

**ALTERNATIVES DEVELOPMENT GROUP (ADG)
SOUTHWEST FLORIDA ENVIRONMENTAL IMPACT STATEMENT
MEETING #9, AUGUST 13 - 14, 1998**

MEETING NOTES: Final

The notes provided below document the main points and meeting progress that were offered during the meeting on August 13 through August 14. 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 at the next ADG meeting.

Meeting Overview

The Alternatives Development Group (ADG) met on August 13 through August 14, 1998, at the Collier County Extension Service, Naples, Florida. Twenty-eight 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 water management issues in Collier County, (2) evaluate ADG alternatives for section C of the study area, and (3) develop alternatives for remaining sections, A and D, of the study area. Additional data sources, references, and maps were also identified at the ninth meeting. See Attachment B for a revised list.

The meeting began the morning of August 13 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. (PMCL), respectively, presented the agenda for the ninth meeting. Also, the possibility of extended meetings was offered to the ADG. The ADG agreed to meet again beyond the tenth meeting only after the draft report is completed by PMCL.

Clarence Tears presented water management issues of the Big Cypress Basin (BCB) Watershed. He presented the objectives and the modeling efforts for the BCB. To obtain the

objectives the study is to be conducted in three phases. The study does overlap with the South Lee County Watershed Plan. The complete presentation is displayed in Attachment C.

Tim Feather presented GIS maps and tables for the purpose of evaluating Section C alternatives. The tables generated through GIS area presented in Attachment D. Also, criteria for clustering as discussed in several alternatives was presented to the ADG and is provided in Attachment E. Lastly, GIS maps were provided to aid the ADG in the development of alternatives for sections A and D of the study area.

The alternatives development subgroup spokespersons for the development of alternatives for Section C presented a brief overview of the six alternatives. The ADG then broke into their factor specialty groups to evaluate these alternatives as well as the Comprehensive Plan. A listing of evaluation factors by issue category are provided in Attachment F. To expound upon the factor specialty group's evaluation of alternatives, the groups ordered the seven alternatives on a continuum of best to worst for the twelve issue categories. The results of the factor specialty groups' evaluations are presented by issue category in Attachments G through R.

The factor specialty groups were divided among four alternatives development subgroups for the purpose of developing alternatives for sections A and D of the study area that address the ADG's twelve issue categories. The group developed five alternatives for section D aside from the Comprehensive Plan. Also, these subgroups developed five alternatives for Section A aside from the Comprehensive Plan. All alternatives display the collective effort of the ADG's members. These alternatives will be evaluated by the factor specialty groups at the tenth ADG meeting.

Administrative Activities

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

Administrative Announcements

The ninth ADG meeting was brought to order on Thursday, August 13, 1998 at approximately 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.

Eighth Meeting Overview

Tim Feather presented an overview of the eighth ADG meeting using presentation materials provided in Attachment V of the notes from the eighth meeting. Mr. Feather presented the (1) activities, (2) accomplishments, and (3) next steps.

Draft notes for the eighth meeting as well as final notes for the seventh meeting were distributed to the ADG. Comments regarding the notes for meeting eight were entertained by the facilitation team. Several editorial corrections were noted by the ADG. It was also noted that Alternative 3A for the Section C should state that the rural residential designation of Golden Gate Estates should allow no more than fifty percent of privately owned lots be cleared. Clarifications were made for Alternative 2 and associated criteria.

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 nine will be provided hardcopy at the tenth meeting.

Agenda

The agenda for the ninth meeting was presented by Tim Feather. First, the ADG heard an overview of water management issues in Collier County presented by Clarence Tears. Then, Tim Feather presented the GIS representations of the ADG's alternatives for Section C of the study area. GIS generated tables were presented to the factor specialty groups to aid in the evaluation of Section C alternatives. The factor specialty groups then reported to the ADG their evaluation of the alternatives by issue category. Afterwards, the factor specialty groups divided into alternative development subgroups to develop alternatives for sections A and D of the study area. The alternative development subgroups presented their alternatives to the ADG.

Reference Materials

Two new references were added to the list of materials presented in the notes from meeting eight. The references are as follows:

- Community Development and Environmental Services Division: Report Regarding Density Reduction, Transfer of Development Rights, and Clustering Criteria: Executive Summary.
- Lee County, Florida Consolidated Plan: Fiscal Year 1997 One Year Action Plan for Community Development Block Grants and Home Investment Partnership Program Entitlements. (Excerpts from Appendix A)

The excerpts from Appendix A relevant to the issue of environmental justice are listed below.

- Map 2: Low and Moderate Income Block Groups in Lee County
- Map 3: Percent of Unemployment by Block Group in Lee County.
- Map 4: Percent of the Black Population by Block Group in Lee County.
- Map 5: Percent of the Hispanic Population by Block Group in Lee County.
- Map 6: Percent of Whit Population by Block Group in Lee County.
- Map 14: City of Sanibel's Proposed Projects for Fiscal Year 1996 and 1997.

These materials have been added to the list of references provided in Attachment B.

Beyond the Tenth Meeting

Dale Brown queried the ADG to whether more than ten meetings would be required to finish the development and evaluation of alternatives for the Environmental Impact Statement (EIS). One member stated that although the ADG finally understands their objective and are working together, the Corps, in order to make best use of the ADG's time, should review what is accomplished at the end of the tenth meeting and provide a list of items necessary to complete the process to the ADG. Several other members agreed with this statement. It was also noted by an ADG member that if the purpose of additional meetings is to refine the alternatives developed for the four sections of the study area we could continue this circular process for months.

Other ADG members expressed the need for additional meetings to improve alternatives and thus the evaluation of alternatives for the EIS. The section of most concern in the study area is Section B, hub. Members believe since this was the first section of the study area addressed there have been lessons learned and misinterpretations of alternatives to rectify. It was suggested that the ADG see press forward and evaluate their needs at the end of meeting ten.

The ADG resolved the notion of additional meetings by combining several points. The ADG agreed to meet at least one more time after the draft report had been written and the Corps identified their needs for the purpose of the EIS. Also, before the completion of the tenth meeting, the ADG would make clarifications to the alternatives developed for the hub and reevaluate those alternatives if necessary.

Big Cypress Basin Watershed Plan (BCBWP)

Clarence Tears, representing the South Florida Water Management District (SFWMD), presented the objectives of the BCBWP as well as methodologies to help the SFWMD best meet those objectives. A copy of the complete presentation is provided in Attachment C. The seven objectives of the BCBWP are the following.

- maintain and improve flood protection
- restore historic surface flow on public lands
- improve aquifer recharge
- reduce saltwater intrusion
- reduce excessive freshwater discharge
- provide off-site mitigation opportunities
- enhance natural system functions on public lands

In order to achieve these objectives the BCBWP will be addressed in following three phases.

1. Phase I: hydrologic-hydraulic model development
2. Phase II: ecological assessment model
3. Phase III: problem identification and plan formulation

Mr. Tears identified the data sources for the BCBWP as well as the existing models evaluated for hydrologic and hydraulic model development. He stated that the developed model is not steady state but changes through time. To calibrate the model, data for both a dry year and a wet year (i.e., 1995) were utilized by the modelers. Mr. Tears stated that there are primarily two seasons in southwest Florida; it is either dry or wet. There are eight subbasins in the Big Cypress Basin (BCB) Watershed. The hydrologic model further disaggregated these eight subbasins into 185 sections. Within the BCB Watershed are 1,114 metered rain gauges for the purpose of collecting precipitation data. Four hydraulic models were utilized. After the models were calibrated the results mirror the actual data.

Mr. Tears also presented the criteria for the development of the Ecological Assessment Model (EAM). A guiding principle of the development of the EAM is to develop a model that is not data intensive. The model is a decision support tool. Three results of the EAM are as follows.

- develop ecological assessment criteria
- apply criteria to public lands (existing conditions)
- provide required range of hydrological parameters for healthy habitats and ecosystems

A member of the ADG noted that there is significant overlap with this study and the South Lee County Watershed Plan. It was questioned whether this was a waste of taxpayer money. Mr. Tears stated that the overlap allows for a check of the models and the work done for the study in South Lee County. Another member commented that when looking for options to

improve water management in Collier County, don't consider Belle Meade a sieve for Golden Gate Estates. It was also noted that in the goal to protect estuaries, planners can use natural features like Belle Meade instead of using artificial structures such as weirs.

GIS Products

Tim Feather presented the GIS representations of the ADG's alternatives for Section C of the study area. The ADG developed six alternatives at meeting eight. Spokespersons for each alternatives development subgroup presented a brief overview of each alternative. Inaccuracies in the GIS representations were noted by the spokespersons.

Given the six alternatives and current GIS overlays, tables were generated to provide information necessary for the evaluation of Section C alternatives. These tables are provided in Attachment D.

In addition, Tim Feather presented the following GIS maps for the purpose of developing alternatives for Sections A and D of the study area.

- Existing Land Use
- Existing Land Use with PUD, DRI's, and Existing Preservation
- Future Land Use
- Species Data

The evaluation of Section C alternatives and the development of alternatives for Sections A and D are presented in the following sections

Evaluation of Section C Alternatives

The factor specialty groups evaluated the six alternatives developed at meeting eight for Section C as well as the Comprehensive Plan. These alternatives are described in the notes from meeting eight. Dale Brown stated that for the purpose of reporting and clarification, the groups should provide quality explanations for the evaluation of the alternatives. Then, the factor specialty groups were directed to determine the best and worst alternatives by issue category. All other alternatives would be placed on a continuum between the best and worst alternatives by issue category. Then, the factor specialty groups presented their evaluations to the ADG.

Property Rights

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. To address the issue of property rights the group utilized three factors. These factors are presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment G. Once the alternatives were evaluated, the best and worst alternatives with respect to property rights were determined. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment G.

Alternatives 4 and the Comprehensive Plan were both considered to be the best alternatives for property rights. The Comprehensive Plan displays existing standards. Alternative 4 expanded upon the Comprehensive Plan thus it is considered slightly better than the Comprehensive Plan in terms of property rights. Alternative 1B is the next best alternative presenting more reasonable restrictions than presented by the remaining alternatives. Alternative 3A was not consider as good as 1B due to disagreement within the alternatives development subgroup that presented 3A. Alternatives 1A, 2, and 3B were consider the worst in terms of property rights due to the limiting impact of additional criteria as well as the reduction of urban areas.

Local Land Use Policy

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of local land use policy utilized two factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment H. Each evaluation factor was measured on a scale of one to four where a score of one is worst and 4 is best. The score received for both factors were totaled to produce a sum total. The highest possible total was eight points.

Once the alternatives were evaluated, the best and worst alternatives with respect to local land use policy were determined by total score. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment H.

The factor specialty group stated that the alternatives were very similar in terms of the two factors used in the evaluation. The Comprehensive Plan, since it is the current local land use plan, was considered the best scoring six out of a possible eight points. The next best alternative was alternative 1B which received a score of five. Alternatives 1A, 2, 3A, 3B, and 4 were all considered to be equally worse each scoring four out of eight possible points.

Reviewing the scores by factor, the Comprehensive Plan scored the highest, four points, with respect to the factor of not deviating from the current local land use plan. The remaining alternatives either scored two or three points depending on how much they deviated from the

current Comprehensive Plan. All alternatives scored a two for hurricane preparedness except for alternative 4 which scored a one due to the increase in population that would potentially result.

Economic Sustainability

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of economic sustainability utilized seven factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment I. Each evaluation factor was measured on a scale of one to four where a score of one is worst and 4 is best. The score received for both factors were totaled to produce a sum total. The highest possible total was twenty-eight points.

Once the alternatives were evaluated, the best and worst alternatives with respect to economic sustainability were determined by total score. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment I.

The two best alternatives were 4 and the Comprehensive Plan in terms of economic sustainability. Alternative 4 and the Comprehensive Plan scored twenty-one and nineteen points out of twenty-eight possible points, respectively. The factor specialty group stated that the more development in this section the more money generated. They also stated that they struggled with the factors because it is so hard to anticipate what will happen in the future. Alternative 2 was considered the worst alternative scoring eleven points. Alternatives 1A, 1B, 3A, and 3B were considered better than alternative 2 but still posed more restriction than alternative 4 and the Comprehensive Plan.

Regulatory Efficiency and Effectiveness

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of regulatory efficiency and effectiveness applied three factors presented in Attachment F. Once the alternatives were evaluated, the best and worst alternatives with respect to regulatory efficiency and effectiveness were determined. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment J.

At meeting eight, it was determined that the factor addressing Fish and Wildlife Service, Game and Fish Commission, and public concerns were covered by other issue categories and should be dropped as a factor to address regulatory efficiency and effectiveness. The original

assessment measure for the pre-identified impact and mitigation areas of one-hundred percent of alternative maps colored in found no differentiation among alternatives. Thus, all alternatives for Section C were considered equal. All alternatives maps had all areas identified and colored appropriately. Given the ineffectiveness of these factors to discriminate among alternatives, it was suggested at meeting eight that either the issue category of regulatory efficiency and effectiveness is not appropriate or the factors by which to evaluate alternatives need to be re-defined.

Avoidance of Wetland Impacts

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of avoidance of wetland impacts utilized two factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment K. The factors address the idea of acres and acres by level of function at risk by an alternative.

Once the alternatives were evaluated, the best and worst alternatives with respect to avoidance of wetland impacts were determined by comparing the indices of risk calculated for each alternative. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment K.

Alternative 1A was considered the best with respect to avoidance of wetland impacts. It received the lowest risk scores for both acres and functional acres of wetlands at risk. Alternative 4 was the worst alternative followed closely by alternative 3B and the Comprehensive Plan. Alternative 4 had both the greatest number of wetlands acres at risk and the greatest acres of high functioning wetlands at risk. Alternatives 1B, 2, and 3A were closer to the best than worst alternatives. However, the factor specialty group stated that there was not much variation between the best to the worst scores in this instance. They also stated that the total acres impacted negatively by several alternatives were offset by criteria associated with the alternatives.

Mitigation

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of mitigation applied two factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment L. The factors address the idea of acres available for mitigation and acres by level of function available that are not publicly owned.

Once the alternatives were evaluated, the best and worst alternatives with respect to mitigation were determined by comparing the indices of opportunity calculated for each alternative. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment L.

Alternative 3A was considered the best alternative in terms of mitigation followed closely by alternatives 1A and 2. Alternative 3A did not score the highest ratio for acreage and but did score highest for functionality. The combination of acreage and functionality made this the best alternative. The worst alternative in terms of mitigation was alternative 4. This alternative had the greatest impact on acreage and did not provide criteria to offset the impact. The Comprehensive Plan was the next to worst alternative. Alternatives 1A and 2 were nearly equal in terms of ratios and were two of the better alternatives. Alternatives 1B and 3B were in the middle of the continuum reflecting the ratios received for each of the two evaluation factors. Similar to the issue category of avoidance of wetland impacts, the ratios did not display much variance. However, this does not mean that the variation is not significant.

Ecosystem Function, Wildlife Habitat, and Listed Species

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of ecosystem function, wildlife habitat, and listed species applied twelve factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment M. The six alternatives excluding the Comprehensive Plan were ranked with a total possible score of 72. The lower the score the better the evaluation of the alternative. The factor specialty group noted that they applied the data provided via GIS as well as best professional judgment to evaluate the alternatives.

Once the alternatives were evaluated, the best and worst alternatives with respect to ecosystem function, wildlife habitat, and listed species were determined by assessing the total score of each alternative. The remainder were compared amongst each other based on the score received and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment M.

The best alternatives with respect to ecosystem function, wildlife habitat, and listed species were alternatives 2, 1A, and 3A which produced scores of 15, 18, and 19, respectively. The worst alternative was 3B having the highest possible points of 72 because the criteria were not fully defined. This alternative was closely followed by alternative 4 with a score of 51. Alternative 1B and the Comprehensive Plan were considered to be about the same with a score of 38 located near the middle of the continuum of best to worst.

Cumulative and Secondary Impacts

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of cumulative and secondary impacts applied the ten factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment N. Once the alternatives were evaluated, the best and worst alternatives with respect to cumulative and secondary impacts were determined. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment N.

Of the ten factors, nine were used to evaluate and discriminate among alternatives. Given that the factor specialty group assumed no difference in population among alternatives, the factor of crime rate was considered the same for all alternatives. The factor specialty group ranked the seven alternatives by factor. A ranking of 1 was the best and 7 was the worst. The worst possible score was 63. There is a generalization that can be made stating that the ten factors can be divided into two categories (1) social factors and (2) environmental factors.

The best alternatives with respect to cumulative and secondary impacts was alternative 1A receiving the best possible score of 9. Alternative 3A was a close second. These two alternatives were similar in both the social and environmental factors. The worst alternative was the Comprehensive Plan followed closely by alternatives 4 and 3B scoring 60, 49, and 53, respectively. The low ranking of 3B was due to lack of interpretation of criteria supporting the alternative. Although 3B ranked poorly it was placed near the middle of the continuum from best to worst. See Attachment N. Alternatives 1B, 2, and 3A were also considered in the middle of the continuum scoring 34, 29, and 18, respectively.

Public Lands Management / Use

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of public lands management/use utilized three factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment O. Once the alternatives were evaluated, the best and worst alternatives with respect to public lands management/use were determined. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment O.

At the eighth meeting, the factor specialty group proposed combining the three previously identified evaluation factors into one factor. The factors were (1) compliance with land management plan, (2) degradation, and (3) funding. The factor of funding was not included as an evaluation factor. The group evaluated the alternatives with essentially one factor combining the factors of compliance with land management plan and degradation of resources on public lands. The primary focus in the evaluation of alternatives was the type of land use adjacent to the public lands. The less intensive the use the better. The Belle Meade and CREW Trust areas were of particular concern in Section C.

The factor specialty group considered alternatives 1A, 2, and 3A to be the best in terms of public lands management and use. Alternatives 1A and 2 had the least amount of development around adjacent to public lands (i.e., Belle Meade and CREW Trust). Alternative 1A had more rural residential areas near public land than alternative 2. Alternative 3A had the fifth most development of the seven alternatives evaluated. Alternatives 4, 3B, the Comprehensive Plan had the first, second, and third most development near public lands, respectively. Thus, alternative 4 was considered the worst alternative in terms of public lands management and use having the most development of all alternatives around Belle Meade and CREW Trust as well as more development in the east of Section C. Alternative 1B had the fourth most development near public lands.

Water Quality

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of water quality applied five factors. These factors are presented in Attachment F. The factor of impact on groundwater, although it was not computed, it was considered when evaluating the alternatives. For the remaining four factors, the factor specialty group used a scoring method of 1, 2, and 3 where a score of 1 is best and 3 is worst. Thus, the worst possible score was 12. The evaluation of the alternatives by factor are also provided in Attachment P. Once the alternatives were evaluated, the best and worst alternatives with respect to water quality were determined. The remainder were compared amongst each other and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment P.

The factor specialty group considered alternative 1A to be the best in terms of water quality with the best possible score of 4. The next best alternatives were 1B and 3A each scoring 7. These were closely followed by alternatives 2 and 3B with scores of 8 and 9, respectively. The two worst alternatives were the Comprehensive Plan and alternative 4 with scores of 11 and 12, respectively.

Restoration Retrofit

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of restoration retrofit applied two factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment Q. The factor specialty group used a method of (+), (-), and (0) to identify to what extent each alternative addressed the evaluation factors. The (+) identifies that the alternative address the factor whereas the (0) identifies that it did not and (-) signifies that the alternative negatively impacts the factor. The factor specialty group applied five of the original seven factors in the evaluation of alternatives.

Once the alternatives were evaluated, the best and worst alternatives with respect to restoration retrofit were determined by comparing the number of (+) received by the alternatives. The remainder were compared amongst each other based on the method described above and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment Q.

Alternatives 3A and 1A were considered the best alternatives. Each scored the most (+), four, of any of the other alternatives. It was noted that alternative 1A has the potential for clustering of residences. Alternative 2 was next to best receiving three (+). Alternatives 1B and the Comprehensive Plan were placed in the middle of the continuum from best to worst each receiving two (+). The alternatives previously mentioned did not receive any (-). However, alternative 4 received one (+), three (0), and one (-). The worst alternative was 3B receiving (-) for three factors and (0) for the two remaining factors. Thus, alternative 3B did not address any of the factors.

Water Management

The factor specialty group evaluated the six alternatives developed by the ADG and the Comprehensive Plan for Section C of the study area. The group to address the issue of water management applied seven factors presented in Attachment F. The evaluation of the alternatives by factor are also provided in Attachment R. The factor specialty group used a method of (+), (-), and (0) to identify to what extent each alternative addressed the evaluation factors. The (+) identifies that the alternative address the factor whereas the (0) identifies that it did not and (-) signifies that the alternative negatively impacts the factor.

Once the alternatives were evaluated, the best and worst alternatives with respect to water management were determined by comparing the number of (+) received by the alternatives. The remainder were compared amongst each other based on the method described above and placed accordingly on a continuum of best to worst. The factor specialty group explained their placement of alternatives from best to worst to the ADG. A graphical depiction of this best to worst continuum is presented in Attachment R.

The Comprehensive Plan was considered to be the best alternative with respect to water management receiving three (+). Alternatives 1A, 2, and 3A were the next to best each receiving two (+). The alternatives receiving higher rankings were those with greater percent of preserve lands which has positive impacts on water management and hurricane evacuation. In the middle of the continuum are alternatives 1B and 4. The worst alternative was 3B receiving several (-) for a couple of factors. The factor specialty group noted that 3B was considered the worst alternative due to the fact that it was not fully supported by criteria.

Section D Alternatives Development

Dale Brown and Tim Feather introduced the activity of developing alternatives for section D of the study area. 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 ADG's GIS council to provide GIS interpretation. The task of the four subgroups was to develop no more than two alternatives for section C 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. The color scheme of alternatives maps was placed on legends with explanation and criteria attached when appropriate. 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.

An ADG member provided clustering criteria to the ADG for reference in the development of alternatives for Sections D as well as A. The title of the document is *Community Development and Environmental Services Division: Report Regarding Density Reduction, Transfer of Development Rights, and Clustering Criteria*. The executive summary of this document is presented in Attachment E.

Alternative 1

Alternative 1 identified three primary categories of land use (1) preserve, (2) residential, and (3) agricultural preserve represented on the map by green, red, and blue, respectively. The preserve areas included locations of panther refuge and flowways through northern Golden Gate Estates. The residential areas in delineated in red included Mile City, Everglade City, and Golden Gate Estates. The group applied the criteria spelled out in Attachment S to Golden Gate Estates. The agriculture preservation areas are designated to have no intensification of agricultural activities on these lands.

An ADG member noted that there are residences currently in the areas designated as flowways in northern Golden Gate Estates. Another member asked whether the Golden Gate Estates criteria applied to all areas in red (i.e., Mile City). The alternatives development subgroup added urban areas to the map designated in black to distinguish for example Mile City from the residential area of Golden Gate Estates. It was also noted that the CARL map should be utilized in the designation of wetland and agricultural areas in northeast corner of section C around Camp Keais Strand and areas of Big Cypress area of Critical State Concern. This will allow better delineation for the purpose of GIS maps and resulting tables of data. One member asked how the this alternative accounts for the existing Ford test track that is currently designated as preserve in this alternative. The ADG noted that there is an underlying assumption that there are residences and other activities, such as the Ford test truck and mining activities, that exist and will continue to exist although they may not be specifically addressed in the alternative.

Alternative 2A

Alternative 2A identified four categories of land use (1) preserve, (2) urban, (3) Golden Gate Estates, and (4) agriculture. The urban area refers to small towns but does not imply the level of urbanization that is found in Naples, for example. The criteria for the Golden Gate Estates area are found in attachment S. The agricultural areas are designated to have no intensification as defined in the notes from meeting number seven. No intensification assumes the rotation of crops but not the additional clearing of land.

There was some disagreement in the alternatives development subgroup of the criteria applicable in the agricultural area within the Big Cypress area of Critical State Concern. This area was addressed separately in alternative 2B.

Alternative 2B

Alternative 2B is the same as alternative 2A except the agricultural land in the Big Cypress area of Critical State Concern. There are criteria associated with lands in the Big Cypress area of of Critical State Concern. These criteria are provided in Attachment T as they were presented in the Collier County Growth Management Plan, 1997. One exception to these criteria is that agricultural land is not exempt.

Alternative 3

Alternative 3 identified five land uses (1) preserve, (2) towns, (3) agriculture, (4) Golden Gate Estates, and (5) the Ford test track. The alternatives development subgroup also identified locations at which culverts may be installed for the purpose of maintaining and restoring flowways. The areas of existing agriculture have the criteria of no intensification. Also, if agricultural land is to convert to a use other than agriculture it must convert to preservation. The criteria that is applicable to Golden Gate Estates is found in Attachment S.

Alternative 4

Alternative 4 is very similar to the previous alternatives south of Interstate 75. The area of significant difference is the agricultural land east of Golden Gate Estates. Unlike the other alternatives the group did not intend to follow the CARL boundary in the agricultural areas noting that some of the CARL designated land has not been purchased and will likely remain in agriculture. The alternatives development subgroups stated that there are no criteria placed on existing agricultural areas. Although the group did not foresee the agricultural lands moving from any other use than agriculture, they did not want to restrict the option of moving to an alternate use. Also, there were no criteria identified for Golden Gate Estates.

Alternatives Analysis

Mr. Feather noted that there were some similarities in the definition of agricultural areas for several alternatives. Alternatives 1, 2A, and 2B refer to agricultural lands to have no intensification. Alternative 2B applies the Big Cypress area of Critical State Concern criteria to a portion of Section D particularly as it refers to agriculture. Alternative 3 proposes no intensification of agricultural activities as well as the conversion of agricultural lands must be to preservation. The group was not sure of the details of how agricultural lands would be purchased for preservation in this case. Alternative 4 proposed that agricultural lands have no restrictions placed on them. Thus, these lands, although not foreseen, could potentially be converted to estates.

Section A Alternatives Development

Following the instructions presented previously under *Section D Alternatives Development* the four alternatives development subgroups developed alternatives for Section A. Prior to the development of alternatives, Bill Hammond gave a brief overview of the evolution of water management issues within Section A and Lehigh Acres.

Water Management Issues

Mr. Hammond made the analogy of a table top with respect to the flow of surface water through Lehigh Acres. You can place water on the table top without experiencing any flow until that one last drop of water breaks the tension and begins the flow. Lehigh is relatively flat requiring some force to move surface water. He stated that Lehigh Acres used to get surface water flows from Hendry County and was once the headwaters for Six Mile Cypress. To restore the flowway and connectivity through Lehigh is very difficult with land owners scattered around the world.

The water table in Lehigh has dropped significantly but is being restored partially through weirs. Currently, there are a lot of stop-gap measures being implemented but not a comprehensive plan. It has been suggested to hold water in Lehigh Acres but would need to look at it from a legal and business perspective. For irrigation purposes, there may be an opportunity to pay farmers to the east to store water on previously farmed lands.

Mr. Hammond stated that the ADG and others should be innovative in solving the problems of southwest Florida. Current regulations do not help the situation. Particularly when the impact of future decisions are compared to existing conditions not historic conditions. Thus, the basis of comparison is always changing.

It was noted that Lehigh Acres is located on 97 square miles. The buildout number of single-family homes is projected to be 130,000 units with approximately 2.4 persons per unit.

Alternative 1

This alternative took the approach for some areas of the three R's (1) restoration, (2) retrofit, and (3) redevelopment. It was proposed for Lehigh Acres to use strategies of clustering, multifamily, and high density areas. Southeast Lehigh Acres is proposed rural residential as well as the area along Buckingham. The criteria presented in Attachment E of the notes from meeting seven apply to all designated rural residential areas. Also, stormwater criteria were presented to be applied in the urban and Three R's areas of Section A. These criteria presented in Attachment

U are proposed best management practices. The location of the airport and expansion runway are considered urban surrounded by preservation.

Alternative 2

This alternative identifies four primary types of land use (1) urban, (2) preserve, (3) rural residential, and (4) Lehigh Acres. The rural residential applies to the areas of Buckingham, along the Caloosahatchee River, and areas outside Lehigh Acres. The rural criteria are presented in Attachment E of the notes from meeting seven. Lehigh Acres is proposed to be a redevelopment zone. Redevelopment zone criteria are presented in Attachment V. The idea is to identify existing wetlands, flowways, and other storage areas as well as areas of development. Then reassign densities with less single-family units. Units should be clustered in central Lehigh Acres. This area is more developed and is higher in elevation than the surrounding areas of Lehigh Acres. A greenway was identified on the eastern boundary of Lehigh Acres for water storage, fish and wildlife habitat, and recreational amenity. The greenway is two sections wide by eleven sections in length. Also, it is proposed to stop current infrastructure plans and create regional stormwater retention areas. These same criteria would apply to adjacent rural lands so there will not be urban sprawl.

Alternative 3

This alternative identified urban, preservation, airport, and Lehigh Acres. For preservation, areas such as mitigation lands, flowways, Six Mile Cypress, Ten Mile Canal were identified. A concept of filter marshes was also proposed. The airport was recognized with onsite mitigation proposed. The areas of Lehigh Acres and Halfway Pond were identified as having potential for a concept of ARF which is an acronym for (1) acquire, (2) restore, and (3) fix.

Alternative 4

Alternative 4 identified the expanded airport property as well as airport preserve. Also identified were areas of preserve, rural development, surface water storage and flowways, urban areas, and Lehigh Acres. There are three specific areas addressed by this alternative at Lehigh Acres: (1) Greenbriar, (2) southeast Lehigh, and (3) remaining Lehigh Acres. The Greenbriar area is considered for redevelopment instead of the current single-family housing units. Southeast Lehigh Acres which is primarily rural residential could accommodate flowway restoration and maintenance.

Alternative 5

This alternative utilized the same map as that presented for alternative 3. The difference between the two is in the standards and criteria associated with the alternatives. The primary focus of the standards and criteria of alternative 5 is the Corps' Section 404 permit process and the use of dredging and filling. These criteria were not available to be presented to the ADG at meeting nine. However, the criteria were provided between meetings nine and ten and are provided in Attachment W.

Meeting Nine 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 nine will be presented in the notes to be provided at meeting ten. This summary will be presented by Mr. Feather at meeting ten. The summary presentation is provided in Attachment X.

Next Meeting

The tenth meeting will be held at the Collier County Extension Service, Naples, Florida on August 27 and 28, 1998. Topics of the meeting will be the evaluation of alternatives for Sections A and D of the study area, refinement and clarification of alternatives for Section B, hub, of the study area, and further evaluation of Section B alternatives if necessary.

ATTACHMENT A

**ALTERNATIVES DEVELOPMENT GROUP
MEETING #9 ATTENDEES**

**LIST OF ATTENDEES
ALTERNATIVES DEVELOPMENT GROUP
MEETING #9, AUGUST 13 & 14, 1998**

Members Represented:

Robert S. Baker

Council of Civic Associations

Rick Barber

Chief Executive Officer

Agnoli, Barber & Brundage, Inc.

Tom Beck

Department of Community Affairs

John Cassani

Lee County Hyacinth Control District

David Burr (alternate for Wayne Daltry)

Executive Director

SW FL Regional Planning Council

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

Edward Griffith
Director of Planning
WCI Communities

David Guggenheim
The Conservancy of Southwest FL

Bill Hammond
South Florida Water Management District

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

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

Ronald Inge
Harper Bros., Inc.

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

Jeffrey Rhodes (alternate for Al Lucas)
U.S. Environmental Protection Agency

Karen Johnson (alternate for Chip Merriam)
Director, Fort Myers Service Center
South Florida Water Management District

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

Mark Strain (alternate for 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 P. Strain
Gulf Bay Communities, Inc.

Kris Thoenke
Director, Everglades Project
National Wildlife Federation

Bob Barron (alternate for John R. Hall)
Department of the Army, Jacksonville District Corps of Engineers, Regulatory
Division

Members Not Represented:

Earl Kegg
Collier County Representative

Richard Klaas
Florida Real Estate Consultants

Bonnie Kranzer
Governor's Commission for Sustainable South Florida

Matthew D. Uhle
Economic Dev. Coalition of Lee Co.

Whit Ward
Collier Building Industry Association, Inc.

Observers:

Michael Simonik
The Conservancy

Brian Bellman
Citizen of Marco Island

Collum Hasty
Alternative for Fran Stallings

Jon Inglehart

Florida DEP

Sherrill Culliven
FDEP

Nancy Payton
FWF

Cindy Hachez
Audabon

Russell Eastenes
FDEP

Facilitation Team:

Timothy Feather
Program Manager
Planning and Management Consultants, Ltd.

Dale Brown
Lead Facilitator
Planning and Management Consultants, Ltd.

Michael Beezhold
Meeting Recorder
Planning and Management Consultants, Ltd.

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
Lee County: Planning Community Existing Conditions Summary
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)
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An Environmental Characterization of the Rookery Bay National Estuarine Research
Reserve: Phase I (1993)
Community Development and Environmental Services Division: Report Regarding
Density Reduction, Transfer of Development Rights, and Clustering Criteria
Lee County, Florida Consolidated Plan: Fiscal Year 1997 One Year Action Plan for
Community Development Block Grants and Home Investment Partnership
Program Entitlements (Excerpts from Appendix A)
South Lee County Watershed Plan: draft (1998)

ATTACHMENT C

COLLIER COUNTY WATER MANAGEMENT ISSUES

ATTACHMENT D

GIS OUTPUT: SECTION C

ATTACHMENT E

CLUSTERING CRITERIA

ATTACHMENT F

EVALUATION FACTORS BY ISSUE CATEGORY

EVALUATION FACTORS BY ISSUE CATEGORY

A. *Property Rights*

- A1. Fair market value
- A2. Reasonable expectations for use of land and return on investment
- A3. Vested rights

B. *Ecosystem Function, Wildlife Habitat, and Listed Species*

- B1. Affects on GFC SHCAs habitat planning objectives
- B2. Affects on FWS type 1 & 2 panther habitat
- B3. Affects on RPC natural resource goals
- B4. Affects on FWS Recovery Plans & FL Panther Habitat Cons. Plan
- B5. Affects occurrences of listed species
- B6. Affects occurrences of rookeries
- B7. Affects loss of native plant communities (common and rare)
- B8. Affects fragmentation & connectivity of plant animal habitats
- B9. Loss of seasonal wetlands
- B10. Affects integrity of flowways (rivers, sloughs, strands)
- B11. Wetlands of important to critical wildlife
- B12. Affects on aquatic resources

C. *Regulatory Efficiency and Effectiveness*

- C1. Permit review time and level of effort
- C2. Pre-identified impact/mitigation and preserve areas

D. *Local Land Use Policy*

- D1. Significance of conflicts with local land use plans and regulations
- D2. Hurricane preparedness evacuation routes

E. *Cumulative/Secondary Impacts*

- E1. Impacts on infant mortality
- E2. Impacts on road needs
- E3. Impacts on air pollution loading
- E4. Impacts on water pollution loading
- E5. Impacts on crime rates
- E6. Impacts on hurricane vulnerability
- E7. EPA index of watershed indicators
- E8. Impacts on wetlands only

- E9. Impacts on hydrology
- E10. Amount of lands in public and private ownership in protected status

F. Avoidance of Wetland Impacts

- F1. Number of acres of wetland impacted
- F2. Wetland functions impacted

G. Water Management

- G1. Infrastructure existence - stormwater utility - maintain and improve
- G2. Home damage during storm events - level of flood protection
- G3. Home construction to meet 100 year storm event
- G4. Flood depth and duration - increase? Hurricane evacuation?
- G5. Historic flow patterns - timing, amount, location, improve and maintain
- G6. Adequate water storage - balance of consumption with hydroperiods
- G7. Groundwater data floors and ceilings - aquifer zoning

H. Water Quality

- H1. Pollution loading
- H2. Freshwater pulses
- H3. Habitat loss
- H4. Groundwater impact
- H5. Water quality index

I. Economic Sustainability

- I1. Job creation
- I2. Home affordability
- I3. Cost of living
- I4. Property tax base
- I5. Cost to implement
- I6. Increased taxes
- I7. Environmental justice

J. Mitigation

- J1. Total acres provided
- J2. Total wetlands-function acres provided

K. Restoration/Retrofit

- K1. Natural function maintained in natural systems (i.e. flowways)

- K2. Exotics control: % and size of parcels treated and restored
- K3. Percent of residents using self-supplied infrastructure (i.e. septic tanks)
- K4. Percent ag using BMPs
- K5. Wildlife habitat restoration
- K6. Index of regional functionality (e.g. ws, wq)
- K7. Enhance quality of life (QOL)

L. Public Lands Management/Use

- L1. Compatibility with land management plan / Degradation or improvement of resources on public lands

ATTACHMENT G

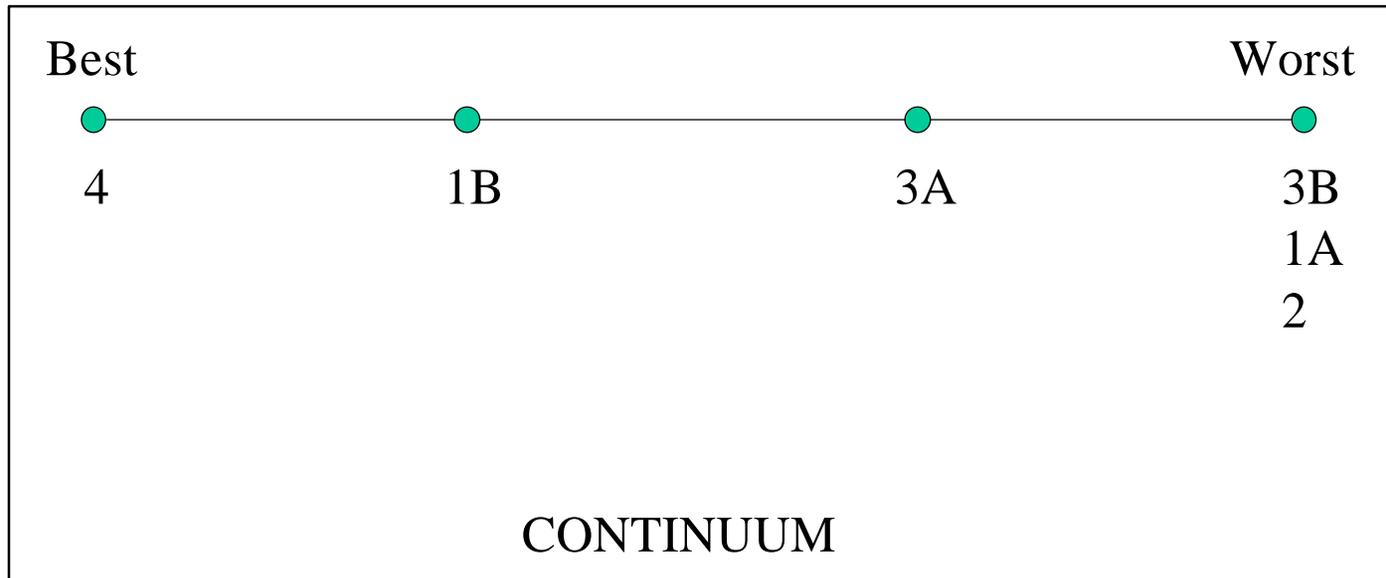
SECTION C ALTERNATIVES EVALUATION: PROPERTY RIGHTS

Evaluation of Section “C” Alternatives Issue Category: Property Rights

Evaluation Factors ^{1,2}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
A ¹	3	1	2	1	2	1	4
A ²	4	2	3	2	2	2	4
A ³	4	2	2	2	2	2	4
Score	11	5	7	5	6	5	12

1 Scale of 1 to 4 where 1 is worst and 4 is best

2 Best possible score is 12



ATTACHMENT H

SECTION C ALTERNATIVES EVALUATION: LOCAL LAND USE POLICY

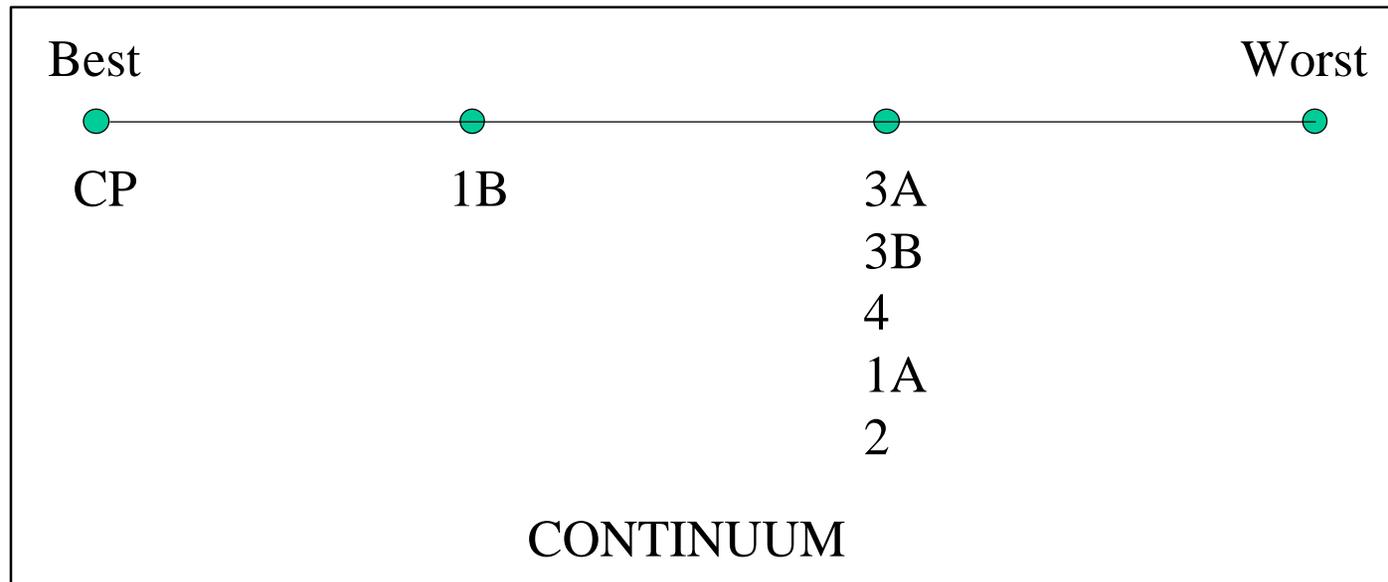
Evaluation of Section “C” Alternatives

Issue Category: Local Land Use Policy

Evaluation Factors ^{1,2}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
D1	4	2	3	2	2	2	3
D2	2	2	2	2	2	2	1
Score	6	4	5	4	4	4	4

1 Scale of 1 to 4 where 1 is worst and 4 is best

2 Total possible score is 8



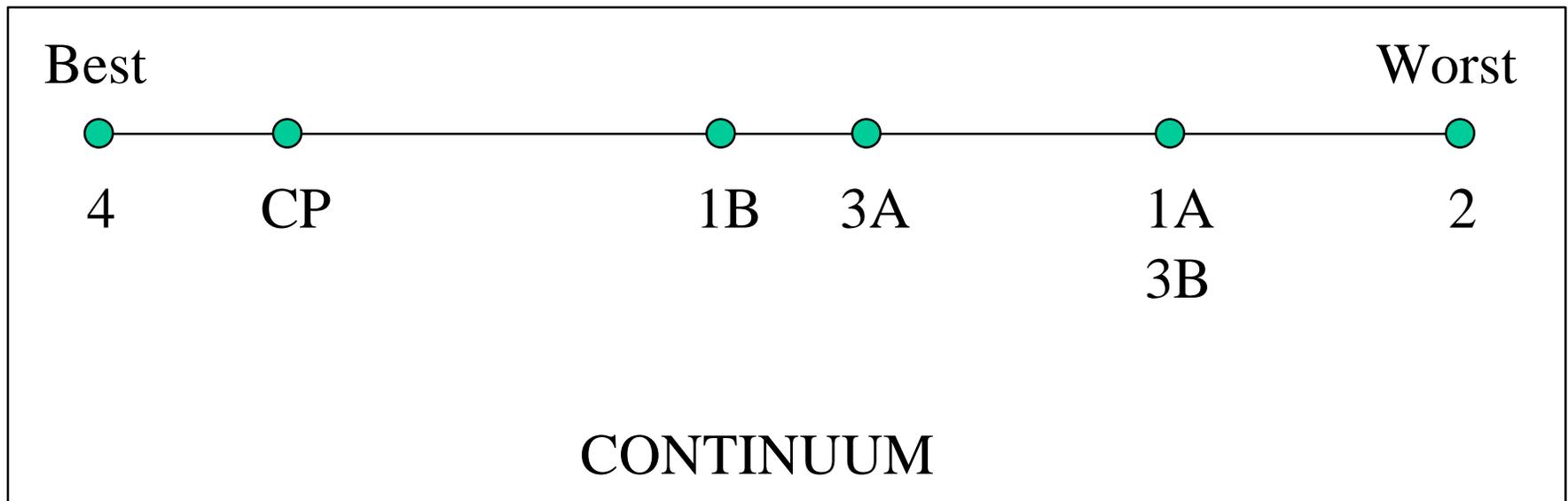
ATTACHMENT I

SECTION C ALTERNATIVES EVALUATION: ECONOMIC SUSTAINABILITY

Evaluation of Section “C” Alternatives Issue Category: Economic Sustainability

Evaluation Factors ^{1,2}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
I1	3	2	2	1	2	2	4
I2	2	2	2	2	2	2	3
I3	3	1	2	1	1	1	3
I4	3	2	3	2	2	2	3
I5	3	1	2	1	2	1	3
I6	3	2	2	2	2	2	3
I7	2	2	2	2	2	2	2
Score	19	12	15	11	13	12	21

- 1 Scale of 1 to 4 where 1 is worst and 4 is best
- 2 Total possible score is 28



ATTACHMENT J

SECTION C ALTERNATIVES EVALUATION: REGULATORY EFFICIENCY AND EFFECTIVENESS

Best

Worst



ALL

CONTINUUM

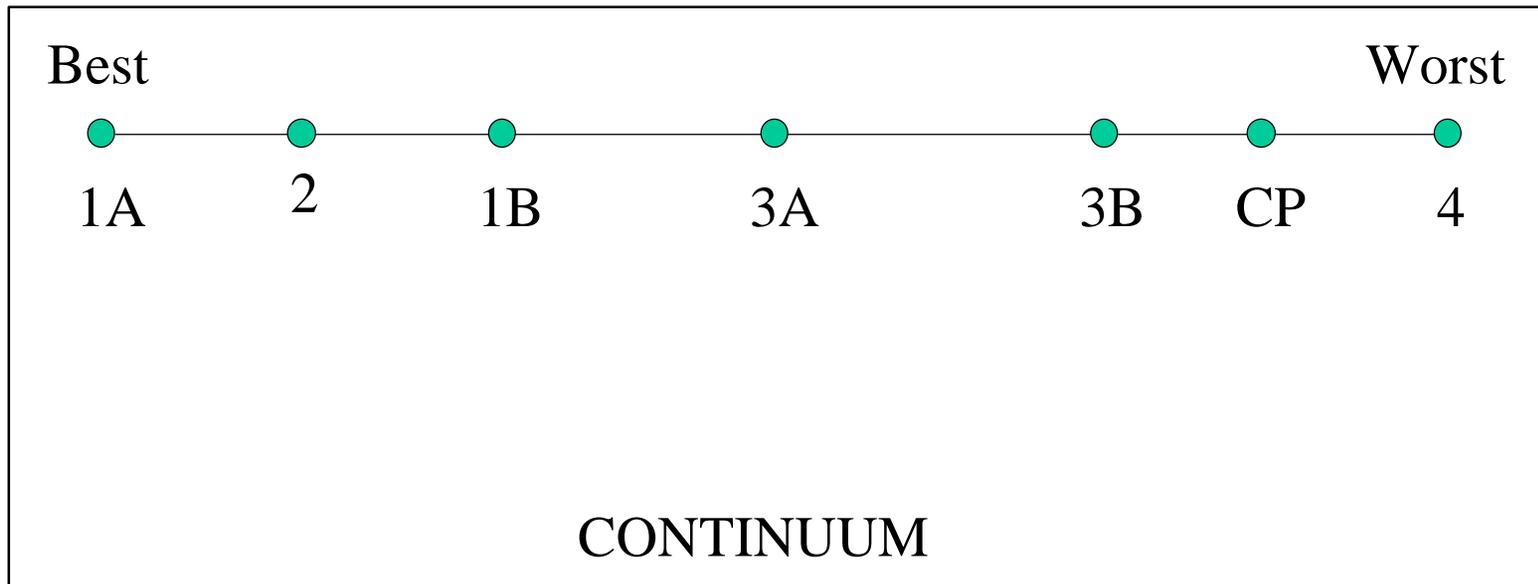
ATTACHMENT K

SECTION C ALTERNATIVES EVALUATION: AVOIDANCE OF WETLAND IMPACTS

Evaluation of Section “C” Alternatives Issue Category: Avoidance of Wetland Impacts

Evaluation Factors	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
F1	10.4	9.4	9.9	9.5	9.9	10.9	11.4
F2	4.2/2.2/4.0	5.0/0.0/4.4	4.6/0.3/5.0	4.9/0.6/4.0	5.0/0.3/4.6	4.3/2.0/4.6	4.4/0.9/6.1

Note: See interpretation in Attachment D of Meeting 7 Notes.



AVOIDANCE OF WETLAND IMPACTS

SECTION C ALTERNATIVE: COMP PLAN

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	X RISK =	ACRES AT RISK	QUALITY
	AG	10,561	0.10	1,056	M
	INDUSTRIAL	86	0.80	69	L
	PRESERVE EXISTING	40,000	0.01	400	H
	PRESERVE PROPOSED	48,631	0.10	4,864	M
	RURAL	11,094	0.15	1,664	M
	URBAN	<u>13,983</u> 124,355	<u>0.35</u>	<u>4,894</u> 12,947	L
	<u>12,947</u> = 10.4 124,355				
F2: FUNCTION "UNITS" AT RISK	<u>5,264H/ 2,720M/ 4,963L</u> 4.2 2.2 4.0				

SECTION "C" ALTERNATIVE: 1A

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	X RISK	ACRES AT RISK
	AG	5,456	0	0
	GOLDEN GATE	10,897	0.20	2,179
	PRESERVE EXISTING	40,000	0.01	400
	PRESERVE PROPOSED	58,915	0.10	5,892
	URBAN	<u>9,308</u>	0.35	<u>3,258</u>
		124,576		11,729
	INDEX = 0.094 = 9.4			
F2: FUNCTION "UNITS" AT RISK	AG	0 X / =		
	GOLDEN	2,179 X L =		
	PRESERVE EXISTING	400 X H =		
	PRESERVE PROPOSED	5,892 X H =		
	URBAN	3,258 X L =		
	<u>6,292H / 0M / 5,437L</u>			
	5.0	0	4.4	

SECTION "C" ALTERNATIVE: 1B

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	GIS DATA ADJUSTED	ADJUSTED ACRES	X RISK	ACRES AT RISK
	AG	4,758	0	4,758	0.1 =	476
	GOLDEN GATE	15,437	+ 300	15,737	0.15 =	2,361
	PRESERVE EXISTING	40,000	- 300	40,000	0.01 =	400
	PRESERVE PROPOSED	54,375	- 960	53,115	0.10 =	5,312
	URBAN	<u>10,006</u>	+ 960	10,966	0.35 =	<u>3,838</u>
		124,576				12,387
	$\frac{12,387}{124,576} = 0.099 = \text{INDEX} = 9.9$					
F2: FUNCTION "UNITS" AT RISK	AG	476 X M				
	GOLDEN GATE	2,361 X L				
	PRESERVE EXISTING	400 X H				
	PRESERVE PROPOSED	5,312 X H				
	URBAN	3,838 X L				
	$\frac{5,712H}{4.6} / \frac{476M}{0.3} / \frac{6,199L}{5.0}$					

SECTION "C" ALTERNATIVE: 2

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	GIS DATA ADJUSTED	ADJUSTED ACRES	X RISK	ACRES AT RISK	QUALITY
	AG	2,219	0	2,219	0.10	222	M
	GGE2	8,020	+ 640	8,660	0.10	866	L
	GGE1	1,716	0	1,716	0.20	343	L
	PRESERVE EXISTING	40,000	0	40,000	0.01	400	H
	PRESERVE PROPOSED	57,552	0	57,552	0.10	5,756	H
	RURAL	2,638	0	2,638	0.20	532	M
	URBAN	<u>12,432</u> 124,577	- 640	11,792	0.35	<u>3,730</u> 11,849	L
$\frac{11,849}{124,577} = 0.095 = 9.5$							
F2: FUNCTION "UNITS" AT RISK		<u>6,156H / 754M / 4,939L</u> 4.9 0.6 4.0					

SECTION "C" ALTERNATIVE: 3A

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	GIS DATA ADJUSTED	ADJUSTED ACRES	X RISK	ACRES AT RISK	QUALITY
	AG	1,619	0	1,619	0.10	162 X	M
	DISPUTED	1,666	0	1,666	0.10	167 X	M
	GGE	10,653	0	10,653	0.15	1,598 X	L
	PRESERVE EXISTING	40,000	0	40,000	0.01	400 X	H
	PRESERVE PROPOSED	58,725	0	58,725	0.10	5,872 X	H
	URBAN	<u>11,914</u>	0	11,914	0.35	<u>4,170 X</u>	L
		124,577				12,369	
	$\frac{12,367}{124,577} = 0.099 = 9.9$						
F2: FUNCTION "UNITS" AT RISK		<u>6272 / 329M / 5,768</u> 5.0 0.3 4.6					

SECTION “C” ALTERNATIVE: #3B

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	GIS DATA ADJUSTED	ADJUSTED ACRES	X RISK	ACRES AT RISK	QUALITY
	GGE	9,686	0	9,686	0.15**	1,453 X	L
	RURAL	97,970					
	EXISTING PRES.	40,000	0	40,000	0.01	400 X	H
	RURAL	57,970	+4,920	62,890	.12***	7,547	5,000H
							2,547M
	URBAN	<u>16,920</u>	- 4,920*	12,000	0.35	<u>4,200 X</u>	L
		124,576				13,600	
	$\frac{13,600}{124,576} = 0.109 = 10.9$						
F2: FUNCTION “UNITS” AT RISK	<u>5,400H / 2,547M / 5,653L</u>						
	4.3	2.0	4.6				

- * SOME OF URBAN COLOR IS IN MANGROVES.
- ** SAME CRITERIA APPLIED AS 3A.
- *** SAME CRITERIA AS 3A “GREEN” – PROPOSED PRESERVE. RISK REFLECTS CLUSTERING, ETC. CRITERIA.

SECTION "C" ALTERNATIVE: #4

F1: ACRES AT RISK	LEGEND	ACRES OF WETLANDS	GIS DATA ADJUSTED	ADJUSTED ACRES	X RISK	ACRES AT RISK	QUALITY
	AG	123	0	123	0.10	12	M
	MINING	293	0	293	0.05	15	M
	PRESERVE EXISTING	40,000	0	40,000	0.01	400	H
	PRESERVE PROPOSED	50,677	0	50,677	0.10	5,068	H
	RURAL	10,508	0	10,508	0.20	2,100	L
	TRANSIT	7,083	0	7,083	0.15	1,062	M
	URBAN	15,892	ADDED FLOW- WAYS	15,892	0.35	<u>5,562</u>	L
						14,219	
	$\frac{14,219}{124,576} = 0.114 = 11.4$						
F2: FUNCTION "UNITS" AT RISK	<u>5,468H / 1,089M / 7,662</u> 4.4 0.9 6.1						

ATTACHMENT L

SECTION C ALTERNATIVES EVALUATION: MITIGATION

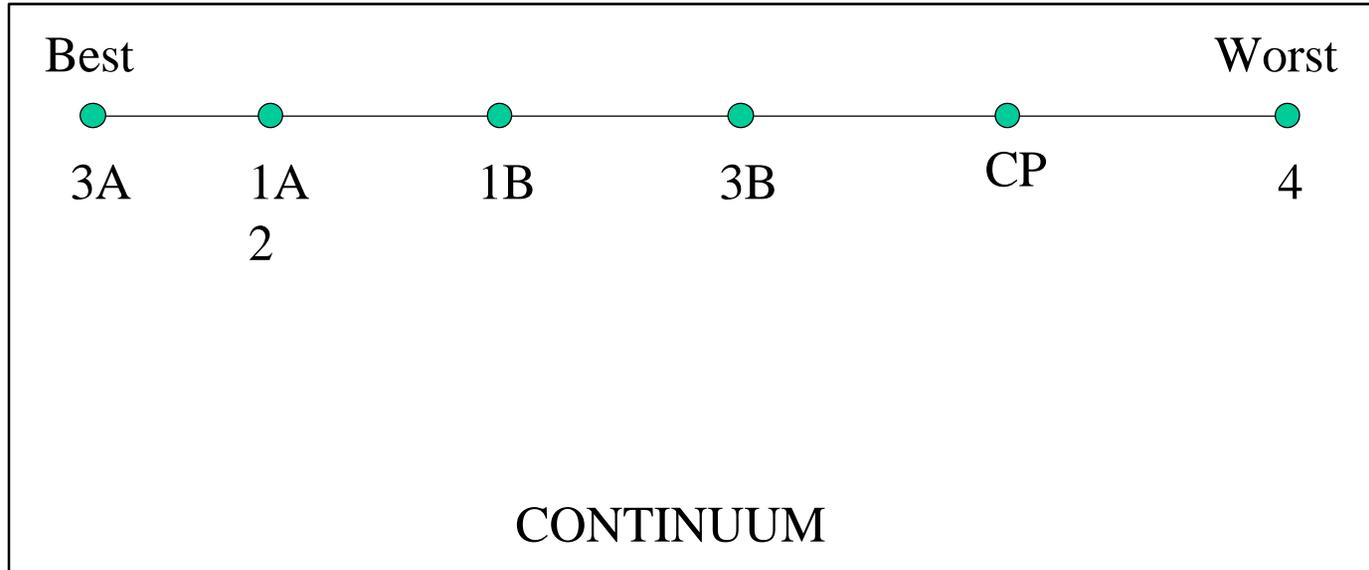
Evaluation of Section “C” Alternatives

Issue Category: Mitigation

Evaluation Factors ^{1,2}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
J1 ¹	3.7	5.02	4.3	4.9	4.7	3.5	3.6
J2 ²	3.0	3.3	2.8	3.1	4.7	2.7	2.3

¹ratio of acres at risk to acres available for mitigation

²ratio of units at risk to units available for lift



SECTION "C" ALTERNATIVE: COMPREHENSIVE PLAN

J1	AREA
	PROPOSED PRESERVE ACRES FROM F2 = 48,631 = 3.7
	TOTAL ACRES AT RISK 12,947
J2	FUNCTION IN NONPUBLIC LAND
	40,000H 32.1 H
	18,631M / 124,576 15.0M
	32.1H / 15.0M / 0L
	$\begin{array}{r} \underline{x1} \quad \underline{x2} \quad \underline{x3} \\ 32.1 \quad x \quad 30.0 \quad = 62.1 \end{array}$
	F2: 4.2 / 2.2 / 4.0
	$\begin{array}{r} \underline{x3} \quad \underline{x2} \quad \underline{x1} \\ 12.6+4.4 \quad + 4.0 \quad = 21 \end{array}$
	$\frac{62.1}{21} = 3.0$

SECTION "C" ALTERNATIVE: 1A

J1	AREA
	PROPOSED PRESERVE = 58,915 = 5.02
	TOTAL ACRES AT RISK 11,729
J2	FUNCTION IN NONPUBLIC LAND
	PROPOSED PRESERVE = 58,915 40,000XH / 124,576 *100 = 32.1
	18,915XM / 124,576 *100 = 15.2
	RURAL WITH CRITERIA =
	5,456 ACRES X 0.20* = 1,091M / 124,576 * 100 = 0.9
	0.20 = LANDS PRESERVED BY THE CRITERIA
	32.1 / 16.1 / 0
	$\begin{array}{r} \underline{x1} \quad \underline{x2} \quad \underline{x3} \\ 32.1 \quad +32.2 \quad +0 \quad = 64.3 \text{ units} \end{array}$

	<p>FROM F2: 5 / 0 / 4.4</p> $\frac{x3 \quad x2 \quad x1}{15 \quad +0 \quad +4.4} = 19.4$
	<p>INDEX= $\frac{64.3}{19.4} = 3.3$</p>

SECTION "C" ALTERNATIVE: 1B

J1	<p>AREA</p> <p><u>PROPOSED PRESERVE</u> = <u>53,115</u> = 4.3</p> <p>TOTAL ACRES AT RISK 12,387</p>
J2	<p>FUNCTION IN NONPUBLIC LAND</p> <p>PROPOSED PRESERVE: 40,000 X H 32.1 H</p> <p>14,375 X M / 124,576 X 100 = 11.5 M</p> $\frac{32.1}{11.5} / 0$ $\frac{x1 \quad x2}{32.1 + 23 \quad +0} = 55.1$ <p>F2: 4.6 0.3 5.0</p> $\frac{x3 \quad x2 \quad x1}{13.8 + 0.6 + 5.0} = 19.4$ <p>$\frac{55.1}{19.4} = 2.8$</p>

SECTION "C" ALTERNATIVE: 2

J1	<p>AREA</p> <p><u>PROPOSED PRESERVE</u> = <u>57,552</u> = 4.9</p> <p>TOTAL ACRES AT RISK 11,849</p>
J2	<p>FUNCTION IN NONPUBLIC LAND</p> <p>40,000 X H = 32.1 H</p> <p>17,552 X M / 124,576 X 100 = 14.1 M</p>

	GGE2: $8,660 \times 0.10^* = 866L / 124,576 \times 100 = 0.7L$
	* 0.10 EQUAL REDUCTION IN RISK
	$\begin{array}{r} 32.1 / 14.1 / 0.7 \\ \underline{x1 \quad x2 \quad x3} \\ 32.1 + 28.2 + 2.1 = 62.4 \end{array}$
	$\begin{array}{r} F2: 4.9 \quad 0.6 \quad 4.0 \\ \underline{x3 \quad x2 \quad x1} \\ 14.7 + 1.2 + 4.0 = 19.9 \end{array}$
	$\frac{62.4}{19.9} = 3.1$

SECTION "C" ALTERNATIVE: 3A

J1	AREA
	<u>PROPOSED PRESERVE</u> = $\frac{58,725}{12,369} = 4.7$
	TOTAL ACRES AT RISK 12,369
J2	FUNCTION IN NONPUBLIC LAND
	PROPOSED = 40,000H 32.1 H
	$18,725M / 124,576 \times 100 = 15.0 M$
	GGE: $10,653 \times 0.05^* = 532L / 124,576 \times 100 = 0.4L$
	0.05 DUE TO CRITERIA
	$\begin{array}{r} 32.1 / 15.0 / 0.4 \\ \underline{x1 \quad x2 \quad x3} \\ 64.2 \quad 30.0 \quad 1.2 = 95.4 \end{array}$
	$\begin{array}{r} F2: 5.0 / 0.3 / 4.6 \\ \underline{x3 \quad x2 \quad x1} \\ 15.0 + 0.6 + 4.6 = 20.2 \end{array}$
	$\frac{95.4}{20.2} = 4.7$

SECTION "C" ALTERNATIVE: 3B

J1	AREA
	<u>PROPOSED PRESERVE</u> = 62,890 RURAL * 0.75*% = <u>47,168</u> = 13.5
	TOTAL ACRES AT RISK 13,600
	* A PORTION OF WETLANDS PRESERVED AVAILABLE FOR MITIGATION, EVEN THOUGH CRITERIA SAYS 100% NO WETLAND IMPACT. SO "SWAG" 75%
J2	FUNCTION IN NONPUBLIC LAND
	PROPOSED = 40,000H 32.1 H
	17,168M / 124,576 X 100 = 13.8L
	$\begin{array}{r} 32.1 \quad 13.8 \quad / \quad 0 \\ \underline{x1} \quad \underline{x2} \quad \underline{x3} \\ 32.1 + 27.6 + 0 = 59.7 \end{array}$
	F2: 4.3 / 2.0 / 4.6 $\begin{array}{r} \underline{x3} \quad \underline{x2} \quad \underline{x1} \\ 12.9 + 4.0 + 4.6 = 21.5 \end{array}$
	$\frac{59.7}{21.5} = 2.7$

SECTION "C" ALTERNATIVE: 4

J1	AREA
	<u>PROPOSED PRESERVE</u> = <u>50,677</u> = 3.6
	TOTAL ACRES AT RISK 14,219
J2	FUNCTION IN NONPUBLIC LAND
	40,000H 32.1 H
	10,677M / 124,576 X 100 = 8.6M
	$\begin{array}{r} 32.1H / 8.6M / 0L \\ \underline{x1} \quad \underline{x2} \quad \underline{x3} \\ 32.1 + 17.2 + 0 = 49.3 \end{array}$

	F2: 4.4 / 0.9 / 6.1 <u>x3</u> <u>x2</u> <u>x1</u> 13.2 + 1.8 + 6.1 = 21.1
	<u>49.3</u> = 2.3 21.1

ATTACHMENT M

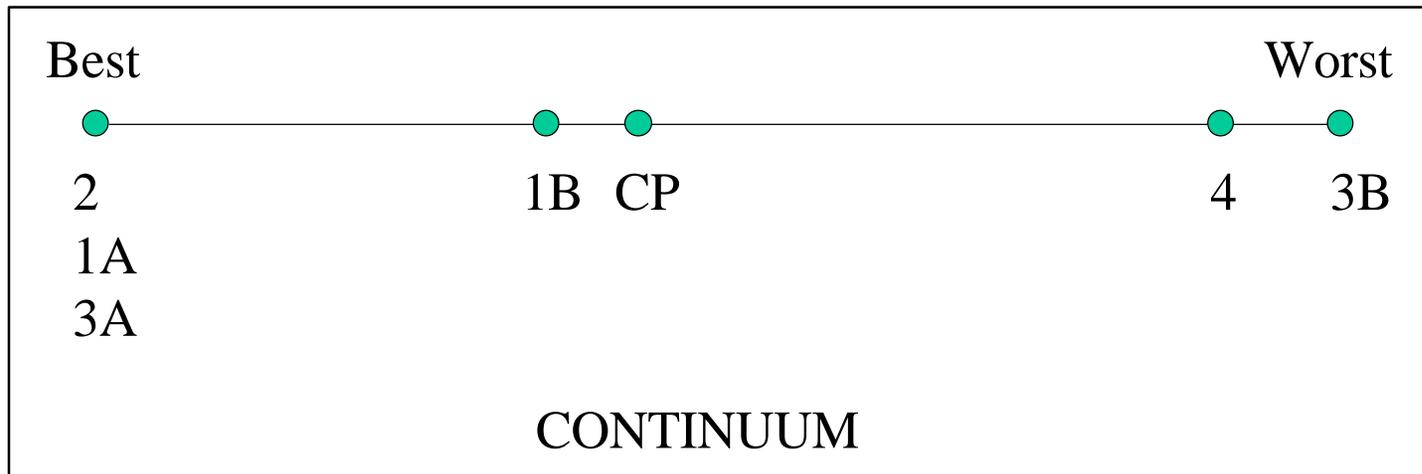
SECTION C ALTERNATIVES EVALUATION: ECOSYSTEM FUNCTION, WILDLIFE HABITAT, AND LISTED SPECIES

Evaluation of Section “C” Alternatives

Issue Category: Ecosystem Function, Wildlife Habitat, and Listed Species

Evaluation Factors ^{1,2}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
B1		1	4	1	1	6	5
B2		2	1	1	1	6	5
B3		1	4	1	1	6	5
B4		2	4	1	3	6	5
B5		1	1	1	1	6	1
B6		1	1	1	1	6	1
B7		1	4	1	1	6	5
B8		1	4	1	3	6	5
B9		1	2	4	3	6	5
B10		3	5	1	1	6	4
B11		1	4	1	1	6	5
B12		3	4	1	2	6	5
Score		18	38	15	19	72	51

- 1 Alternatives ranked 1 through 6 by Evaluation Factor, excluding the Comprehensive Plan
- 2 Worst possible score is 72



ALTERNATIVE EVALUATION TEMPLATE

ADG: AUGUST 13, 1998

SECTION C

ALTERNATIVE: 1A

ISSUE/FACTOR CATEGORY: ECOSYSTEM FUNCTION, WILDLIFE HABITAT, AND LISTED SPECIES

MEASUREMENT NAME (e.g., <i>A1. market value</i>)	ASSESSMENT NOTES
B1 GFC SHCA	#1 74,352
B2 TYPE 1 & 2 PANTHER	#2 31,947
B3 RPC NATURAL RESOURCES	#1 COVERED
B4 FWS RECOVERY PLAN	#2 GOOD, BUT WEAKER ON COAST
B5 LISTED SPECIES	#1 21
B6 ROOKERIES	#1 26
B7 NATIVE PLANT COMMUNITY	#1 113,907 ACRES
B8 HABITAT FRAGMENTATION	#1 GOOD CONNECTION
B9 SEASONAL WETLANDS	#1 6,523 ACRES
B10 FLOWWAYS	#3 LESS FLOWWAYS
B11 WETLANDS FOR WILDLIFE	#1 89,922 22,903

B11 WETLANDS FOR WILDLIFE	#4 84,786 ACRES 19,197 ACRES
B12 MARINE RESOURCES	#4 MORE COASTAL DEVELOPMENT

ALTERNATIVE EVALUATION TEMPLATE

ADG: AUGUST 13, 1998

SECTION C

ALTERNATIVE: _____ **2** _____

ISSUE/FACTOR CATEGORY: ECOSYSTEM FUNCTION, WILDLIFE HABITAT, AND LISTED SPECIES

MEASUREMENT NAME (e.g., A1. market value)	ASSESSMENT NOTES
B1 GFC SHCA	#1 69,931 ACRES
B2 TYPE 1 & 2 PANTHER	#1 30,830 ACRES
B3 RPC NATURAL RESOURCES	#1 RPC EVALUATION
B4 FWS RECOVERY PLAN	#1 FWS EVALUATION
B5 LISTED SPECIES	#1 21
B6 ROOKERIES	#1 26
B7 NATIVE PLANT COMMUNITY	#1 108,915
B8 HABITAT FRAGMENTATION	#1 CONNECTIONS PRESENT
B9 SEASONAL WETLANDS	#4 2,291

B10 FLOWWAYS	#1 FLOWWAYS PRESENT & MAINTAINED
B11 WETLANDS FOR WILDLIFE	#1 88,306 19,494
B12 MARINE RESOURCES	#1 COAST PROTECTED

ALTERNATIVE EVALUATION TEMPLATE

ADG: AUGUST 13, 1998

SECTION C

ALTERNATIVE: 3A

ISSUE/FACTOR CATEGORY: ECOSYSTEM FUNCTION, WILDLIFE HABITAT, AND LISTED SPECIES

MEASUREMENT NAME (e.g., <i>A1. market value</i>)	ASSESSMENT NOTES
B1 GFC SHCA	#1 73,019 ACRES
B2 TYPE 1 & 2 PANTHER	#1 31,667 ACRES
B3 RPC NATURAL RESOURCES	#1 COVERED
B4 FWS RECOVERY PLAN	#3 FWS EVALUATION
B5 LISTED SPECIES	#1 21
B6 ROOKERIES	#1 26
B7 NATIVE PLANT COMMUNITY	#1 110,734 ACRES
B8 HABITAT FRAGMENTATION	#3 WEAKER MIDDLE CONNECTIONS

B9 SEASONAL WETLANDS	#3 2,297 ACRES
B10 FLOWWAYS	#1 PRESENT
B11 WETLANDS FOR WILDLIFE	#1 90,151 19,759
B12 MARINE RESOURCES	#2 GOOD COASTAL PROTECTION

ALTERNATIVE EVALUATION TEMPLATE

ADG: AUGUST 13, 1998

SECTION C

ALTERNATIVE: **3B**

ISSUE/FACTOR CATEGORY: ECOSYSTEM FUNCTION, WILDLIFE HABITAT, AND LISTED SPECIES

MEASUREMENT NAME (e.g., A1. market value)	ASSESSMENT NOTES
B1 GFC SHCA	#6 SAME AS COMP PLAN
B2 TYPE 1 &2 PANTHER	#6 SAME AS COMP PLAN
B3 RPC NATURAL RESOURCES	#6 LEAST COVERED
B4 FWS RECOVERY PLAN	#6 LEAST IN COMPLIANCE
B5 LISTED SPECIES	#6 SAME AS COMP PLAN
B6 ROOKERIES	#6 SAME AS COMP PLAN
B7 NATIVE PLANT COMMUNITY	#6 UNKNOWN

B8 HABITAT FRAGMENTATION	#5 MORE LIMITED NARROW CONN.
B9 SEASONAL WETLANDS	#5 2,251 ACRES
B10 FLOWWAYS	#5 FLOWWAYS, BUT ALSO WEAK CONN.
B11 WETLANDS FOR WILDLIFE	#5 82,969 15,064
B12 MARINE RESOURCES	#5 MORE COASTAL DEVELOPMENT

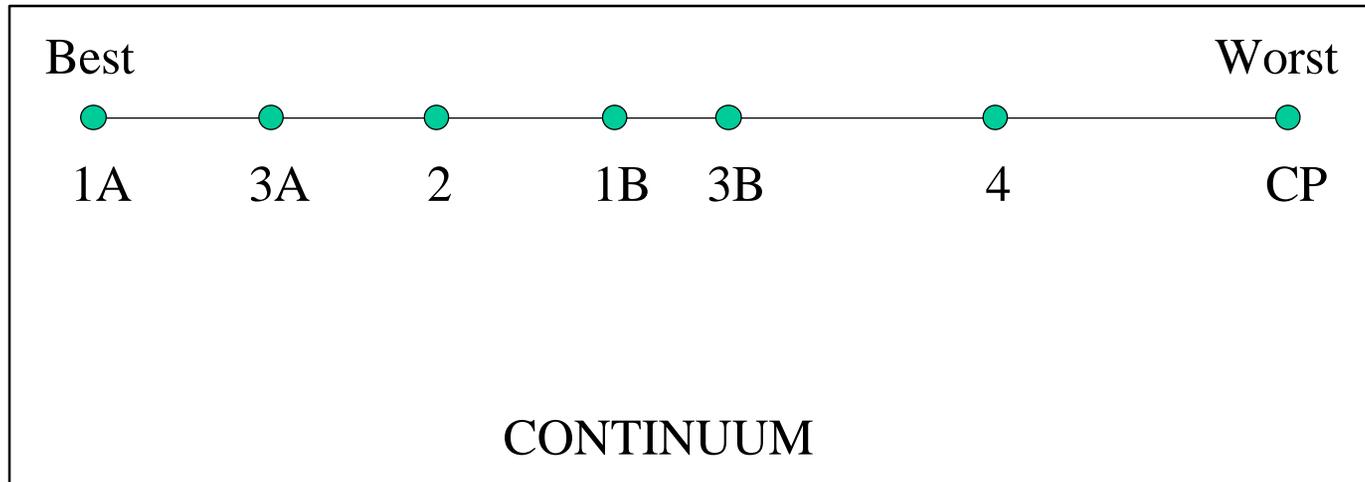
ATTACHMENT N

SECTION C ALTERNATIVES EVALUATION: CUMULATIVE AND SECONDARY IMPACTS

Evaluation of Section “C” Alternatives Issue Category: Cumulative Impacts

Evaluation Factors ^{1,2,3}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
E1	6	1	2	4	3	5	7
E2	7	1	4	3	2	6	5
E3	7	1	4	3	2	6	5
E4	7	1	4	3	2	6	5
E5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E6	5	1	4	4	1	6	7
E7	7	1	4	3	2	6	5
E8	7	1	4	3	2	6	5
E9	7	1	4	3	2	6	5
E10	7	1	4	3	2	6	5
Score	60	9	34	29	18	53	49

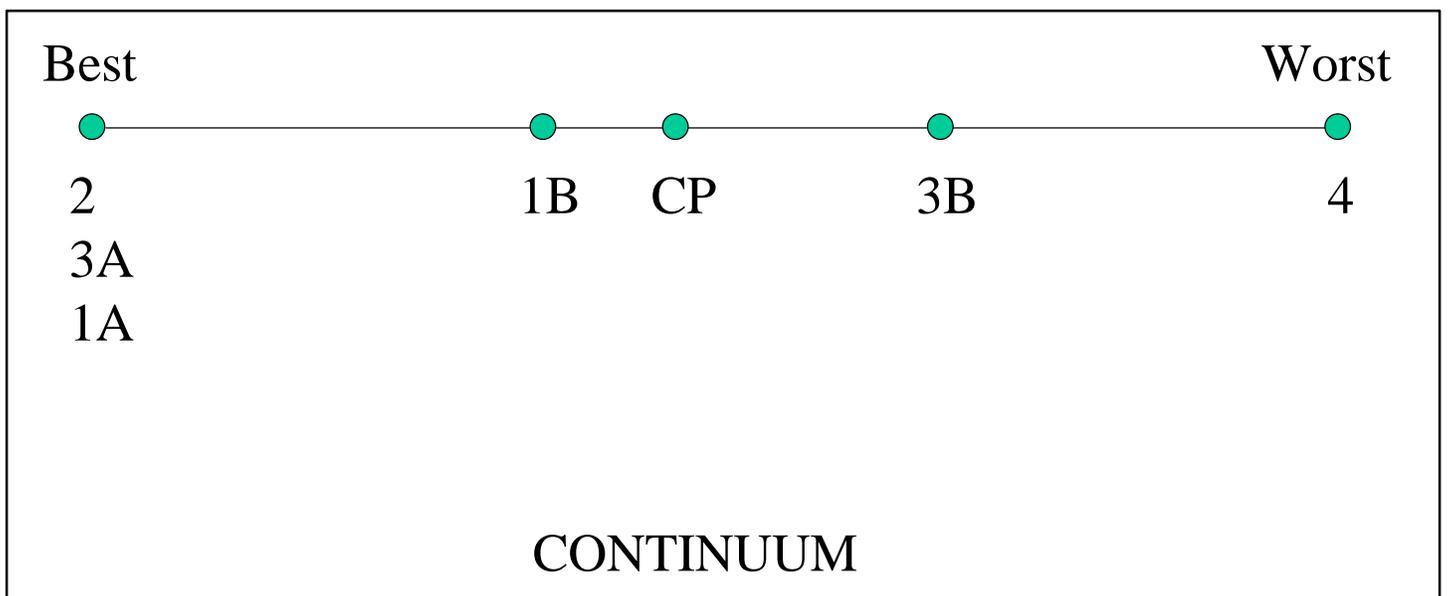
- 1 Scale of 1 to 7, where a score of 1 is best and 7 is worst
- 2 N/A equals “not applicable”
- 3 Total possible score is 63



ATTACHMENT O

SECTION C ALTERNATIVES EVALUATION: PUBLIC LAND MANAGEMENT/USE

ALTERNATIVE	ASSESSMENT NOTES
COMP PLAN	3 rd most development and rural plus more ag adjacent to Belle Meade and CREW
1A	2 nd least amount of development adjacent to public – more lands rural than 2 which is #1
1B	4 th most development adjacent to Belle Meade and CREW and more dev. Ag
2	Least amount of development next to public lands (Belle Meade/CREW), less rural than 1A
3A	5 th most development adjacent to Belle Meade and CREW and more disputed than
3B	2 nd most development adjacent to Belle Meade/CREW, more rural east
4	Most development adjacent Belle Meade, CREW, more urban east



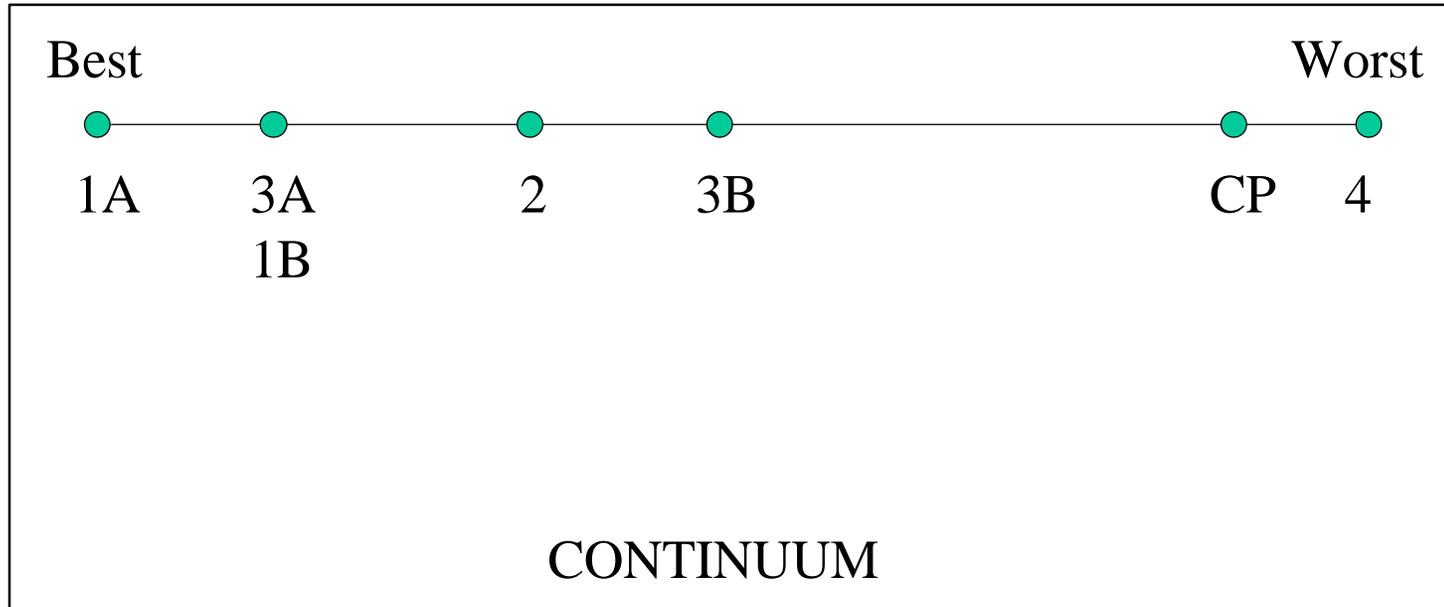
ATTACHMENT P

SECTION C ALTERNATIVES EVALUATION: WATER QUALITY

Evaluation of Section “C” Alternatives Issue Category: Water Quality

Evaluation Factors ^{1,2}	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
H1	3	1	2	2	2	2	3
H2	2	1	2	2	1	2	3
H3	3	1	1	2	2	3	3
H4							
H5	3	1	2	2	2	2	3
Score	11	4	7	8	7	9	12

- 1 Scale of 1 to 4 where 1 is best and 4 is worst
- 2 Worst possible score is 12



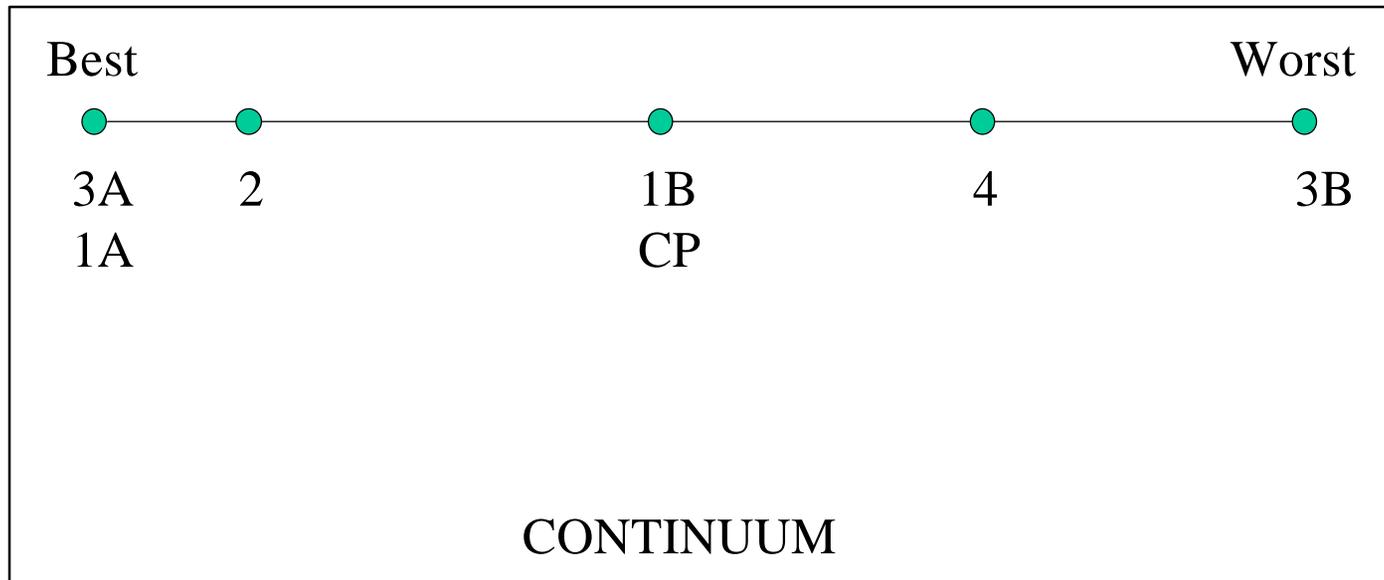
ATTACHMENT Q

HUB ALTERNATIVES EVALUATION: RESTORATION RETROFIT

Evaluation of Section “C” Alternatives Issue Category: Restoration/Retrofit

Evaluation Factors ¹	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
K1	0	0	0	+	+	-	+
K2	0	+	+	++	+	0	0
K3	+	+	+	0	+	-	0
K4	+	0	0	0	0	0	0
K5	0	++	0	0	+	-	-
Score	2	4	2	3	4	0	1

1 Score represents the total number of (+) received by an alternative



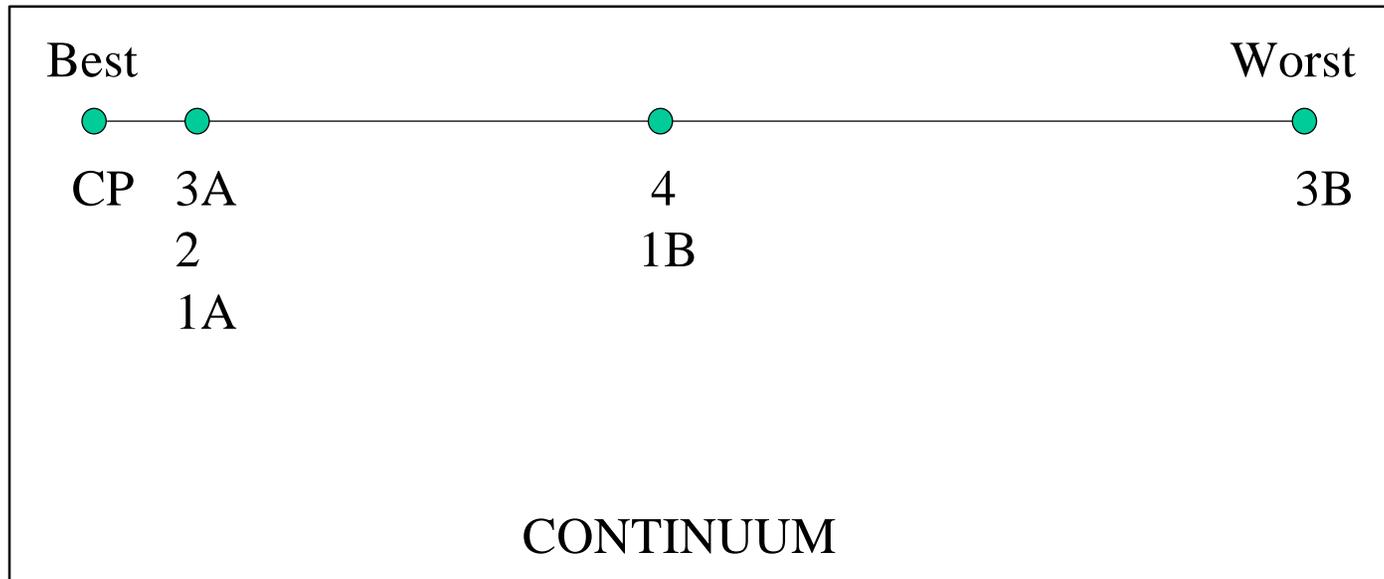
ATTACHMENT R

SECTION C ALTERNATIVES EVALUATION: WATER MANAGEMENT

Evaluation of Section “C” Alternatives Issue Category: Water Management

Evaluation Factors ¹	Alternatives						
	Comp Plan	1A	1B	2	3A	3B	4
G1	0	0	0	0	0	0	0
G2	+	0	0	0	0	0	0
G3	+	0	0	0	0	0	0
G4	+	++	0	+	+	--	-
G5	0	0	0	+	+	--	+
G6	0	0	0	0	0	0	0
G7	0	0	0	0	0	0	0
Score	3	2	0	2	2	0	1

1 Score represents the total numbers of (+) received by an alternative



ATTACHMENT S

GOLDEN GATE ESTATES CRITERIA

Golden Gate Estates

Zone 1:

- a) Avoid/minimize and mitigate wetland impacts
- b) Entrance roads must be culverted
- c) Listed species addressed on or off site (example: red-cockaded woodpecker and Big Cypress fox squirrel)
- d) Develop resource pamphlet that educates public on resource issues
- e) FL yards and neighborhoods

Zones 2: Gold Gate Picayune (mitigation receiving area)

(Note: This system still intact, can be restored, potential fire break).

- a) No more than 10% fill
- b) No more than 50% fill in pervious
- c) Fill cannot impede sheet flow
- d) eliminate exotics
- e) Develop resource pamphlet that educates public on resource issues
- f) FL yards and neighborhoods program
- g) Entrance roads must be culverted

ATTACHMENT T

BIG CYPRESS AREA OF CRITICAL STATE CONCERN

COLLIER COUNTY

GROWTH MANAGEMENT PLAN



**FUTURE LAND USE ELEMENT
ORDINANCE 97-67
ADOPTED OCTOBER 28, 1997**

V. OVERLAYS AND SPECIAL FEATURES

A. Area of Critical State Concern Overlay

The Big Cypress Area of Critical State Concern (ACSC) was established by the 1974 Florida Legislature. The Critical Area is displayed on the Future Land Use Map as an overlay area. The Critical Area encompasses lands designated Conservation, Agricultural/Rural, Estates and Urban (Port of the Islands, Plantation Island and Copeland). Chokoloskee is excluded from the Big Cypress Area of Critical State Concern. All Development Orders within the Critical Area shall comply with Chapter 28-25, Florida Administrative Code, "Boundary and Regulations for the Big Cypress Area of Critical State Concern". Those regulations include the following:

1. Site Alteration

- a. Site alteration shall be limited to 10% of the total site size, and installation of non-permeable surfaces shall not exceed 50% of any such area. However, a minimum of 2,500 square feet may be altered on any permitted site.
- b. Any non-permeable surface greater than 20,000 square feet shall provide for release of surface run off, collected or uncollected, in a manner approximating the natural surface water flow regime of the area.
- c. Soils exposed during site alteration shall be stabilized and retention ponds or performance equivalent structures or systems maintained in order to retain run off and siltation on the construction site. Restoration of vegetation to site alteration areas shall be substantially completed within 180 days following completion of a development. Re-vegetation shall be accomplished with pre-existing species or other suitable species except that undesirable exotic species shall not be replanted or propagated. Exotic species are listed below.
 - Australian Pine - (*Casuarina* spp.)
 - Bishopwood - (*Bischofia javanica*)
 - Brazilian Pepper - (*Shinus terebinthifolius*)
 - Melaleuca (cajeput) - (*Melaleuca leucadendra* spp.)
 - Downy Rosemyrtle - (*Rhodomytus tomentosa*)
 - Earleaf Acacia - (*Acacia auriculiformis*)
 - Catclaw Mimosa - (*Mimosa pigra*)
 - Java Plum - (*Syzygium cumini*)
- d. No mangrove trees or salt marsh grasses shall be destroyed or otherwise altered. Plants specifically protected by this regulation include: All wetland plants listed by the Florida Department of Environmental Regulation in Chapter 17-301, Florida Administrative Code, as amended.
- e. Fill areas and related dredge or borrow ponds shall be aligned substantially in the direction of local surface water flows and shall be separated from other fill areas and ponds by unaltered areas of vegetation of comparable size. Dredge or borrow ponds shall provide for the release of storm water as sheet flow from their downstream end into unaltered areas of vegetation. Access roads to and between fill areas shall provide for the passage of water in a manner approximating the natural flow regime and designed to accommodate the 50 year storm. Fill areas and related ponds shall not substantially retain or divert the total flow in or to a slough or strand or significantly impeded tidal action in any portion of the estuarine zone.
- f. Man-made lakes, ponds, or other containment works shall be constructed with a maximum slope of 30 degrees to a depth of six feet of water. Whenever mineral extraction is completed in new quarrying lakes, shoreline sloping, planting of littoral shelves with nursery grown aquatic vegetation, restoration or revegetation of the property and disposal of spoils or tailings shall be completed before abandonment of the site. Existing quarrying lakes are exempt from this provision, except that whenever any person carries out any activity defined in Section 380.04, Florida Statutes, as amended as development or applies for a development permit as defined in Section 380.031, Florida Statutes, as amended to develop any existing quarrying lake area, these regulations shall apply.

- g. Finger canals shall not be constructed in the Critical Area.
- h. This rule shall not apply to site alterations undertaken in connection with the agricultural use of land or for the conversion of land to agricultural use.

2. Drainage

- a. Existing drainage facilities shall not be modified so as to discharge water to any coastal waters, either directly or through existing drainage facilities. Existing drainage facilities shall not be expanded in capacity or length except in conformance with paragraph (2) below; however, modifications may be made to existing facilities that will raise the ground water table or limit salt water intrusion.
- b. New drainage facilities shall release water in a manner approximating the natural local surface flow regime, through a spreader pond or performance equivalent structure or system, either on site or to a natural retention, or natural filtration and flow area. New drainage facilities shall also maintain a ground water level sufficient to protect wetland vegetation through the use of weirs or performance equivalent structures or systems. Said facilities shall not retain, divert, or otherwise block or channel the naturally occurring flows in a strand, slough or estuarine area.
- c. New drainage facilities shall not discharge water into any coastal waters either directly or through existing drainage facilities.
- d. ~~This rule shall not apply to drainage facilities modified or constructed in order to use land for agricultural purposes or to convert land to such use.~~

3. Transportation

- a. Transportation facilities which would retain, divert or otherwise block surface water flows shall provide for the re-establishment of sheet flow through the use of interceptor spreader systems or performance equivalent structures and shall provide for passage of stream, strand, or slough water through the use of bridges, culverts, piling construction or performance equivalent structures or systems.
- b. Transportation facilities shall be constructed substantially parallel to the local surface flow, and shall maintain a historic ground water level sufficient to protect wetland vegetation through the use of weirs or performance equivalent structures or systems and as feasible, the flows in such works shall be released to natural retention filtration and flow areas.
- c. Transportation facility construction sites shall provide for siltation and run-off control through the use of settling ponds, soil fixing or performance equivalent structures or systems.

4. Structure Installation

- a. Placement of structures shall be accomplished in a manner that will not adversely affect surface water flow or tidal action.
- b. Minimum lowest floor elevation permitted for structures shall be at or above the 100 year flood level, as established by the Administrator of the Federal Flood Insurance Administration. The construction of any structure shall meet additional Federal Flood Insurance Land Management and Use Criteria (24 CFR 1910), as administered by the appropriate local agency.
- c. This rule shall not apply to structures used or intended for use in connection with the agricultural use of the land.

All Development Orders issued for projects within the Big Cypress Area of Critical State Concern shall be rendered to the State of Florida Department of Community Affairs for review with the potential for appeal to the Administration Commission per Chapter 9J-1, Florida Administrative Code, "Development Order Requirements for Areas of Critical State Concern".

ATTACHMENT U

STORMWATER MANAGEMENT CRITERIA

ATTACHMENT V

SECTION A, ALTERNATIVE 2: CRITERIA FOR LEHIGH ACRES REDEVELOPMENT AREA

CRITERIA FOR LEHIGH ACRES REDEVELOPMENT AREA

- 1) Identify existing wetlands, location of historic flowways, and potential water storage areas (per pre-townsend canal)
- 2) Identify development concentrations
- 3) Identify xeric oak scrubs
- 4) Transfer development rights from important resource areas (existing wetlands, xeric scrub) to development clusters
- 5) Redistribute/reassign densities for a more balanced community that includes an appropriate mix of uses (i.e., mix of single-family, multifamily, etc.)
- 6) Geographically, cluster people to central area of Lehigh where highest land and least amount of wetland are located. Move development away from eastern and southeastern areas of Lehigh.
- 7) Adjacent rural lands should have opportunities to be included in Lehigh Acres planning process to prevent urban sprawl in unregulated areas.
- 8) Abandon major infrastructure plans that promote growth inconsistent with 1-7 above
- 9) Where zones vacated, abandon/retrofit infrastructure (canals, roads)
- 10) Create regional stormwater management facilities to benefit Caloosahatchee/Orange Rivers, water quality restoration and protect Hickey and Bedman Creek watersheds.
- 11) Projected growth is generally in an “L” pattern for near future based on this projected growth pattern. Try to develop a “greenway” that extends north from SR82 along county line on east side of Lehigh – connect north to Greenbriar Swamp and Hickey Creek, Bedman Creek watersheds which includes wetlands, scrubs, and water storage. This would be approximately 2 miles wide.
- 12) A potential appropriate location for a regional water storage facility is adjacent to existing Harnes Marsh.

ATTACHMENT W

SECTION A: ALTERNATIVE 5 CRITERIA

ATTACHMENT X

MEETING No. 9: SUMMARY PRESENTATION