

**SUMMARY OF MINUTES**  
Broward County Comprehensive Plan Workshop  
WEDNESDAY, March 21, 2012

BROWARD COUNTY GOVERNMENTAL CENTER  
115 South Andrews Avenue, Room 422 10:00A.M – 12 noon  
Ft. Lauderdale, FL 33301

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**Present:**

Glenn Amoruso - Planning & Redevelopment Division  
Dr. Nancy Gassman - Natural Resources Planning & Management Division  
Jill Horwitz - Natural Resources Planning & Management Division  
Barbara Blake Boy - Broward County Planning Council  
Micah Smith - Planning & Redevelopment Division  
Dawn Sonneborn - K & S  
Lisa Zelch - Plantation  
Linda Connors - LBTS  
Maribel Feliciano - Broward PPRAQ  
Corinne Lejoie - Dania Beach  
Katie Halloran - Miami-Dade Planning  
Heather Loggins - The Mellgreen Planning Group  
Crystal Torres - Hollywood  
Roberta Moore - Parkland  
Janet Riley - Legal Aid of Broward County  
Dylan Larson - Miller Legg  
Sharon Williams - Pembroke Pines  
Terry Manning - SFWMD  
David Vazquez - City of Hollywood  
Michael Madfis - SCP  
Gianet Puma - SBBC  
Ariana Musarra - CMD  
Leonard Vialpand - BC PLCP  
Jo Sesodia – City of Sunrise  
Adrienne Ehle - City of Ft. Lauderdale  
Heather Graniff – BC PRD  
Robert Share - TAC/WAB  
Donald Burgess - NRPMD  
Charles A. Gauletlez – City of Plantation  
Anthony Olivieri - FHEED LLC  
John Morgan - SF Water Mgmt. District  
Todd Hiteshen - City of Ft. Lauderdale  
Khuerhid Mohyndin - Palm Beach Co. Planning  
David Wiloch - PBC Planning  
Henry Sneizek - BC Planning Council  
Denny O’Shea – Stiles Corporation  
Lou Sandora - City of Sunrise  
Marcie Nolan - Redal Polk  
Inna S. - PBC

Matt Coyle - Broward PRD  
Marcia Stevens - City of Deerfield Beach  
Anita Aiken - BC WWS  
Cara Capp - Clean Water Action  
Kelly Ray - Kerr & Assoc.  
Rosemarie Fallon - Broward PRD  
Joe Heilman - Broward WMD  
Deanne Von Stetina - Planning Council  
Mathue Goldstein - BC Planning Council  
Cathy Randazzo - BC – PRD  
Natacha Yacinthe - Port Everglades  
Keith Wall - FDOH  
Larry L. Rogers - BSO  
Barbara Boy - BCPC  
Christina Fermin - Student – FAU  
Steve Hammons - BC/CMD  
Richard Allen - BEMD  
Gary Friedman - BEMD  
Doug Young - NRMD / ESP  
Nanny Gassman - NRPMD  
Renee Richards - City of Hollywood  
G. Hines - SBBC  
Valerie Amor - Drawing Conclusions LLC  
Hanna Matuos - City of Boynton Beach  
John Van Leer - VM/RSMAS  
Molly Hughes - Hughes Hughes Inc.  
Laila Kitchen - Broward County  
Daniela Bane - Broward City  
Nichole Heffyn - Miami-Dade Co.  
Ingrid Allen - Davie  
Jim Hetzel - Coconut Creek  
Lorri Hall - Miramar  
Andrew Riddle - FDOT-D4  
Michael Millen - Pembroke Park, Lighthouse Point  
Miranda Lopez - DIHOA  
Elizabeth Chang - Hollywood  
Clint Grethen - NRPMD  
Natasha Herne - NRPMD  
Mital Hall - NRPMD

## CALL TO ORDER

The workshop was called to order at 10:10 A.M.

Glenn welcomes everyone to the workshop. Glenn credits those whose efforts in working with the climate change element through planning and creating policies which are now in place. He described the process by which this workshop will proceed and then asked staff members to introduce themselves. Glenn spoke a little about Broward County's interest in climate change since 2008. He then turned the workshop over to Dr. Nancy Gassman.

Dr. Gassman explained her role in this effort and provided everyone a little history of the climate issues which are occurring in our community. She then gave her presentation concerning present and future issues related to climate change. After her presentation, Dr. Gassman opened the floor to questions and answers.

**Q.** (unidentified speaker) For the Municipalities, where can we get blow up maps of our municipality to study these areas?

**A.** (Dr. Gassman) Vickie Morrow in our GIS group has access to all of the shape files and GIS coverage which are associated with these maps and she'll be happy to share them with your GIS person, otherwise we can provide an appropriate size map so you can look at it in more detail.

**Q.** (Natasha Yacinthe, Port Everglades) Are you saying, Dr. Gassman that this is going to occur regardless, that there is going to be climate change issues? Or, are you saying that it could potentially happen unless human beings change their patterns? Whether it's through transportation or .....

**A.** (Dr. Gassman rephrased the question thus: If we do something about it now, can we stop sea level rise?) No, we can't stop sea level rise at this point in time. We have the potential to slow it down, but we have to think of it like a racing train. When you pull the brake, you do not get an immediate response. The train doesn't just stop. And so, sea level rise, because of all the other things that are happening in the global system, it's moving forward and it has momentum. And we can take action to slow it, but the degree to which we can slow it down is not clear and the scientists don't have a perfect understanding of just how much we can slow it down, but it's clear that in addition to that linear trend, we're going to see something beyond that. But, every projection you see is a wedge. This is the low estimate and this is the high estimate. And the truth is going to be probably somewhere in between those two sides. And so there's going to be some difficult decisions that are going to have to be made by a whole slew of decision makers 'about what do they aim for' The low end, the high end or something in between. ?

**Q.** (Anthony Olivieri, Ft. Lauderdale) The inundation maps you showed earlier, does that take in account a storm event or is just tidal? That's my first question. And the second question, do you also have inundation maps of scenarios of mitigation strategies such as green infrastructure or new drainage scenarios?

**A.** (Dr. Gassman - 1<sup>st</sup> question) The maps I showed from both the initial effort of Broward County and then the effort from the Regional Compact are under static conditions with no particular potential impact from storm water, so they are the everyday scenario at high tide.

So storm events just add more color to the map. That's the bottom line. And again, what we will see both inland and in the coastal areas is that storm events and the storm event that I'll bring up right now is the Halloween event. We had an extreme high tide on the 29<sup>th</sup> and the 30<sup>th</sup> and we had an extreme rain event on Halloween and downtown Ft. Lauderdale flooded and so did Oakland Park because that water had nowhere to go. Because the high tide was covering the outlets of the drainage system so the water backed up. And so, no, it doesn't take into account the drainage infrastructure impacts.

A. (Dr. Gassman - 2<sup>nd</sup> question) Not at this time. We are working, the Natural Resource Planning Mgmt. Division is working with US Geological Survey to develop some modeling tools that would allow us to have a better understanding of how salt water intrusion would continue to move, based on increases in sea level rise, how ground water levels would be impacted and those models have the potential to also address certain mitigation strategies to see how that outcome would change how the inundation vulnerability would occur.

C. (unidentified speaker) The sea level rise projection did not include things such as bringing the tar sands online and massive increases in coal production. This was essentially business as usual for the high end. So if we begin to build the XL pipeline into Canada so we can bring the tar sands down, the amount of global warming and sea level rise can significantly accelerate beyond what we are projecting.

C. (Michael Madfis, Smart Growth) I brought this up in the Stuart Workshop. My concern is when you mention some of the strategies for mitigation, that they included maintenance of the existing facilities to a certain extent. And I think we have to look at that balance and see when it's time to pass on some of the existing infrastructure that could lead us down the same path we've gone for about 150 years, trying to drain the Everglades. So I just want to make us aware that there could be a lot of alternate strategies in mitigating and when you do not just follow the same infrastructure methods that we've always used.

Q. (Denny O'Shea, Stiles Corporation) My question has to do with that planning wedge that you referenced in terms of how big and how deep what we plan for. Obviously it ties to the infrastructure rehab that needs to occur to deal with just what we have today, and a planned inevitable one foot or two foot rise, but you've got spring and leap tides every year, they're going to come so that's the outside edge of that planning wedge. And are you looking at what that does to the colors on the map?

A. (Dr. Gassman) The colors on the map are based on the average mean high or higher water, which is the higher of the two high tides each day; it's based on the average tide so the idea of the map is to say, in an average high tide situation if we added another foot on board, what would happen? So it represents the idea of what happens to the average high tide which is the daily event. Does it contemplate the extreme high tides of the year? No. These are relatively conservative maps and that's one thing that's also important to understand is that what I'm showing you is not the worst case scenario. This is a very conservative map which says, this is the potential for the daily condition but not for the extreme conditions. It doesn't take into account storm water or surge events. What it takes into account is the average high tide of a daily situation. And again, the maps are good for using for planning purposes. They only provide insight for providing specifications. They cannot be used to make specifications.

Dr. Gassman introduced Jill Horowitz to give an overview of how we've taken this information and try to develop good public policy to address climate change as well as some

land use changes that are going to be proposed.

Jill Horowitz gave the overview of the comprehensive plan element which is available on line.

**C. (Valerie Amor, Drawing Conclusions)** You're talking about recommending LEED for your buildings. **I would make a recommendation under policy 19.3.1.(D) where it says, "Encourage licensed person in each building department to have at least 8 continuing education units of emerging energy efficiency and renewable energy technologies."** I would strongly urge if you're going to use LEED, that you should require some knowledge of that system. It is not business as usual, it's not done the way most projects would be done. Some of the systems that are going to be proposed are going to be ones you're not familiar with. There's a lot of language in here that does talk about LEED. So I would strongly recommend that they have at least like a LEED green associate designation. And that way, when they get exposed to... you even talked about sustainable sites. What do those things mean? There's already a common vocabulary and it would be much easier to implement it. Something like integrated design process, they need to know what does that mean so that when you do it, they're already on board. It would be far more successful.

**Q. (Anthony Olivieri, Ft. Lauderdale)** I had a question about the compost and Community Garden at Worth's Park. It says programs for Community Gardens and compost for Municipalities. Does that also mean programs to help municipalities create new zoning categories for these land uses? For example, in Ft. Lauderdale, we're trying to have a new zoning code for urban farms and gardens. Will the County help the city of Ft. Lauderdale develop that zoning code?

**A. (Jill Horowitz)** Well, in order to have a Community Gardens or food systems security which I think is what you were speaking of; in some cases there might need to be some zoning changes and while the County doesn't have, I don't believe, policies on the books yet for that, certainly through the Sustainability Stewards of Broward or other mechanisms, we could help the cities do that kind of information sharing amongst themselves, so that if one city has an ordinance that another city wants to emulate, that information could be available. We could all learn from each other and elevate our programs together.

**Q. (Hanna Matusos - City of Boynton Beach)** I notice that you have those percentages you committed to 7. Well I'm not sure about 7, why not 5, why not 10? Where did it come from? We have climate action plan. We have green buildings. We are in forefront of this effort in Florida. We have projected target percentages for the community as a whole, not for the Govern entity but for the...because we think that the methodology we have viewed and methodology of measuring I think is very weak. Also, I think we don't have much control over it. We can do certain mitigations but in terms of climate, in terms of greenhouse gas emissions, we have very little control. And as we know, the majority of the greenhouse gas emissions come from transportation. When it comes to lowering the occupancy of trucks on the roads, considering the current fiscal philosophical framework of our political leadership, I think this unfortunately very unlikely that our control will increase. Thank you.

**A. (Dr. Gassman)** Within the climate change action plan, there are two sets of recommendations that have percentages that are associated with them, related to greenhouse gas emissions. The first is 7% reduction from the 1997 levels by the year 2015 and that's related to, specifically to Broward County Government Operations. So these are operations we control and these are operations that we are working to make more efficient. And so we

have a baseline number and it's within...

**Questioner interruption:** This is Government.

Within Broward Government Operations. The other is a much broader one related to the US Mayor's climate initiative which states "An 80% reduction of greenhouse gasses from the ..... current levels at the time, 2007 by the year 2050. That's a community wide goal. But it's a community wide goal in a global sense. So a lot of the work we are doing is working toward that goal without specific goal guidelines on an annual basis. Having said that, and Maribel can maybe address this a little bit more, there is a new draft greenhouse gas inventory that we developed that is the update from the previous one that was done in 2007, and we are seeing that there are reductions community wide in current greenhouse gas emissions for our community.

**Questioner interruption:** I'm an economician by training and I really think those methodologies are very weak. The miles traveled, very weak.

**Q.** (Khuerhid Mohyndin - Palm Beach Co. Planning) I have two questions. One is what kind of a planning horizon you have in your proposed draft element? I know that you ..... up to 2050 and then to 2100. Or do you have those multiple planning horizon? Would you please respond to that and then I'll go to the next question.

**A.** (Jill Horwitz) There are multiple planning horizons. The actions, or policies are not split between planning horizons. They don't specify. But typically, comprehensive plan is 10 to 20 to 50 years. We felt that because so many of the policies address infrastructure, that we needed to have a broader horizon in this, and so most of these policies are midrange, short to mid, looking at up to the 2060 mark which the projection is looking at.

**Q.** (Khuerhid Mohyndin - Palm Beach Co. Planning) Second question is what kind of inter-governmental coordination you are envisioning to implement this ..... Because especially in Broward County, municipalities ..... and as you said this is an optional element, so it only up to municipalities in regional municipalities if they pick up they pick up, if they don't want to pick up at this time, they don't pick up. But that will affect, for example, the infrastructure which is crossing the boundaries of the municipalities. And how if one municipality is raising the road to 3 foot level and the other is not doing that, then how would it all be implemented? It looks like a very strong inter-governmental coordination needs to happen. Have you addressed that in this element somehow?

**A.** (Jill Horwitz) Yes, absolutely. Every section speaks to that coordination and there is even a section within the element itself that speaks primarily to inter-governmental coordination because the element cannot be implemented solely on its own. It needs to be pulled into the comprehensive plan elements and to other local and regional transportation plans, health plans, emergency preparedness plans, water resources plans, and so we are already actively engaged in that type of coordination and the elements supports further considerations of climate change in those coordinated efforts.

**Q.** (Lou Sandora - City of Sunrise) Would there be an opportunity for Nancy or Jill to come out and talk to our Commission and/or our Environmental Sustainability Board about this issue? I don't want to add more work to you guys, but it would be nice if someone could come out and talk our elected officials.

**A.** (Dr. Gassman) I've already presented the sea level information to the city of Ft. Lauderdale's Commission as well as the city of Hollywood's Commission. We're happy to

come out and speak to any body that is engaged and interested in planning for a better future for our community. So get with us after the meeting, we'll be happy to arrange a time.

**Q.** (Dawn Sonneborn - Keith & Schnars) Thank you for all this. It's great information. Pictures speak a thousand words and you had some great pictures on there with what's happening already just with high tides; the October 2010 pictures. And then if you go back one, I think there another photo where it says "Climate Change Element". Was that a high tide picture or was that a storm event picture? **(A. High Tide)** That's a high tide as well? Do you have, you have some great photos. For those of us who are dealing with this with Monroe County with their comprehensive plan, as we're updating it, some of these photos are great to use for a lot of people that are skeptical. To show them what's happening already. Who can I contact for some of the photo inventories that you have for these?

**A.** (Jill Horwitz) You can contact me. We have quite a database in our department. We're willing to share. We even have some, I believe, from Vicki's.

**A.** (Dr. Gassman) Monroe, through the Regional Climate Compact we've been organizing photo documentation days of high tides and across all four Counties. There have been teams that have been going out during these high tides events and providing for photos. So there's a photo bank within Monroe County, but Jill can help with that.

**Q.** (Dawn Sonneborn - Keith & Schnars) That'd be great. Thanks. And is this PowerPoint going to be available on the County's website?

**A.** (Glenn Amoruso) Yes. It'll be posted on the website by tomorrow.

**C.** (Robert (Bob) Share - TAC/WAB from Hollywood) I wanted to say that I've been following this topic for a long time and I'm very appreciative of all of the efforts that have been done by Broward County and particular cudos to Dr. Nancy Gassman who has been down in the city of Hollywood and made presentations. Down in the city of Hollywood, we're much into this climate change action. We have two ordinances on the books that say that all government and all private development shall now be done with LEED standards. And if it's a total new development, it's all LEED standards. If it's a major reconstruction, it's by LEED standards. Also, the Commission has been very much interested in the entire concept of adapting to climate change. I have made presentations as a member of the green team for the City of Hollywood. And the city of Hollywood has adopted a resolution saying, "They will very definitely be involved in adapting to climate change". When I make this presentation, they look at me and they say, "At your age, what are you worried about?" And they begin to laugh at me a little bit. But I say, "Well, even if I'm in a smaller house and I'm not going to be subjected to these considerations, a smaller house being maybe a box, a horizontal box, I just don't want to be completely inundated". But, actually, the city of Hollywood adopted a resolution and this resolution said that we shall be concerned with adapting to climate change, and they assigned a person on staff who will be coordinating this kind of effort and the green team is on it to a great extent. The concept of amending the comprehensive plan, I will be taking back to our green team meeting this Thursday night, and we will begin to initiate some action with our planning and development group to begin to think of amending the comprehensive plan of Hollywood to put in an element related to what you're doing. And I'm very much appreciative of all the efforts that's been done in Broward County. Thanks a million and my best to you Nancy.

**Q.** (Linda Connors – LBTS, The town of Lauderdale by the Sea) The maps that you showed are what we can expect with the sea level rise on a daily basis. Do you have any plans to do maps that will show the worst case scenario as it exists now and a worst case scenario as it may exist in the future?

**A.** (Dr. Gassman) The most recent urging of the local mitigation strategy and Gary can address this a little bit further, does include some maps that show how sea level rise enhanced storm surge impacts. For the time being, again, the idea of our mapping activity was to start to give us an idea of where our priority areas worked. Begin looking at problems. As of right now, the modeling that I mentioned before is ongoing, and that until there's better elevation data, there's not a way to enhance the maps in another way. So, the maps are the maps for the time being. The data is the best data available. And there are a number of other tools that are coming out that help people visualize what those kinds of impacts would be.

**Q.** (Linda Connors – LBTS, The town of Lauderdale by the Sea) Is there a time-frame?

**A.** (Dr. Gassman) The question is, "Is there a time frame?" Jennifer, could you tell me when you think the USGS models will be finished?

**A.** (Dr. Jurado, Director of Natural Resources Planning and Mgmt.) We have two current models that are under development with USGS with the cities of Hollywood, Ft. Lauderdale and Dania Beach that include the southern and central parts of Broward County. Those, I believe, will be completed in about a two year time frame and those are focused on the chloride issues principally of the Aquifer. And we'll have a countywide model completed in about the same timeframe. The next model is a countywide model of climate storm water vulnerability. It is probably about two and a half years out and in that particular assessment, we will be integrating the downscale global climate models for application in our environment. We have an integrated surface/ground water model and then that will tie in to the chloride models that we are developing concurrently. So it's going to be a very comprehensive application and then in addition to just having the modeling capabilities, we're also integrating adaptation strategy. So we will be modifying storm at water mgmt. structures and drainage infrastructure improvements in those assessments and focusing on two characteristic areas within Broward County, one tidal, one inland. You've seen the maps here are all east of the control structures. We'll be looking to at targeted areas west of the control structures. And then the assumption being that we'll be able to transfer some of those findings of those representative areas to like areas within Broward County and outside the Region as well. So within, putting everything together, two and a half or three year time frame, I think we're going to have some pretty significant findings for making some determinations about infrastructure improvements, funding needs and beginning to prioritize some of the investments we'll need in the next couple decades.

**C.** (Michael Madfis, Smart Growth) I wanted to pick up on a point that Anthony was discussing. I'm a member of the Broward County Food Policy Council. It's a new organization. We're coming to the table a little late. But the element that's in here is been there for a while regarding the community gardens the composting and urban agriculture. I think it's a great element and we need to support that further with more policy that will enable our cities to move forward with these actions. Not just our vegetables and produce and other types of agriculture small animals not allowed anywhere in the urbanized area of Broward County By zoning. But also things like compost can't be diverted from the waste stream right now. Mostly due to arrangements and franchise agreements on Waste Management. So there

are a number of issues that are really in the way of having a good local food system. And we need to support them in this amendment to the comp plan. I'm thinking back, this is probably how we lost agriculture over the years was by slight little adjustments in the comp plan that no one really paid attention to because it just didn't seem important. And I think now that we're trying to reintroduce agriculture into the urbanized area, which is a tremendous sustainability action in terms of covering sequestration, reduction in greenhouse gases and all the other benefits that can come from this. But without some strong policy which is what our new developing Board is going to hopefully put forward, we're not going to get any of this done. So as much as support we can get from this package, I'll be very grateful. Thank you.

**Q.** (unidentified speaker) These USGS maps which are expected by the end of 2014, are these only for Ft. Lauderdale, Hollywood or Broward County, or of all the counties in the Compact?

**A.** (Dr. Jurado) They're focused on Broward County those that are the salt water models parks....coastal, but they'll be countywide, ranging from north to south. And then the countywide assessment of the stormwater climate vulnerability did focus on Broward County. However, we do have representatives here from Miami-Dade. I know that they are very similar like modeling efforts. They're going to be conducted with the same team. They're going to be very compatible models. So I think that they're easily expanded to include the larger geographic areas based upon the work that Broward County and Miami-Dade are both undertaking.

**Q.** (David Wiloch - PBC Planning) I was curious, with the publication of the climate change draft and the climate change compact inundation maps, the one and two foot flood scenarios, I was curious what the feedback was from property owners that are in the affected areas and realtors and other entities like that at this point.

**A.** (Dr. Gassman) It's a great question. I guess I would note a few things. When you look at the maps, they look like they are at the parcel level but they are not. They are based on a 50 foot grid, so they cross parcels. It was never our intent to target any specific parcel. That one's a problem, that one's not a problem. The idea, again, was to identify areas of concern where we would need to look for improvements in storm water infrastructure, changes in specifications for future infrastructure. We haven't had a lot of feedback specifically on the maps from the groups that you're mentioning. When we have shown high tide photos, especially, I did not show it but we have one that shows a home for sale when it's dry and when it's not dry. And when a realtor showed that I thought that the poor woman was going to faint. But the bottom line is these are not things that are photo shopped. This is the reality in our community. And whether someone's opinion is; don't show that picture or; everyone needs to see this picture, the picture is a representation of what's happening. And so in that way it is the reality of what's going on in our community. So the maps absolutely present a challenge. Most people, when they see the maps, initially their first thought is; "Where's my house?" But I think that the message that we consistently try to portray is that, these are pictures of the future and that a lot of the infrastructure that are on those sites will outlive their useful timeframe, useful lifespan within the time that we have to plan for different land use for those locations. And it absolutely has impacts to how people look at property and are there people that are going to be impacted? Absolutely! But that's based on the topography of that land and not based on current public policy.

**C.** (Marcie Nolan) I just want to thank you all for your work. I know you've been working in this for years. It's an amazing document. On this section, I have a few comments. It's a

comp plan. Where it's supposed to be a living breathing document, however; they don't change that often. The process is not that easy. **Some of the terms you use and some of the dates you put in there, you may want to look at having them be broader so that you don't run into a situation where they're no longer relevant. That happens a lot with like LEED. I know LEED is a controversial term that people use sometimes because now we're going to an international model, so just little housekeeping things like that are going to save you headaches in the long run.** My other Question, and I believe Anthony brought it up earlier, is the transportation. You know we talk about why we're having to put the brakes on the train and it really does come from our transportation. New buildings are more energy efficient. Our transportation system still is terrible. This is a great opportunity to put in some meat on the muscle of transportation issues. **You mention the 2035 LRTP. They're updating it to the 2040 LRTP right now. So, these are areas where the County can actually put in these big global policies that are going to actually require everyone to look at them, step back and look at transportation issues. So, my comment would be, let's strengthen our transportation, let's strengthen our multimodal.** Let's put the brakes on the train a little bit faster, but thank you.

C. (Maribel Feliciano) Good Morning. Yes, I would like to add to that excellent idea. We are working through the MPO to add language and policies objectives to the new LRTP 2040 related to climate adaptation, greenhouse gas mitigation and so on, **so I already submitted recommendations that those objectives and policies are included. So it's in the works.**

Jill Horowitz suggested that if there are no other questions on the climate change element at this time, we can transition to the land use plan amendment. She then elaborated on Broward County commitment to incorporating climate change considerations into the County's land use plan.

Q. (Natacha Yacinthe - Port Everglades) We do a lot of construction at the Port and even though our construction division is under the public works and I believe we are represented by public works, so maybe I should hold my comment and just call you (*referring to PW Rep*) I was just looking at policy, the first policy A03.01 as far as by 2025 to incorporate or evaluate the risk for climate change in all construction, so I'll .....

A. (Steve Hammond – Public Works) I think going back to the train analogy, speaking for at least Broward County and its construction programs, We're, and with Port Everglades in particular with her question, It really is one of those things where right now everybody is pulling on the brake lever to slow the impacts, that our buildings and our infrastructure have on the environment. But with the comprehensive planning, looking ahead over the next 25 to 50 years, there's very much a realization like, "uh-oh! There's trouble. We're not stopping the train, what do we do?" So there's a great deal of work and Port Everglades is a great example. If there's anything that's a key piece of infrastructure for the County in its economic vitality, that's vulnerable to sea level rise, what do we do about that and how do we mitigate that? There's a great deal of work. The majority of the work is still to be done in terms of planning; reconstructing the Port if that's part of that scenario. You know, what do we do? It's a huge question and it's going to take leadership from all levels of Gov't to really address those issues, so I don't have a good answer for you, but Seaport Construction and Engineering, the Public Works Dept., Port Administration in this example, everyone is keenly aware that out there on the horizon there are huge problems ahead of us.

C. (Natacha Yacinthe - Port Everglades) Thank you. I have a comment, just real quick. I

don't know if there's marketing, maybe there should be a marketing drive to some point for the climate change. Because from what I'm seeing in the room here, there are a lot of cities that are not represented and it might be just to have other issues and I definitely understand that, but as far as those who may be resource strapped as far a financial or human resource strapped, which is for the most part I know there are a lot of cities, but more again, **I think this is a great initiative, but maybe there should be some marketing drive to say, here's the reason why climate change is so important.** Dr. Gassman, when you talked about, this my house and the fact that there is...that got my attention and I'm in Miramar. So, it's just something to think about. Thank you.

A. (Dr. Gassman) Just to address that briefly, we've provided outreach to the League of Cities to try and help them understand what's going on. We are going to individual municipalities upon request. **We've started a group called: "The Sustainability Stewards of Broward" and we're meeting about every two months to talk about sustainability issues. Our last one was held in the city of Ft. Lauderdale and specifically addressed adaptation issues. And there are representatives invited from every municipality as well as a number of private interest that are participating in that group as well, so we're trying to get the message out.** The media has been very interested in this, especially in the context of the Regional Climate Compact. And so the information is getting out but you're not likely to see a multi-million dollar television advertising campaign on this particular effort but we're doing what we can with the staff that we have.

C. (Robert (Bob) Share - TAC/WAB from Hollywood) I noticed you're from Miramar and this - from the Port - OK. But there's a rather interesting consideration. Down in Hollywood, we have a very very large waste water treatment plant. And this waste water treatment plant is east of US 1. And it handles the waste water from a good number of communities in the area. Now, eventually, as sea level rise begins to impinge upon us, perhaps we've got to be thinking about regionalization of waste water that goes to that plant and maybe moving that entire facility further west. All of these things require a lot of money to be sure. And in these hard economic times, various gov't agencies are a little bit reluctant to do more than thinking, but that's one of the things you got to **think about regionalization of waste water**, particularly in the Hollywood area.

A. (Dr. Gassman) The comment I would make to that, one of the reasons we feel it's so important for us to move forward with comprehensive planning work now is to **start identifying those issues so that we can appropriately plan again to use, to be able to continue to use existing infrastructure to maximize its life span and to plan for the new infrastructure to take over when inundation becomes an issue for any type of public infrastructure.**

A. (Barbara Powell – NRPMD, Water Resources) On the topic of regionalization of projects, we are addressing that on several different fronts, and on the regional water resource task force, some of the presentations that we've been discussing, they're looking at some of the regionalization attempts. And not only just for sea level rise, but also for some of the other issues that are facing our utilities that have been traditionally moving a little more eastward so that infrastructure in, ...dealing with ocean outfall legislation in trying to move some of those projects, so. We will be addressing that. It's on the Agendas, matter of fact, for the April 6<sup>th</sup> meeting. So I can send you that information as well.

Q. (Anthony Olivieri, Ft. Lauderdale) I have a basic question. How much authority does the

comprehensive plan in land use element have for municipalities and Broward County? Because I know in Miami-Dade, municipalities don't have to really listen to the comprehensive plan of the County. So can you just go back to basics for us and just tell us what are the relationships between land use plan and comp plan, and what relationships do those have to the municipalities? Thank you.

A. (Barbara Blake Boy – BCPC Council) Essentially Broward County has land use authority in the County per the Charter. So the municipal land use elements have to be in compliance and conformity with that plan. For example: If a land use plan changes propose coming through the city of Ft. Lauderdale to Broward County, one of the things that's proposed in this land use plan change, is that amendments would be subject to review at both the municipal level for what's going on, what the municipality is doing for that adaptation, how they're planning for climate change, and also what the applicant or property owners are planning to do for the property. So, in Broward County there is land use authority through the County, so municipalities will have to comply with the policies of the plan. And as far as the comprehensive plan, the climate change element, I don't know if Glen wants to speak to that, or.....

A. (Glenn Amoruso) well the climate change element is primarily going to be a model.....as we know, Broward County's jurisdiction is the unincorporated area. So, primarily, policies that are going to be in the climate change element, I think will best be adopted by the cities as well. Again, it supposed to be modeled, there are a lot of policies in terms of mitigation and adaptation but the difference between the land use plan and the climate change element is basically that: We have land use authority like Barbara said, over the entire County, but as it relates to the individual elements of the plan, our jurisdiction is unincorporated. However, there are some other elements, conservation, water, things like that, which cross boundaries in terms of things that are also county wide. But the object of the climate change element is basically to be a model for the local Gov't.

Q. (Ben Ziskal – City of Margate) With regards to re-used water, I noticed the draft is proposing to change language that encourages re-use when economically environmentally and technologically feasible, and replacing that language with mandatory re-use zones. My question is whether or not these zones will be created on specific types of users such as golf courses, or will it be geographical areas throughout the County, and will the cost to improve these systems be at the utility provider or the private property owner?

A. (unidentified speaker) Well I can answer a little bit of that. I don't think that the process for making it mandatory re-use zones language as a goal has been established any further than that. It's just a goal. There's some mandatory re-use zones in the northern county, Palm Beach County, and they've used that very effectively. But even then, Palm Beach County that its only for new development, that's not for existing development. So there are some obvious constraints in Palm Beach County. But mandatory re-use zones as a goal is to look at where you can maximize some of those areas to effectively use properly treated re-use water. And another effort that the section and division is looking at is a master re-use regional plan which we've just gone out and solicited for a contract, and so we're going to be developing a regional re-use master plan for the County as well. So some of that will be incorporated in. That's as far as I know the goal language has gone.

Q. (unidentified speaker) **As we're moving towards a more multimodal County and some of the cities are providing ordinance to us now for TODs and providing density bonuses**

**for TOD areas. Has anyone on your team taken a look at, if you're discouraging higher density in these areas of inundation. The legal aspects of that where it's almost possibly a takings.....at one point we were increasing density for TOD purposes and transportation purposes and balancing that with discouraging higher density and land use plan amendments in these areas. Is there kind of a legal team member that's taking a look at that as we go towards the future?**

A. (Jill Horwitz) I recently was at a workshop on this very topic and there really isn't a precedent for a taking, it's encouraging transit oriented development. In one area is... In all areas is fine. We're simply asking that the information be available so that we can reduce risk in the high risk areas by prohibiting the increase of risk. So we're not saying lower development, less development, we're just saying not increasing density in areas that are higher risk. And I think that's just common sense for everybody whether it's a bank or a property owner or the county or infrastructure city infrastructure, I think that just makes good fiscal common sense for everyone.

A. (Barbara Blake Boy – BCPC Council) I think just as a follow-up to that, as far as when the land change plan is proposed, **the way the policy is set up is, while it's discouraged. There are ways to address the issues, so you're still going to have, a property owner will still have its property rights and they're proposing a change, that's going to be evaluated as part of the process. So it's not that an amendment is going to automatically be proposed for, recommended for denial because it's in the priority planning area. It's just making sure that these issues are addressed, the municipality, the property owner, so I think that it's addressed that way.**

C. (John Van Leer - VM/RSMAS) There is a professor at UM by the name of Dr. James Englehart who has established a zero net water use dormitory at the University of Miami and they're at the process of trying to re-use a significant amount of their water stream and some rather interesting ways of purifying water and it might be if you're going to be moving major infrastructure, this is a long time before this is going to be essentially off the shelf, but it might be something you could keep track of, in fact and perhaps contribute to because it's as you say, in hard economic times, they could use a little extra funding from the perspective of a private university, so that's something to think about.

C. (unidentified speaker) Continuing from the previous question of the increasing density, as you know there's this project going on for the future commuter train on FEC tracks. We've definitely been encouraged to try to increase densities along the FEC corridor. Not only have that, but the Dept. of Transportation wanted me in the last comprehensive amendment to set up minimum densities for this area. That the developer cannot build below those densities. It's not that we're encountering this problem, but that what they wanted us to do. Thanks.

C. (Dr. Gassman) And I'll just note that when Flagler built his radio, his railroad, When the railroad was built, he choose the high land on the ridge so the properties that are in the immediate neighborhoods around the railroad are actually some of the highest elevations in the four County area. So, it might be an appropriate place to have higher densities near that railroad, not only for transportation purposes, but based on the elevation land.

C. (unidentified speaker) ...in our coastal areas which already experiencing flooding so I don't know how that distribution is spread along the coast. But we definitely already ... We are actually planning to designate those areas as adaptation areas as per the policy that you

mentioned. Thanks

**C.** (Dr. Gassman) I'm just suggesting that that area is an area of high elevation and so that contemplation of it as an area that's appropriate for future habitation might also be appropriate.

**Q.** (David Wiloch - PBC Planning) With that discussion of Density, I know this process has been going on for years at the development of this element and with the recent coastal high hazard area and legislation and the slosh model being incorporated, I was wondering how that affects your overall goals. With them increasing essentially the area that isn't considered coastal high hazard area, they've given somewhat of an entitlement for increased density in those areas. It just seems somewhat contradictory; the goals of that climate change element. I was just wondering if there are any comments on that.

**A.** (Dr. Gassman) There does not appear to be a comment on the panel on that issue.

**Q.** Inaudible question occurs:

**A.** (David Wiloch responds) The coastal high hazard area, I'm not sure how it works in Broward County, in Palm Beach County it was an area adjacent to the coast where you couldn't increase your density. And with the recent passage of federal legislation that govern that, the slosh model has been incorporated. This is a new model that took significant amount out of that coastal high hazard area in Palm Beach County and, like I said, it seems contradictory to the goals that we're speaking about today. And I was just wondering if that was considered. I mean it's somewhat recent legislation.

**C.** (Glenn Amoruso) I'll just make a comment about that. You're right with the coastal high hazard area. The new methodology has taken a lot of area that is on the coast which is no longer considered coastal high hazard area. So it's created a challenge for us from planning purposes of how we look at that. Because if you look at the coastal high hazard area map, you have areas that are on the coast that are no longer considered coastal high hazard area. And then you have areas farther west inland that are now considered coastal high hazard area. So in the past, our County looked at coastal high area as areas that were in hurricane evacuation zones. And it was consistent. So we're faced with a conundrum here in terms of how are we going to plan for areas may be not in the coastal high hazard area but yet they're on the beach. So, I think the problem is how the methodology of the model was developed and how that works in terms of how we can plan for that in developing policies in the comp plan. So, it's kind of an ongoing effort. I know that you guys took a lot of the stuff out of your coastal hazard area and when we did our EAR, we had to make that kind of determination of how we're going to address now that the state statute changed, the methodology changed. I think we're going to be working at kind of a combination of looking at what's in the high hazard area as well as what's looking in these hurricane evacuation zones and coming up with some sort of our own methodology in terms of how we can plan for storm surge and things along those lines. But it creates a problem because the methodology is so different. I don't know to answer a better answer than that.

**Q.** (Katie Halloran - Miami-Dade Planning) I have two questions for right now. One was why the priority action area is going to be solely the area east of the salinity control line? The other question is, given that we know there will be some areas inland that will experience additional flooding due to sea level rise. Has Broward started to look at single use types of

neighborhoods, residential neighborhoods that tend to generate vehicle mile travel because of separation of work places from living places? Has there been...I haven't read yet your element, but it looks like maybe there could be some emphasis on development patterns. And clearly you'd have to work with your municipalities and I was just interested if there is some look, some efforts to really focus on, as redevelopment occurs, if there's more mixed used planning in the future?

A. (Jill Horwitz) Just to start with that one, there's, throughout element there's a sentiment of support for multimodal mixed use type of development patterns. Nancy, if you want to speak a little more about the decisions and the map.

A. (Dr. Gassman) The map again is intended to help us start to focus in on these areas that are considered vulnerable. And for the first attempt at providing this type of a map in the land use plan, we chose to focus on those areas that would be directly impacted by sea level rise initially. In the future, based on additional information and additional knowledge, and mapping and modeling information that we get, it's likely that we could expand the map to include the more inland areas. But our initial attempt at providing for priority planning locations are for to look at those directly impacted by sea level rise due to their tidal nature.

A. (Jill Horwitz) And we do say in the element that we'll use the best available data to update as necessary at minimum every 5 years...if not before then.

C. (Dr. Jurado) When we were working with this, the mapping issue, the mapping approach, actually, was largely shaped by what was happening through the coordination efforts with the four Counties, and the recognition was early on in this dialogue that by only focusing on land elevations that it ignored the fact that we have a very elaborate and actively managed drainage and flood control system west of the control structures. And so you have a flexibility in dealing with what may be known to be drainage issues that even exist today but you can modify a pump operation and not experience inundation in any way that you would on the east side where you're completely dependent upon what's just happening in the way of tidal movements. And so, we recognize that those vulnerabilities do exist and we recognize that water management operations are no longer effective - as effective as they once were. And we recognize that there will have to be changes in operational infrastructure and methodology approach. But we weren't prepared yet to be able to detail what those might be until those models are done. So it was set up as basically a phased approach. Best available east of the structures and then come back at a later point in time with a modeling results to better refine those.

Barbara Blake Boy goes over the calendar with everyone for the remainder of the workshop.

Glenn thanked everyone for coming and the workshop was adjourned at approx. 11:45A.M.

Faithfully submitted by:  
Albert E. Cummings