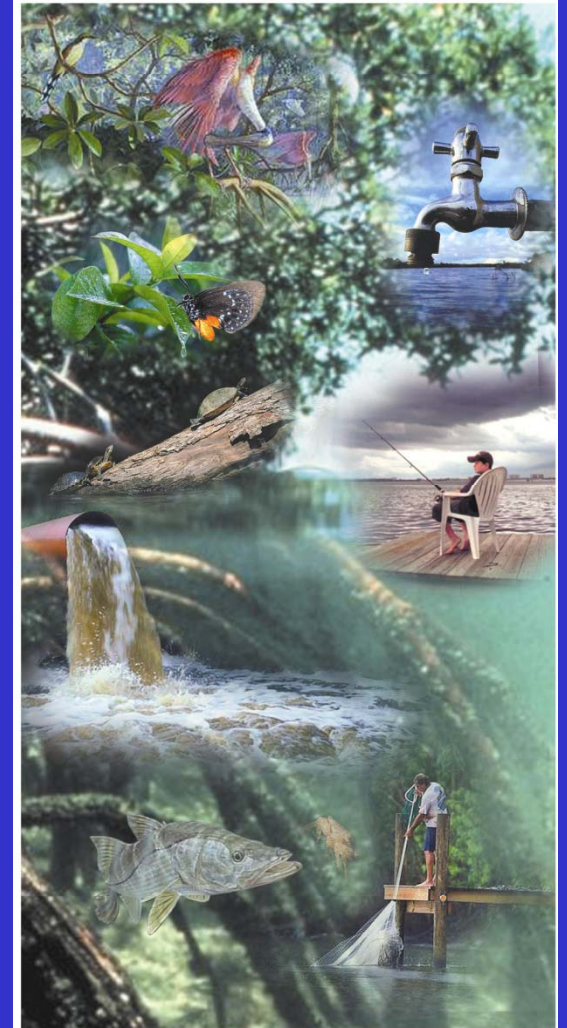
Keep trash from areas

Keep trash from areas

- City website
- Advertise participants in local/regional newspapers
- Residential postcard
- CBGB Directory
- Posters listing participants
- Mayor award and promotion

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Stakeholder Expectations

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graph TD; A[Stakeholder Expectations] --> B[Sponsors]; A --> C[Businesses]; A --> D[Implementers]; A --> E[Residents];
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Sponsors

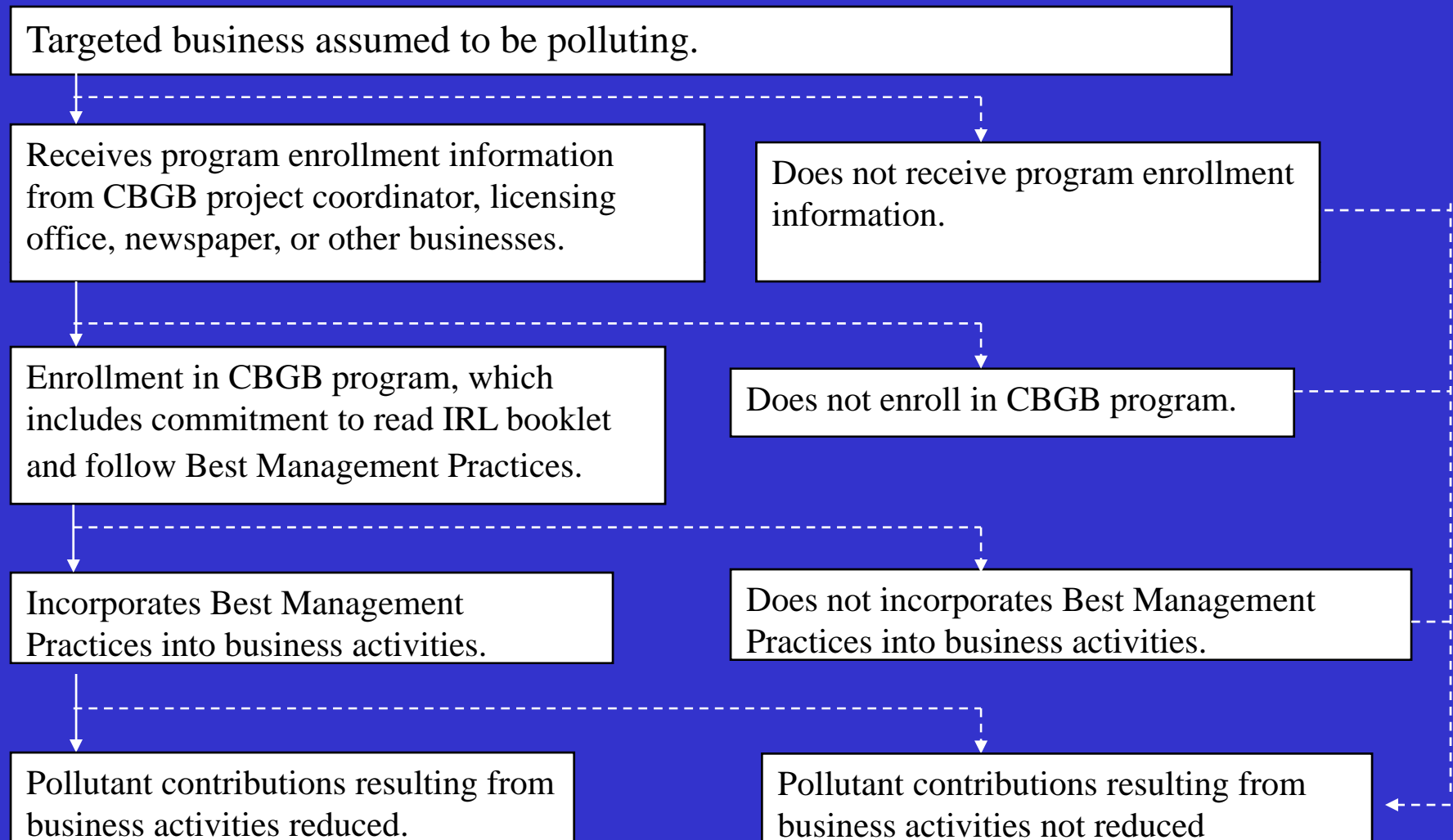
Businesses

Implementers

Residents

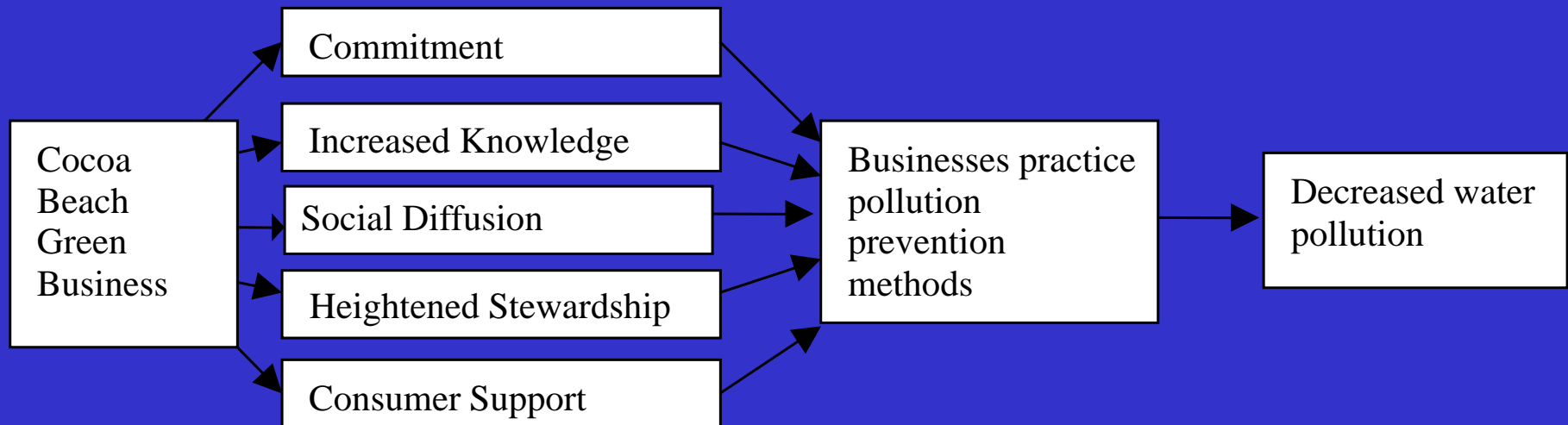
- Demonstrate effectiveness
- Transferability
- Cost efficiency/capacity building
- Increased promotion and customer satisfaction
- Business satisfaction and easy participation
- Test theory and methods
- Maintain scientific integrity
- Enhance and preserve water quality/QOL

CBGB Utilization Plan



Outcome Evaluation

Proximal Effects → Distal Effects



Assumptions that link steps to success

Measures Needed

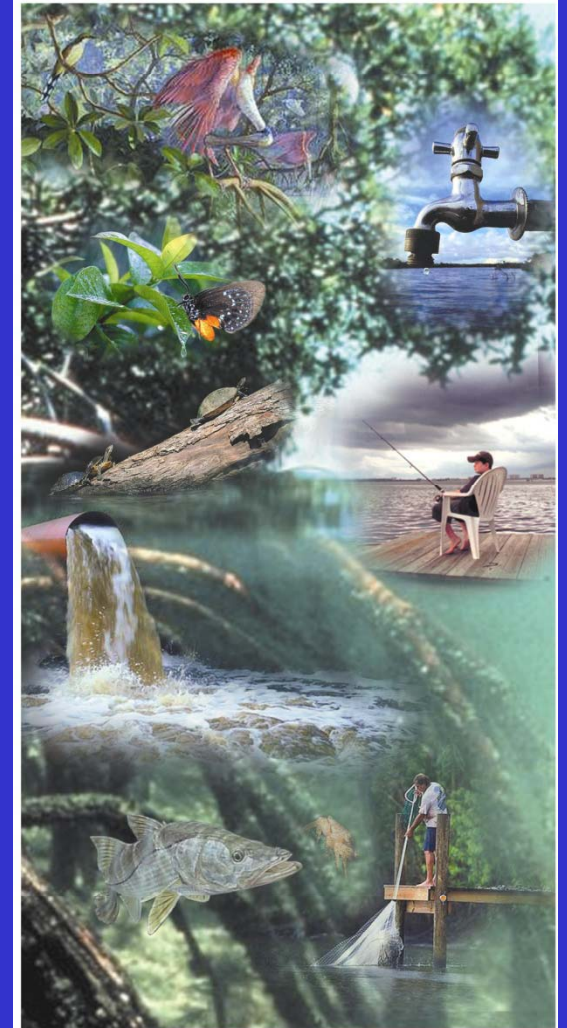
- Measure utilization by target groups.
- Participant (customer) satisfaction.
- Change in knowledge/awareness
- Process evaluation that compares methods and measures outputs.
- Data to support transferability and sustainability.
- Cost efficiency/resource sharing.

Collecting Evaluation Data

- Pre- and Post- business awareness surveys
- Business owner interviews
- Numbers and diversity of messages
- Numbers of hotline calls
- Consumer survey (Sept 2005)
- Participant survey (Summer 2006)

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Service Utilization Questions

- What is the percentage of targeted businesses aware of the CBGB program?
- What is the percentage of resident population aware of CBGB program?
- What percentage of target population has committed to participate?

Awareness Indicators

- 100% of target businesses contacted by either telephone, mailing, or license (removing those that went out of business after hurricane)
 - 2006 Participant survey results – 38% of nonparticipants hadn't heard of the program prior to survey.
- 48% of Cocoa Beach residents aware of CBGB program and 29% of Brevard County residents.
 - (UCF, Sept 2005, Consumer Survey results)

Participation Rates

Restaurants (89 active)

14% No longer in business

43% have requested more information and received CBGB educational packages

✓ 16% of active businesses pledged into program

Lawn Care (45 active)

38% No longer in business

36% have requested more information and received CBGB educational packages

✓ 21% of active businesses pledged into program

Home Improvement Contractors (26 active)

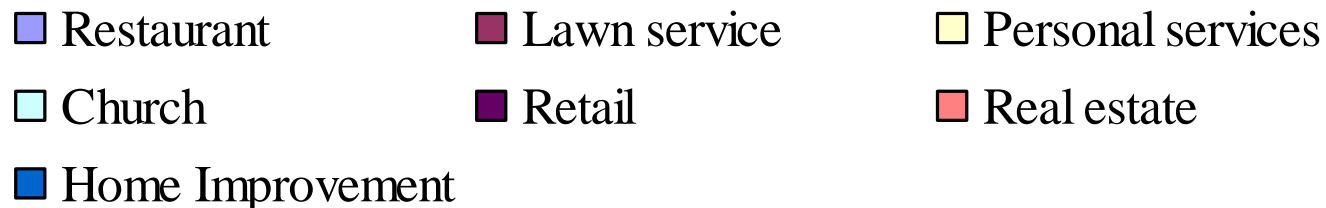
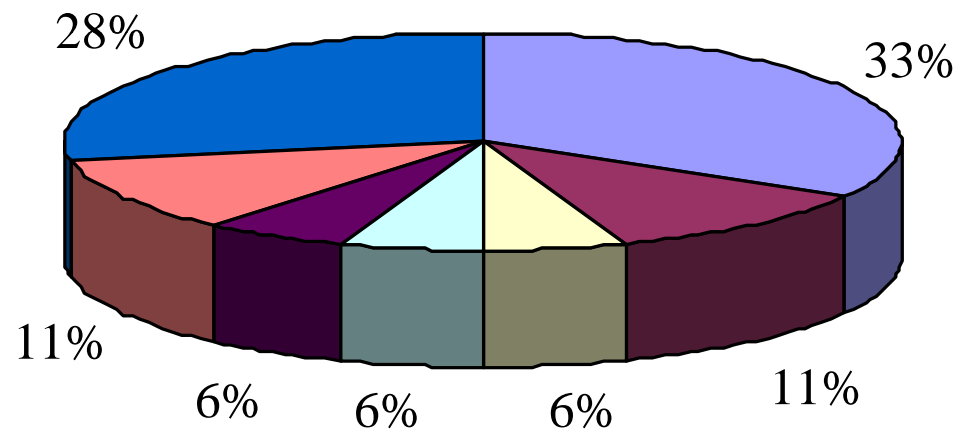
58% No longer in business

33% have requested more information and received CBGB educational packages

✓ 27% of active businesses pledged into program

CBGB Business Participation

What types of businesses are participating in CBGB?



Notification Methods

- What are best methods to notify target populations?
- How did participating and non-participating businesses compare on question “How did you first hear about the program?”

Notification Methods Evaluation

Ranked in order of numbers of businesses that said they heard about the program from this source:

#1 Newspaper advertising

#2 Telephone contact

#3 Personal visits

#4 Web/poster/flyers

#5 Business referral

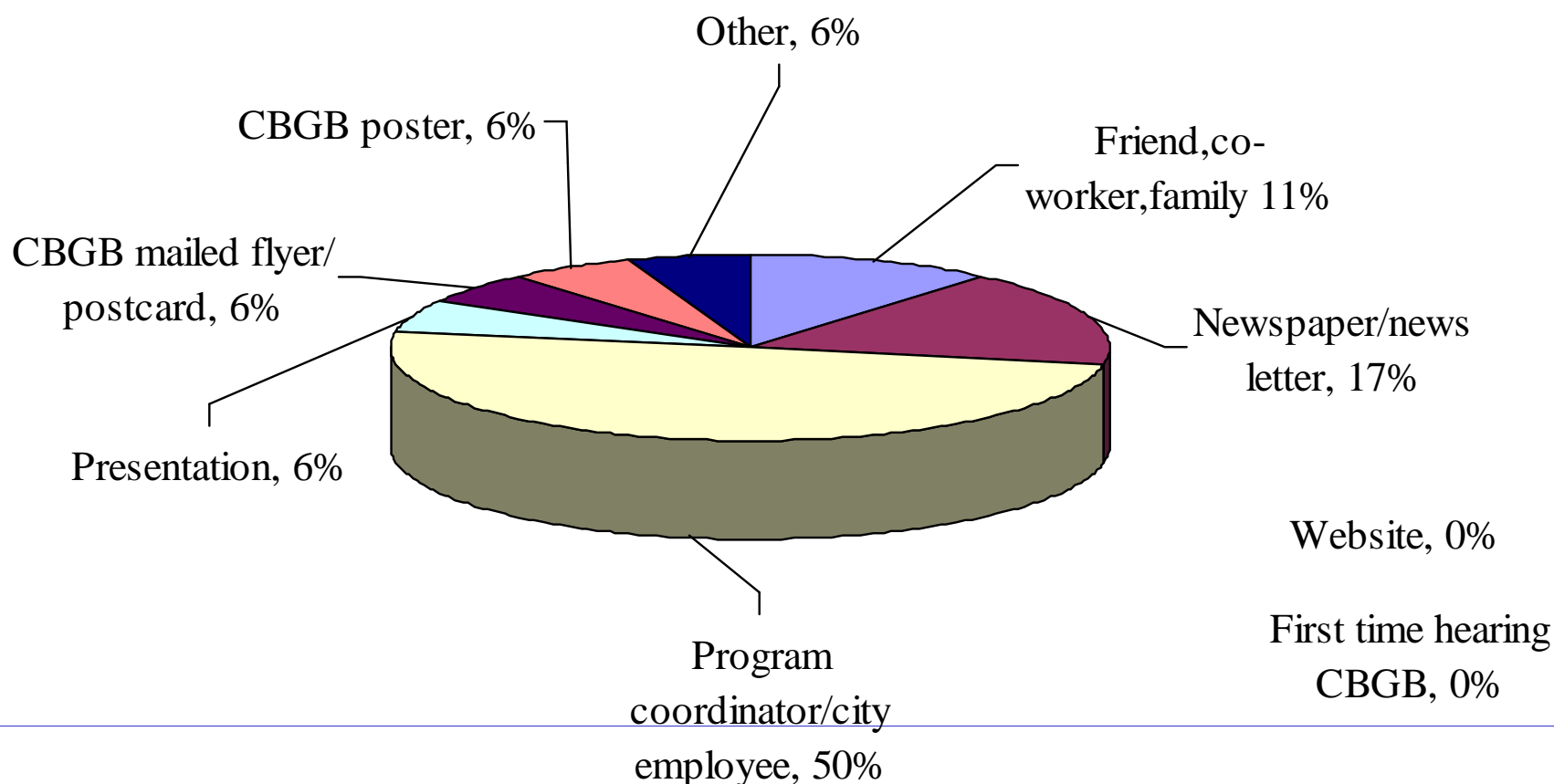
#6 Direct mailing

From Participant Pledge Survey 2004-2005

Where did non-participants first hear about the CBGB Program?

From 2006 Participant Survey, ISBS

Where did CBGB participants first hear about the CBGB Program?



From 2006 Participant Survey, ISBS

Why did participants join?

- Environmental concern
- Belief in program mission
- Encouraged by a peer
- Right thing to do for the community

Education Method Questions

- Do target groups understand and share the educational materials and messages?
- Are participants more aware of pollution prevention terms and methods?

Have you referred other businesses to the program?

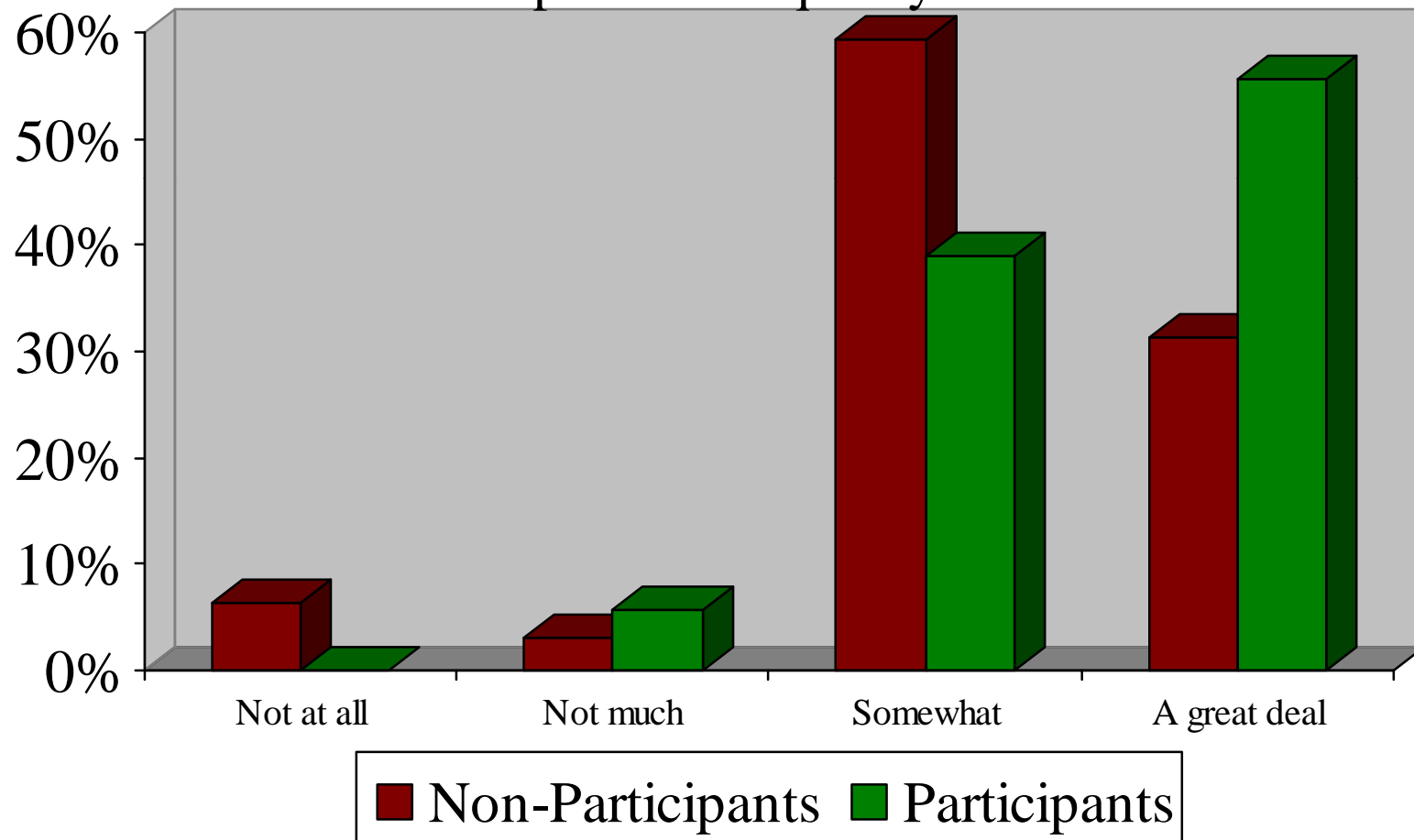
- 42% of participating businesses indicated they had referred others to the program.
- 94% of participating businesses indicated they will refer others to the program in the future.
- 40% of participants are not the targeted businesses.

Participant Pre-CBGB and Post-CBGB Knowledge

- Business interviews conducted prior to printing materials and after pledging to program.
- Pre- and Post- survey of terms among participants
 - 20% increase in knowledge of BMP
 - 28% increase in knowledge of NPS pollution
 - 50% increase in knowledge of Pointless Personal Pollution

Comparing Participants and Non-participants Beliefs

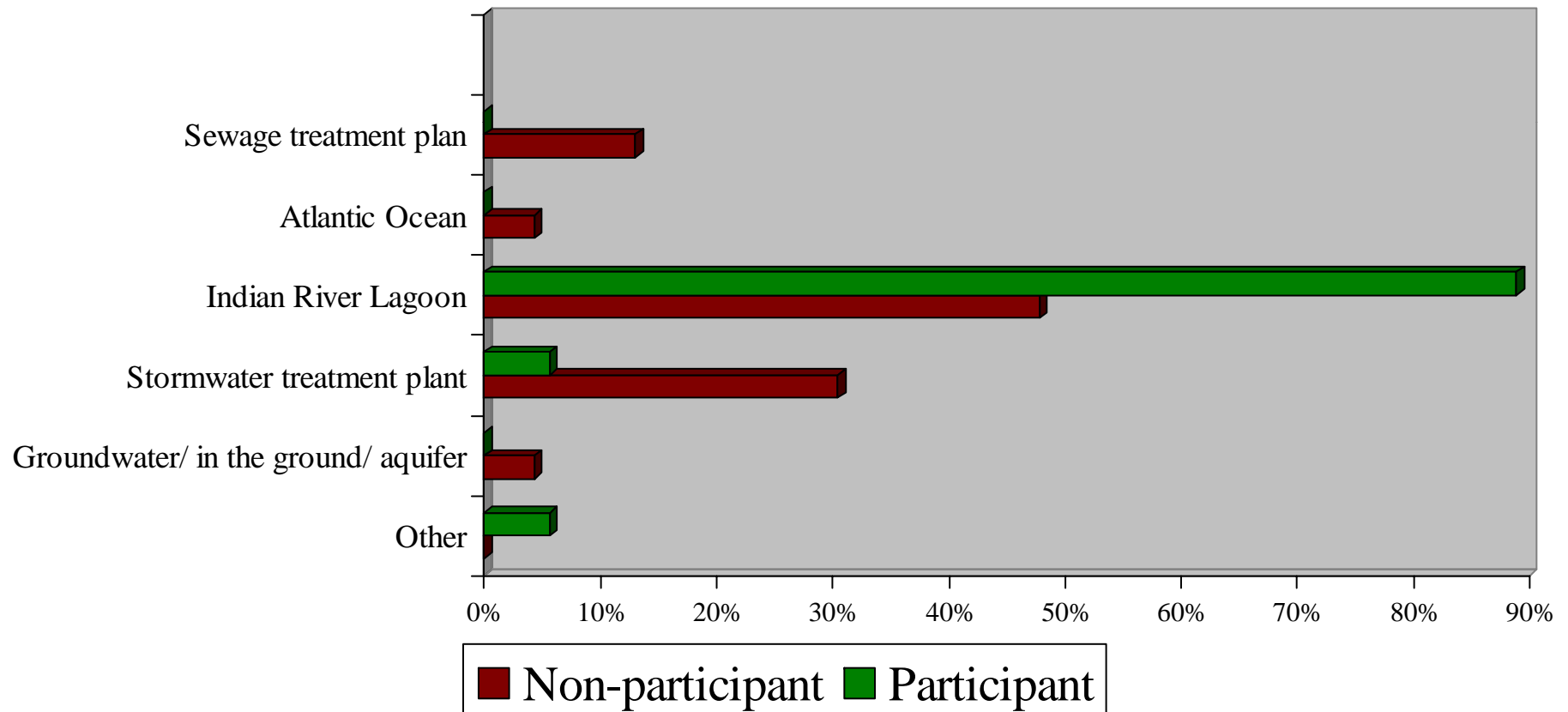
To what extent do business activities negatively impact water quality?



2006 Participant Survey, ISBS

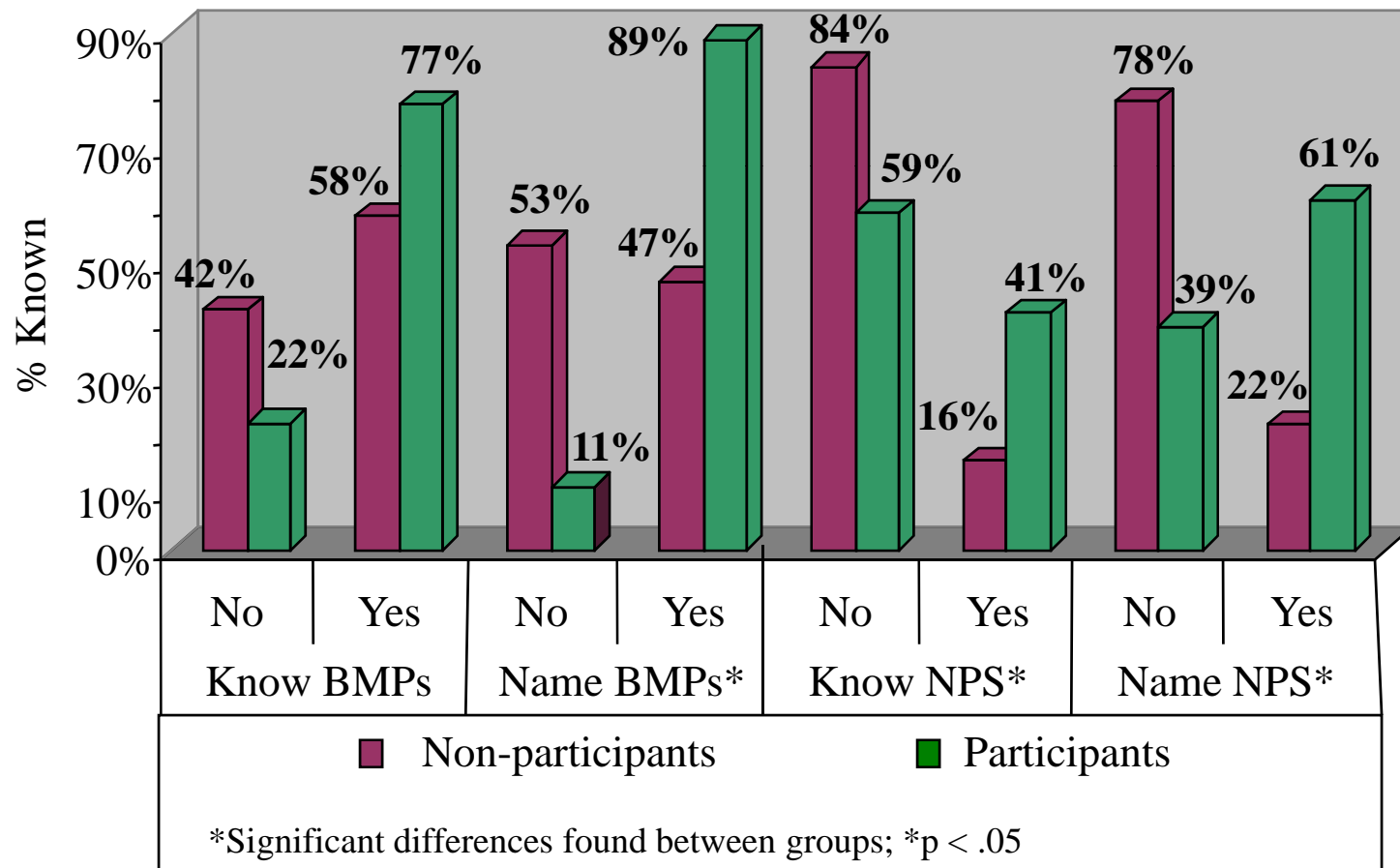
Knowledge of Stormwater Mgmt.

Where does the majority of stormwater in CB flow to?



CBGB Knowledge of Terms Comparison between Groups

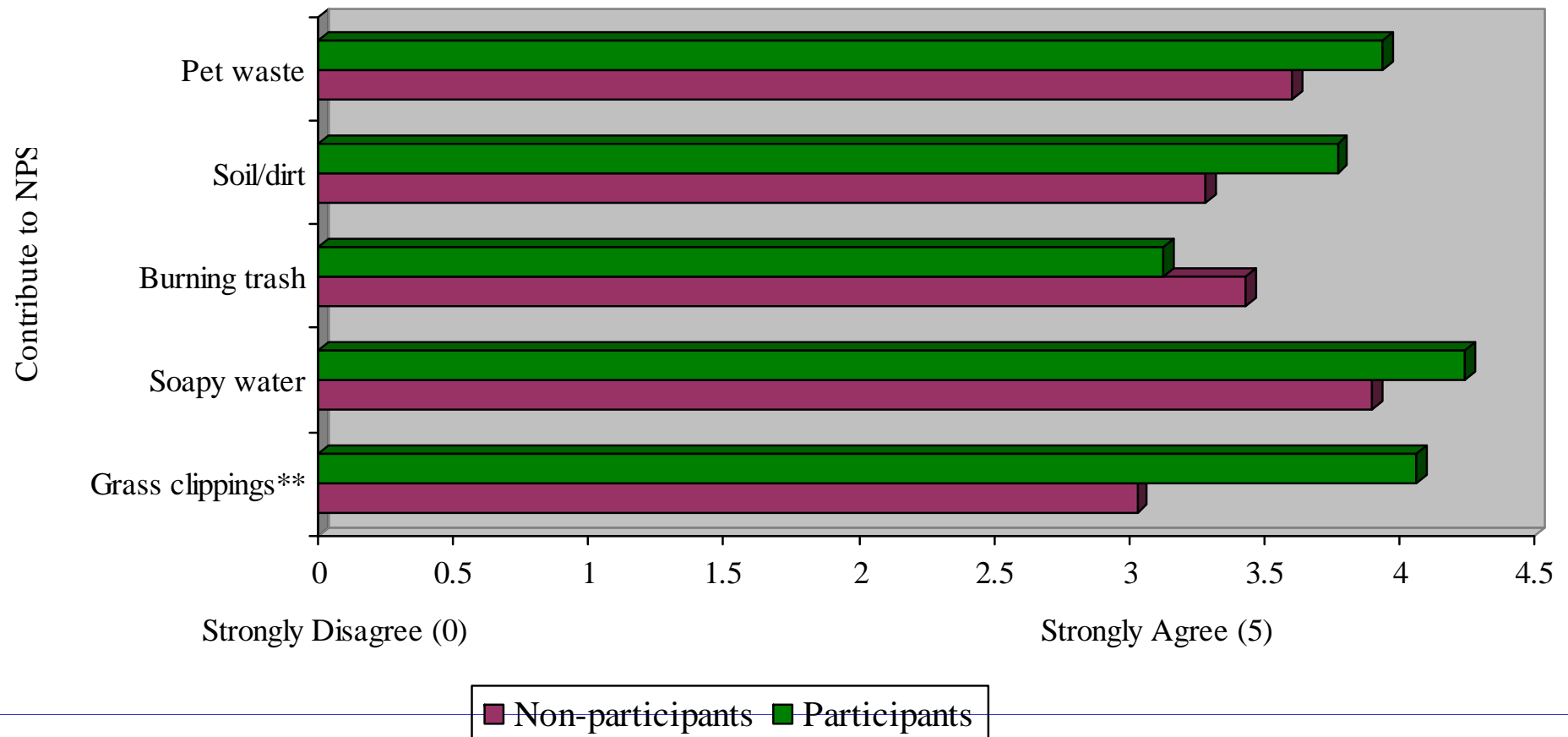
BMP and NPS Knowledge: Non-participants vs. Participants



From 2006 Participant Survey, ISBS

Knowledge of Nonpoint Sources

To what extent do you agree that the following contribute to nonpoint source pollution? (Strongly Disagree to Strongly Agree)



*Note: Significant difference found between non-participants and participants; ** $p < .01$
From 2006 Participant Survey, ISBS

Promotion Methods Questions

- Are participants satisfied with the level of promotion they receive?
 - 64% very satisfied with promotion
 - 71% very satisfied with educational materials
 - 87% very satisfied with staff responsiveness
 - 73% very satisfied with program overall

Self-promotion and Consumer Response

- 73% display window decal
- 63% display framed certificate
- 59% post the BMP posters
- 77% are advertising to customers
- Some indication that consumers are asking businesses if they participate.

Outcome Questions

- Will participants practice the pollution prevention techniques?
- Will residents support participating businesses?
- Will successful behavior change reduce nonpoint source pollution loads?

Participant Self-reported Behaviors

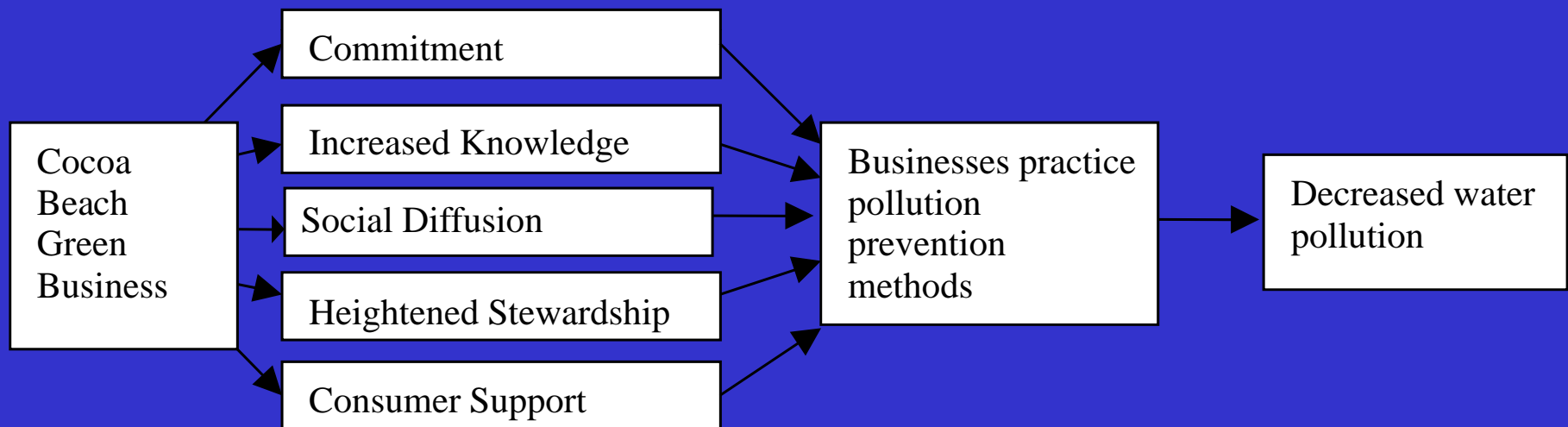
- 100% indicated that they followed BMPs all or most of the time.
- 77% are training staff on BMPs
- 42% are handing out the booklet to staff
- 46% handing out air fresheners
- 46% include BMPS as part of staff evaluations

Consumer Support

- 40% of Cocoa Beach residents claim that they currently seek out environmentally responsible businesses
- 37% of Cocoa Beach residents said they would seek out environmentally responsible businesses in the future

Outcome Evaluation

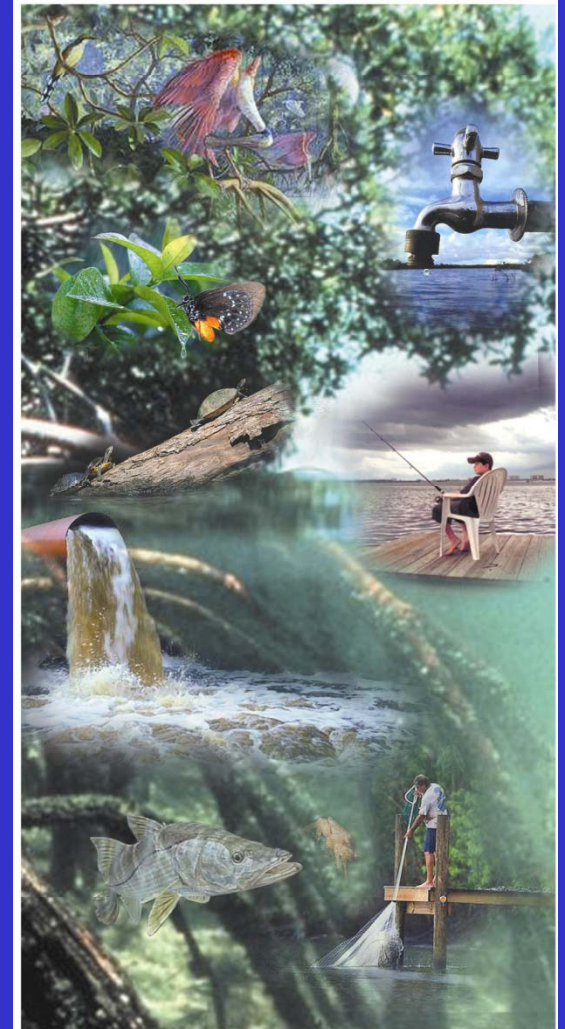
Proximal Effects → Distal Effects



Proving assumptions between the steps to reaching outcomes.

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Lessons Learned

- Newspaper is important source of information for business community.
- Different business types prefer different methods of notification (Personal visits better for restaurants, telephone calls better for landscaping.)
- Response rates spike with newspaper feature stories about green businesses.
- Appeal to greater community benefit - Doing the right thing.

Lessons Learned

- Important to attain community leadership and municipal support.
- Make the land-water connection to encourage stewardship and motivation.
- Nonpoint source pollution is difficult term to understand and remember.
- Resident (consumer) support integral to success.
- Community diffusion happens!

Challenges

- Business climate not receptive to calls or to changing business practices in general.
- Municipal disconnect can cause finger pointing.
- Concern for promoting businesses that may not be acting responsibly.
- Cultural differences and language barriers.
- Local businesses more responsive than large corporations at least initially.

Thank you!

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