

BOARD MANAGEMENT AND PLANNING AGENDA

MONDAY – FEBRUARY 1, 2010

1:30 – 4:00 P.M.

COMMISSION CHAMBER

1. **RED LIGHT CAMERA UPDATE**
PRESENTER: Paul Wingard, Transportation
Harry Campbell, Transportation
TIME REQUIRED: 15 Minutes

2. **NORTH SPREADER ECOSYSTEM MANAGEMENT AGREEMENT (NSEMA)**
PRESENTER: Roland Ottolini, Natural Resources
TIME REQUIRED: 30 Minutes

3. **OVERVIEW OF ALGENOL BIOFUELS, INC. PROPOSED NEW FACILITY IN LEE COUNTY FOR A FULLY INTEGRATED RESEARCH AND ENGINEERING FACILITY FOR ALGAE PRODUCING ETHANOL AND GREEN CHEMICALS FROM CARBON DIOXIDE**
PRESENTER: Jim Moore, Economic Development
Paul Woods, CEO, Algenol Biofuels, Inc.
TIME REQUESTED: 10 Minutes

BOARD COMMENTS/DISCUSSION

ADJOURN

**THIS AGENDA AND BACKUP MAY BE OBTAINED FROM WWW.LEE-COUNTY.COM OR FROM THE PUBLIC RESOURCES OFFICE (239) 533-2737.
The Management And Planning Meeting Is Televised Live On Comcast Cable Channel 97.**

**MANAGEMENT & PLANNING COMMITTEE
AGENDA REQUEST FORM
COMMISSION DISTRICT – ALL**

PRESENTED BY: Paul Wingard and Harry Campbell / Department of Transportation

REQUESTED BY: DOT

TITLE OF ITEM FOR THE AGENDA: Red Light Camera Update

1. DESCRIPTION AND OBJECTIVE OF THE ISSUE :

To provide that Board with an update on the test of red light running cameras DOT performed at the intersection of Summerlin and Colonial in 2009 and the current status of the equipment. Also to look at the statistics collected at the intersection and compare them to other intersections and accident frequencies.

2. PROPOSED POLICY, PROCEDURE OR PLAN OF ACTION:

Continue to monitor activities in other municipalities around the State of Florida as far as the ability to institute and enforce red light running programs and also to monitor the effectiveness of such programs.

3. OPTIONS (List advantages/Disadvantages of Each Option Listed):

- a) Take no further action.
- b) Direct staff to derive a formal policy and implementation plan for the installation of red light cameras around the County.


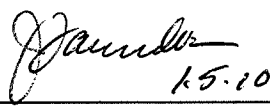
4. FINANCIAL IMPACTS/FUNDING SOURCE:

None



5. STAFF RECOMMENDATIONS, AND JUSTIFICATION FOR RECOMMENDATIONS:

Recommended action is to continue to monitor programs across the state for evidence of safety benefits and keep the Board advised of any changes in the laws.

6. Mandated: Y N BY WHAT AUTHORITY?

<u>DEPARTMENT DIRECTOR SIGNATURE</u>	<u>COUNTY MANAGER SIGNATURE</u>	<u>MEETING DATE</u>	<u>TIME REQUIRED</u>
 Scott M. Gilbertson, Director 1/27/10	 J. Daniels 1.5.10	February 1, 2010	15 minutes

Memorandum
DEPARTMENT OF TRANSPORTATION
Traffic Section

To: Commissioners Districts 1, 2, 3, 4, 5
Via: Paul Wingard, P.E., Deputy Director, Department of Transportation 
From: Harry A. Campbell, P.E., P.T.O.E., Manager, Traffic Engineering, LCDOT 
Date: January 27, 2010
Subject: Management and Planning – Red Light Enforcement Camera Update

At the February Management and Planning, DOT will provide a brief informational presentation on the Proof of Concept Test at Colonial & Summerlin and then briefly discuss the use of Cameras or Video for enforcing red light running and issuing citations. Attached is a condensed summary of DOT-Traffic's research on Red Light Camera (RLC) Systems along with a discussion of some key issues.

Paul Wingard will first present a summary of the results of the testing that was performed at the Colonial and Summerlin intersection by VESystems and then I will present a brief summary of County statistics.

County Staff will be in attendance at M&P to help answer any legal, technical or operational questions. A representative of the Sheriff's Office is expected to be present.

HC/

Attachment: Discussion Paper

C: Karen Hawes, County Manager
Jed Schneck, Assistant County Attorney
Jim Lavender, Public Works Director
Scott Gilbertson, Director, DOT
Lt. James Dryzmala, LCSO

Discussion of Red Light Camera Programs and Issues

There are a variety of studies on record regarding the effectiveness of Cameras placed at intersections to photograph the license plate of vehicles which are detected running a red traffic signal. A report prepared by the Federal Highway Administration in 2005 concluded that Red Light Camera (RLC) programs resulted in slight decreases in right-angle collisions and slight increases in rear-end collisions.¹ From the results, one might conclude that RLC Systems may net a small or perhaps a more noticeable overall positive safety benefit depending upon the proportion of personal injury to property damage only crashes that occurred. The greatest safety improvements were noted at locations where there were the largest ratios of right-angle to rear-end collisions. A study was presented in 2007 by the "Florida Public Health Review" in opposition to RLC Systems. A review of the RLC studies conducted by the Florida Public Health Review claimed that RLC programs may increase the number of crashes at intersections and implies vendors are pushing these programs for the primary purpose of making money and not for safety.² The Public Health Review's claims as well as other anti-RLC reports present a hodgepodge of flawed statistical analyses that lack proper peer review. The following table from the FHWA study summarizes the crash statistics for intersections with RLC Systems:

	Right-Angle Crashes		Rear End Crashes	
	Total Crashes	Injury Crashes	Total Crashes	Injury Crashes
Estimate of crashes expected in the After-period without RLC	1,542	351	2,521	131
Count of crashes observed in the After-period	1 163	296	2,896	163
Estimate of percentage change and (standard error)	- 24.6 (2.9)	- 15.7 (5.9)	14.9 (3.0)	24.0 (11.6)
Estimate of the change in crash frequency	- 379	- 55	375	32

The FHWA study also looked at spillover effect, that is, crashes at intersections without RLC Systems. Those findings are summarized in the next table.

	Right-Angle Crashes	Rear End Crashes
Estimate of crashes expected in the After-period without RLC	3,430	3,802
Count of crashes observed in the After-period	3,140	3,873
Estimate of percentage change and (Standard Error)	- 8.5 (2.2)	1.8 (2.3)

For the locations studied, an average right-angle injury crash resulted in a total economic cost of \$64,500 while the average rear-end injury crash resulted in a cost of \$53,600. The cost of non-injury crashes was not included since those data were not considered reliable as, including Florida, many States do not require reports be filed for minor crashes with no injuries. One might conclude that installing RLC Systems can result in an economic benefit of about \$50,000 per year per site if the property damage only (PDO) crashes are discounted. Since most rear-end crashes are PDO, the increase seen in those crashes may or may not offset the improvement in right-angle crashes. So the greatest benefit may be realized at locations where rear-end crashes are lower in comparison to right-angle crashes. As a practical matter, due to the high cost of typical RLC Systems, Cameras should only be installed at locations with a very high incidence of red light running and after a full study of the intersection timing and its design.

Peer reviewed studies conducted in over a dozen U.S. cities and several foreign countries indicate that RLC programs are effective in reducing the number of red-light-running violations. The most effective programs have been based upon placing Cameras only at locations with a documented Red Light Running problem and accompanied with a significant and continuous public information effort. Nearly 80% of red light running occurs in the first second after the light changes (Office of the Majority Leader [OML], 2001).³ Although there are no

¹ *Safety Evaluation of Red-Light Cameras*, April 2005, FHWA-HRT-05-048, US DOT, FHWA, <http://www.fhrc.gov/safety/pubs/05048/index.htm#toc>

² "Red Light Running Cameras: Would Crashes, Injuries and Automobile Insurance Rates Rate Increase If They Are Used In Florida", Barbara Languard-Orban, Ph.D., et al, *Florida Public Health Review* 2008, 5:1-7 <http://health.usf.edu/NR/rdonlyres/C1702850-8716-4C2D-8E5B-15A2A741061A/0/2008pp001008OrbanetalRedLightPaperMarch72008formatted.pdf>

³ *Florida Public Health Review*, 2008, 5:1-7

statistics on the number of red light violations at traffic signals, a casual observer can see that some intersections have chronic problems with drivers not slowing down when the light turns yellow and are not stopping when the light turns red, especially during peak traffic hours. The majority of the red light running safety issues can be resolved through engineering remedies that address infractions in the first second after the light changes. (Federal Highway Administration and National Highway Traffic Safety Administration [FHWA/NHTSA], 2003).⁴ The question to be answered is whether these violations in the first second result in a safety problem. To date, LCDOT research indicates that there is no knowledge on such a relationship⁵.

In Lee County, of all the 39,409 reported crashes over 3 years on County, City and State roads, crashes attributed to red light running at traffic signals were about 4.4 % of all crashes and 5.2 % of all fatalities (12 out of 230) for the past three years (July 2006 thru June 2009). In Lee County, every traffic signal yellow and all red clearance interval is timed in accordance with the guidelines published by the Institute of Transportation Engineers (ITE). In some cases the all red interval has been increased to add an extra margin of safety due to red light running crash problems. Yellow clearance intervals are rarely longer than the ITE guideline as too long a yellow clearance can promote red light running by aggressive drivers. Additionally, the sight distance and placement of traffic signal indications is optimum at most intersections in Lee County. When intersection crash statistics show an abnormal frequency of any type of crash, then staff review the crash statistics, evaluate the causes, and review conditions at the intersection. Red light running crashes may result in one or more counter measures being implemented to reduce the incidences of right-angle crashes.

Closing Discussion

Whether to develop a Red Light Enforcement Ordinance authorizing to cite vehicle owners for red light running as a "code violation" using photographic images as evidence is one purpose of the Management and Planning Item. At present, Florida's Uniform Traffic Control Law requires that the enforcement officer observe or have personal knowledge of the red light violation. Despite Florida's Uniform Traffic Control Law, some local governments in Florida have passed a local ordinance granting them the authority to issue citations for red light running to the vehicle owner similar to the way they issue citations for code violations. As this citation would not be a moving violation, no points could be assessed. The County Attorney's Office has advised that these types of citations, based upon local ordinances, are likely to be struck down in court as they do not comply with the Uniform Traffic Control Law. The Florida Department of Transportation (FDOT) has taken the legal position that since there is no enabling Uniform Traffic Control Law for such cameras, then the RLC Systems may not be placed within State Rights of Way or connected to FDOT jurisdiction signal equipment. Since the majority of the higher frequencies of red light running crashes are at FDOT jurisdiction intersections, some of the potential safety benefits of a RLC program might not be realized unless the Cameras and sensors can be placed within an easement. Until such time as enabling State legislation may be enacted, an RLC program for Lee County might only be used to assist law enforcement officers at County jurisdiction intersections. It has been suggested that RLC photos could not be the sole basis for issuing the citation. As mentioned above, independent observation or personal knowledge must accompany the photographic evidence. Capital and construction costs of typical camera systems range from about \$500K to \$840K per intersection. As a practical matter when adding in the costs of operations, administration and maintenance, the total costs limit these Systems to intersections experiencing high violation frequencies. Because of the County's existing VESystems Toll Violation System and an RLC System now being developed by VESystems which might utilize the County's existing computer hardware, implementation could be at a lower capital cost.

Currently, intersections are reviewed by LCDOT annually and if determined to have a high incidence of red light running crashes, counter measures are first evaluated (including a clearance interval timing review) and the appropriate measures implemented. Should the counter measures be found to not adequately reduce the incidences of red light violations, then RLC Systems could be beneficial to improving safety as an augmentation to regular traffic enforcement. If the ongoing legal challenge to RLC Systems that is currently underway in Florida is resolved, then RLC Systems may be a viable augmentation to traffic enforcement efforts at those intersections with a documented red lighting running crash problem. However, because currently only 4.4 % of reported crashes in Lee County can be attributed to red light running at traffic signals and by comparison 14 % of crashes are rear-end crashes at traffic signals, then it is difficult to advocate the same compelling safety case as other communities have presented.

⁴ *ibid*

⁵ *Safety Evaluation of Red-Light Cameras*

**Red Light
Enforcement Camera
Systems
Management & Planning
February 1, 2010**

**Lee County Department of
Transportation**

Proof of Concept Demonstration Colonial and Summerlin

- **Why VESystems?**
- **Purpose and Benefits**
- **Testing Process and Refinement**

RLC Systems Transaction Data
Four Weeks: 8/8/09 – 9/4/09
Colonial and Summerlin
Pursuable Violations

- **Westbound Colonial = 489**
- **Eastbound Colonial = 1,128**
- **Violations Total = 1,617**
 - » **Average = 57.75 per day**

Lee County DOT Current Efforts

- Monitor Crash Frequencies & Rates
- Implement Counter-Measures & Develop Improvement Projects
- Monitor and Evaluate the Results of Red Light Camera Programs

Crash Frequency

- **July 1, 2006 thru June 30, 2009 (3 Years)**
 - **Total – All Crashes; 39,409**
 - **Total – All Fatalities; 230**
- **1,733 Crashes Reported at 395 Signalized Intersections (4.4% of All Crashes)**
- **12 Fatalities and 643 Injury Crashes Attributed to Red Light Running over 3 years**
- **5,703 Rear-End Crashes at 395 Signalized Intersections**

QUESTIONS?

- VESystems Testing at Colonial & Summerlin
- Traffic Engineering
- Law Enforcement
- Legal

**MANAGEMENT & PLANNING COMMITTEE
AGENDA REQUEST FORM
COMMISSION DISTRICT #**

PRESENTED BY: Roland Ottolini
Natural Resources

REQUESTED BY: Roland Ottolini
Natural Resources



TITLE OF ITEM FOR THE AGENDA: North Spreader Ecosystem Management Agreement (NSEMA)

1. DESCRIPTION AND OBJECTIVE OF THE ISSUE

Provide summary of the Net Environmental Benefits proposed under the North Spreader Ecosystem Management Agreement. This is the work product of the Stakeholder Group as directed by the Amended Consent Order between DEP, City of Cape Coral and Lee County involving the removal of the boatlift and barrier at the North Spreader Waterway in NW Cape Coral.

2. PROPOSE POLICY, PROCEDURE OR PLAN OF ACTION

Support consensus developed by Stakeholder Group that establishes a Net Ecosystem Benefit (NEB) through the implementation of an agreed upon set of projects and programs for water quality and quantity in lieu of rebuilding the former boat lift and barrier.

Request for formal approval will be brought back to the BoCC at a regularly scheduled meeting.

3. OPTIONS (List Advantages/Disadvantages of Each Option Listed)

do not support consensus- City of Cape Coral pursues replacement of boat lift and barrier, no mandate or requirement to complete NEB projects and programs, success of maintaining hydraulic barrier is questionable

support consensus – offsetting projects and programs provide net water quality enhancements, hydrologic restoration to historic flow patterns, takes advantage of tidal flushing and natural assimilation of pollutant loading, lose potential water quality benefits provided by boat lift and barrier

4. FINANCIAL IMPACTS/FUNDING SOURCE

Lee County provided \$1.5m (currently held in escrow) towards the NSEMA. The Lee County projects identified in the report are funded under the Division of Natural Resources CIP – Matlacha Pass Hydrologic Restoration, Yellow Fever Creek Interconnect and Gator Slough/Powell Creek

5. STAFF RECOMMENDATIONS, AND JUSTIFICATION FOR RECOMMENDATIONS

support consensus established by the stakeholders and implement and assist accordingly

6. Mandated: Y N

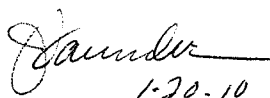
BY WHAT AUTHORITY?

DEPARTMENT DIRECTOR SIGNATURE

COUNTY MANAGER SIGNATURE

MEETING DATE

TIME REQUIRED



1-20-10

2/1/10

30 minutes

An aerial photograph of a coastal mangrove ecosystem. The image shows a dense network of green mangrove trees interspersed with dark, winding water channels. In the upper left, a small residential area with several houses and a paved road is visible. In the lower left, a white building and a dock with a boat are situated on a narrow strip of land. The overall scene depicts a complex and lush natural environment.

North Spreader Ecosystem Management Agreement Net Ecosystem Benefit Projects

(July 2007 Photo)

Ceitus Boat Lift



The Problem

Spreader Canal

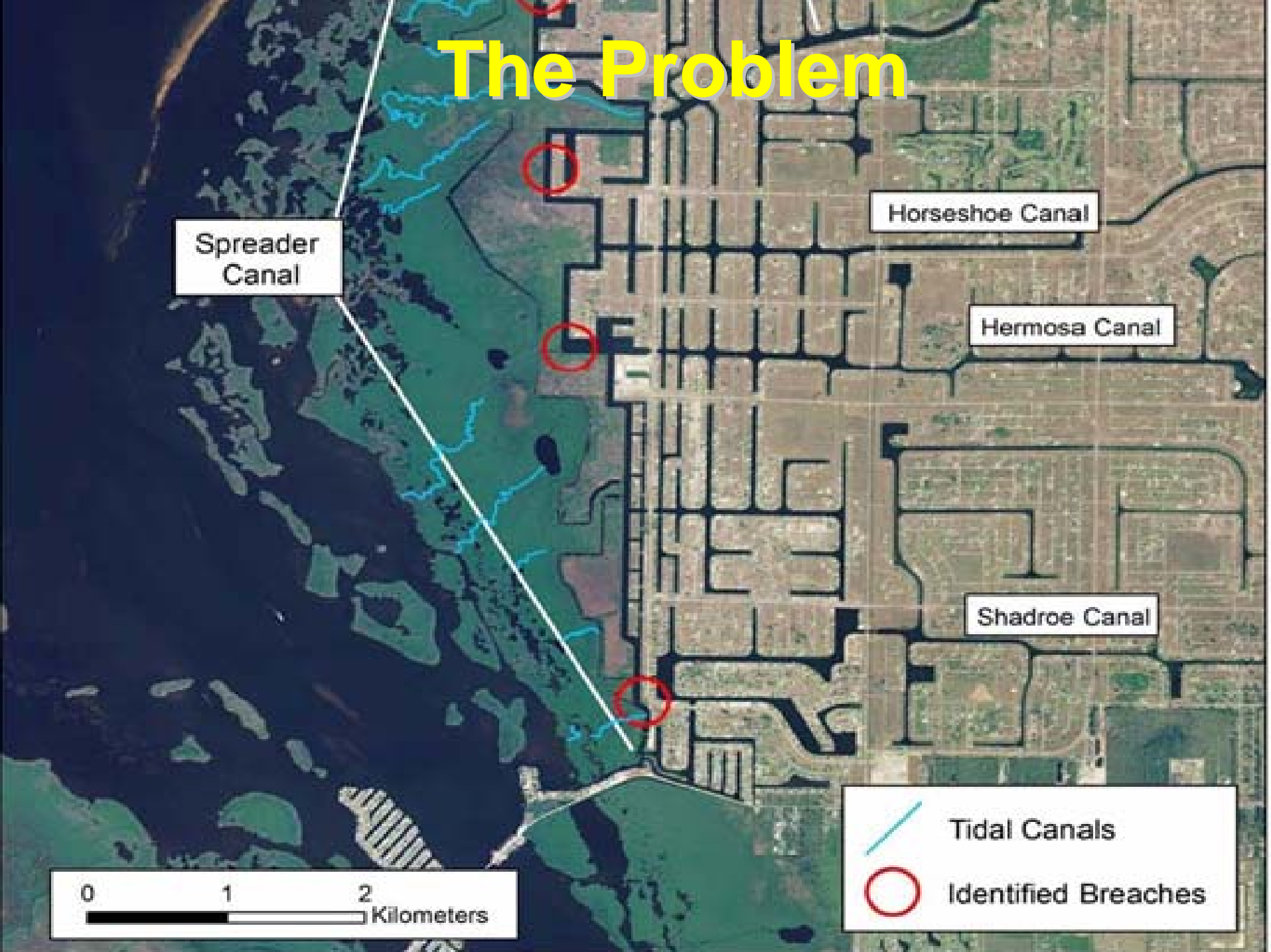
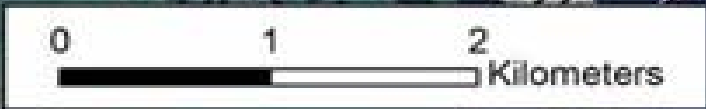
Horseshoe Canal

Hermosa Canal

Shadroe Canal

 Tidal Canals

 Identified Breaches



Hydrodynamics of the North Spreader Canal System

- The NSC is a tidal estuarine system.
- Replacing the south barrier would alter the hydrodynamics of the system, but will not change the tidal nature of the system to freshwater.
- Even if the breaches in the west bank were repaired, the west bank, as originally designed would still be overtopped during some high tides.
- Tidal action is the major driving force of water circulation in the NSC, except during periods of high runoff from the watershed.
- Stakeholder Group members agreed that it would not be possible to change the tidal nature of the system short of prohibitively costly measures that may further damage other aspects of the surrounding natural systems. This conclusion is central to the Stakeholder Group's decision to pursue a package of projects to provide NEBs rather than replacement of the weir.

Net Ecosystem Benefit (NEB)

- **Net Ecosystem Benefit (NEB) – The EMA process allows a state agency and a regulated party to convene the full range of stakeholders affected by a potential enforcement issue, and to jointly develop a package of measures or projects that collectively provide a net ecosystem benefit (NEB) – an outcome better for the environment –when compared with the results of the conventional enforcement action.**

Desired Ecosystem Benefits

- A closer approximation of historical volumes, timing, and distribution of freshwater inflows to the NSC that maintain salinities in Matlacha Pass, coastal mangroves, and the canal within acceptable ranges by reducing freshwater flows in the wet season and maintaining minimum flows in the dry season as feasible given public water needs.
- Reductions in concentrations of total nitrogen, total phosphorous, dissolved oxygen, fecal coliform and metals in Matlacha Pass, coastal mangroves, and the NSC so as to meet state standards and designated uses.
- Restoring the surface hydrology of the watershed as feasible, through rehydration of wetlands and restoration of stream flows.
- Reducing exotic nuisance vegetation through hydrological restoration.
- Creation and enhancement of fish and wildlife habitat.

EMA Recommended Projects – 2 Categories

- City Projects that will be specified in the EMA Stakeholders Group Report and enforceable by the amended DEP Consent Order.
- Projects to be implemented by Cape Coral, and Lee and Charlotte Counties, SFWMD, SWFWMD, and others that will be included in the “SG Findings & Conclusions” but not the “SG Report” (not enforced by the CO).

City of Cape Coral Required Projects

- Adopt a Cape Coral Fertilizer Ordinance
- Implement Condition-Based Timing for Development of Public Sewer System
- Provide Storm Water Treatment Improvements
- Amend the Cape Coral Seawall Engineering Design Standard to Provide Structure Which is Beneficial to Marine Habitat
- Maintain the Cape Coral Canal Dredging Profile
- Implement Boating Related Enhancements
- Coordinate to Improve Flows, Timing, and Distribution of Water to the State Park and Aquatic Preserve
- Designate a Point of Contact for the City of Cape Coral
- Use of NSEMA Escrow Account Funding for Projects to be Implemented by Cape Coral and Others

City of Cape Coral Cost Estimate

NSEMA	Estimate	quantity	units	unit cost
Fertilizer ordinance	\$5,000			
Storm water treatment improvement, Sections west of Burnt Store Rd, south of Kismet	\$3,684,784	1,520	catch basin	\$2,424
Amend seawall design standard to provide options; Demonstration project	\$25,000			
Condition based timing for public sewers	\$480,000,000			
Multi-jurisdictional Coordination	\$12,000			
Boating related enhancements	\$118,000			
	TOTAL			
	\$483,844,784			
Assessments / Capital Reservation Fees	\$480,000,000			
ANTICIPATED NSEMA ESCROW FUNDS	\$3,100,000			
Balance - Estimated City Funding	\$744,784			

Projects to be implemented by Lee and Charlotte Counties, Cape Coral, SFWMD, SWFWMD, FDEP and Others

- Septic Tank Maintenance Program
- Gator Slough Channel Improvement
- Yellow Fever Creek/Gator Slough Storm Water Transfer Facility
- Yucca Pens Hydrologic Restoration Plan
- Yucca Pens Preserve Ditch Plugging and ATV Trail Restoration
- Charlotte Harbor Flatwoods Hydrologic Restoration
- Matlacha Pass Hydrologic Restoration
- Multi-jurisdictional Coordination to Improve Watershed Flows, Timing, and Distribution of Water to the State Park and Aquatic Preserves
- CHNEP Committees as Forums for Discussion and Monitoring

Other Potential NEB Projects that do not have Sponsors

- Study of Ecosystem Enhancement Opportunities West of the NSC
- Habitat Enhancement Pilots on the West Side of the NSC
- Storm Water Treatment Areas

**MANAGEMENT & PLANNING COMMITTEE
AGENDA REQUEST FORM
COMMISSION DISTRICT #**

PRESENTED BY:

**Jim Moore, Director, Economic Development
Paul Woods, CEO, Algenol Biofuels, Inc.**

REQUESTED BY:**TITLE OF ITEM FOR THE AGENDA:**

Overview of Algenol Biofuels, Inc. proposed new facility in Lee County for a fully integrated research and engineering facility for algae producing ethanol and green chemicals from carbon dioxide.

1. DESCRIPTION AND OBJECTIVE OF THE ISSUE

20 Minute PowerPoint Presentation/Q & A

2. PROPOSE POLICY, PROCEDURE OR PLAN OF ACTION

N/A

3. OPTIONS (List advantages/Disadvantages of Each Option Listed)

N/A

4. FINANCIAL IMPACTS/FUNDING SOURCE

N/A

5. STAFF RECOMMENDATIONS, AND JUSTIFICATION FOR RECOMMENDATIONS

N/A

6. Mandated: Y N

BY WHAT AUTHORITY?

DEPARTMENT DIRECTOR SIGNATURE

COUNTY MANAGER SIGNATURE

MEETING DATE

TIME REQUIRED



02/01/2010

10 minutes