

1 BISCAYNE BAY REGIONAL RESTORATION COORDINATION
2 TEAM
3 ACTION PLAN DRAFT DOCUMENT, THIRD ITERATION with
4 DRAFTING GROUP
5 April 20, 2005
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8 **1.0 VISION STATEMENT**
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10 The initial objective of the Team as identified in the Team's Charter approved by
11 the South Florida Ecosystem Restoration Task Force Working Group was to
12 develop a Biscayne Bay Action Plan. The Working Group intended for this
13 Action Plan to "guide efforts and prioritize activities to balance appropriate
14 economic use with improved public access, increased habitat restoration, and
15 environmental protection." The Team developed and adopted their vision for the
16 future of Biscayne Bay which is as follows:
17

18 ***Biscayne Bay is ecologically restored. It is readily accessible to and***
19 ***appreciated by all members of our diverse community. It supports a***
20 ***variety of uses and economic activities that are environmentally***
21 ***sustainable. Biscayne Bay is managed to promote coordination and to***
22 ***resolve conflicts among competing objectives with sufficient resources to***
23 ***achieve this vision.***
24
25

26 **2.0 EXECUTIVE SUMMARY**
27

28 To be written...
29

30 **3.0 INTRODUCTION**
31

32 In 1999 the Florida Legislature established the BBPI. Its mission was "*The*
33 *development of an open and inclusive, community-based forum to survey public*
34 *and private sector activities and programs affecting Biscayne Bay, and to provide*
35 *recommendations for actions to protect, improve, and enhance the bay's*
36 *resources, its social, economic, and natural values, with its ecological health as a*
37 *priority.*" This community-based group was formed to survey the status of the
38 Bay's resources and to produce a final report of its findings, with
39 recommendations for further action. In its final report in 2001, the BBPI defined
40 the widely varying character and physical attributes of the Bay, and set forth a
41 listing of values and goals for the future of the Bay. One key action
42 recommended by the BBPI was the creation of a Biscayne Bay Project
43 Coordination Team as part of the Working Group of the South Florida Ecosystem
44 Restoration Task Force. This team, as envisioned by the BBPI, was to function
45 as a forum for, and to, the public, while also acting as a voice for the Bay, and
46 advisor to the Working Group. Furthermore, this team was to develop an action

1 plan in order to “guide efforts and prioritize activities to balance appropriate
2 economic use with improved public access, increased habitat restoration and
3 environmental protection.” Thus, from this vision, the BBRRCT was formed.

4
5 Using the final report of the BBPI as a guide, the BBRRCT has been tasked with
6 integrating and coordinating restoration, enhancement, and preservation
7 projects, plans, and activities, and working towards maintaining a functioning
8 ecosystem while promoting a sustainable region. Specifically, the purpose of the
9 team is to provide a forum for public involvement, outreach and interagency
10 coordination and communication; to identify priority issues for action and to
11 create teams to address those issues as needed; to make recommendations on
12 key issues to the Working Group; to identify goals and performance measures
13 related to key issues and to assess the achievement of goals; to identify funding
14 requirements; and to review elements of the Comprehensive Everglades
15 Restoration Plan that affect Biscayne Bay. To these ends, the BBRRCT’s vision
16 statement references the need for ecological restoration and greater public
17 accessibility, while supporting a variety of uses and economic activities.
18 Furthermore, the BBRRCT’s stated vision refers to active management in order
19 to promote coordination and resolve conflicts, while calling for necessary
20 resources to be allocated to meet the needs of the Bay.

21
22 This Action Plan is the first step in realizing the vision for the Bay as laid out by
23 the BBPI and the BBRRCT. It is the culmination of literally years of effort by
24 various diverse stakeholders who have an interest in Biscayne Bay. Upon
25 adoption of this Plan, the BBRRCT will set to work on following the framework set
26 forth herein, and supporting implementation of those actions it deems of the
27 highest priority. This Plan is not meant to operate in a vacuum, nor to be a
28 closed document, but rather, the BBRRCT will re-examine and update the
29 content on a periodic basis, as priorities change and actions are completed.
30 Additionally, the BBRRCT will function as a public forum, and will begin to assess
31 activities related to the Bay and its restoration.

32 33 **4.0 OVERARCHING GOALS**

34 35 **4.1 Preamble**

36 The role of the BBRRCT as stated in the BBPI report is to provide a unified voice
37 for Biscayne Bay, improve coordination of Bay related initiatives as part of
38 regional restoration plans and to serve as a clearinghouse for many of the BBPI
39 recommendations. The BBPI and/or the Team Charter included a set of guiding
40 principles for the Team:

- 41 • The Team shall not supplant agency authority or have any regulatory
42 authority
- 43 • The work of the Team shall be consistent with the BBAPA
- 44 • The Team shall serve in an advisory role and shall not serve as a direct
45 granting agency
- 46 • Team membership shall be representative of Biscayne Bay interests
- 47 • Team members shall be knowledgeable about Biscayne Bay issues

- 1 • The team shall recognize the importance of watershed management for
2 the protection of Biscayne Bay
3 • The team will coordinate with entities involved in coordinating
4 scientific/research efforts
5
6

7 The BBPI further identified a number of functions of the BBRRCT:
8

- 9 • Provide a forum for public involvement.
10 • Provide information to the public regarding activities and issues related to
11 Biscayne Bay.
12 • Provide a forum for interagency coordination and communication.
13 • Identify priority issues for action and create Biscayne Bay issue teams as
14 needed to assist the BBRRCT.
15 • Make recommendations on key issues to agencies and organizations.
16 • Identify goals and performance measures related to key issues.
17 • Assess the achievement of goals.
18 • Identify and pursue funding for key priorities.
19 • Review elements of CERP that affect Biscayne Bay.
20

21 The common threads weaving the tapestry of all these issues together involve
22 the inadequate provision of:
23

- 24 ▪ Dedicated and predictable funding sources that address land acquisition
25 and other needs to implement the objectives of this Plan, operations and
26 maintenance shortfalls, broad environmental education opportunities, and
27 enforcement to protect natural resources and public safety.
28 ▪ Efficient and effective coordination among all levels of government and the
29 more than 36 different jurisdictions, agencies and organizations with
30 responsibility for management, protection and use of the Bay and its
31 resources; and,
32 ▪ The full enforcement of existing practices, procedures and safeguards
33 designed to enhance the potential and experience of the Bay.
34

35 With the above functions and issues in mind, the BBRRCT developed four
36 Overarching Goals:

- 37 1) Coordination
38 2) Funding
39 3) Tracking and Follow-up
40 4) Improve Enforcement of Existing Regulations
41
42

43 **4.2 Coordination**

44 Coordination must be an integral part of what the BBRRCT does to promote and
45 assist in the well being of Biscayne Bay. By providing a public forum for Bay
46 related issues and projects that impact the Bay, the BBRRCT can foresee and

1 help eliminate, or minimize, conflict among Bay stakeholders and at the same
2 time improve interagency coordination on local, state and federal levels.

3
4 The team views the purpose of its coordination role to be the achievement of
5 three main objectives:

- 6
7 1) Act as a unified voice for Biscayne Bay.
8 a. Increase awareness of Biscayne Bay among agencies, policy
9 makers and citizens by publicizing the team's vision.
10 b. Elevate the importance of Biscayne Bay's restoration needs in
11 regional planning efforts.
12
13 2) Identify and prioritize issues and objectives for action.
14 a. Make recommendations to address gaps, duplications and conflicts
15 between agencies and stakeholders.
16 b. Make recommendations to the Working Group based upon
17 priorities identified as part of this Action Plan.
18 c. Update the Action Plan on a periodic basis.
19
20 3) Serve as a clearinghouse for many Bay matters.
21 a. Act as a centralized forum where agencies and organizations
22 involved in, or affecting Biscayne Bay can learn about Bay
23 initiatives and identify gaps, duplications and conflicts.
24 b. Act as a centralized forum for information and activities related to
25 Biscayne Bay.
26 c. Use information collected in the role of clearinghouse to educate
27 the public and policy makers about Biscayne Bay.
28 d. Provide a forum for stakeholders views and opinions regarding
29 Biscayne Bay activities.
30
31

32 **4.3 Funding**

33 Lack of adequate resources, especially money, is often a barrier when it comes
34 to restoring and maintaining Biscayne Bay. In keeping with the impetus for the
35 BBPI and the BRRCT, the team will strive to ensure that Biscayne Bay receives
36 funding that is on par with other regional restoration efforts and initiatives within
37 the State of Florida. To that end, the BRRCT has identified funding as a priority
38 and an overarching goal.

39
40 The BRRCT identified the following objectives related to this goal:

- 41
42 1) Review and identify funding priorities for Biscayne Bay.
43 2) Develop a master list of funding sources for Bay related projects, both
44 public and private.
45 3) Identify existing and potential new dedicated funding sources.
46 4) Work to ensure agencies serve Biscayne Bay at a level consistent with
47 other restoration efforts.

- 1 5) Encourage collaboration among stakeholders in raising funding for
2 projects consistent with priorities identified in the Action Plan, to avoid
3 duplicative or competing funding requests.
4
5

6 **4.4 Tracking and Follow-up**

7 One area of importance recognized by the BBRCT that has been largely
8 overlooked is consistent and thorough tracking of Bay management projects and
9 initiatives as they progress, as well as proper follow up to determine how
10 effective they have been and what further work is needed. As such the BBRCT
11 has identified this area as a priority and an overarching goal.
12

13 The BBRCT identified the following objectives related to this goal:
14

- 15 1) Develop better tracking and communication of Bay projects recommended
16 for funding or implementation by the BBRCT and their results.
- 17 2) Develop an effective method for tracking and follow-up of long term
18 restoration projects and ongoing activities by stakeholders and agencies.
- 19 3) Develop a periodic “report card” on Bay related activities and BBRCT
20 priorities.
- 21 4) Periodically review and update this Action Plan as a “live” document.
22
23

24 **4.5 Improve Enforcement of Existing Regulations**

25
26 A final overarching goal recognized by the BBRCT as critical to the
27 maintenance and long term health of Biscayne Bay and public safety is
28 improvement in the enforcement of existing regulations pertaining to the Bay.
29 The BBPI report states that while existing local, state and federal regulations are
30 generally sufficient to regulate activities within Biscayne Bay, efforts to achieve
31 compliance are not sufficient. The report further recognizes that enforcement
32 has become more difficult over time, as population and Bay usage have
33 increased while enforcement resources such as personnel and funding have
34 decreased.
35

36 The BBRCT and the BBPI report have identified the following objectives
37 relating to this goal:
38

- 39 1) Increase on-water and watershed enforcement of existing regulations with
40 the ultimate goal of a continuous bay-wide enforcement presence.
- 41 2) Each agency tasked with enforcement of regulations as they pertain to
42 Biscayne Bay should perform annual manpower and resource needs
43 assessments and provide summarizing reports.
- 44 3) Expand the Marine Advisory Support Team (MAST) to include an
45 interagency marine regulatory task force to address bay-wide enforcement
46 issues and strengthen enforcement.

- 1 4) Develop a multi-agency data base that quantifies number and status of
- 2 enforcement actions for environmental and safety egulations pertaining to
- 3 Biscayne Bay.
- 4 5) Develop a multi agency status report on rate of compliance for
- 5 construction and operating permits related to Biscayne Bay.
- 6 6) Provide a system of feedback to regulators and legislators in an effort to
- 7 improve their decision making process.
- 8 7) Work with Miami Dade County Planning and Zoning to develop a
- 9 mechanism that ensures that shoreline development review committee
- 10 resolutions are implemented.
- 11 8) Educate the user population about the rules and regulations to encourage
- 12 voluntary compliance.
- 13 9) Encourage the enforcement of existing regulations designed to protect
- 14 the physical, visual and public access to the Bay.

15 **Section 4.5 Enforcement**

5	4	3	2	1

17

18

19 **5.0 FOCUS AREAS**

20

21 **5.1 Ecological and Physical Restoration**

22

23 *5.1.1 Preamble*

24 Biscayne Bay is part of a larger ecosystem, including adjoining coastal water

25 bodies, uplands, and wetlands. Since the turn of the century, it has been directly

26 and indirectly affected by human activities occurring within it and on the land and

27 waters around it. More than 40 percent of north Biscayne Bay bottom habitats

28 were altered by dredging and filling to support urban development of the

29 surrounding upland and for navigation and infrastructure. In the past, marshes

30 and mangroves bordered much of the Bay, but filled and bulkheaded shorelines

31 have replaced most of these natural areas north of Coral Gables. In addition to

32 lost habitat and productivity, this type of shoreline alteration contributes to

33 resuspension and erosion of sediments, poor water clarity, and increased risk of

34 storm-surge damage.

35

36 Additionally, the construction and operation of the network of flood control canals

37 and structures caused further physical disturbance and drainage of coastal

38 wetland habitats and altered the volume, timing, and discharge of freshwater to

39 the nearshore estuarine zones of northern and western Biscayne Bay. Rather

40 than a gradual flow of freshwater through wetlands, tidal creeks, and springs,

41 large volumes of freshwater enter the Bay at canal mouths in intermittent pulses,

42 creating a widely fluctuating salinity pattern particularly during the rainy season.

43 Illegal discharges or spills and runoff from urban and agricultural areas may also

44 convey contaminants, such as nutrients, pathogens, trace metals, pesticides and

45 other chemicals into canal and Bay water and sediment.

1 Despite these impacts and alterations, Biscayne Bay remains an important
2 estuarine and marine habitat for fish and wildlife, including numerous
3 endangered, threatened or protected species. Mangroves still dominate the
4 shorelines of central and south Biscayne Bay, and productive seagrass and
5 hardbottom communities thrive, even in the most impacted parts of the system.
6 The Bay supports both commercial and recreational fisheries, or provides
7 nursery habitat for additional species of economic importance. Except in or near
8 major canals, water quality meets or exceeds local and state numerical criteria,
9 and in recognition of their unusual ecological values, the Biscayne Bay Aquatic
10 Preserve and Biscayne National Park have been designated as Outstanding
11 Florida Waters.

12
13 Maintaining or improving the water quality and habitat in Biscayne Bay and
14 adjoining coastal wetland systems requires a combination of preservation,
15 acquisition, restoration and enhancement of remaining environmentally sensitive
16 lands. It is also important to avoid and minimize impacts from future
17 development and redevelopment on the shoreline and in the watershed, and
18 eliminate past consumptive uses, development, and drainage practices that are
19 not environmentally sustainable. Local, state and federal regulatory programs
20 are the principal management tools in place to accomplish this. There are also
21 regional water management and land use planning activities in progress, such as
22 CERP or water supply plans, that are likely to affect Biscayne Bay and provide
23 opportunity for restoring estuarine and wetland habitats and reserving the
24 minimum freshwater needed for a healthy, functioning natural system. These
25 water-related regulatory and planning programs incorporate science-based
26 assessment and performance measures. Continued development of stronger
27 monitoring, research, and modeling tools is essential for preventing degradation
28 and making management of Biscayne Bay more effective, and for ensuring that
29 Biscayne Bay's freshwater inflow needs are met.

30 31 32 *5.1.2 Objectives*

33 The BBRCT developed a list of objectives related to ecological and physical
34 restoration, and organized them by grouping them into categorical subgoals. It
35 should be noted that many of the objectives relate to activities currently being
36 implemented or within the responsibility of BBRCT member-organizations or
37 other existing authorities.

38 39 *5.1.2.1 Subgoal: Reduce Pollution and Maintain/Improve Water Quality*

- 40 a. Identify and reduce point and non-point sources of pollution to
41 Biscayne Bay, from land and marine based sources.
- 42 b. Continue long-term surface water quality monitoring in the Bay and its
43 tributaries
- 44 c. Monitor and provide input to the FDEP in the development of TMDLs
45 for Biscayne Bay.
- 46 d. Establish numerical "antidegradation" water quality targets for
47 nutrients, toxics, water clarity, and EPOCs in order to meet the intent of
48 narrative standards for OFW regulations.

- 1 e. Upgrade aging public sanitary and storm sewer system infrastructure
- 2 to reduce debris and pollutant discharge to surface waters.
- 3 f. Eliminate or reduce illegal or improper discharges to storm sewers
- 4 through regulatory programs, enforcement, and implementation of
- 5 BMPs.
- 6 g. Establish stormwater treatment or detention areas in degraded
- 7 wetlands or other undeveloped lands in south Miami-Dade, including
- 8 acquisition of lands if necessary.
- 9 h. Determine relative significance of atmospheric inputs of air pollutants
- 10 to surface waters.
- 11 i. Reduce or eliminate dumping of trash and litter in the watershed and
- 12 from vessels.
- 13 j. Enforce regulations prohibiting discharges of sewage, oily waste, and
- 14 other pollutants from vessels.
- 15 k. Reduce siltation and water clarity degradation from dewatering,
- 16 dredging, or shoreline construction activities through the use of floating
- 17 curtains, treatment systems, or other equipment and operation
- 18 practices designed to manage turbidity.
- 19 l. Assess the potential effects of major dredging and filling projects, on
- 20 water quality and circulation through monitoring, modeling and applied
- 21 scientific studies.
- 22

23 5.1.2.2 *Subgoal: Improve Fisheries Resources*

- 24 a. Obtain fundamental understanding of ecology and population
- 25 dynamics of target species.
- 26 b. Define sustainable take for species of recreational and commercial
- 27 importance.
- 28 c. Support the completion of the Comprehensive Fisheries
- 29 Management Plan for Biscayne National Park being developed by
- 30 the National Park Service and Florida Fish and Wildlife
- 31 Conservation Commission.
- 32 d. Enforce existing fisheries regulations.
- 33 e. Improve fishing practices to reduce habitat impact and by-catch.
- 34 f. Restore and enhance stable estuarine habitats in nearshore areas
- 35 and coastal wetlands (see also, objectives related to Water
- 36 Quantity).
- 37
- 38

39 5.1.2.3 *Subgoal: Improve Water Management*

- 40 a. Improve timing, distribution, and the quality and quantity of
- 41 freshwater inputs into Biscayne Bay to create a more stable
- 42 mesohaline estuarine zone in the near shore and nearby coastal
- 43 marshes, and to reduce damaging pulses discharges of large
- 44 volumes of freshwater.
- 45 b. Increase the priority of implementation of Biscayne Bay water
- 46 resource issues in CERP.

- 1 c. Monitor and provide input to the design and implementation of the
- 2 CERP Biscayne Bay Coastal Wetlands project and Wastewater
- 3 Reuse Pilot Project.
- 4 d. Through CERP, increase efforts to identify alternative sources of
- 5 additional freshwater, other than reclaimed wastewater, for
- 6 Biscayne Bay.
- 7 e. Monitor and provide input to the SFWMD in the development of
- 8 MFLs for Biscayne Bay.
- 9 f. Increase water storage and aquifer recharge capability to address
- 10 run-off generated by a 100-year storm event.
- 11 g. Evaluate the current and future impact of sea level rise on Biscayne
- 12 Bay ecology and long-term plans for restoration.
- 13
- 14

15 *5.1.2.4 Subgoal: Restore, enhance and preserve habitat for fish and wildlife.*

- 16 a. Regulate, remove, and control invasive exotic species and restore
- 17 with native species.
- 18 b. Improve exotic species management techniques.
- 19 c. Develop science-based restoration targets and performance
- 20 measures, and evaluate effectiveness of habitat restoration
- 21 projects.
- 22 d. Encourage and support ongoing and existing Biscayne Bay habitat
- 23 restoration efforts.
- 24 e. Achieve no net loss of seagrass, other benthic habitat and coastal
- 25 wetland habitat as a result of dredging and filling.
- 26 f. Restore and enhance hydrology and function of coastal wetlands in
- 27 south Miami-Dade County through implementation of CERP
- 28 Biscayne Bay Coastal Wetland project.
- 29 g. Reestablish functioning tidal creeks in south Miami-Dade mangrove
- 30 systems to improve the distribution and timing of freshwater
- 31 discharge.
- 32 h. Stabilize eroding or unconsolidated shorelines with natural
- 33 limestone rip-rap and appropriate native vegetation.
- 34 i. Enforce existing regulations requiring the use of riprap in new or
- 35 replacement bulkhead and seawall construction.
- 36 j. Restore or enhance previously dredged areas in north Biscayne
- 37 Bay with stable fill or artificial reef materials.
- 38 k. Acquire and manage environmentally endangered lands for
- 39 conservation purposes.
- 40

41 *5.1.2.5 Subgoal: Protect Imperiled Species and Maintain Biodiversity*

- 42 a. Reduce human-related mortality and/or disturbance of endangered,
- 43 threatened, or protected species and their habitat in the Biscayne
- 44 Bay system.
- 45 b. Preserve, restore and increase spatial extent of habitat suitable for
- 46 imperiled species.
- 47 c. Enforce existing regulations established to protect imperiled
- 48 species.

- 1 d. Implement the Multi-Species Recovery Plan established by the
2 USFWS, and other other species Recovery Plans established by
3 federal and state agencies.
4
5

6 **5.2 Readily Accessible and Appreciated**

7

8 *5.2.1 Preamble*

9

10 Many of the same challenges affecting the ecological health of the Bay also
11 impact the public's ability to access it: poorly coordinated shoreline planning
12 among coastal cities and the County, development practices that fail to focus on
13 the water and lax implementation of existing environmental safeguards and
14 protection strategies. Social and economic issues, funding for infrastructure, lack
15 of public information and adequate signage and insufficient transit options further
16 exacerbate these challenges. For these reasons and others, the framers of the
17 BBPI identified unlocking access to the Bay as one of its seven overarching
18 themes.
19

20 The BBRRCT also recognizes physical and visual access to Miami-Dade's
21 waterfront, which encompasses not only the Bay but also its tributaries, as a
22 priority and envisions a Biscayne Bay that is "readily accessible to and
23 appreciated by all members of our diverse community." For this vision to be
24 realized it will require more waterfront land to be used for water dependent public
25 purposes, an infrastructure to support a diversity of recreational opportunities and
26 experiences, a stronger political will to protect and maintain parks, open spaces
27 and natural areas and an ethic of enlightened stewardship among the general
28 public.
29

30 With 40 public parks along Biscayne Bay – encompassing federal, state, county
31 and municipal areas - and more than 35 miles of shoreline from Broward County
32 on the north to Monroe County on the south, it would appear that access to the
33 Bay would be plentiful. However, inspection of the shoreline has revealed that
34 access points to the Bay and their amenities are underutilized, unevenly utilized,
35 neglected and/or unavailable for public use:

- 36 a) Some waterfront parks, such as Bicentennial Park in downtown Miami,
37 were poorly designed, thus discouraging use. It has remained shuttered
38 for more than 10 years, except for special events.
39 b) Others, such as Watson Island, sit fallow and unrealized for years and
40 then are leased to private interests for commercial, revenue-generating
41 activities that limit the public's opportunity to affordably access the
42 shoreline.
43 c) Nature-parks such as R. Hardy Matheson and Chapman Field continue to
44 wait for adequate funding and resources for their full potential to support
45 environmentally appropriate recreational activities to be realized.
46 d) Public marinas and dry storage areas average more than 95 percent
47 occupancy rates. And on holiday weekends, boat ramps at Black Point

1 Marina and Matheson Hammock Park experience full capacity and
2 overflow, generating a new phenomenon now called “ramp rage.”
3

4 Our common spaces, public parks, swimming areas, and facilities should
5 adequately support a variety of active recreational pursuits as well as
6 opportunities for passive enjoyment, quiet respite, appreciation and venues for
7 environmental learning. Ideally, public access opportunities should be provided
8 over a broad geographic range with greenways and trails as linkages, and be
9 maintained in a manner to be free of trash, debris, and physical obstructions so
10 that people across the region from a range of neighborhoods and varying mobility
11 can easily reach them and enjoy them. Natural areas set aside for conservation
12 should be accessible only to the extent appropriate to maintain their protection
13 and further their restoration.
14

15 With greater access to the Bay and its resources comes a greater responsibility
16 for its protection. Information, education and awareness are the keys to
17 achieving balanced access in concert with conscientious stewardship. A broad
18 public information strategy that includes directional data, such as maps, signage
19 and user guides, must join with a comprehensive environmental education
20 framework to build awareness, appreciation and advocacy for the restoration,
21 protection and improvement of Biscayne Bay.
22

23 5.2.2 Objectives 24

25 To address and remedy these broad issues, the BBRCT identified a number of
26 objectives to achieve greater public awareness of the Bay through improved
27 opportunities for and experiences of physical and visual access. While keeping in
28 mind that greater access also exerts greater impacts on the Bay’s resources,
29 measures need to be taken to mitigate these through responsible use and
30 practices. Many of the following objectives relate to ongoing activities and efforts
31 by the member organizations and authorities represented on the BBRCT. They
32 are identified here to give priority for their consideration and implementation. It is
33 important to note, as well, that as each of these objectives proceed toward
34 implementation, they may change in breadth and scope as new information is
35 gathered and a finer detail given to their planning.
36

37 *5.2.2.1 Subgroup: Physical and Visual Access*

- 38 a. Enforce existing regulations and environmental safeguards
39 designed to protect physical, visual and public access to the
40 shoreline;
- 41 b. Reduce issuance of variances and exceptions to public access
42 requirements for new shoreline developments, including mixed-use
43 facilities;
- 44 c. Support the completion of the Strategic Public Access Plan, also
45 known as *Get Your Feet Wet...The Plan to Discover Biscayne Bay*
46 to identify priority projects for funding consideration;

- 1 d. Increase the amount of and safely maintain, operate and increase
- 2 green, recreational and open spaces and natural areas along the
- 3 Bay shoreline and its tributaries;
- 4 e. Link public access points along the Bay, using a variety of
- 5 greenways, trails, land based public transit and environmentally
- 6 sensitive water-borne transit modes;
- 7 f. Determine feasibility of increasing visitor use and enjoyment of
- 8 underutilized public parks and spaces along the Bay, such as
- 9 causeways and street ends;
- 10 g. Work with public agencies to review and possibly adjust park user
- 11 fees to make them more affordable;
- 12

13 **5.2.2.2 Subgroup: Education, Information and Awareness**

- 14 a. Create an educational campaign targeting elected officials – local,
- 15 state and federal – to increase understanding of the issues related
- 16 to Bay ecology, its economic contributions and its aesthetic values
- 17 in an effort to improve coordinated governance and enforcement of
- 18 environmental safeguards, and to develop dedicated funding
- 19 sources for the Bay’s restoration.
- 20 b. Develop informational and educational materials, and outreach
- 21 methods for a Biscayne Bay campaign to reach residents, visitors,
- 22 teachers and educators, park and recreation professionals and
- 23 active and passive users to increase awareness of the Bay’s
- 24 recreational opportunities, boating safety, eco-tourism adventures,
- 25 conservation of environmental resources, and its economic value to
- 26 the greater community, as well as to improve appreciation of these
- 27 attributes through responsible and balanced use.
- 28 c. Coordinate existing educational opportunities among the more than
- 29 25 different environmental education organizations and agencies to
- 30 identify shared goals, gaps in research, education and target
- 31 audiences, and sites for experiential learning opportunities.
- 32 d. Create a comprehensive Bay Access directional, educational,
- 33 informational and interpretive signage program.
- 34 e. Develop a Biscayne Bay communication strategy and marketing
- 35 campaign, and assure Biscayne Bay activities are included in
- 36 convention and visitors bureau promotional material.
- 37 f. Implement a comprehensive boater education program to ensure
- 38 better awareness of boating safety and responsible stewardship.
- 39 g. Support the evolution of the www.discoverbiscaynebay.org website
- 40 from an agency information network to a public access and
- 41 information database.
- 42 h. Improve marking of channels, seagrass beds and coral areas and
- 43 provide adequate and timely maintenance of all markers and
- 44 signage within the Bay.
- 45
- 46

Section 5.2 Readily Accessible and Appreciated Ranking

5	4	3	2	1

1
2 **5.3 Supports Uses and Economic Activity**
3

4 *5.3.1 Preamble*

5 The vision statement of the BBRRCT states: “It [Biscayne Bay] supports a variety
6 of uses and economic activities that are environmentally sustainable.”
7

8 The inclusion of environmentally sustainable “economic activities” in the
9 BBRRCT’s vision makes our task particularly challenging. The BBRRCT must
10 seek a balance among restoration, economic use, and public access, but a
11 balance that gives physical and ecological restoration priority (especially in the
12 long term) without ignoring or dismissing access and use. In the simplest terms,
13 this means finding ways to encourage economic uses that are compatible with
14 restoration and access – though stating the problem this way does not
15 necessarily provide a simple or clear approach to its resolution. The difficulties of
16 achieving “balance” have emerged in several key areas: use of the waterfront;
17 watershed development; reducing impacts; consumptive uses; and sustainable
18 uses.
19

20 It seems appropriate that Bay-front property should be used for wildlife and
21 natural areas, water-oriented park space, and water-dependent or water-related
22 economic activities, rather than for non-water-dependent uses. Though this may
23 seem obvious, sections of the waterfront in the upper- and mid-Bay are used for
24 parking or storage (for dumpsters, for example). More important still, recent
25 discussions among BBRRCT members have noted growing pressures on the
26 Bay from development in the watershed and along the waterfront, especially the
27 transition of waterfront property from marine-related/dependent economic
28 activities to high-end residential or office uses. There are also periodic efforts to
29 use the waterfront for non-water-dependent fixed or floating structures that, in
30 effect, create more upland real estate at the expense of the water area for a
31 variety of economic purposes (offices, storage facilities, cell phone towers, to
32 name a few). The team is united in its concern over this trend and the potential it
33 holds for preventing us from finding ways to insure that the Bay is ecologically
34 and physically restored, accessible and appreciated by all the members of our
35 diverse community, and supportive of a variety of uses and economic activities.
36

37 The physical condition of the Bay is affected by land uses in the watershed.
38 Non-point-source pollution often originates far upland. Pollution may increase
39 with population, and a larger population means greater demand for water,
40 drainage and flood protection, and use of the Bay, with greater pressure on
41 available land, water and sewer infrastructure, and access facilities.
42 Development that occurs miles away from the Bay thus has an impact on the
43 ecosystem, even though it may be essential for the economic life of the
44 community. In the long term, it seems likely that physical and ecological
45 restoration of the Bay will require changes to the ways development occurs in the
46 watershed, even though the connections between the two are not obvious.
47

1 Even thoughtful, well-intended economic and recreational users of the Bay have
2 impacts on its resources. These impacts often interfere with the goal of physical
3 and ecological restoration. This problem is complicated by the fact that many of
4 the economic uses of the Bay contribute positively toward our vision. Marine
5 industries are an important source of diversity among waterfront uses. Boating is
6 a popular way to access the Bay. The Port of Miami, for example, continues to
7 be an important source of employment and commerce, even though it's physical
8 presence on the Bay and efforts to deepen or widen channels, expand its scope,
9 and improve its facilities may impact water quality, fisheries and wildlife, and
10 prevent the full public access to, preservation or restoration of natural areas. The
11 BBRCT, therefore, is seeking ways to reduce impacts and conflicting uses
12 while preserving or augmenting environmentally friendly economic viability.
13

14 Many of the economic uses that consumed or removed the resources of the Bay
15 have been restricted by law – harvesting of vegetation or fisheries resources,
16 dredging and filling – and the BBRCT believes that such laws should be strictly
17 enforced. The principal remaining consumptive uses are commercial and
18 recreational fishing. Both commercial and recreational fishing may be compatible
19 with the long-term objective of physical and ecological restoration, but this will
20 require defining sustainable take limits and insuring the use of sustainable fishing
21 practices (both commercial and recreational). At this point, more needs to be
22 known about historical fish populations and about contemporary fishing practices
23 to determine how close we are to rendering these consumptive uses sustainable.
24 Even more important, where this information is already known, it should be even
25 more widely disseminated and used.
26

27 The BBRCT prefers to see sustainable economic uses of the Bay, especially
28 those activities that take advantage of its beauty and diversity in ways that
29 increase user appreciation for its physical condition and heighten public desire to
30 protect it even as they provide jobs and sustain businesses. Ecotourism should
31 play a strong role in the local economy, these industries should be expanded,
32 and these businesses should receive a higher profile in tourism marketing efforts.
33

34 5.3.2 Objectives

35 With these issues in mind, the BBRCT developed a list of objectives related to
36 supporting uses and economic activities, and organized them into categorical
37 subgoals: Fishing, Boating, Sustainable Uses, and Marine Industries
38 (Infrastructure). It should be noted that the many of the objectives relate to
39 activities currently being implemented or within the responsibility of BBRCT
40 member-organizations or other existing authorities.
41

42 5.3.2.1 Subgoal: Improve Fisheries Resources

- 43 a) Enforce existing fisheries regulations.
- 44 b) Improve fishing practices to reduce habitat impact and by-catch.
- 45
- 46

- c) Restore and enhance stable estuarine habitats in nearshore areas and coastal wetlands (see also, objectives related to Water Quantity under Ecological and Physical Restoration).
- d) Educate users
- e) Encourage continued coordination by the National Park Service, Florida Fish and Wildlife Conservation Commission, and other federal and state agencies to manage fish stocks within Biscayne Bay as one biological unit.

5.3.2.2 *Subgoal: Boating (Uses)*

- a) Obtain a fundamental understanding of the impacts of boating on the Bay.
- b) Increase the use of safe boating practices.
- c) Increase environmentally sound vessel storage and access.
- d) Reduce boating accidents and fatalities (human and animal).
- e) Decrease groundings and propeller scars.
- f) Reduce conflicts between recreational and commercial vessels.
- g) If needed, expand boat maintenance facilities in environmentally suitable areas.
- h) Support use of best management practices for reducing potential discharges related to boat maintenance.
- i) Increase availability of solid and liquid waste disposal facilities for vessels.
- j) Increase the number of boating facilities participating in the FDEP Clean Marina and Clean Boatyards programs.
- k) Streamline the process of, and maximize the funding for, removing derelict vessels.
- l) Increase availability of environmentally friendly mooring facilities and boat anchorages in appropriate locations.
- m) Enforce guidelines and regulations for vessel waste discharge, anchoring, and operation.
- n) Conduct a current and historical vessel wet/dry slips inventory and analysis to determine trends in boating storage infrastructure.
- o) Development of new and expanded marine facilities should be consistent with the Miami Dade Manatee Protection Plan, existing rules and regulations while minimizing environmental impact.
- p) Work with public agencies to adjust fee schedules for boat storage and launching to make them more affordable.
- q) Seek out the most innovative and environmentally sustainable practices to reduce potential impacts from vessels and marine facilities. Implement these practices as new facilities come on line or aging facilities are improved and upgraded;

5.3.2.3 *Subgoal: Sustainable Uses*

- a. Obtain an understanding of the role of eco-tourism in the local economy and identify opportunities for its expansion.

- b. Develop measures for determining the adequacy and condition of national, state and local parks (including facilities and maintenance)-
- d. Increase environmentally sound, water oriented opportunities for park visitors and for people who do not have boats.
- e. Increase number, value, and employment in eco-tourism businesses.
- f. Increase affordable opportunities for recreational uses, such as snorkel/scuba and kayak/canoe rentals/sales, that are less likely to produce pollution or damage resources.
- g. Encourage environmentally friendly food/drink establishments near the water and accessible by water consistent with existing rules and regulations
- h. Optimize the socio-economic value of historical resources of the Bay (displaying, marketing).
- i. Preserve historic, archaeological, and cultural resources.
- j. Create a comprehensive guidebook/sourcebook for user groups.

5.3.2.4 *Subgoal: Marine Industries (Infrastructure)*

- a. Obtain an understanding of the role of marine industries in the local economy and identify opportunities for their expansion consistent with existing rules and regulations.
- b. Evaluate the costs and benefits of gentrification of the working waterfront and use of waterfront land for non-water dependent activities.
- c. Avoid, minimize, and mitigate impacts of ports and waterways projects (including blasting, dredging and expansion).
- d. Reduce potential impact of marine facilities through use of best management practices.
- e. Improve port security.
- f. Increase employment opportunities in marine and boating industry.
- g. Increase efficiency and contiguity of deep and shallow water port areas.
- h. Decrease non-water dependent uses on waterfront land in order to maintain no net loss of the working-waterfront.
- i. Enforce existing regulations related to storm and sanitary sewer infrastructure for ports and marine facilities.

6.0 INITIAL ACTION STEPS

A short preamble is needed here to introduce this section and explain that these are only the initial action steps and that they are recommendations.

- 1) Review and revise the BBRRCT Action Plan no later than two years from the date of final acceptance, including the development of Action Steps for the Focus Areas identified in the Action Plan.

- 1 2) Hold two evening meetings each calendar year to encourage public
2 participation and attendance. The team will hold one in 2005.
- 3 3) Review and provide comments on Biscayne Bay related CERP projects
4 (including, but not limited to, Biscayne Bay Coastal Wetlands, C-111 North
5 Spreader Canal, Wastewater Reuse Pilot Project), Biscayne Bay
6 Watershed Study, Biscayne National Park's General and Fisheries
7 Management Plans, the FDEP development of TMDLs and list of impaired
8 water bodies, land acquisition plans, and other Biscayne Bay related
9 programs, projects and studies.
- 10 4) Complete an inventory of potential grants, funding sources and legislative
11 appropriations for water body management, restoration, access,
12 education, and all other Biscayne Bay related focus areas.
- 13 5) Arrange informational presentations from appropriate lead
14 agencies/groups about what is being done with regard to the Objectives
15 contained in the Focus Areas.
- 16 6) Identify projects with seed money that achieve the objectives of the Focus
17 Areas or Overarching Themes of this Plan and provide support as deemed
18 applicable.
- 19 7) Facilitate a comprehensive directional, information and interpretive
20 signage network for Biscayne Bay access.
- 21 8) Facilitate an interagency coordination meeting including state, county, and
22 municipal park and resource management agencies to identify most
23 feasible locations for expansion of public boat ramps and vessel storage,
24 and other types of public access opportunities, considering environmental
25 issues and safety of the public.
- 26 9) With assistance from land and recreation management agencies, develop
27 a list of sites or facilities in need of improvements to facilitate shoreline
28 and water access for fishing, viewing, paddling, or similar water dependent
29 activities, including a general estimate of costs.
- 30 10) Host an informational workshop, tailored for municipal building officials, on
31 existing shoreline development requirements and guidelines.
- 32 11) With assistance from appropriate resource management agencies,
33 develop a list of Biscayne Bay and coastal wetland environmental
34 restoration and enhancement opportunities, including a rough estimate of
35 construction costs.
- 36 12) Review existing lands in the Biscayne Bay watershed listed for acquisition
37 for conservation purposes and provide recommendations for prioritizing
38 acquisition.
- 39 13) Develop an annual "report card" or similar review of Biscayne Bay targets
40 or measures related to ecological health, access, and use that is suitable
41 for non technical audiences.
- 42 14) Identify potential sources of funding for a study to obtain an understanding
43 of the role of eco-tourism in the local economy and identify opportunities
44 for its expansion.
- 45 15) Request a presentation on the status of the ongoing study on the role of
46 marine industries and other Bay-related activities in the local economy and
47 identify opportunities for their expansion consistent with existing rules and
48 regulations.

1 16) Host a public forum for the City of Miami to provide a briefing and receive
 2 feedback on its ongoing efforts to develop a Virginia Key master plan, the
 3 Waterfront Master Plan and the Bicentennial Park Master Plan.
 4

5 **Section 6.0 Action Steps as a whole**

5	4	3	2	1

6

7 **7.0 CONCLUSIONS**

8

9 To be written...

10

11 **THIS WILL NEED A TABLE FOR RANKING**

12

13

14

15

16 **8.0 APPENDICES**

17

18 Additional parts to be written...

19

20 **8.? Procedure, Process and Organizational Structure**

21

22 The BBRRCT Team was established to enable and foster inter-agency and
 23 public/private enterprise communication and coordination with regard to issues
 24 related to Biscayne Bay, which are essential functions for the enhancement of
 25 maintenance and restoration of the Bay. The Team is comprised of
 26 representatives of diverse stakeholder constituencies who do the direct
 27 negotiating and deliberating with additional input from public comment included in
 28 all stages of the process. For the first two years of its existence, the Team had no
 29 formal structure for meetings, deliberations and decision making.

30

31 In March, 2003, a facilitator was brought into the process to assist with having
 32 the Team develop an organizational and procedural structure in an effort to
 33 hasten and ensure completion of the Team's duties as outlined in the Charter.
 34 To begin the organizational process, the Facilitator had the Team adopt Meeting
 35 Guidelines and rules for decision making. Once those protocols were
 36 established, the Team went on to develop rules defining a quorum, requiring
 37 attendance, naming designees and alternates to the Team from each
 38 stakeholder group, and conducting an analysis of the current stakeholder
 39 constituencies.

40

41 **Meeting Guidelines (Exhibit x):** After discussion and lengthy deliberations
 42 regarding past practices of the Team during its first two years, the Team adopted
 43 protocols for meeting interaction initially on March 14, 2003, with amendments on
 44 April 11, 2003 and May 1, 2003.

1
2 **Decision Making (Exhibit x):** In any large group in which decisions are to be
3 made, a process for decision making must be determined prior to the onset of
4 deliberations. No formal adoption of a decision making process had been made
5 in the Team's first two years of deliberations. The facilitator suggested that the
6 Team use a collaborative, consensus-based process for decision making. This
7 process encourages and fosters participants assisting one another in developing
8 alternatives which are acceptable to all members of the group. This type of
9 process often takes longer in order to accomplish agreement, however, research
10 has shown that agreements reached collaboratively and with a consensus based
11 process often are more satisfying to a group's participants and bring with it
12 greater support and implementation efforts.

13
14 The Team agreed to try a modified consensus based procedure and eventually
15 formally adopted a consensus decision-making process. Modified consensus
16 relies on a "back up" if consensus cannot be reached, usually in the form of a
17 "super majority" vote (meaning greater than the typical 50% plus 1). Within the
18 BBRRCT, consensus was used for all decision-making and if consensus could
19 not be reached, a majority vote of 75% of those voting members present at the
20 meeting was required to pass an item. The consensus rules were initially
21 adopted on March 14, 2003 and revised to correct an omission on February 13,
22 2004.

23 A specific ranking process was used to establish consensus. Members were
24 asked, by a show of fingers, (1 through 5) to express their agreement on a
25 specific issue. 5 fingers meant wholehearted support, 4 fingers meant support, 3
26 fingers meant neutral but will support the decision fully to the outside world, 2
27 fingers meant still have questions to ask, and 1 finger blocks any decision being
28 reached by the group. Consensus was defined as everyone showing no less
29 than 3 fingers in the ranking process.

30 If any member had a show of 1 or 2 fingers, discussion followed to answer the
31 questions or concerns of those members. Team members helped one another
32 resolve concerns and conflicts. After a period of discussion, a second ranking
33 was taken to determine if consensus had been reached. If all members were
34 showing 3 fingers or more, consensus was reached and the Team moved on to
35 the next issue. If, in the second ranking, there were still members who indicated
36 their concerns by a showing of 1 or 2 fingers, the Team converted to a voting
37 system on that issue. If an item was voted upon, 75% of the voting members
38 present was required to pass an item if a vote became necessary.

39 **In the final version of this document, we should make a statement about whether**
40 **the Team ever needed to go to a vote and how many times.**

41 In addition to decision making, the Consensus Rules established what
42 constituted a quorum in order to have a meeting: 50% plus 1 of the voting
43 members.

1 **Organizational Structure (Exhibit x):** In adopting the Meeting Guidelines and
2 Consensus Rules, the Team began to develop its Organizational Structure.
3 Membership consisted of both voting and non-voting members. Each
4 stakeholder group had a Designee and one Alternate. Attendance rules were
5 clarified to ensure participation by interested and affected stakeholder groups.

6
7 Post-meeting evaluations from members of the Team were used as an indicator
8 to gauge Member understanding of and satisfaction with the process.
9 Evaluations also included several sections for comments and suggestions.
10 Adaptations in the process were made based on evaluation input.

11
12 Public comment opportunities were included in the process at every meeting.
13 Comments could be given orally during formal public comment time at each
14 meeting or submitted in the form of written or emailed comments to the facilitator.
15 The facilitator initiated and maintained an “interested parties” email distribution
16 list for all individuals who were not Team members but wish to receive
17 announcements regarding meeting schedules and other information in
18 connection with the Team.

19
20 The adopted organizational structure supported the Team being lead by a Chair.

21
22 **Section 8.? Procedure, Process, and Org Structure Ranking**

5	4	3	2	1

23
24
25
26