

**ALTERNATIVES DEVELOPMENT GROUP (ADG)
SOUTHWEST FLORIDA ENVIRONMENTAL IMPACT STATEMENT
MEETING #7, July 16 - 17, 1998**

MEETING NOTES: Final

The notes provided below document the main points and meeting progress that were offered during the meeting on July 16 through July 17. The notes highlight and summarize the key issues that were discussed at the ADG meeting. The following section provides an overall summary of the meeting, and the remaining sections summarize each of the agenda items as they occurred in the meeting. Selected attachments are provided in this document.. Note that copies of this document were provided electronically either through e-mail, facsimile, <http://www.saj.usace.army.mil/permit/projects.htm>, or <ftp://ftp.saj.usace.army.mil/pub/bbarron/readme.htm>. Attachments are included in the electronic version when reasonably possible. Otherwise, the full version with all attachments will be distributed to the ADG at the meetings.

Meeting Overview

The Alternatives Development Group (ADG) met on July 16 through July 17, 1998, at The Conservancy auditorium located in Naples, Florida. Thirty-two of the thirty-three members were represented at the meeting. The roster of attendees is presented in Attachment A. The objectives of this meeting were to (1) receive presentation on the South Lee County Watershed Plan, (2) receive presentation of GIS maps, (3) continue evaluation the Comprehensive Plan alternative for the hub, and (4) develop additional alternatives for the hub. Additional data sources, references, and maps were also identified at the seventh meeting. See Attachment B for a revised list.

The meeting began the morning of July 16 with administrative announcements followed by the introduction of members/alternates, observers, and the facilitation team. Dale Brown and Tim Feather, lead facilitator and project manager for Planning and Management Consultants, Ltd., respectively, presented the agenda for the seventh meeting.

The South Florida Water Management District presented an overview of the draft report titled South Lee County Watershed Plan. The goals of the plan were presented to the group. An executive summary of this plan was provided in the notes from meeting six. The alternatives of this plan were recommended for review by the ADG to include in their alternatives development.

The next iteration of GIS overlays were presented to the ADG. These were in response to the requests made by the factor specialty groups and the GIS council. Not all overlays requested

by the GIS council were completed for meeting seven. However, those that were complete were reviewed for correctness and utilized in the evaluation of alternatives.

The factor specialty groups met to continue the evaluation of the Comprehensive Plan alternative. Each factor specialty group reported their appraisal of the Comprehensive Plan alternative by evaluation factor and respective issue category to the ADG. The Comprehensive Plan represents one of potentially many alternatives for the hub portion of the study area.

The factor specialty groups were divided among four alternatives development subgroups for the purpose of developing alternatives for the hub that address the ADG's twelve issue categories. The group developed eight alternative for the hub aside from the Comprehensive Plan. The alternatives display the collective effort of the ADG's members. These alternatives will be evaluated by the factor specialty groups at the eighth meeting.

Administrative Activities

Dale Brown and Tim Feather opened the meeting with administrative activities. These activities included (1) administrative announcements, (2) overview of the sixth meeting, and (3) presentation of the agenda.

Administrative Announcements

The seventh ADG meeting was brought to order on Thursday, July 16, 1998 at 9:15 a.m. Mr. Brown addressed administrative issues regarding facilities, lunch, and other logistical items. The group was reminded to check the sign-in sheet for attendance and correctness. Mr. Brown began the meeting by requesting introductions of members, alternates, observers, and the facilitation team members.

Sixth Meeting Overview

Tim Feather presented an overview of the sixth ADG meeting using presentation materials provided in Attachment J of the notes from the sixth meeting. This presentation will be provided in the final notes for meeting six. Mr. Feather presented the (1) activities, (2) accomplishments, and (3) next steps.

Draft meeting notes for the sixth meeting were distributed to the group. Final notes for the fifth meeting were also provided to the group. Comments on the draft notes for the sixth meeting were entertained by the facilitation team. There were a few editorial comments concerning the meeting notes. It was identified that the data source for the first water quality

evaluation factor was incorrectly presented as Collier County Environmental Services. This error will be corrected to state STORET, FDEP, and Lee County Environmental Lab as the data sources. One member suggested that there were some misrepresentations of the Lee and Collier Comprehensive Plans made in the notes. The ADG suggested that these misrepresentations be presented to the facilitation team and they would use their best professional judgment on the incorporation of edits. However, if any item was viewed as controversial, the facilitation team would present these to the group before incorporating them into the final notes for meeting six. The group was reminded by a member that the County Comprehensive Plans are not just maps but also text to back the intent of the maps. It was stated that this must be considered as the ADG continues to evaluate the Comprehensive Plans.

The method of distribution of the meeting notes will be the use of the Jacksonville District's ftp site (<ftp://ftp.saj.usace.army.mil/pub/bbarron/readme.htm>). A complete set of the draft notes from meeting seven will be provided hardcopy at the eighth meeting.

Agenda

The agenda for the seventh meeting was presented by Tim Feather. First, the ADG heard an overview of the South Lee County Watershed Plan by Chip Merriam, representative of the South Florida Water Management District (SFWMD). Then, Tim Feather and Will Walters, representing Wilson, Miller, Barton and Peek, Inc., presented the second iteration of GIS products to the ADG. Given the latest GIS products requested by the GIS council, the group completed the evaluation of the Comprehensive Plan. The group then developed additional alternatives for the hub. It was planned that the group would also evaluate these newly developed alternatives. However, the ADG ran out of time to begin the evaluation process at the seventh meeting.

Reference Materials

Several new reference materials were added to the list of materials presented in the notes from meeting six. The materials are as follows:

- Lee County: Planning Community Existing Conditions Summary
- Henderson Creek Canal: request for consideration by concerned citizen

These materials have been added to the list of references provided in Attachment B. It was emphasized that several reports and maps that were presented during this process should be available to the Corps as they evaluate the Environmental Impact Statement (EIS).

South Lee County Watershed Plan

Chip Merriam presented the South Lee County Watershed Plan. It was noted that this plan is in draft form. Mr. Merriam first presented the goals of the study. The study is in the ADG's collection of studies, maps, and data. Also, the executive summary of the report in which these goals are presented is provided in the notes from meeting six. The executive summary also presents the evaluation of alternatives, conclusions, and recommendations. The SFWMD has reliable models developed from data collected at Cork Screw Swamp.

The study was initiated by the flooding experienced in the Southwest Florida during the summer and fall of 1995. Mr. Merriam state that this study was a coordinated effort with many other natural resource agencies (i.e., Corps). This was done to make this study an effective and efficient effort. Historically, people built homes that were above the water marks left on trees. These homes are now flooded as a result of alternations to the landscape. As the area was developed, canals, ditches, and roads were constructed each impacting the flowways slightly but greatly impacting the flowways cumulatively. Given these deterrents and the construction of impervious surfaces, stormwater flows from the top of the watershed are more likely to inundate low-lying areas

Before this study, it was originally thought that the overall watershed was the Estero and Imperial River Basins which covered 140 square miles but it was discovered that the watershed on a one foot contour included 315 square miles. This is much larger than was originally thought.

Mr. Merriam stated that given the input of other natural resources agencies and the public alternatives were developed for South Lee County. These alternatives ranged from do nothing to implementing a super infrastructure. The alternative were as follows;

1. do nothing
2. channelize
3. flowways
4. water resource berm
5. flowways with water resource berm

One of the recommendations of the study was to proceed with alternative three. This alternative was perceived to be feasible and could be realistically accomplished over a period of time. However, the berm concept will remain in consideration. The berm concept found opposition from environmental groups. Also, the continued acquisition of lands was recommended as a result of the study. Mr. Merriam presented an example of 800 - five acre lots that the SFWMD was acquiring as opposed to being developed for residential purposes. He stated that this area was continually flooded and that it was nearly impossible to provide potential residence of this area an adequate level of flood protection. Mr. Merriam also stated that public education is very important. It was also stated that the south area of the Big Cypress Preserve is lacking water yet there is an over abundance to the north of the preserve. The question is how to connect the two areas.

It was stated by a member of the ADG that the berm concept uses alterations to correct for past alterations and in the end creates more problems. A member asked if alternative three were implemented would it alleviate the flooding in Bonita Springs. Mr. Merriam stated that it would be impossible to provide flood protection for Bonita Springs if an event similar to that which occurred in 1995 were to occur again.

Geographic Information System Products

Tim Feather and Will Walters presented a number of GIS overlays at the request of the ADG's GIS council. Comments presented by the ADG at the sixth meeting were taken into consideration. Given the time constraint between meeting six and seven, not all of the ADG's GIS requests were completed by meeting seven. The following are the maps presented to the ADG at the seventh meeting for the hub.

1. existing land use map (legends consistent with the Comprehensive Plan)
2. existing land use map (with approved and existing DRI as well as current preservation and conservation)
3. Comprehensive Plan with existing and proposed public lands overlay
4. Comprehensive Plan with a Strategic Habitat Conservation Area overlay
5. Comprehensive Plan with species data overlay
6. EPA priority wetlands map
7. biodiversity hot spots

Also, Mr. Walters presented a series of tables generated from the GIS map overlays. These tables presented values that will be useful for the ADG in the evaluation of alternatives. These tables are displayed in Attachment C.

An ADG member asked whether there will be GIS data to address the issue of environmental justice. In response, a member of the GIS council stated that the 1990 Census data is available and will be presented for use. Several errors in the GIS maps were discovered and noted for correction.

County Comprehensive Plan Alternative: Final Evaluation

Dale Brown and Tim Feather provided instructions for the activity of evaluating the County Comprehensive Plan as one alternative for the hub. Again, the ADG broke out the four factor specialty groups. Each of the four groups utilized their GIS interpreter to help explain the latest maps and outputs. Each factor specialty group was tasked to complete the following activities.

- review the GIS map set
- revisit evaluation factors
- evaluate the County Comprehensive Plan as an alternative for the hub (use best professional judgment)
- report the factor specialty group's evaluation of the County Comprehensive Plan alternative by factor

A summary of the factor specialty group report of progress to the ADG is provided below.

Property Rights

The factor specialty group was in agreement with their decision from meeting six that the Comprehensive Plan was the best balance of property rights. At the sixth meeting, the group utilizing a scale of high, medium, and low evaluated the impacts of the County Comprehensive Plan alternative for the hub. The group rated the Plan as high for property rights. An ADG member did mention that the Lee County Comprehensive Plan is being challenged in court regarding property rights.

It was stated that the origin of property rights is the owners constitutional rights. The factor specialty group stated that during their initial evaluation they thought the Comprehensive Plan was optimum. However, as they reviewed that plan it was discovered that even though it ranks high it may not be the optimum alternative. It was asked whether the Comprehensive Plan establishes expectations for property owners. In response, it was stated that the Comprehensive Plan establishes maximums. It was also stated that the Comprehensive Plan is subject to change. It was stated that regulations that restrict the rights of the property owners from their constitutional rights reduces the owners property rights. There was also discussion concerning the issue of a taking. It was suggested that when property is slated for purchase for preservation or conservation purposes it is essentially a taking due to the fact that the property is essentially zoned for these purposes. In response, it was stated that these are willing sellers and they are not forced to sell. It was suggested by an ADG member that this also decreases property values of adjacent lands. However, it was stated that the opposite is true that property values go up next to government purchased property. The group agreed that the issue of property rights is complex.

Local Land Use Policy

Again, given that the County Comprehensive Plan and the respective Future Land Use Map are the basis of local land use policy, the factor specialty group rated this alternative as high as it pertains to local land use policy. This is the same conclusion presented at meeting six.

Economic Sustainability

The factor specialty group developed seven factors to address the issue of economic sustainability. Each of the seven factors were rated on a score of one to four where a score of one is the worst and four is the best. The seven factors and their respective scores are as follows;

1. job creation (2)
2. home affordability (1)
3. cost of living (3)
4. property tax base (3)
5. cost to implement (2)
6. increased taxes (2)
7. environmental justice (2)

The Comprehensive Plan alternative for the hub scored a total of fifteen out of a possible twenty-eight points. The factor specialty group spokesperson addressed briefly each of the seven factors.

Home affordability is considered low due the restriction of density. This restriction of density constrains growth and drives up the cost of homes. An example is that the cost of infrastructure for 1 home per 10 acres is more costly per home than if it were 20 homes per 10 acres. The cost of living was considered good for the area of the hub. Also, the factor of property tax base was rated high given that the PUD strives for a greater tax base. The cost of implementing the Comprehensive Plan alternative was relatively low due to the fact that not everything outlined in the Comprehensive Plan will be achievable. The cost to implement is tied directly to the increase of taxes. The factor of environmental justice was scored relatively low given the fact that not a lot of voters have permanent residence in the area. However, it was stated that the Comprehensive Plan does have a series of checks and balances.

An ADG member asked if the group addressed the issue of partial tax assessments. It was stated that the Comprehensive Plan does not address this issue and the ADG is not the group to address this issue. There was also discussion concerning the conversion of agricultural lands to something other than agricultural. It was suggested that placing a restriction on agricultural lands to stay agricultural was a violation of property rights and also impacts the value of the property.

Regulatory Efficiency and Effectiveness

The factor specialty group combined two of the three identified factors. The two combined factors were (1) permit review time and (2) pre-identified impact/mitigation areas. These two factors combined could be used to evaluate alternatives by determining the level of certainty associated with identified land uses of an alternative. The group was unable to evaluate the Comprehensive Plan until other alternatives have been developed. It was suggested by the group that they may not need to evaluate the third factor, *United States Fish and Wildlife Service, Florida Game and Fish Commission, and public concerns are addressed*, given that other groups have already addressed the factor under a different issue category.

Avoidance of Wetland Impacts

The factor specialty group identified two factors (1) acres of wetlands at risk and (2) functional units at risk. Risk was defined by the group to mean the probability that change from natural to authorized/envisioned use by an alternative will impact wetlands. The concept of function is added with the understanding that not all wetland acres are valued the same. The functional unit is the capacity or opportunity to provide function. Utilizing the concept of WRAP, the function of wetlands is scored on a scale of zero to one. A parking lot would get a score of zero whereas Corkscrew Swamp would get a score of one. Thus, different land use categories would have different risks associated with them.

The acres at risk were given a risk score of 0.07. The functional score of wetlands at risk by high, medium, and low were 0.03, 0.02, and 0.02, respectively. The calculation of these scores are presented in Attachment D. These scores are only relevant when compared to other alternatives. Thus, the factor specialty group was unable to make a final conclusion until other alternatives have been developed by the ADG.

Mitigation

The factor specialty group evaluated the County Comprehensive Plan alternative as it pertains to mitigation against two factors; (1) total mitigation acres of opportunity and (2) total function opportunity. Thus, mitigation as opposed to avoidance of wetland impacts looks for opportunity not risk. However, the measurement of the factors of mitigation and avoidance of wetlands impacts are similar. It was suggested that the area of real mitigation opportunity are the areas of medium level of function. Areas of high function are typically in preserves. The group identified approximately 1,800 acres of mitigation opportunity in the Comprehensive Plan alternative. However, with the requested GIS overlay the group would feel more confident.

Ecosystem Function, Wildlife Habitat, and Listed Species

The factor specialty group evaluated the County Comprehensive Plan alternative with the twelve identified evaluation factors. For all twelve factors, the Comprehensive Plan negatively impacts ecosystem function, wildlife habitat, and listed species. For six of the twelve factors the factor specialty group was able to provide quantitative values. The following table provides the results of these six factors.

Measurement Name	Assessment Notes
B1. GFC SHCA	negative Δ of 42,800 acres
B2. Panther Habitat	
Type I	negative Δ of 5,831 acres
Type II	negative Δ of 49,856 acres
B5. Affect on eagle nests	forty percent decrease
B6. Affect on rookeries	thirty-eight percent decrease
B7. Loss of natural plant communities	negative Δ of 28,841 acres
B11. Affect on critical habitat	
Wetlands	negative Δ of 18,340 acres
Uplands	negative Δ of 14,365 acres

For the remaining six factors the group used their best judgment. Given the data, information, and maps provided the group stated that these six factors were also negatively impacted by the Comprehensive Plan alternative.

It was stated by the factor specialty group that the acreage and percentages provided are to be used as indices in the comparison of alternatives for the study area. It was also stated that there was overlap in some of the factor evaluations. For instance, wetland dependent species acres versus total wetland acres. In this case one is a subset of another. But each have their own importance from which inference is made.

Cumulative and Secondary Impacts

The factor specialty group removed the spawning potential ratio from its list of factors by which to evaluate the alternatives. Thus, utilizing the remaining ten evaluation factors, the group evaluated the County Comprehensive Plan alternative for the hub. According to the factor specialty group, the Comprehensive Plan negatively impacted eight of the ten evaluation factors. In terms of wetlands, the Comprehensive Plan decreased the number of acres of identified wetlands by nearly 21,000 acres. The Comprehensive Plan was determined to be neutral with respect to crime rates and positive in terms of public lands. An ADG member asked why the factor specialty group indicated an increase in infant mortality. The group stated that as

populations move from agricultural areas to either rural or urban locations infant mortality increases.

Public Lands Management / Use

The factor specialty group was able to evaluate one of the three identified evaluation factors given the data available. The group was unable to evaluate the impact of the Comprehensive Plan alternative on either land management plans or funding. However, they were able to determine, given their best professional judgment, that the Comprehensive Plan would result in a degradation of public lands.

Water Quality

The factor specialty group addressing the issue of water quality in their best professional judgment suggested that the Comprehensive Plan alternative for the hub would probably have a negative impact on water quality. However, the group held from final judgment until GIS needs were met and appropriate model results reviewed if necessary. A member stated that there is guidance for new development to meet water quality standards. In response, it was stated that although individual developments meet the standards they may not when considered cumulatively.

Restoration Retrofit

The factor specialty group addressing the issue of restoration/retrofit evaluated the Comprehensive Plan alternative for the hub. They determined that the Comprehensive Plan was insufficient for addressing this issue. It was stated that the Comprehensive Plan does not directly address this issue. However, it was stated that the Lee County Comprehensive Plan does require the use of mitigation. It was stated that the Comprehensive Plan is reactive not proactive.

Water Management

The factory specialty group at meeting six identified two primary factors to address the issue of water management: (1) flooding and (2) water supply. The group stated that the Comprehensive Plan alternative for the hub does not provide information that would suggest the improvement of flood depth and duration. However, the group stated that without the requested GIS overlays they were unable to determine the impact of the Comprehensive Plan on flooding.

In terms of water supply, the Comprehensive Plan has identified areas of groundwater recharge. However, the Comprehensive Plan does not balance well the water supply versus water demand issue.

The factor specialty group stated that the Comprehensive Plan, when addressing both the issue of flooding and water supply, refers to the SFWMD rules as opposed to addressing them directly. Given the GIS needs of the group, the final evaluation of the factors will be completed when the GIS request is met.

Hub Alternatives Development

Dale Brown and Tim Feather introduced the activity of developing alternatives for the hub. Four alternatives development subgroups were created from the ADG. To ensure that each issue category was taken into account during the development of alternatives, members of each of the four factor specialty groups were included in the alternatives development subgroups. Each subgroup also had a member(s) of the GIS council to provide GIS interpretation. The task of the four subgroups was to develop two alternatives for the hub that effectively considers the issues/factors identified by the ADG. Spokespersons for each group were expected to be prepared to present to the ADG the subgroup's alternatives. The spokespersons had to address three topics of alternatives development.

1. present alternative(s)
2. explain legend
3. provide subgroup discussion highlights

The ADG members were asked to pay close attention to the presentation of alternatives for future synthesis of alternatives.

Color coding of basic land uses were suggested by the facilitation team. These colors were as follows:

- water (blue)
- development (red)
- environment (green)
- other (black)
- agriculture (red with black hatch)

The color scheme of alternatives maps were placed on legends with explanations.

The maps of the alternatives developed in this activity will be presented to the group at the next meeting in digitized form within the ADG GIS. The support materials (criteria and detailed legend descriptions) provided by each of the alternatives development subgroups are presented in

Attachment E. Also provided in Attachment E are the principles of the Estero Bay Agency on Bay Management. The ADG was asked by the facilitation team to develop alternatives for the hub between meetings six and seven as a homework exercise. Many ADG members worked either individually or as small groups between meetings six and seven to develop an initial set of alternative from which to work.

Alternative 1A

Alternative 1A utilized the Strategic Habitat Conservation Area (SHCA) map, Agency on Bay Management (ABM) map, and the Environmental Protection Agency (EPA) priority wetlands map. Areas of overlap were identified. According to the alternatives development subgroup, the areas of overlap solve a lot of problems. The ABM map and the SHCA map overlap significantly. However, there are some areas of the SHCA map that are not addressed on the ABM map. The group added the Crew Trust area as preservation. The subgroup suggested the ADG review the area around Immokalee closely. Areas of the map with green suggest stringent criteria.

Alternative 2A

The alternatives development subgroup that developed this alternative utilized primarily the ABM map with some elements of other maps included. Mining areas are not necessarily considered preserve due to the potential development around the mines. Areas around Immokalee are considered unique scrub area. The concept of maintaining and improving flowways was considered in many alternatives but was not deemed as a stand alone alternative. This alternative identified agricultural lands as remaining in one form or another agricultural. However, it did state no intensification of agriculture on these lands. There was some concern of converting pasture or vegetable crops to citrus groves. Different agricultural purposes have varying implications on hydrology. An ADG member noted that not allowing intensification of agricultural lands impacts the land owner's property rights.

Alternative 2B

The starting point of this alternative was the County Comprehensive Plan. This alternative relied on a number of sources such as the map of SHCA for Florida Panthers, Florida Panther priority I and II habitat, proposed lands for acquisitions, and the Arnold Committee map of Estero. It was stated that where SHCA and priority I habitat are located these areas should be in preserve. Where SHCA and priority II habitat are located these areas should be held for preservation or conservation activities. The SHCA map covers a broader range of geographical area than the priority I and II maps. Thus, the remaining SHCA habitat was proposed for low-

intensity compatible uses such as agriculture or low-density residential. All eagles nests and rookeries are proposed for either preservation or conservation management activities. This alternative also considers all Regional Planning Council preserves as preserves. This alternative also maintains areas of rare native plant communities for preservation or conservation. These areas included xeric scrub, coastal strand, and tropical hardwood hammocks. The areas of coastal strand are on the tips of barrier islands. The alternative as a criteria states that this alternative should maintain or reestablish flowways and their interconnectivity. The alternative also states that agricultural lands south of state road 82 and east of I-75 should remain agricultural. An ADG member stated that mitigation should be focused on restoring flowways.

Alternative 2C

The development of this alternative relied on primarily four sources of data: (1) Florida Panther priority habitat I and II, (2) SHCA, (3) ABM Land Conservation / Preservation map, and (4) the State of the Bay report which provides Estero Bay aquatic preserve buffer zones. This alternative applies the concept of buffer transition zones. Alternative 2C states that agricultural lands remain in agriculture with no intensification. All agriculture remains at its current intensity. An ADG member asked how one can legally keep owners of agricultural lands from increasing the intensity of activities on their lands. The point is to keep these lands in agriculture as opposed to residential or even natural areas. This alternative portrays that the mix of agriculture, urbanization, and natural areas is essential. To further protect wetlands, this alternative suggested placing wetlands that remain on the project site to be placed into conservation easement for its protection.

There were a number of criteria presented to support this alternative. These criteria are presented in Attachment E. One of these criteria is to meet the Big Cypress Areas of Critical State Concern (BCACSC) development criteria standards. A representative of Big Cypress provided an informal overview of these standards. Full documentation of these standards is forthcoming.

Alternative 3A

Alternative 3A identifies critical resource protection areas that were derived from ABM Land and Conservation / Preservation map, SHCA, and Florida Panther priority habitat I and II maps. Also identified were urban zones and buffer transition zones similar to those presented in Alternative 2C. Alternative 3A proposed no intensification of agricultural lands unless it met the criteria of this alternative. The group included in the zone of critical resource protection the rock mine areas as well as areas directly east of I-75. An ADG member asked if presenting the mining areas within the critical resource protection zone meant that mining would cease. These were shown as part of the critical resource protection area so that they will be protected once mining

operations have been completed. An ADG member stated that the use of zones and criteria is beneficial.

Alternative 3B

Alternative 3B utilized the ABM map and filled in the geographical areas not addressed by ABM in that map. It was noted that the ABM map was adopted by ABM on July 13, 1998. It was noted that the ABM's focus was the entire watershed. However, section B, hub, of the study area does not address the entire watershed. Tim Feather clarified stating that the rest of the watershed will be examined when the ADG addresses section A of the study area. This alternative identified agricultural areas, flowways, and potential connections to Estero and Imperial Rivers. Where appropriate it was suggested to convert agricultural lands to natural areas for protection and re-establishment of flowways. There was discussion of conversion of citrus groves to different agricultural purposes or natural areas. An ADG member stated that although the life a citrus tree is approximately forty years the potential life of a grove is infinite.

Alternative 4A

Alternative 4A is a product of individual members homework completed between meetings six and seven. The alternative shows areas of commonality. The group utilized some of the features of the County Comprehensive Plans to develop Alternative 4A.

Alternative 4B

Alternative 4B is a variation of Alternative 4A. This alternative utilizes Alternative 4A and applies the water management idea of a berm. The berm idea was discussed in the South Lee County Watershed Plan. The berm remains controversial. However, it remains to be a viable option. In addition, this alternative differs from Alternative 4A in that it incorporates some of the critical resource protection area ideas of Alternative 3A. The idea of the berm did not set well with members of the ADG. Realizing the obstruction of flowways through history of development in the study area, the use of the berm in the alternative is proposed to reestablish historic flowways. An ADG member stated that Alternative 2C would not allow a berm as a water management tool.

Closing Remarks

As stated previously, development of alternatives for the hub was given out as homework to the ADG to be completed between meetings six and seven. The results of the homework would be presented at meeting seven to aid the group in developing ADG alternatives for the hub. Several members of the ADG did the homework individually, others formed small groups to discuss alternatives, and some did most of their work at the ADG meeting. It was stated to the ADG that this is an iterative process. Further alternatives and variations of prescribed alternatives for the hub are expected. However, the ADG has to operate within the timeframe of the ten meetings.

Section C Alternatives Development

Each member of the ADG was provided a map of the next section, section C, of the study area that will be addressed by the group. The study area was divided into four sections A, B, C, and D. The hub area was section B. There was a recommendation by a member of the ADG on how to split sections C and D. This recommendation was followed by the facilitation team. The map of section C presented to the ADG is displayed in Attachment F. This map was provided to the ADG for the purpose of developing initial alternatives for this section of the study area between meetings seven and eight.

Meeting Seven Summary

Mr. Feather used a format of the summary presentation to the ADG similar to that of the previous meetings focused around the following topics.

- Activities (who, what, where, and why)
- Accomplishments
- Next steps
- Next meeting information

Summary of meeting seven will be presented in the notes to be provided at meeting eight. A summary will be presented by Mr. Feather at meeting eight. The summary presentation is provided in Attachment G.

Next Meeting

The eighth meeting will be held at the Florida Gulf Coast University, Fort Myers, Florida on July 30 and 31, 1998. Topics of the meeting will be the presentations on the state of Naples and Rookery Bays, presentation on water quality indices, review of latest GIS products, evaluation of hub alternatives, and development of alternatives for section C of the study area.

ATTACHMENT A

ALTERNATIVES DEVELOPMENT GROUP MEETING #7 ATTENDEES

**LIST OF ATTENDEES
ALTERNATIVES DEVELOPMENT GROUP
MEETING #7, JULY 16-JULY 17, 1998**

Members Represented:

Robert S. Baker

Council of Civic Associations

Rick Barber

Chief Executive Officer

Agnoli, Barber & Brundage, Inc.

Tom Beck Charles Gaitheir (alternate)

Department of Community Affairs

John Cassani

Lee County Hyacinth Control District

David Burr (alternate for Wayne Daltry)

Executive Director

SW FL Regional Planning Council

Ananta Nath (alternate for Claudia Davenport)

Big Cypress Basin Board

David Douglas

David Douglas Assoc., N Ft. Myers Chamber of Commerce

Kim Dryden

U.S. Fish and Wildlife Service

Tim Durham

Wilson, Miller, Barton & Peek, Inc.

Clara Anne Graham-Elliott and Gary Lee Beardsley (alternate)

League of Women Voters of Lee County

William Jolly (alternate for John Folks)

Department of Agriculture and Consumer Services

Terrance Dolan (alternate for Edward Griffith)
Director of Planning
WCI Communities

David Guggenheim
The Conservancy of Southwest FL

Karen Johnson alternate for Bill Hammond
South Florida Water Management District

Bradley J. Hartman and Jim Beever (alternate)
Director, Office of Environmental Services
Florida Game and Fresh Water Fish Commission

Gary Maier (alternate for Peggie Highsmith)
Department of Environmental Protection

Ronald Inge and Tracy Hayden (alternate)
Harper Bros., Inc.

Wallace Kain and Rob Loflin (alternate)
Mayor
City of Sanibel

Earl Kegg
Collier County Representative

Richard Klaas and Mark Morton (alternate)
Florida Real Estate Consultants

Terry Rice (alternate for Al Lucas)
U.S. Environmental Protection Agency

Chip Merriam
Director, Fort Myers Service Center
South Florida Water Management District

Neale Montgomery and Katherine English (alternate)
Paves, Garner, Haverfield, Dalton, Harrison & Jensen

Bob Mulhere
Director, Collier County Planning

Paul O'Connor
Planning Division Director
Lee County

Robert H. Roth, P.E.
Barron Collier Partnership/Silver Strand Division

Fran Stallings

Mark Morton (alternate Mark P. Strain)
Gulf Bay Communities, Inc.

Kris Thoenke
Director, Everglades Project
National Wildlife Federation

Mike Roeder (alternate for Matthew D. Uhle)
Economic Dev. Coalition of Lee Co.

Whit Ward
Collier Building Industry Association, Inc.

John R. Hall
Department of the Army, Jacksonville District Corps of Engineers, Regulatory
Division

Members Not Represented:

Bonnie Kranzer
Governor's Commission for Sustainable South Florida

Observers:

Nancy Payton
FWF

W.T. Olds, Jr.
U.S. Fish & Wildlife Service

Tim Jones
Lee County

Jeff Rhodes
SAIC/EPA

Lloyd Pike
USACE

Todd Hopkins
DEP-Rookery Bay

Jim Proud
Conservancy member

Ellis Paterson

Tom Conrecode

Cullum Hasty
alternate for Fran Stallings

David Graham
Bonita Bay Prop.

Marilyn Stoll
U.S. Fish & Wildlife Service

Jerry McPherson
Bonita Bay Prop.

Facilitation Team:

Timothy Feather
Program Manager
Planning and Management Consultants, Ltd.

Dale Brown
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ATTACHMENT B

REFERENCES

Storm Surge Atlas - Lee & Collier Counties
Hurricane Preparedness/ Evacuation Study
Hurricane Shelter Deficit Reduction Report
Charlotte Harbor NEP Area Studies
State of Bay - Agency for Bay Management
Composite Strategies Conservation Map - Work in Progress
South Florida Study - 1973
Soil Survey of Collier County
Soil Survey of Lee County, Florida
Soil Survey: Detailed Reconnaissance Collier County, Florida: Series No. 8 (1942)
Future Land Use Map: Collier County
Open Spaces: Collier County (map)
Generalized Existing Land Use Map, Collier County, Florida (1-7)
Future Land Use Map (map 1): Lee County
Map of Lee County: Existing Land Uses
Nominations with Secondary Screening Criteria Ratings: Lee County (map)
The 1994 Lee Plan: 1996 Codification: as amended through May 1997
Lee County Planned Development Update: revised 1998
Lee County Comprehensive Plan
Wetlands map
Lee County projects development approvals
Lee County land use database
Strategic Habitat Conservation Areas (map)
Florida Black Bear: Potential Habitat (map)
Florida Panther: Potential Habitat (map)
Wading Bird Rookery, Bald Eagle, and Florida Scrub Jay locations
Bio-diversity Hot Spots
Collier County Manatee Mortality: 1/74-10/97 (map)
Collier County Manatee Mortality: February 1998 (map)
Lee County Manatee Mortality: February 1998 (map)
Southwest Florida Region Regionally Significant Natural Resources (map)
Collier, Hendry, and Lee County Future Land Use 2010: (Southwest Florida Regional Planning Council)
Study Area of the Caloosahatchee Water Management Plan (SFWMD)
Sustainable America: A New Consensus For Prosperity, Opportunity, and a Healthy Environment for the Future. (February 1996)
Wetlands Regulation and the Takings Issue (Robert Multz)
Takings Law in Plain English (Christopher Duerksen and Richard Roddewig)
Closing the GAPS in Florida Wildlife (Habitat Conservation System, 1994)
Southwest Florida Strategic Regional Policy Plan (1995)
Southwest Florida District Water Quality – 1996 305(b) Technical Appendix
Estero Bay Drainage Basin: Lee, Collier, and Hendry County
The Local Impact of Home Building in Naples, Florida (1997)
The Local Impact of Home Building in Lee County, Florida (1997)

Nation Association of Home Builders Local Impact of Home-building Model (1997)
Interim Final Guidance for Incorporating Environmental Justice Concerns in EPA's
NEPA Compliance Analyses (EPA 1997)
Microcomputers and Economic Analysis: Spreadsheet Templates for Local Government
(revised and expanded edition 1987)
Environmentally Sensitive Index maps: Peninsula 2 Florida
Lee County: Planning Community Existing Conditions Summary
Henderson Creek Canal: request for consideration by concerned citizen
South Lee County Watershed Plan: draft (1998)

ATTACHMENT C

GIS OUTPUT FOR COMPREHENSIVE PLAN ALTERNATIVE

ATTACHMENT D

AVOIDANCE OF WETLAND IMPACTS

RISK CALCULATIONS

ALT #1 LAND USE CATEGORY	ACRES EXISTING WETLAND	X RISK	=ACRES AT RISK	X FUNCTIONAL UNIT EXISTING WETLAND
PRESERVE	40,000	0.01	400	H
PROPOSED PRESERVE	16,000	0.10	1,600	H
RURAL RESIDENTIAL	5,250	0.15	800	M
AGRICULTURE	10,500	0.10	1,000	M
URBAN RESIDENTIAL	5,250	0.35	1,800	L
INDUSTRIAL	0	0.80	0	L
TOTAL	77,832		5,600	

F1 Score = $5,600 / 77,832 = 0.07$ as index

F2 Score = $2,000H / 1,800M / 1,800L$
or
 $0.03 / 0.02 / 0.02$ as index

NOTES ON RISK: (ITEMS DISCUSSED)

Preservation/Conservation: 0.01-0.05
Roads, multiple use (Legislature), retained rights

Proposed Preserve: 0.10
Funding, willing seller

Rural Residential: 0.10
1/2 acre on 5 acre lot + “encroachment”

Agricultural: 0.15
Mix of uses with range of risk

Urban Residential: 0.35
Too expensive to build all - permitting history says lots of preserve

Industrial: 0.80
Acreage low

NOTE ON “DATE” OF NUMBERS

*Score uses land use map “built-out” reality...acres at risk not all at once but over time as population grows. Lee County was projected 2020 with density overlay.

*But projected use may change in future - longer planning horizon more challenging writing alternative.

ATTACHMENT E

SUPPORT MATERIALS FOR HUB ALTERNATIVES

HUB ALTERNATIVE: 3A
Presented by Kris Thoenke
July 17, 1998

Permitting Standards and Criteria Alternative Plan Requirements

Critical Resource Protection Area (CRPA) - shown in green

Florida Panther Habitat Area 1 & 2

Strategic Habitat Critical Areas

Agency on Bay Management Land Conservation/Preservation Map

Must Meet Big Cypress Areas of Critical State Concern (BCACSC) Development
Criteria Standards

Plus Standards and Criteria of Buffer Transitional Zone

No intensification of existing add

Buffer Transitional Zone - shown in cross hatch

No Net Loss in Water Table and Recharge Area

No Net Loss in Area and Function of Wet Lands (as of today - 1998)

Restoration of Flow Ways

Buffer Zones Around Wet Lands and Along Flow Ways, Streams, and Rivers

Buffer Zones Around Eagles' Nests and Rookeries

No Impact on Water Quality

Do Not Contribute to Hurricane Shelter Deficit or Increase Evacuation Times

Implement the Adopted Principles of the Estero Bay Agency on Bay Management

Urban Zone - shown in red

Restore Flow Ways

Retrofit Septic Systems and Package Treatment Plants

Provide Adequate Hurricane Shelters and Evacuation Routes

Rest of Retro Buffer Zones Around Wet Lands and Along Flowways, Streams, & Rivers

Set and Meet Pollution Reduction Goals

HUB ALTERNATIVE 4B
Presented by Bob Barron
July 17, 1998

Permitting Standards and Criteria: Alternative Plan Requirements

Critical Resource Protection Area (CRPA) (AG)

Florida Panther Habitat Area 1 & 2 (White and Green)

Strategic Habitat Critical Areas (White and Green)

Agency on Bay Management Land Conservation/Preservation Map (White and Green)

Must Meet Big Cypress Areas of Critical State Concern (BCACSC) Development Criteria Standards

Plus Standards and Criteria of Buffer Transitional Zone

Buffer Transitional Zone (AD)

No Net Loss in Water Table and Recharge Area (Is this part of existing criteria?)

No Net Loss in Area and Function of Wet Lands (as of today - 1998)

Restoration of Flow Ways

Larger Buffer Zones Around Wet Lands and Along Flow Ways, Streams, and Rivers (Exist 25-200, Proposed: Largermin)

Buffer Zones Around Eagles' Nests and Rookeries (Enforcement)

No Impact on Water Quality (EDUCATION) (Results from Buffer, no net loss, flowways)

Do Not Contribute to Hurricane Shelter Deficit or Increase Evacuation Times (Existing Criteria?)

Implement the Adopted Principles of the Estero Bay Agency on Bay Management

Urban Zone (AF)

Restore Flow Ways

Retrofit Septic Systems and Package Treatment Plants

Provide Adequate Hurricane Shelters and Evacuation Routes

Restore of Retrofit Larger Buffer Zones Around Wet Lands and Along Flow Ways, Streams, and Rivers

Set and Meet Pollution Reduction Goals (PLRGS)

HUB ALTERNATIVE 2A
Presented by Kim Dryden
July 17, 1998

Agriculture: assumes limited intensification of use, i.e., no changes that require additional loss of nature habitat, no changes (such as intensification to citrus) that would lower hydrology. Example: range and improved range stay the same, vegetable crops change or go to fallow field and back again. Use generally stays the same as existing.

Rural: assumes lower density, “rural” uses. Similar to existing (residential ranchettes, nurseries, etc.) Needs to have greater planning detail that identifies existing flowways and forested habitats, as well as seasonal wetlands that are large or contiguous to each other, and seeks to protect those areas in a connected landscape as the greater area develops “Bill Hammonds Flowways” design brought up at earlier meeting.

Note: For preservation (existing and proposed) it was noted to use the Estero Bay ABM as acquisition map

HUB ALTERNATIVE 2C
Presented by Gary Beardsley
July 17, 1998

CRPA/BTZ/UZ ALTERNATIVE RATIONALE
(JULY 16-17, 1998 ADG/EIS PROCESS)

ISSUE: EIS CORE B AREA DOES NOT MATCH ABM BASE MAP
FOR ESTERO BAY

DECISION-included ABM portion of Estero Bay
into Core Area B

CRPA-GREEN

- A. USE ABM MAP #3 (STATE OF THE BAY REPORT), ESTERO BAY
AQUATIC PRESERVE BUFFER
- B. OVERLAY STRATEGIC HABITAT CONSERVATION AREA PANTHER
HABITAT
- C. OVERLAY PANTHER PRIORITY 1 AND 2 AREAS-
- D. OVERLAY ABM LAND CONSERVATION AND PRESERVATION MAP,
INCLUDING OFW STREAMS AND FLOW WAYS

NOTE *Wildcat Run, Habitat and ? included within CRPA
*Harper Brothers, Florida Rock included
*M & A Ranch East of I-75 included

- E. INCLUDED HENDRY COUNTY PORTION OF THE WATERSHED

UZ-RED

- F. FIRST IDENTIFIED THE URBAN ZONE

BTZ-ORANGE

- G. REMAINING AREA

PERMITTING PERFORMANCE STANDARDS AND CRITERIA

- *CRITICAL RESOURCE PROTECTION AREA (CRPA)
- *BUFFER TRANSITIONAL ZONE (BTZ)
- *URBAN ZONE (UZ)

CRITICAL RESOURCE PROTECTION AREA

Must Meet Big Cypress Area of Critical State Concern (BCACSC) Development
Criteria and Standards (Agriculture is not exempted)

Not Net Loss of Wetland Area (acreage) and Functions-baseline condition January 1999

No Net Loss of Active Agriculture Area (acreage)-baseline condition January
1999

Must Meet Total Maximum Daily Loads set for this Area of the Watershed

Must Improve Water Quality, Quantity, Timing and Direction (as established for the area following the Outstanding Florida Water Protocol)-baseline condition January 1999

All On-Site Wetlands protected Under a Conservation Easement as Defined in Section 704.06, Florida Statutes

Does Not Fragment, Sever, a Wetland System

plus Must Meet All Permitting Performance Standards and Criteria of the Buffer Transitional Zone

BUFFER TRANSITIONAL ZONE

No Net Loss in Wetland Area and Function-baseline January 1999

No Net Loss in Historical Water Table Height and Recharge Area

Does not Alter Water Sheet Flow Characteristics

Contributes to the Restoration of Historic Flow Ways

Preserves Buffer Zones Around Wetlands, Flow Ways, Natural Streams, Rivers and Creeks

No Impact on Water Quality

Do not contribute to hurrican shelter deficit nor increase evacuation times

Implements the adopted Principles of the Estero Bay Agency on Bay Management

URBAN ZONE

Restore flow ways

Retrofit residential septic systems and package treatment plants

Provide adequate hurrican shelters and evacuation routes

Restore or retrofit buffer zones around wetlands, flow ways, natural streams, rivers and creeks

Meet Pollution Reduction Goals (set by January 1, 2000)

Principles of the Estero Bay Agency on Bay Management

The Estero Bay Agency on Bay Management (ABM) is a non-regulatory body whose directive is to make comments and recommendations for the management of Estero Bay and its watershed. The waters of Estero Bay provide a tremendous resource for local residents and tourists who enjoy fishing and appreciate the local vegetation and wildlife. It is also important to note that Estero Bay is Florida's first aquatic preserve. Due to the forthcoming increase in population density on and near the shores of Estero Bay and its watershed and the attendant increase in boat traffic, the Estero Bay Agency on Bay Management has adopted the following guiding principles. These principles are an attempt by the ABM to make strong and clear recommendations for the preservation and restoration of this rare and unique ecosystem. The ABM realizes that some situations within the Estero Bay Watershed may not allow the strict adherence to these principles, however, the ABM recommends that they be utilized wherever and whenever possible.

Water Courses

General

- Non-structural approaches versus structural approaches will be used for water resource management solutions.
- No further channelization of remaining natural watercourses will occur.
- A better balance of ecological needs versus water flow will be used for water resource management decisions.
- Establish and restore the historic basin flood plains to the maximum extent possible.
- Compliance and enforcement of existing environmental regulations will be a top priority for regulatory agencies.

Vegetation

- Natural, native vegetation versus non-native invasive vegetation within flowways and natural systems will be retained to the greatest extent possible.
- Physical removal of invasive vegetation versus widespread chemical treatment will be utilized for control.
- Limited application of herbicides that rapidly degrade may be used on a case-by-case basis, under the supervision of certified personnel, for control of nuisance and invasive non-native vegetation and to maintain native plant communities.
- Promote, whenever possible, the active and aggressive removal of invasive non-native plants from all common areas, conservation easements, preserves and natural areas within the Estero Bay watershed.

Physiographic

The ancient relief of the upper tributary reaches will be maintained by:

- Preserving vegetation that provide the characteristic riparian habitat and canopy.
- Retaining the relic natural features of the tributary bank contours.
- Reconnecting historic natural flowways that have been diverted or severed.
- No further channelization.

- No further dredging.

New Construction

- New setback criteria will be developed and implemented along watercourses to provide construction setbacks to the maximum extent possible. These setback criteria will be based on the best available scientific data.
- Construction within tributary flood plains shall be avoided wherever possible.
- For construction that must occur within flood plains, utilize techniques that do not adversely impact the capacity of the floodplain (e.g. pilings to raise living floor elevations versus fill).
- Utilize non-polluting construction materials (e.g. concrete pilings versus treated wood) within flood plains.

Hazardous Materials

- Specifically placed larvicides and biological controls are the preferred methods for mosquito control. Adulticides should only be used in compliance with Section 388.011(1) Florida Statutes.

Agriculture and Urban

- Old surface water management (SWM) systems built before current regulations will be retrofitted, using best available management practices, to meet current SWM standards.
- Permitting must address cumulative impacts to the water storage capacity of the watershed.
- Grants or incentives should be provided for retrofitting old surface water management systems that are not effectively managing water volume or flow, or removing nutrients and other pollutants.

Roadways

- All future roadways to be located in the floodplain within the Estero Bay watershed will be designed and constructed to not impede flows from a 25-year, 3 day, storm event.

Boating

- No special accommodations will be made for boats (e.g. no cutting of overstory vegetation, no removal of oxbows, no dredging or filling except for permitted maintenance of navigation channels).

Public Notice

- Activities in the watershed by any regulatory agency shall provide the opportunity for public participation.

Uplands, Headwaters and Isolated Wetlands

General

- Lands identified as critical for listed species shall be targeted for public purchase and managed to maintain their environmental value.
- The Lee County Conservation Land Acquisition and Stewardship Advisory Committee will consider priorities for land purchases adopted by the "Arnold Committee" and the ABM.
- The Lee County Conservation Land Acquisition and Stewardship Advisory Committee will use proactive approaches to investigate the willingness of landowners to be voluntary sellers, as specified in the requirements of the ordinance that established the land acquisition program.
- Tax incentives should be created so that landowners may continue land use practices that maintain ecologically important habitat.
- Adequate staff at Property Appraisers' Offices within the watershed will be provided to review the high number of applications and strictly enforce the rules for bona fide agricultural tax exemptions.
- The minimum time period for re-zoning of agricultural land should be increased from three years to ten years to reduce the speculative clearing of agricultural land for "higher use" which results in the loss of natural habitat and the loss of tax revenue.
- Regulations within the existing "Notice of Clearing" process by Lee County will be developed that require wildlife surveys, habitat assessments, and a development plan for the agricultural operations so that critical habitats for state and federal listed species can be preserved.
- Conservation easements will be used as an option to protect critical habitats.
- Legislation should be implemented that provides inheritance tax, real estate tax and estate tax relief for agriculture landowners and their heirs, who will maintain their land in agriculture.
- Legislation should be implemented that provides inheritance tax, real estate tax and estate tax relief for landowners and their heirs, who provide permanent conservation easements on their property.
- All re-zoning requests within the Estero Bay watershed will be critically evaluated to ensure protection of water quality, rare and unique habitats, listed wildlife, and ecosystem functions.
- Variances from environmental regulations and deviations from development standards will be the exception, not the rule.
- Environmental protection and long-term quality of life will not suffer based on short-term economic impacts or political pressures.
- Zoning resolutions that are required as a part of the approval for re-zoning must be tracked for future compliance and enforcement.
- Additional staff will be hired to assist in the compliance and enforcement of zoning resolutions related to environmental issues.
- The ABM will be cognizant of the "big picture" and to the concept of "ecosystem management" and sustainable development.
- Agency staffing will keep pace with increased demand on services, especially environmental protection issues. Trained and experienced wildlife biologists and environmental scientists will be hired to ensure adequate development review.
- Programs such as the "Keep It Clean" and "Florida Yards and Neighborhoods" programs should be promoted, to minimize inputs of stormwater pollutants into the bay.

- Compliance and enforcement of existing environmental regulations will be a top priority for regulatory agencies.
- The Inheritance Tax will be repealed, so as to encourage the retention of agricultural lands.

Vegetation

- Natural, native vegetation within natural systems will be retained to the greatest extent possible.
- Physical removal of invasive vegetation will be utilized for control rather than widespread chemical treatment.
- Limited application of herbicides that rapidly degrade may be used, according to the product label, on a case by case basis for the control of nuisance and invasive non-native vegetation and to maintain native plant communities.
- Promote, whenever possible, the active and aggressive removal of invasive non-native plants from all common areas, conservation easements, preserves and natural areas within the Estero Bay watershed.

Physiographic

Consideration will be given to the ancient relief of the watershed by:

- Preserving vegetation that provide the characteristic habitat and canopy.
- Retaining the relic natural features.
- Reconnecting historic natural flowways that have been diverted or severed.

New Construction

- Construction within flood plains shall be avoided wherever possible.
- For construction that must occur within flood plains, utilize techniques that do not adversely impact the capacity of the floodplain (e.g. use of pilings to raise living floor elevations versus use of fill).
- Utilize non-polluting construction materials (e.g. concrete pilings versus treated wood) within flood plains.

Hazardous Materials

- Specifically placed larvicides and biological controls are the preferred methods for mosquito control. Adulticides should only be used in compliance with Section 388.011(1) Florida Statutes.

Agriculture and Urban

- Old surface water management (SWM) systems built before current regulations will be retrofitted, using best available management practices, to meet current SWM standards.
- Permitting must address cumulative impacts to the water storage capacity of the watershed.

- Grants or incentives should be provided for retrofitting old surface water management systems that are not effectively managing water volume or flow, or removing nutrients and other pollutants.

Roadways

- All future roadways to be located in the floodplain within the Estero Bay watershed will be designed and constructed to not impede flows from a 25-year, 3 day, storm event.

Public Notice

- Activities in the watershed by any regulatory agency shall provide the opportunity for public participation.

Bay Waters

Water Quality

- Regulatory agencies will continue to support "Best Management Practices."
- Operation of overloaded and outdated package wastewater treatment plants will be discontinued.
- All urbanization will be served by centralized sewage systems.
- There should be uniform application of water quality protection measures by regulatory agencies. A holistic management scheme should be implemented that takes into consideration ecological impacts of regulated activities.
- Compliance and enforcement of existing regulations are needed to protect water quality and biological integrity.
- There shall be no discharge of hazardous materials into Estero Bay.
- Surface water management systems in new developments will be required to utilize state-of-the-art best management practices.
- Grants or incentives should be provided for retrofitting old systems that are not effectively removing nutrients and other pollutants from urban and agricultural stormwater systems.
- The State of Florida will actively investigate and prosecute water quality violators.
- Retrofitting existing shorelines hardened with vertical seawalls to sloping limerock revetments or native, salt tolerant vegetation, should be encouraged wherever possible.
- Compliance and enforcement of existing environmental regulations will be a top priority for regulatory agencies.

Habitat Alteration

- Construction within Estero Bay waters shall be avoided wherever possible.
- For construction that must occur within Estero Bay waters as proven necessary for the health, safety and welfare of the natural resources of Estero Bay and of the people in the watershed, utilize techniques that do not adversely impact Estero Bay waters

New Construction

- New construction projects should utilize best management practices to minimize negative impacts to the bay to the greatest extent possible; and in addition, the project as a whole, including mitigation, should be necessary to protect the public health, safety, or welfare, or the property of others, and should improve the current condition and relative value of functions being performed by the areas affected by the project.
- Utilize non-polluting construction materials (e.g. concrete pilings versus treated wood).

Wildlife

- A manatee protection plan will be adopted to reduce the number of boat-related manatee mortalities and that respects the rights of other users of the bay; to achieve a sustainable manatee population (the goal of the Marine Mammal Protection Act, the Endangered Species Act and other pertinent legislation); to protect manatee habitat; to promote boating safety; and to increase public awareness of the need to protect manatees and their environment.
- Efforts by wildlife protection agencies will be accelerated to reduce other non-boat related manatee mortalities.
- Maintain and improve the overall ecology of the bay and its watershed.
- Wildlife resources such as rookeries, sea grass beds and fisheries are under increasing threat from human activity. Greater efforts are required by regulatory and other agencies and groups to insure the sustained productivity of these resources.

Recreation

- Regulatory agencies will make special effort to maintain the bay as a major natural resource for fishing and appreciation of vegetation and wildlife.

Public Notice

- Activities in Estero Bay by any regulatory agency shall provide the opportunity for public participation.

ATTACHMENT F

STUDY AREA: SECTION "C" MAP

ATTACHMENT G

MEETING No. 7:

SUMMARY PRESENTATION