

**Dona and Roberts bays watershed management program
Public workshop proceedings
January 21, 2006 Laurel Nokomis School Cafeteria**

Contents

| | |
|----|---|
| 2 | Summary |
| 3 | Agenda |
| 4 | Attendance |
| 5 | Survey form |
| 6 | Event survey results |
| 7 | Participants' written answers to Question 1 and 2 |
| 10 | Small group facilitator notes |
| 16 | Q&A session |

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Public workshop proceedings – Jan. 21, 2006 – Laurel Nokomis School Cafeteria**

SUMMARY

Format

Guests were greeted by staff and team members as they entered, then were seated theater-style for the plenary session, which included introductory remarks, a PowerPoint presentation with three speakers, and a Q&A session.

After a 10-minute break, during which about two thirds of the guests departed, the remaining guests were seated in discussion circles for a small-group exercise. County staff and a guest facilitator led the small groups. Participants were asked two questions and their responses were noted on easel pads. They were also asked to complete a short survey on the same form that contained the two questions.

The agenda and survey form are provided elsewhere in this report.

Attendance

- Approximately 100 members of the public attended. Affiliations were wide-ranging, but appeared to represent mainly near-bay areas.
- We now have email addresses for 62 interested parties, including those who RSVPd and did not attend.
- Three media representatives attended representing Herald-Tribune and Osprey Observer.

Feedback

- Approximately 35 participated in the small group discussions.
- Question 1 responses were wide-ranging. Answers to both questions appear later in this report.
- Question 2 responses appeared to be weighted toward recommendations for public outreach, Florida-Yard-related problems/solutions, and restoration.
- Event survey highlights include:
 1. LOCATION - Majority liked location. One noted need for better signage; one noted long walk to the room. One noted desire for table for note-taking.
 2. DAY/TIME - Majority liked day and time. One thought it was too early. One noted that Saturday was preferred.
 3. PRESENTATIONS/SPEAKERS - All liked presentations/speakers. Lowest score was a 4, where 5 was "strongly agree" and 1 was "strongly disagree."
 4. SMALL GROUP - Those who responded re the small group liked it. Most 4-5, two 3s. Two respondents wanted more time for Q&A.
 5. I UNDERSTAND MORE – Most scored 4-5; one 1
 6. SHARED RESONSIBILITY – Those who responded agreed at level 5; one 4.
 7. ARE TAKING/WILL TAKE ACTION – This question had fewer responses; of respondents, scores were 3-5.
 8. NOT SURE HOW TO HELP – Fewest number of responses; those who did respond scored 3-5. Two 1s. Nine people checked a response and provided names and

phone numbers, suggesting that they may be follow-up candidates although they did not specifically request contact.

- Three strong NEST candidates were identified. (NEST stands for Neighborhood Environmental Stewardship Teams, a program to engage residents in hands-on activities to improve the watershed and protect waterways.)
- 12 requested follow up by staff to assist with action. Three of those requested follow up to answer questions.

Sarasota County's Watershed Story *Dona and Roberts bays*

Watershed Workshop Agenda

Jan. 21, 2006

Welcome & Objectives

Jim Guida, P.G.

*Director, Sarasota Regulation Department
Southwest Florida Water Management District*

Presentation

Stephen Suau, P.E.

*Project Director
Kimley-Horn and Associates Inc.*

Ernest Estevez, Ph.D.

*Director, Center for Coastal Ecology
Mote Marine Laboratory*

Michael S. Jones, P.W.S.

*Project Manager, Environmental Specialist III
Sarasota County Environmental Services*

Questions & Answers

Lisa B. Beever, Ph.D., AICP

*Director
Charlotte Harbor National Estuary Program*

Comfort Break

Small Group Discussions



Attendance

Invited
 Neighborhood leaders (letter) 67
 Neighborhood leaders (email) 29
 Large property owners 30
 City of Venice 2
 Peace River RWSA 1

RSVP'd: 45
 No-shows from RSVP list: 9
 General public attended: 99
 News media: 3 (representing two newspapers)
 County Commissioners: 2
 Plus, DARB team and staff

Affiliations Reported at Sign-In

| | |
|---------------------------|---|
| Americal Littoral Society | |
| Bay View | 2 |
| Bird Bay Village | 7 |
| Calusa Lakes | |
| Carollo Engineering | |
| CHNEP | |
| City of Venice | |
| Coldwell Banker, Venice | |
| CONA | |
| Dona Bay | 3 |
| Florida Park Service | |
| Harbor Lights | 3 |
| Healthy Gulf Coalition | |
| Herald-Tribune | |
| Inlet Frontage | 1 |
| Laurel | |
| Laurel Civic Association | |
| Lemon Bay Conservancy | |
| LWY | |
| ManaSota-88 | |
| Mission Valley | |
| Mote | |
| Nokomis Area Civic Assoc. | 2 |
| Nokomis East - NACA | |
| Oscar Scherer State Park | |
| Osprey Observer | |
| Raise the Bridge | |
| Ram Marine | |
| Ringling School of Art | |
| Rivendell | 3 |
| Roberts Bay | 2 |
| RTB | |

| | |
|----------------------------------|---|
| Sarasota Conservation Foundation | |
| Sarasota Herald-Tribune | |
| Sawgrass | |
| Sawgrass Community Assoc. | |
| SBEP | |
| SC Extension Service | |
| SC Govt - Neighborhoods | |
| SC Water Resources | |
| SCHD | |
| SCWR | |
| Sierra Club | 2 |
| Snake Island Republic | |
| South Venice Civic Assoc. | |
| SSEM | |
| TNC | |
| Venice Area Audubon Society | |
| Waterford | |

Cities Reported at Sign-In

Laurel
 Nokomis
 Osprey
 Sarasota
 Venice

Event Survey Form

**Dona and Roberts Bays Watershed Management Program
Jan. 21, 2006 Workshop
Small Group Discussion Topics**

1. In your opinion, what is/are the major issue(s) affecting the health of Dona and Roberts bays?

2. What, if anything, are you and/or your neighbors doing, or what will you do, to improve the watershed and protect the bays?

Please help us improve by completing this brief survey. If you'd like to explain any of your answers, or share other thoughts with us, please use the back of this paper.

| Please respond using the scale to the right, with 5 as “strongly agree” and 1 as “strongly disagree.” | 5 ☺ | 4 | 3 | 2 | 1 ☹ |
|---|---------------|----------|----------|----------|---------------|
| The location was convenient and the room was comfortable. | | | | | |
| The day and time were convenient. | | | | | |
| The speakers and their presentation were informative and understandable. | | | | | |
| The small group discussion was a good format for sharing my ideas with others. | | | | | |
| “I understand more about the bays and watersheds than I did before.” | | | | | |
| “I believe that improving the bays is a responsibility shared between government, individuals and neighborhoods.” | | | | | |
| “I am going to take action in my own home, yard or neighborhood to protect the bay.” | | | | | |
| “I want to help, but am not sure how.” | | | | | |

- Please have someone contact me to discuss how my neighbors and I can help protect the bays.
- I have more questions. Please have a staff member follow up with me.

Name: _____ Phone: _____

Event Survey Results

Highlights

1. LOCATION - Majority liked location. One noted need for better signage; one noted long walk to the room. One noted desire for table for note-taking.
 2. DAY/TIME - Majority liked day and time. One thought it was too early. One noted that Saturday was preferred.
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- Three strong NEST candidates were identified. (NEST stands for Neighborhood Environmental Stewardship Teams, a program to engage residents in hands-on activities to improve the watershed and protect waterways.)
 - 12 requested follow up by staff to assist with action. Three of those requested follow up to answer questions.

Survey Responses (5 is strongly agree; 1 is strongly disagree; NR is no response)

Number of responses

| | 5 | 4 | 3 | 2 | 1 | NR |
|-----------------------|----|---|---|---|---|----|
| Location | 24 | 6 | 3 | 1 | 0 | 1 |
| Day/time | 27 | 7 | 1 | 0 | 0 | 0 |
| Speakers/presentation | 31 | 4 | 0 | 0 | 0 | 0 |
| Small group | 21 | 2 | 2 | 0 | 0 | 10 |
| Understand more | 23 | 7 | 2 | 0 | 1 | 2 |
| Shared responsibility | 30 | 2 | 0 | 0 | 0 | 2 |
| Will take action | 19 | 2 | 3 | 0 | 1 | 10 |
| Not sure how to help | 8 | 5 | 3 | 0 | 2 | 16 |

Additional comments provided on the forms

1. Why was the Q&A session cut off with so many questions still remaining on the floor?
2. There is a need for the watershed issue to be taken into account in the front-end of the design process of the trestle treatment for the conversion of the rail corridor to a trail.
3. Small Group: Missed it Shared Responsibility: + Private Industry Will Take Action: I have Not Sure How to Help: I do now
4. Small Group: Did not stay
5. Shared Responsibility: + Private sector
6. Not time for questions; they cut questions time off too soon.
7. Long walk to find cafeteria; sitting at tables would be helpful for taking notes.
8. Location: Need more direction signs
9. I want to incorporate this project into our classes at Ringling. Shared Responsibility: + Business, Commercial, Agriculture
10. I clean all the trash left on our rip rap I am agreeable to have anyone do a study at my property.
11. Day/Time: Too early
12. Day/Time: Finally on Saturday when we can attend.

Participants' written answers to discussion questions from small group forms

Question 1: Major problems affecting the health of Dona and Roberts bays

1. Being on Inlet Circle, my interest in the water is how it can be improved so plants that are growing on our rip rap will decrease.
2. Canals and ditches, which divert excessive amounts of fresh water to the bays and, at times, allow salt water to extend too far upstream.
3. Changes in hydrology (water flow / water quality) impacting the biology, thus altering the natural and human value of the systems.
4. Cow Pen Slough runoff; Curry Creek, City of Venice wastewater treatment plant discharge.
5. Development
6. Development; fresh water input; mining
7. Dona - dark water that I guess is the runoff of Cow Pen Slough.
8. Excess fresh water runoff
9. Fresh water and water flow through the bridges.
10. How will further development impact the efficacy of this management program?
11. Increase in fresh water running into the bays altering the ideal salinity.
12. Influx of larger amounts of fresh water
13. Lack of controlled development.
14. Loss of estuary functions; loss of habitat; too much fresh water for wildlife too much of the time
15. Nutrient content caused by landscape runoff. Commercial development and large-scale residential are regulated, however, individual residential runoff needs incentive programs to encourage responsible landscape practices.
16. Nutrients!
17. Opening Midnight Pass should improve salinity stability for the Intracoastal Waterway, improve water quality flowing out of the inlet, and have some effect on the bays.
18. Pollution; poor development; density
19. Quality of water - salinity, chlorine & chloride content, etc.; changes in constructive dams and lakes for runoff; rain; red tide issues
20. Residential construction and development; City of Venice out of touch with County initiatives.
21. Restoration of the "natural" unk(?) unk(?) of water flows, as much as possible.
22. Restricted flow in Roberts Bay caused by the damming effect of landfill to facilitate short US 41 and RR bridges; caused major silt and solids accumulation.
23. Run off of nutrients; imbalance of fresh and salt water; exotic foliage; too much sediment collection in bay area.
24. Salinity mix; retention pond; filter; nutrients; pesticides
25. Salt water/fresh water monitoring.
26. Septic tank nutrients; I live on the bay and a side canal, and in 10 years there is a dramatic change from canal runoff.
27. Storm water
28. Storm water runoff; water flow (Roberts Bay Bridge) and both railroad trestles; fresh water from Cow Pen Slough; City of Venice pollution - illegal dumps.

29. To bring the bays back to the healthy environment it was in the early 50's, before the pesticides and insecticides were introduced to the farming area in the Fruitville area and washed down the Cow Pen Slough.
30. Too much fresh water, nutrient loading.
31. Too much fresh water, too fast, and at the wrong times; too much suburban development; too much motor boat traffic causing (1) turbidity, (2) Manatee mortality, and (3) erosion and pollution.

Participants' written answers to discussion questions from small group forms

Question 2: What, if anything, are you and/or your neighbors doing, or what will you do, to improve the watershed and protect the bays?

32. I do not live with Dona and Roberts Bay watershed.
33. We are reviewing a new major in Environmental Design at Ringling; if it goes through, we would like to link the watershed projects / low impact design technologies and working with neighborhood groups to promote / install these capabilities.
34. Native landscaping; biofilm study at Venice High.
35. Not polluting.
36. Less fertilizer, pesticides, and herbicides on lawns.
37. Planting our lakes to increase the filtration system.
38. For water flow, raise and widen the bridges; for fresh water, nothing yet.
39. Complain to SRQ County: (1) Rodriguez development (2) Palmer Ranch expansion
40. Education, communication, and awareness; strategic wetland acquisition
41. Community awareness; promote workshops like this; litter programs; school programs
42. Advocate for native plantings; less unk(?); no fertilizer/pesticide use.
43. I personally try to practice landscape design to reduce runoff, however, **costs** to attempt improvements (retention walls to stop immediate runoff) are prohibitive.
44. Waterford LLC started 12-month program evaluating bank(?) erosion, alternative plantings, and fertilization.
45. Improve habitat; septic?
46. I make sure all paint, insecticides, offensive materials, etc. are sealed and put in proper discharge and discarded properly in County waste management; phosphate nitrogen level monitor; promote more workshops, public awareness.
47. Monitoring program for storm water retention ponds; campaign to reduce fertilizer use adjacent to storm water.
48. Bringing problems to the attention of county and state officials, without any resultant action on their part; City of Venice dumping water from S.T. Plant into creek.
49. At moment, nothing. What can be done?
50. Slow-release fertilizer
51. Reducing use of fertilizers.
52. I would like to see septic systems! I have been through this whole thing on a good-sized lake in S. Michigan near Jackson and Ann Arbor, and we now have 98% clarity in our lake!
53. Consider a "Nest" organization to explore canal improvement
54. Formed *Raised the Bridge*; call for US Coast Guard study of railroad trestles.
55. Do less pesticides and plant fertilizers on the land and enforce overuse of lawn watering.

56. Planting a Florida natural yard; trying to help educate myself and others about the need to improve our ecosystem.
57. Voting to preserve environmentally sensitive lands; voting for Jon Thaxton

Small Group Facilitator Notes

Question 1: Major Issues Affecting Health of D/R Bay

| | |
|---------------------------|----|
| Freshwtr | 7 |
| Pollution | 9 |
| Bridges / Trestles | 10 |
| Sediment | 4 |
| Human Health | 1 |
| Overuse | 2 |
| Development | 8 |
| Vegetation loss | 2 |
| Phosphate mining | 1 |
| Other | 17 |

Question 2: Actions To Take / Being Taken to Improve Watersheds

| | |
|---------------------------------|----|
| Public Outreach | 11 |
| Florida Yards | 7 |
| Govt Coordination | 1 |
| Political | 2 |
| Volunteer Monitoring | 2 |
| Development | 8 |
| Regulation | 1 |
| Enforcement | 3 |
| Restoration | 11 |
| More Science | 7 |
| Litter Control | 1 |
| Bridge / Trestle | 2 |
| Other | 2 |

Question 1: Major Issues Affecting Health of D/R Bay

1. Too much fresh water being diverted to bay
2. Need more retention ponds to filter nutrients
3. Salinity - can we get back to levels of the past?
4. Should Midnight Pass be re-opened?
5. U.S. 41 Construction - bridges constrict flows (Roberts Bay) and railroad
6. Blackburn Canal flows contribute significant sedimentation islands in Roberts Bay
7. Rails To Trails program needs to plan for proper flows in and out of Roberts Bay
8. Fertilizers & Pesticides - overused/polluting water
9. Lack of "Florida Friendly" landscaping (trees on Berms contribute to sediment runoff)
10. Too much motorized boat traffic - turbidity, Manatee mortality, erosion, hydrocarbon pollution
11. Too much suburban development
12. Too much fresh water - too much at a time
13. Nutrient loading
14. Channeling
15. Upland development and reducing impact
16. Level and complexity of restoration plan requirements
17. Opening of Midnight Pass and effect on adjacent bays
18. Storing excess water
19. Developments that remove all vegetation
20. County's canal management strategies remove vegetation
21. Impacts of sedimentation in bays
22. Negative environmental impacts due to increased boat traffic
23. Loss of shoreline vegetation, especially mangroves
24. Competing political issues: flooding vs. bay health
25. Developments that remove all vegetation
26. Links from marine eco-system to human health

27. Freshwater inflow
28. Phosphate mining
29. Low-impact design techniques
30. Municipality partnerships
31. Enabling neighborhoods with technical resources facilitating doing the right thin
32. Availability of reclaimed water
33. Facilitate recreational use
34. Small R.O. brine discharges
35. Storage to mimic natural flows
36. Railroad (trail) trestle not finalized - "choking" the water flow and velocity
37. Railroad (trail) trestle not finalized - boating safety
38. Railroad (trail) trestle not finalized - create more habitat
39. Railroad (trail) trestle not finalized - navigation improvement, too
40. Railroad (trail) trestle not finalized - remove bedrock support
41. Want County agencies to provide comments and answers
42. Mote report - 175 pages
43. 1975 Roberts Bay Study - want it addressed and discussed - why haven't the recommendations been considered?
44. Does raising bridges increase boat traffic and tear the bottom?
45. Balancing recreation and navigation with the ecology of the bays.
46. Consider the watershed at the front-end of design process of the trestle treatment
47. Pollution - lack of oysters
48. Pollution - not only a freshwater influx
49. Pollution - what can we do to stop, other than penalty?
50. Pollution - too many fertilizers, need guidelines
51. Pollution - silting from the runoff on south side of Shakette Creek, north of Curry Creek - no treatment requirements at time of development
52. Pollution - septic impact - what is it, extent, etc.?
53. Pollution - litter/floating trash

54. Density of development
55. Infill of green spaces - more impervious surfaces
56. Increase in fresh water
57. Lack of control of development
58. Excess water from new developments
59. Impacts of development on quantity and quality of water
60. Water quality
61. Reluctance or inability to make needed changes, government, HOAs, etc.

Question 2: Actions Being Taken to Improve Watersheds

62. Promoting community education and action in American Littoral Society (mission: coastal conservation)
63. Switching to slow-release fertilizers
64. Communicating with various agencies (state and local governments) to address the problems with the bay systems (community cares, but county doesn't seem to care)
65. Eliminated fertilizing and watering their lawns
66. Practice xeriscaping - but no incentives for individuals to add their own retention... can something be done?
67. Vote for Jon Thaxton - Vote out Mills
68. Venice High School is conducting bio-film study in Shakett and Curry Creeks
69. Working with Florida natural yards and Florida native plants to evaluate yard
70. Involved in groups that help educate on environmental issues
71. Give neighborhood associations more information on what they can do
72. Citizen advocacy for County to implement restoration plan
73. Citizens offer own properties as study sites

74. New and existing development to create shoreline buffer by working with neighborhoods
75. Improve/setback from waterways increase
76. Use/increase pervious pavement
77. Remove exotic vegetation, especially Terrible 3
78. Monitor W/W discharge from City of Venice W/WTP
79. Require more open space in all zoning categories (minimum of 30%)
80. Connect open space along waterways (minimum 20-30 feet)
81. Balance green space and pervious space
82. Do not allow building in wetlands and mitigation
83. DARB are OFWs - model baseline data to base stats[?] on
84. Add Shakett Creek as OFW
85. Creek restoration - use South Creek as County model
86. Wetland restoration of Cow Pen Slough
87. More monitoring - WQ
88. Trend studies (e.g., NEP report)
89. Support Healthy Beach Program
90. Implement Shakett Creek dredge settlement agreement (Manasota 88 was the plaintiff)
91. Transparency in development process - where does the water go?
92. Wise use of fertilizers, pesticides, other chemicals
93. Education - make it easy
94. Sarasota Grant Program
95. Neighborhood Outreach Program
96. Get to know your storm water pond

97. Plant a tree
98. Support environmentally sensitive lands
99. Self-policing the area for trash - pick up trash when on the water
100. Link cleaning watershed with property values / ecotourism
101. Personal involvement with raising the bridge - better explain environmental benefit of raising bridge
102. Personal property on water - consider as the line of defense - conscientious about not changing oil in yard, chemicals in yard
103. Restoring landscape and habitat - need county's help to stop large areas from violating rules (removing mangroves - help with invasive exotic plant control / removal
104. Projects in "MP" Marine Park - extend grants to semi-public areas
105. Volunteer private property to improve habitat / ecology - if County would help with that, how to do that?
106. Increase communication, education, awareness, adult schools
107. Oscar Scherer monitoring water quality, off well onto County water, off septic tank onto WTP
108. Planted 13,000 plants in lakes in Rivendell
109. Litter programs in schools
110. More workshops like this
111. Enforcement of codes
112. Strategic acquisition and restoration of wetlands
113. Good political support
114. Multiple use of restored property and reservoirs, etc. (such as recreation)

DARB workshop 1-21-06
Laurel Nokomis School
Q&A Session

Facilitator: Lisa Beever

Panelists: Steve Suau, Ernie Estevez, Mike Jones

Joe Venutti: Are you aware of a Mote Marine study that was done in on the Roberts Bay / Curry Creek system in 1975...and the recommendations that were made in that report...ignored by the county since that report was made. And a follow up report made about three years ago by WCIND did a similar study and essentially came to the same conclusions, and again totally ignored by the county. And it appears to me that the money being spent on this project if it had been spent on the problems that WCIND and Mote Marine had pointed out in their reports that most of Roberts Bay would be...

Estevez: Hope everyone heard the question. The question was am I aware of a study that was done on (Roberts Bay) that was published in 1975. Yes I am. I wasn't there at the time. Here's what happened. The project to create Cow Pen Slough was under way. It was an Army Corps of Engineers project and the work was sponsored with Sarasota County. The original plan was that Cow Pen Slough would be a vast system extending way up into Sarasota County almost to Manatee County in some places. As the construction began, local residents let the laboratory know that it looked like there were some problems. The laboratory received a grant from the Selby Foundation and also a grant from the National Science Foundation to study what was going on in Roberts Bay. And they looked at the original land use, the wetlands, seagrasses and conducted sampling of sediments, turbidity, plants and animals and demonstrated that the construction of Cow Pen Slough was causing great harm downstream. As a consequence of that, the county withdrew its local sponsorship of the project and the full Cow Pen Slough project never actually occurred. Had it occurred, there would be a much larger watershed and a much larger quantity of flow coming down. So that was the consequence of that study. I do not know of the West Coast Inland Navigation District study that you just mentioned.

Venutti: You seemed to indicate that Cow Pen Slough would have some affect on Roberts Bay...

Estevez: I'm sorry, if I said Roberts Bay, I meant Dona Bay.

Venutti: My question is on the study that Mote did on Roberts Bay. And part of the report indicated that the major problem...Roberts Bay was the construction of the railroad and they made recommendations on what the county should do to mitigate those problems and nothing was ever done. It was put away and nothing was ever done by the county and then when local residents including me about three years ago...Mike you remember...got the county involved in taking another look at it and they authorized WCIND to do another study...

Beever: I think you have some information, and it's going to be important to capture that in the next session, but I think we've reached the end of what our speakers can tell us at this time, so I'm ready for another question.

Maurice Shapiro: I have two questions. Where did the water flow before the watershed expanded, and secondly, can you compare this to a mini Everglades restoration?

Suau: Historically, Cow Pen Slough worked its way gently to the Myakka River, and Blackburn Canal also pulled water off the Myakka River. Basically, in this part of the Myakka River basin, things have been done to reduce water over there where they've added it to Dona and Roberts bay.

Estevez: The second question was would the hydrological restoration of Dona and Roberts bay have a parallel in the comprehensive Everglades restoration plan. It's a direct comparison where the Caloosahatchee River was concerned because the Caloosahatchee was channelized all the way up to the lake and receives a lot more water than it used to and in a very choppy sort of way. And the Caloosahatchee is part of the Everglades restoration.

Tim Rumedge: My question concerns the oyster die-off and fresh water flow coming in. To what extent do your studies indicate the issue is the volume versus the rate of water coming in? ...rainfall versus issues of impervious surfaces and the rate at which that fresh water hits the drainage system.

Jones: Basically, the studies are a bit more comprehensive than what we've had up here today. But we do look at the volumes and timing; we have monitoring stations on both weir structures in Cow Pen Slough that are looking at that. Part of the study that we're undergoing now talking about the consulting team we're going to take all that data calculate volumes come up with models...to correlate all of that. My study tracks run-off, discharge over the weir and rainfall and salinity levels and compares all those and we take the oyster survivability during those time frames and look at that.

Suau: Let me just add real quick on that. The alterations that have happened here – it's not that impervious surfaces can't add run-off, cause they do. What's happened here is so extreme, it dwarfs, it deluges, it's so much fresh water. There's some study that is ongoing, but this project has turned into a program. We're actually looking at building projects. In the past, there were recommendations and what do you do and what does it cost? We have figured out strategic...with Sarasota County what we can do. Let's get some pieces of land that can hold some water back, that can trap sediments, trap pollutants, that can rebalance the hydrology in the estuaries. Those are under ownership of the public now. Now it's a matter of figuring out what's the best way to manage those parcels for that. We've moved into the next realm of building something, doing something.

Jack Taylor: Any historical data of nitrification of past versus present, in terms of the water quality factor.

Estevez: The Mote study in the early 70s was the first time water was being collected and measured for nutrients. However, Steve here has been drawing some interesting parallels between Deer Prairie Creek which is a tributary of the Myakka River and is better studied with what Curry Creek and Shakett Creek may have been like during the same period of time.

Suau: Sarasota County is very fortunate to have a watershed that is pretty much intact. It's had a few alterations with some ditching, but most of that has been filled in. The other thing is that most of it's under public ownership and there's not really a lot going on. It's pretty much as it was 150 years ago – Deer Prairie Slough watershed. The other real gold mine we came across was 25 years of data on flows and rainfall in that watershed. As part of this project we're looking at that watershed too to tell us how does a natural watershed...hold the runoff seasonally, monthly, annually. It's showing preliminarily that natural systems are pretty dynamic. They hold a lot of water on-site when it's dry, they keep it in their watershed and their water table goes down, the wetlands need it. In the rainy season, they're pumping a lot of water out, everything's saturated...nutrients then too.

Leslie Bernard: I live directly on Dona Bay in the Bay Point subdivision that is attempting to get water and potentially sewer. How are our wells and our septic systems perhaps negatively affecting the estuary, and what's going to happen when we change our systems to water and sewer?

Suau: I think the wells are probably not impacting anything. Usually you're in an aquifer that's deeper than the surficial, so it's not the same water as the creek.

Theresa Connor: [intros self] I don't have any data specifically to the septic tanks on Dona Bay and Bay Point. Generally what we see from septic tanks is a base flow impact. You'll see extra baseflow...when the creeks are usually dry we'll see flow in the creeks...base flow coming off of the septic tanks, and you'll also see a nutrient load from those tanks. ...The change in hydrology has so overwhelmed the system during the wet season, but we will see those dry season base flow impacts from the septic tanks. The wells generally tend to be separated from the surface water system just because of the way our geology works. We don't expect to see a lot of impact from the wells, but we do expect to see improvements when we take septic systems off line.

James Battaglia: You touched on a lot variables and briefly touched on certain contaminants. My concern is the high nitrogen levels and chlorophyll as far as being an impact upon oysters and seagrasses. And my other second question is regarding the Myakka River. It seems like lately the last 10 years...the Myakka River has flooded almost every single year. We got a lot of rain in July and August...whatever plan you come up with might create even more of a problem in the Myakka River and the flooding issues they have...

Jones: As far as nutrient loads and your concern about that. That is a problem (end of tape; following is from notes). [talks about benefits of improving littoral shelves on stormwater treatment ponds]

Suau: [rainfall up since 1992; cannot just allocate water back to the Myakka River; must be concerned about flooding while developing restoration strategies]

Bruce Dillon: [opening on bridge and trestles; how would widening of opening affect hydrology?]

Suau: [widening of the opening beneficial]

Estevez: [shape of the bowl is important; would need to look at circulation, residence times, salinity; it is knowable but would require comprehensive view]

Don Chaney: [would this program reduce red tide?]

Estevez: Maybe

Lynn (?): [Lives near Lyons and Venice Inlet (Inlet Circle); no shrimp there, but lots of Mantis shrimp]

Estevez: [Mantis shrimp not the same as pink, white, gray shrimp. Native to west coast of Florida; scavengers, predators; not an indicator of ecological upset]

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