A Suggested List of Essential and Practical Steps to Enhancing Pelican Cove Tree Canopy and Understory Plantings – Part 1

Working draft 1 – Nov 3, 2017 - M.T. Weber, MSU/AFRE <u>Professor Emeritus</u>, Pelican Cove, GL 308. Comments, critiques and suggestion most welcome: <u>webermi@msu.edu</u> (Note Working draft of Part II is in process.)

*See also, "Spotting Potentially Problematic Tree Features Using Pelican Cove Examples and Tree and Understory Planting Improvement Information Sources" Draft 4 – Oct 29, 2017 - M.T. Weber,

Learning About Urban Forest Management From the Squirrels?

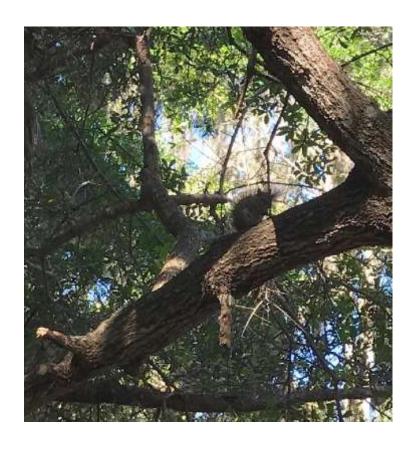
Staying Safe Around Leaning Trees

Avoiding Included Bark

Watching Out For Decaying Branches







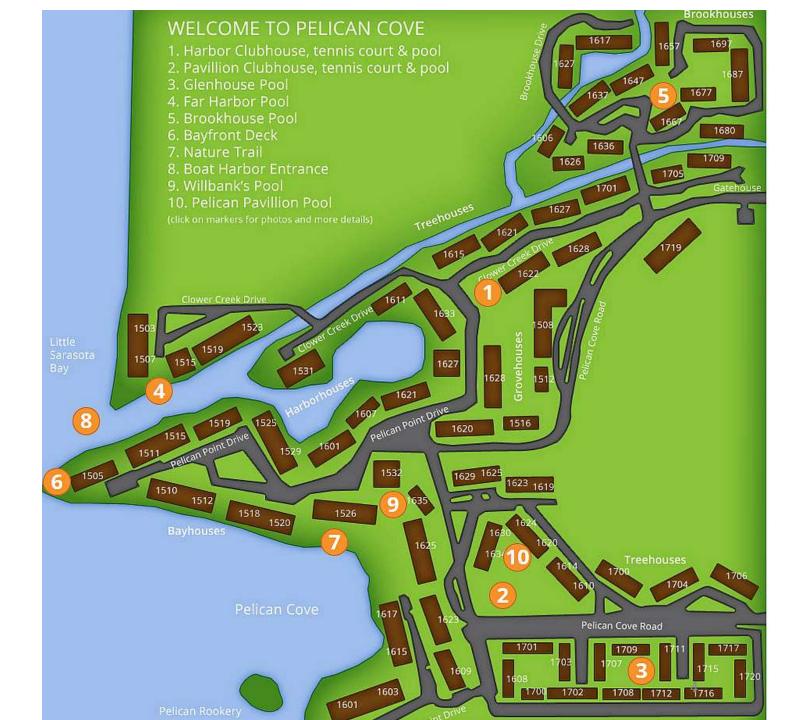
What Motivates This Enquiry – A Residents Desire To:

- Contribute Ideas Towards Tree and Understory Plant "Vision Planning" According to An Approach That Identifies Specific Micro-Areas of Pelican Cove.
- Offer Ideas Towards Selected Short Run Action Projects That Are Consistent With, And Support, Long-Term Visions and Policies.
- Highlight Insights from Steps/Activities Identified in Past Tree/Plant Studies By Pelican Cove Committees, Staff Outside Consultants, and Others.
- Identify Possible Learning Experiences To Guide Future Actions by Examining Pelican Cove Damages From 2017 Heavy Summer Rains and Hurricane Irma (and from Hurricane Gabriella in 2001?)
- Focus Little On Irrigation Issues For Now Yes, Needed & Treat These, But Later.
 - The PC Irrigation system needs a good plan to evolve out of plantings and experimentation with new technology.
 - No irrigation what-so-ever is not a likely option especially for new plantings. Seek the "least bad" irrigation affordable?
 - Existing irrigation in PC is an old patchwork but it works, and it is relatively manageable with existing efforts and staff.
 - Finding better options consider a slow experimental process that goes hand in hand with plants, budget, staff and new technology for improved coverage and lower water use important to learn carefully but slowly.

Developing a Vison and Planning by Strategic Geographical Micro-Areas of Pelican Cove – Targets?

- 1. Signature trees & plants framing PC entry roads, and now exposed areas fronting Bay Village;
- 2. Trees/plants in general areas by condos, along walkways and along interior roads;
- 3. Bay Side Mangrove Planting areas Mangrove Windows;
- 4. Privacy plantings for maintenance building, Bay View facility, Brookhouse & Clower Creek Drive; other strategic local areas;
- 5. N,S,E boundary fences; including outside front entrance fence along VAMO local areas;
- 6. Pockets of space through-out PC where invasive ferns are left to take over; Fern Islands What new plants can work better?
- 7. Clower Creek boundary trees after it is cleaned out;
- 8. PC Pools and Tennis areas:
- 9. Space over condo roof tops;
- 10. Palm Trees at various locations around PC
- 11. Other special views or area(s) that may require special attention? Fronts & Backs of Units; Glenhouse Garden; etc.

To Be Useful, Planning Needs to Get Specific. Are these the right micro-areas or are there additional ones in Pelican Cove where trees and/or understory planting have unique natural or visual characteristics to be taken into account for planning for the future?



A Working List of Suggested Short and Long-Run Actions

- Complete A Working Version of An Agreed Upon Longer-Term Tree and Understory **Plant Vision Statement**, Segmented by Strategic Geographical Micro-Areas of Pelican Cove. Over Time, Work in Irrigation Innovations.
- Develop a Working Version of A Multi-Year Management Policy That Identifies Short and Long-Term Actions to Achieve The Vision. Don't Wait For Perfection, Yet Be Systematic in Finding & Starting Useful Actions.
- Bench Mark The First Two Steps With a Policy Linked & Well Reasoned Multi-Year Tree Budget, With Some Projections of Real Estate Values With/Without Tree/Plantings Enhancement Actions. Try to Develop a Financial Vision With and Without Actions?
- Use a Multi-Year PC Resident Interest Group to Shepherd A Long-Term Improvement Plan (part of Ground & Planning Committee?).
- Use PC New Grounds Manager as A Major Resource Person to the Group, But Also Hire An Outside Aborist Consultant to Help Inform The Plan and stay in touch with PC going forward. Something like a longer-run "tree coach" to help guide and learn.
- Avoid Planning Without Enough Facts: Acquire/Use A Management Software Program for Compiling, Keeping Track of PC Tree Information, and Managing Improvement Actions over the Longer-Run i-Tree, Arbor Pro, Tree Keeper, Tree Plotter, Open Tree Map? The setup and data inputting for such a management tool may need to be contracted to help move this along so it can quickly become a effective tool going forward. Each tree in PC needs to be in the inventory, with current data on status and recommended pruning steps, etc. Update status each year? Every other year?
- Plan For Organized PC Resident Input Sessions for Listening and Education To Help Inform Residents About Viable Options That Go Beyond Needed Good Intentions To Protect The Health and Uniqueness of The Trees And Plants in Our Community.
- Consider Right Away Some Additional and Specific Tree Policy and Management Action Mandates for Selected PC Grounds Staff, Perhaps Upgrading Some Worker Skills To Undertake Limited Tree Structural Pruning.
- Consider Acquiring For PC Selected Tree Pruning Equipment (<u>Tree/Orchard Ladders Small Towable Aerial Lift?</u>) for Doing Some In-House Lower-Level-On-Tree and Strategic Pruning.
- Consider Multi-Year PC Part-Time Contracts With Outside Arborists For Selected Higher-Up-In-Tree Pruning Services.
- Set Up An Independent Tree Progress Evaluation To Monitor Progress and Guide Longer-Term Policy/Program Adjustments. Start and Sustain a Learning and Feedback Process Involving Residents, Management and Some Outside/Independent Technical Assistance. Keep Records, Follow and Study the Results of Pruning, Learn With Changes and Climate Adaption, and Avoid Reinventing the Wheel.
- PC Should Become a Member and Use Services & Information of The <u>FUFC Florida Urban Forest Council</u>. Use Their Knowledge and Resources, and Feature PC Educational Programs Using Their Speakers Bureau on Urban Forestry Management in Florida. Possible resource for grant seeking ideas?

Key Past and Present Studies and Assessments – What Are The Key Take-Aways From:

- A Long Range Plan for the Future of Pelican Cove February, 2017.
- Beaver et.al. Study May 2017.
- Short-Term Consulting Studies Summer 2017.
- Action Reviews and Assessments by Pelican Cove Staff Following Irma, and New PC Grounds Manager (After Nov, 2017).
- Systematically Gather PC Community Contributions Current Views and Review Historical Accounts of Pelican Cove Development and Recovery.
- Learning by Systematic Empirical Observations Study Carefully The Teachable Moments of Heavy Rains and Hurricane Irma in 2017.
- Take Maximum Advantage of Rich Resources from University of Florida Research and Outreach Efforts to Help Citizens and Communities Manage Urban Forests and Recover Trees from Periodic Hurricanes.

A Long Range Plan for the Future of Pelican Cove - February, 2017

Submitted to the Board by the Planning Committee: Chair Brian Baxter, Iris Berger, Bob Cassway, Don Chamberlain, Helene Crawford, Harold Hollander, Andy Marine, Judy Rabkin, Ed Sampson and Board Liaison Bill McKay

 Contained a Section on "Maintain and Enhance our Property Values through Aesthetic Improvements" With a subsection on "Developing a Landscape Plan". Recommended:

"the development over the next two years of a detailed landscape plan to maintain and enhance tree canopy and understory plantings in Pelican Cove, with the assistance of a professional landscape architect".

Developing a Landscape Plan

The tree canopy and the understory plantings in Pelican Cove define our community, and are key to the quality of life and the value of property in our community. It is critical to the future of Pelican Cove that we look ahead in a careful, organized manner to maintain and renew the investment in our landscaping.

Some of our trees are nearing the end of their life span. The Grounds Committee has recognized this challenge, and has developed a plan to replace the Melaleuca trees along Pelican Cove Road with a variety of new trees over the next 20 to 25 years in a way that will maintain the look and feel of the entrance to our community.

A program of continuous replacement of the aging trees is necessary to maintain our tree canopy, which will require careful planning. The findings of our Climate Change Adaptation Plan may be particularly helpful in determining the types of trees that can maintain our canopy in the face of increasing storm surges in future years.

For many years, the understory plants in Pelican Cove have been replaced or upgraded in a somewhat patchwork manner. This has resulted in several unforeseen problems, especially when residents take it upon themselves to plant exotic or native plants. In addition, the recommendations contained in our Climate Change Adaptation Study are likely to have a great impact on the types of plants that should be given priority as replacements are made in the coming years.

Computer-aided technology is now available that would enable our management to inventory every bush, plant, flower, and tree throughout our community in a very detailed electronic map of Pelican Cove. Such an electronic inventory is essential to the development of an organized approach to renewing/improving/strengthening our understory plantings over the next ten to fifteen years.

The residents participating in the discussions of landscaping issues at the Community Forum hosted by the Planning Committee on January 5, 2017 were passionate about preserving the canopy and understory in Pelican Cove that drew so many of us to buy here. There was wide agreement in these discussions about the need to hire a consulting Landscape Architect with ongoing responsibility for landscape design, including the selection of trees, bushes, and flowers. Any future Grounds Manager should be skilled in, and knowledgeable about, maintaining and enhancing unique landscapes like that at Pelican Cove.

The Planning Committee recommends that a detailed Landscape Plan to maintain and enhance the tree canopy and understory planting in Pelican Cove be developed over the next two years with the assistance of a professional landscape architect.

Beaver Study – Climate Change Adaption –

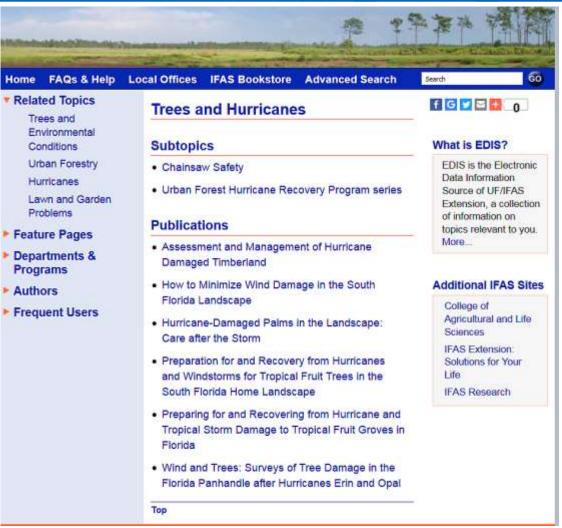
Section on Tree Canopy and Understory Plantings –Basic Points

- Remove trees with low wind resistance.
- Favor native plants and flowers.
- Begin planting some tropical hardwood species and perhaps introduce some of the plants of the tropical hardwood understory.
- Stabilize exposed and eroding shore area by planting marsh grasses and other marsh species.
- Change the way we trim mangroves to reduce negative effects of wave actions on the Bay Shore. Instead of pruning to uniform height, strengthen the mangroves by pruning selected plants so as to create "view windows" as has been done already in the PC Bay House area, and elsewhere in Fl.

Consulting Studies Summer 2017

- Arborists Study for Two Buildings Before Irma
 - XX
 - XX
- Landscape Architect Study Before Irma
 - yy
 - yy
- Will these be constrained or limited because the terms of reference for at least some of the work was to look at trees and planting mostly or just around 2 specific buildings? Bay #8 and Grove #5

Florida Resources For Improving, Protecting and Hurricane Recovery Of Urban Trees and Forests http://edis.ifas.ufl.edu/topic trees and hurricanes



With This Background of Concern About Better Trees & Plants in Pelican Cove, Along Comes Events of the Summer of 2017: Heavy Rains and Hurricane Irma

Let's Learn From These - Treat Them As "Natural Experiments" To Garner More First-Hand Information For Longer-Term and Practical PC Planning for Improved Policies and Programs on Tree Canopy and

Are there key lessons to learn from 2017 summer rains, the Irma experience and other PC tree/plant events?

Working List - 15 Natural Experiments With Potentially Teachable Moments From 2017 Rains, Irma and Other Experiences

- 1. Trees that just tumbled over during/after heavy rains in the summer why did they fall unaided by wind lessons to learn?
- 2. Problems revealed in downed trees —what does trunk hollowing-out from insect and fungus damage imply for existing and new trees?
- 3. Hiding problems behind the vines in PC trees so what, and what to do, if anything? (See J. Beaver comments on items 2 & 3)
- 4. Good fences and good neighbors Irma spotlights many threats how can we better manage our various fences, related facilities and trees?
- 5. What can we learn from experiences Pelican Cove already has with mangrove windows near the point?
- 6. Learn from evaluating replacement trees planted over the years, especially since 2001. Study how they are faring before planting more?
- 7. What's the story behind many hollow "eyes" and rotten splits on many PC trees. Are these windows into slow, or quickly, dying trees? Lessons?
- 8. Views from new and old tree damage in Harbor Club hot tub are which way should and will we go towards timely tree pruning?
- 9. Do we have a policy of trying to salvage (re-right) selected small trees that were slightly blown over? What limits its use if we have a policy?
- 10. Leaning but still standing large trees what, if anything, to do about each of them, and when? What is a Feasible Action Plan For Them?
- 11. Can we study how tree and under canopy policies/practices work elsewhere around SRQ. Which actions improve tree health and reduce damage in other tree intensive developments like P C. Visit/learn from practices at places like Bay View, The Meadows, Glen Oaks, Village Walk? Also learn from resources available from the Florida Urban Forestry Council, new University of Florida studies, and what other Condo Association have/are doing, such as removing all schefflera trees due to potential storm and root damage to buildings. How to learn about trees left after creek dredging?
- 12. What to do about limbs over roofs, falling leafs continually stopping up gutter downspouts, increasingly heavy rains and water in your face from over spilling roof gutters, regardless of gutter size! This is especially a problem for condos of year-around residents.
- 13. How did existing, and alternative native species trees recommended in the Beaver study, hold up during Irma in the PC area? In Sarasota? In other Florida locations? What can we learn from this about enhancing and protecting PC's urban forest? What about trees heal well?
- 14. How do we help PC residents appreciate and consider the bigger picture features of native species trees and plants recommended by Beaver? Use the on-line portals available and get the Photo Club to document visually trees/plantings at other sites, and create photo galleries for PC residents?
- 15. Can we learn anything by studying the history & follow up from damage to specific trees and structures in Pelican Cove during Hurricane Gabrielle in 2001? Specifically which trees and structures were damaged, and what policies changed after this Hurricane? Did these help? Also how have new plantings from that period survived and prospered, or faced challenges in the PC urban forest environment?

1. Glenhouse Area Trees Tumbled Over During/After Heavy Prolonged Summer Rains Summer – Why Did They Fall Unaided By Wind – What Are The Lessons To Learn?

Insights/Problems: Insights gained by talking with the owner/arborist of Quality Tree Service (see also photos in next two slides on the live oak and a laurel oak that fell over)

- Trees were close to building had "half-round root systems" not symmetrical so had less root holding power.
- Trees grew outward (not straight) seeking sunlight, overtime resulted in heavy limbs weighted to one side too much.
- Long limbs on trees heavily weighted to one side creating more pressure on the root structure.
- Vines on trees added weight when wet, and may have also hidden other structural problems from sight.
- Wet soil could not hold the roots enough given the heavy weight to one side.
- Root balls just gave way and trees just fell over.
- May have also been due to insect/ fungus problems revealed, one of these also had hollowed out trunks throughout tree trunk
 & limbs

Implications?

- Should routine inspections have singled-out these trees as potentially dangerous and needing attention?
- Could these trees have been saved if heavy weight of some extended limbs had been removed through pruning?
- Would vine removal have helped notice the problems and reduce some weight also?
- Would periodic careful pruning have reduced the insect/fungus infections in many PC trees?

Possible Actions?

- Conduct annual inspections of large trees close to building in PC to try to anticipate especially risky cases.
- Conduct systematic pruning of young and mature trees, and removal of any vines from trees that reach more than 8 ft high?

1-1: Non-symmetric root structure

Unbalanced tree with long extended branches











1. Two Glenhouse Area Trees Tumbled Over During/After Heavy Prolonged Summer Rains Summer – Why Did They Fall Unaided By Wind – What Are The Lessons To Learn?

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2. Problems Revealed in These Downed Trees –What Does Trunk Hollowing-out From Insect and Fungus Damage Imply for Existing and New Trees?

Insights/Feedback on Trunk Hollowing-Out - From Correspondence With Jim Beaver (Sept 26/2017 e-mail)

- "The hollowing out of the tree trunks and branches is a combination of insects and fungus.
- Typically what happens is a tree experiences damage like a branch break and the open wound is invaded by a variety of insects that live inside the tee in the cambium living layer.
- The insects that do this are specialized beetles that have a interesting succession of occurrence with a series of different species working on and living in a tree over the years.
- Some eat the living tissues directly Other make galleries in which they grow a symbiotic fungus that they garden and eat.
- This weakens the tree and makes it more susceptible to breaks and wind throw.
- It you have an experienced entomologist, arborist, tree surgeon the can detect this issue by finding the locations of the initial damage sport, finding insect bore holes where insect waste (phrase) is pushed out or identify the fungus growths which can sometime appear as a large gall (tumor) on the bark.
- There are also tree-living species of termites that do not ground nest at all and live their entire life-cycle in the wood above the ground.
- These are also detectible by their entry holes. So the best way to find out in advance of these problems is to employ an experienced entomologist, arborist, tree surgeon."

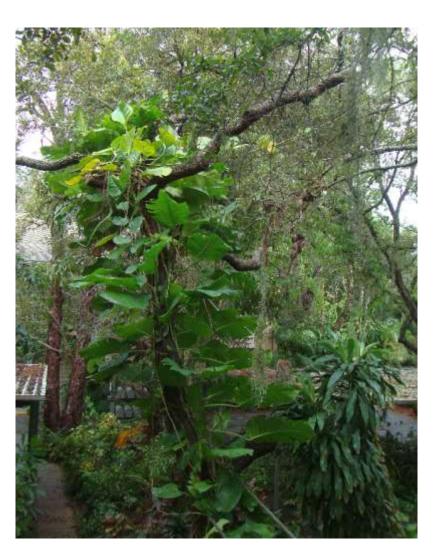
Implications and Follow Up Actions?

- Many other trees that fell over during Irma had hollowing-out issues. Can we get an experienced arborist to study this
 more and make recommendations on how to prune trees to avoid tree wounds that don't heal?
- Can we study the effects this problem may have on existing large trees which have manifestation of wounds that did not heal well? What to do with these trees? Strategically prune to prolong live, or remove, or ignore?

2-1: GL Unbalanced Laurel Oak With Heavy Vine Coverage Falls Over After Heavy Rain Also Reveals Hollowing-Out Through-Out the Tree











2-2: More Hollowed-Out Stumps Revieled on Other PC Trees After Irma













2 -3: How decay eats away at trees











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3. Hiding Problems Behind Vines In PC Trees—So What, And What To Do?

Feedback On Problems From Vines - Correspondence With Jim Beaver. (Sept 26/2017 e-mail)

- "The exotic vines shown in your photographs do make trees and their branches heavier and more susceptible to branch fall and tree falls.
- All those exotic vines should be removed or cut out and pulled out at the roots and allow to die on the tree. Native vines do not normally cause a problem in this except that sometimes the native grape vines can become so large and heavy they should be removed as well. Native air plants are not a problem in this regard.
- Excessive vines do increase susceptibility to wind throw. Most vines do compete for sunlight. Typically they are not competing for water. But certain exotic vines will absorb water and become heavy with the water weight.
- At my native oak hammock home we remove all exotic vines and some of the larger native grape vines so we do not have this problem.
- Sometimes when vines interlink multiple trees one tree breaking will pull down other trees and branches as well that would otherwise not have fallen. "

Implications and Possible Actions?

- What Should Be Done About the Vines in The Short Run? Should PC Avoid The Problem in the Long-Run?
- "So my (Jim Beaver's) advice is to remove the exotic vines or kill them by root removal. In pulling the vines care needs to be taken that damage is not caused to the underlying tree including stripping the bark."
- Another view: It's not a good idea to let vines climb into your trees CHUCK LIPPI consulting Arborist, Published Saturday, February 04, 2006 http://staugustine.com/stories/020406/gar-3601516.shtml#.WYb-vlGQz3g

Observation 3-1: Vines reaching high up in PC trees





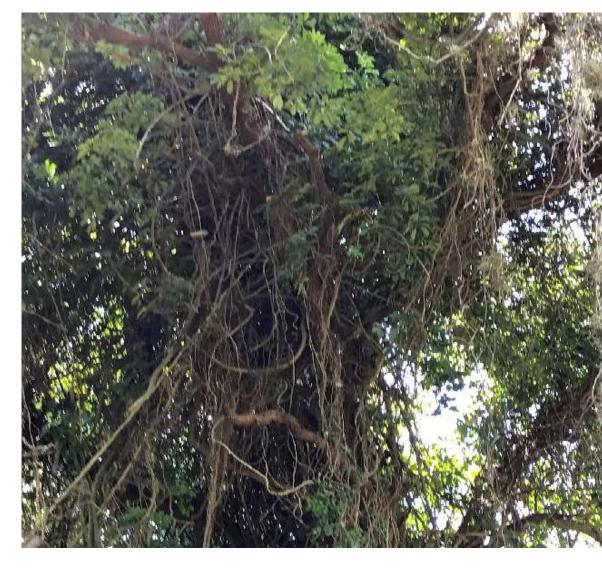


Observation 3-2:

- The live oak tree by the North East side of The Wilbanks has become almost totally taken over by vine growth, reaching way up to the canopy.
- It may make the tree look more lush, but what is the effect over the longer-run of this growth, especially now that it is into and around the upper canopy?
- Among other things, does this vine coverage provide more wind resistance making the tree more susceptible to damage during storms?







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4. Good Fences And Good Neighbors – Irma Has Revealed Many Threats On All Our Boundaries - How Can We Better Manage Our Various Fences & Related "Ours/Theirs" Threatening Trees?

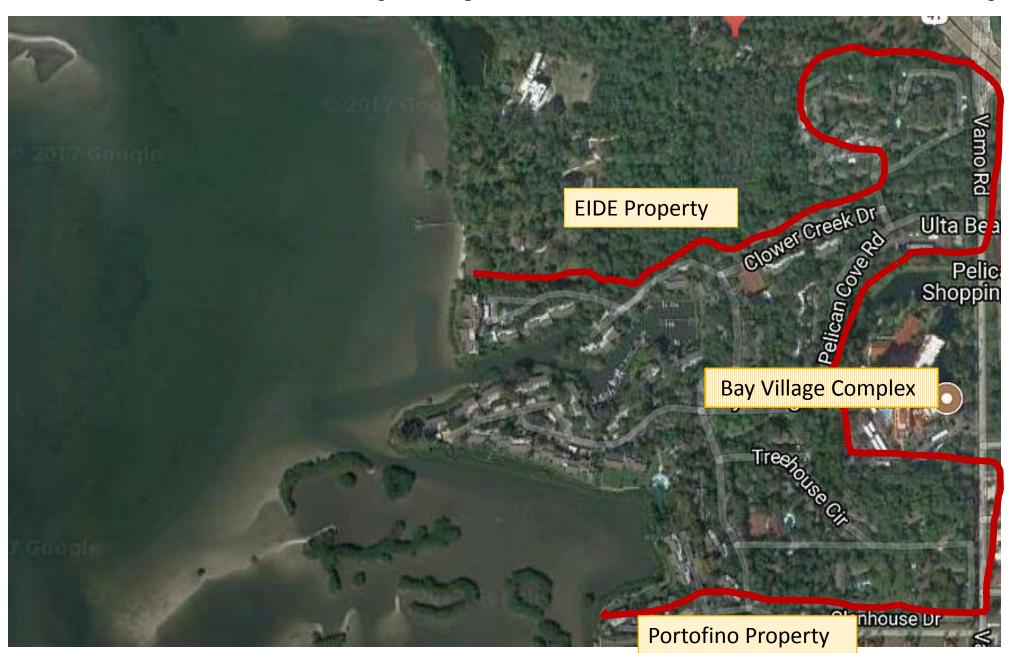
Overview - Feedback On Problems and Threats Observed

- Considerable visible boundary fencing damage and need short-run repair.
- Considerable other less visible fencing is bent over or pushed clear to the ground.
- Many important longer-term threats identified on boundary fences from PC and neighbors learning or dead trees.
- Some sewer lift stations are located near boundary fences/elsewhere and may be threatened by future falling trees?

Overview - Implications and Possible Actions, both Short and Long-Term?

- Repair some fence where possible and easily accessible, but does PC need to remove/prune some trees first?
- What about removing or pruning leaning or dead trees on adjoining property? Can PC make deals? Or what?
- What about PC trees leaning badly towards the fence? Remove and/or prune when? Make a phased plan?
- High winds and normal plant growth are likely to put constant pressure on the boundary fence? How to plan?
- Are there new native species trees and plants that might work better for the constrained space along PC boundary fences? This was not really a specific focus of the Beaver study. Have other places studied this?
- Is there a longer-term question of management and reserve funding for keeping up the fences? Given tree and planting growth what is the expected life of the various segments of PC boundary fencing?

4-0: Main Property Lines of Pelican Cove Property



Observation 4-1: South Fence Line with Portofino

Theirs lean on PC fence

Ours lean on PC fence

Ours fall on fence and their side



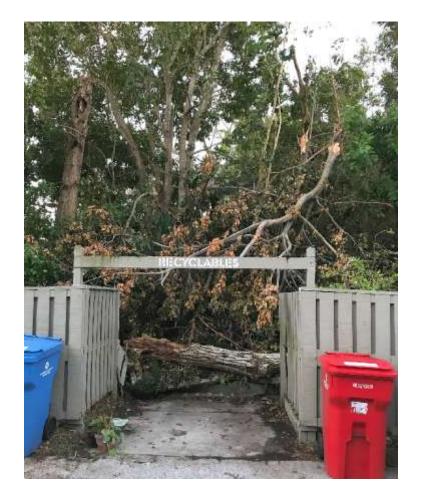




Observation 4-2: South Fence Line with Portofino

Theirs fall on our facilities station

Ours damages fence at sewer lift







Observation 4-3: South Fence Line with Portofino

Trees and plants on their side learning heavily on our fence – When will the fence give away? Some has already!







Observation 4-4: South Fence Line with Portofino

Our tree waiting to fall

Their trees waiting to fall, some with vines making them bigger wind targets.



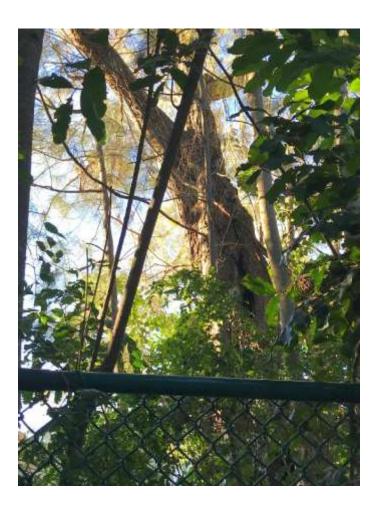




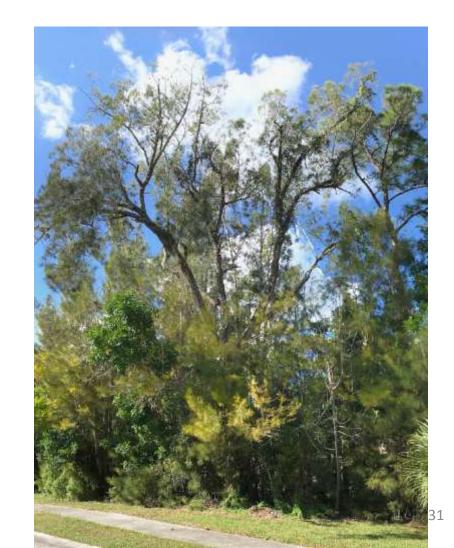
Observation 4-5: South Fence Line with Portofino

Very large and old Australian Pine next to fence on Portofino side – significant rot throughout tree - where will it fall?

(View from the Portofino side)







Observation 4-6: South Fence Line with Portofino

Their weakened tree waiting to fall



Ours and their un-balanced trees leaning on PC fence

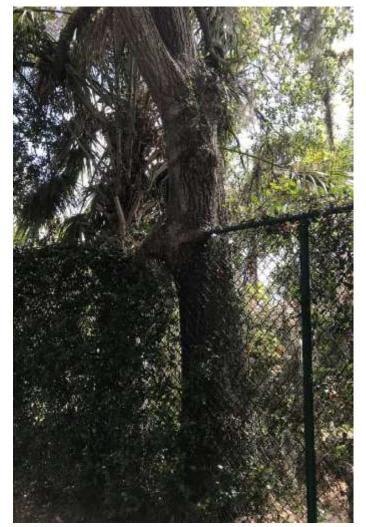




Observation 4-7: South Fence Line with Portofino

More ours and theirs at fence lines – potentials to fall with wind

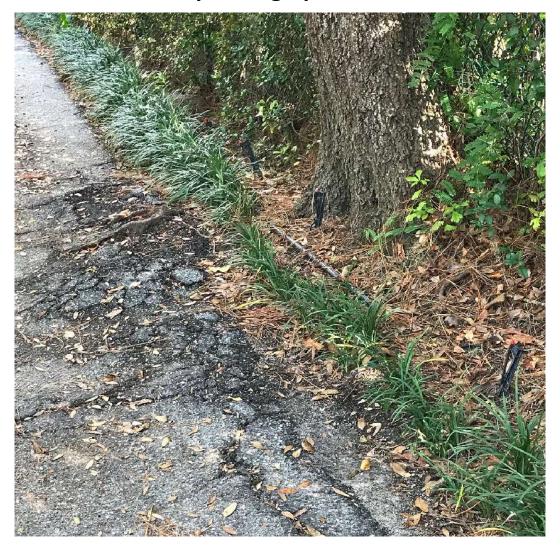




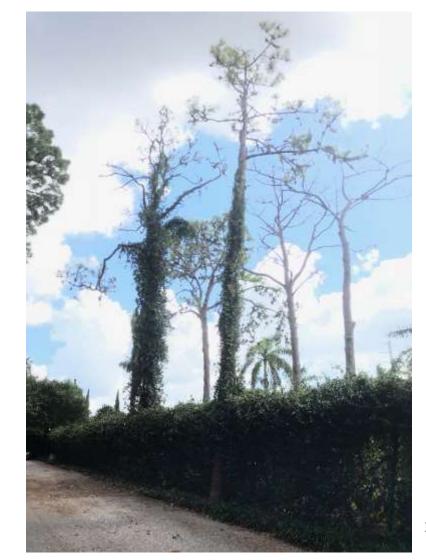


Observation 4-8: South Fence Line with Portofino

PC tree roots pushing up street



More our and their trees with vines at fence line



Observation 4-9: East Fence Line With Vamo Rd

Dead or hallowed out trees at fence line





Big dead tree limbs in canopy



Observation 4-10: East Fence Line With Vamo Rd



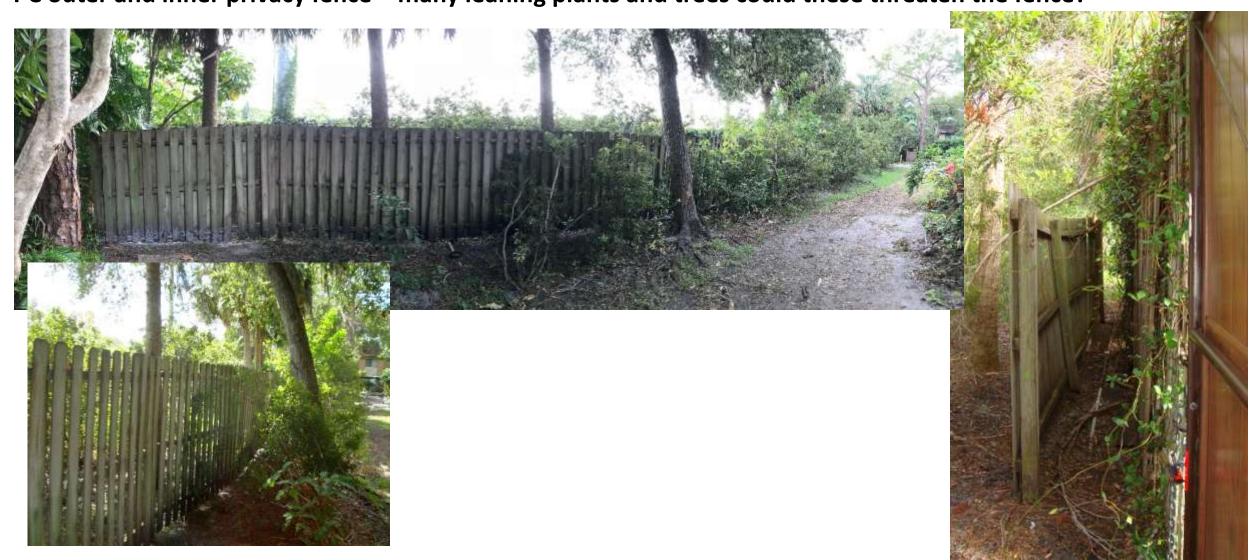
Large leaning trees some near power lines

And another dead tree at fence line



Observation 4-11: East Fence Line With Vamo Rd

PC outer and inner privacy fence – many leaning plants and trees could these threaten the fence?



Observation 4-12: East Fence Line With Vamo Rd

Other tall PC trees near fence might fall on power lines in future?



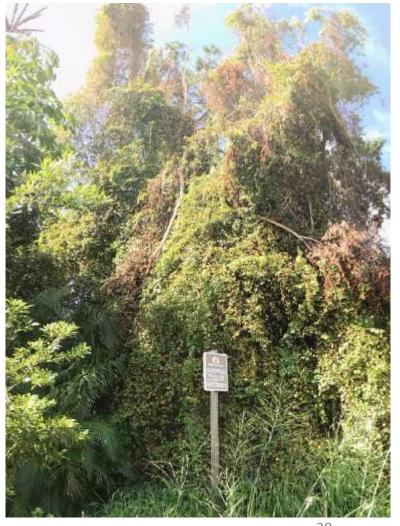


Observation 4-13: East Fence Line With Vamo Rd

Mostly dead tree near fence line

PC heavily vine laden trees at fence line





Observation 4-14: Bay Village Property Line

Ours and their leaning and fallen trees – fence damage







Observation 4-15: Bay Village Property Line

Many large trees fell from Irma in these areas exposing the fence line with Bay Village



Observation 4-16: Bay Village Property Line

Exposed and damaged fence line has camouflage on PC side to reduce visibility to Bay Village. Fence line still has large trees on both sides that are potential threats?



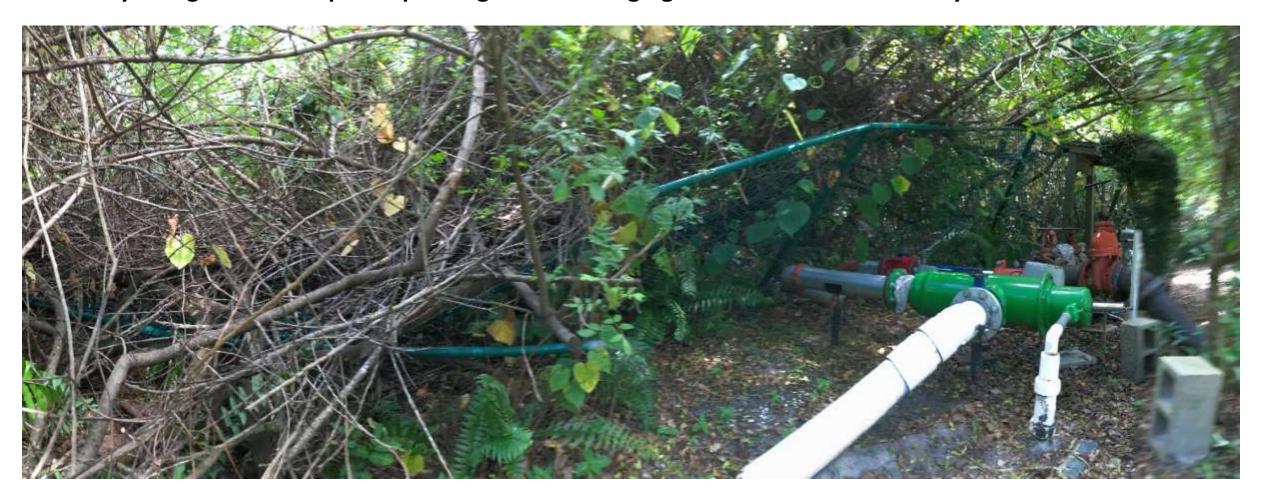
Observation 4-17: Bay Village Property Line

Bay Village trees – PC pushed over fence by Bay Village trees and plants



Observation 4-18: Bay Village Property Line

Bay Village trees and plants pushing over - damaging PC fence near PC water system valves



Observation 4-19: Bay Village Property Line

Bay Village trees and plants pushing over PC fence - how to repair this, and when?



Observation 4-20: Bay Village Property Line

More examples – leaning trees and some fence totally pushed to the ground – what and when to do any repairs?











Observation 4-21: Bay Village Property Line (fence is way back there hidden by the trees but is likely still standing – hard to know but we hope so at least for now)



Observation 4-22: Bay Village Property Line Viewed From Bay Village Side

Trees leaning towards PC fence - also note they use partial privacy fences to reduce view to PC side

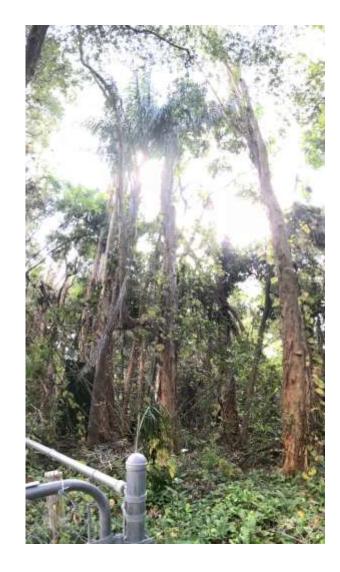
Observation 4-23: Bay Village Property Line

Actual PC boundary fence is a ways behind these bamboo plants which had fallen tree debris



Observation 4-24: Bay Village Property Line (by PC Dog Walk Area)

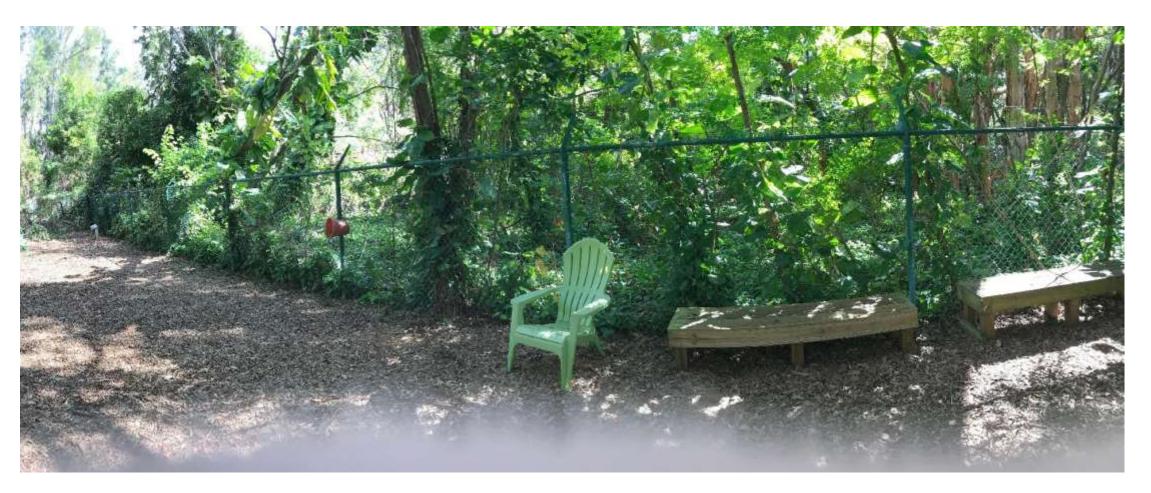
Bay Village trees (some dead ones) and vines leaning towards PC fence





Observation 4-25: Bay Village Property Line

Dog Walk Area – Many Trees with vines and plants on Bay Village side of fence that will continue to grow and lean



Observation 4-26: Bay Village Property Line

Given Loss Of Many Large Tress on PC Side, and Some on the Opposite Side, Bay Village Now very Visible/vic versa



Observation 4-27: Bay Village Property Line

Fence Damage and Remaining Trees That Could Fall on Both Sides





Observation 4-28: Bay Village Property Line

Damaged Fence by PC Wood Chip Piles



Observation 4-29: Bay Village Property Line

Exposed PC Maintenance Shop



PC Fence at Entrance Gate



Observation 4-30: Vamo Road PC Exterior Property Fence Line

Many PC tree limbs are growing out over the sideway, some with rotten structures. Some are PC trees and some are City of Sarasota trees? Who has the responsibility to trim and/or to request trimming?



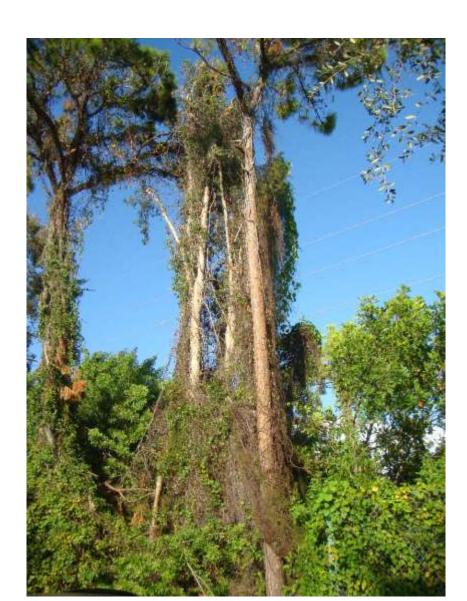


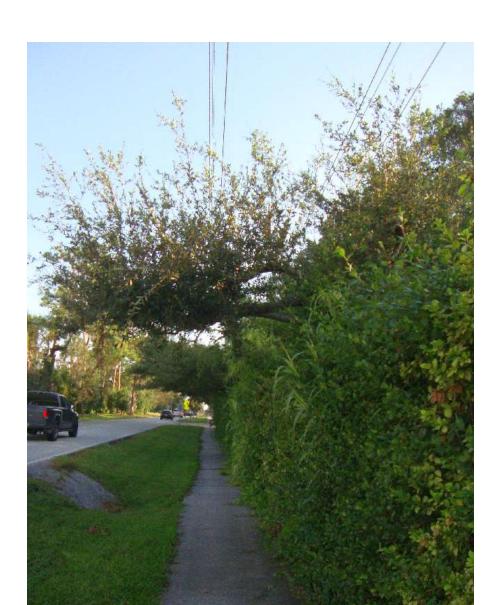


Observation 4-31: Vamo Road PC Exterior Property Fence Line

Some PC trees with reach the power lines if falling Other limbs look very unbalanced given FPL trimming.

Is this the front door look that PC wants?





Observation 4-32: Vamo Road PC Exterior Property Fence Line

Inside PC on this property line there are other somewhat decayed trees that are unbalance and might fall?





Observation 4-32: Eide Property Line (Moving East to

West, Starting in Brookhouse)

Eide trees pushing on fence



PC fence pushed over on Eide

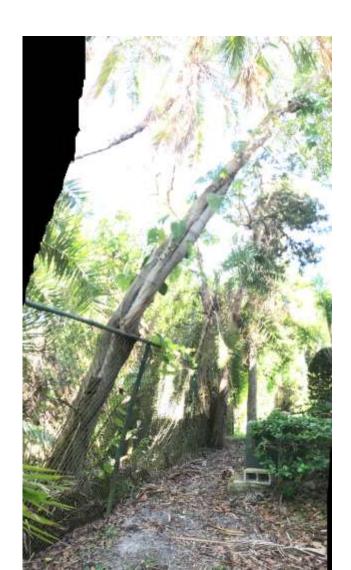




Observation 4-33: Eide Property Line (Moving East to West)

Their trees leaning on PC fence

PC trees leaning or weighted towards the fence





Observation 4-34: Eide Property Line (East to West)

More encroachment of trees onto the fence from both sides







Observation 4-35: Eide Property Line (East to West)

Their trees on PC fence lines and out trees leaning

some of which are dead







Observation 4-36: Eide Property Line (East to West)

Eide cane and trees pushing over PC fence







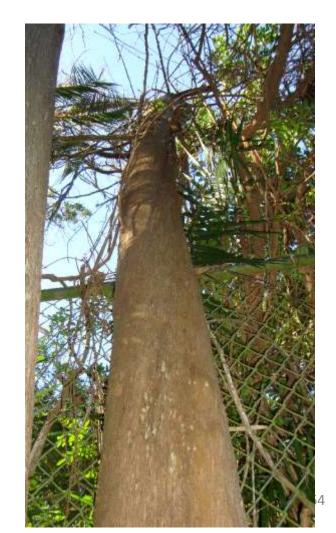
Observation 4-37: Eide Property Line (at the Bay)

Eide trees knocking over or pushing over PC fence

PC tree waiting to fall to Eide side







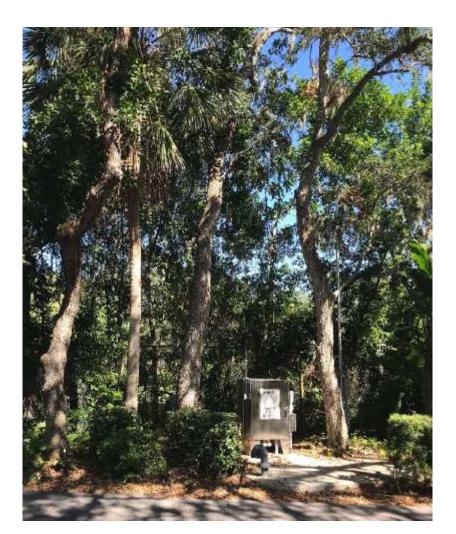
Observation 4-38: Boundary/Other Trees Near Sewer Lift Stations

Along Portofino Property Line

Along Eide Property Line

What might happen to the switching panels and the telemetry boxes/antenna if parts of these trees fell on them?





Observation 4-39: Boundary/Other Trees Near Sewer Lift Stations

By Pelican Point Drive







Observation 4-40: Information Sources on Sewer Lift Station Backup

- Evaluating backup pumps versus generators & standby pumps for sewer lift stations
 - https://www.wwdmag.com/sites/wwdmag.com/files/10 Feature3 Thompson%20Pump.pdf
- Pump Station Contingency Plan
 - https://www.wwdmag.com/pumps/pump-station-contingency-plan
- Sarasota News Stories on Sewer Lift Station Difficulties During Hurricanes
 - http://www.mysuncoast.com/power-outage-causes-sarasota-condo-sewerage-system-to-fail/article 66fcc1f8-98ab-11e7-b899-4b9d0f348051.html
 - http://www.heraldtribune.com/news/20170922/utility-plants-report-more-than-500-wastewater-releases-due-to-hurricane-irma

4. Good Fences And Good Neighbors – Irma Has Revealed Tree Threats On All Our Boundaries - How Can We Better Manage Our Various Fences & Related "Ours/Theirs" Threatening Trees?

Feedback On Problems and Threats Observed

- Considerable and visible boundary fencing damage, needing short-run repair.
- Considerable other less visible fencing is bent over or pushed clear to the ground in multiple locations.
- Many important longer-term threats identified on boundary fences, from PC and neighbors' learning or dead trees.
- Some sewer lift stations are located near boundary trees/or elsewhere, and may be threatened by future falling trees especially vulnerable are the above ground switching panels and the telemetry boxes/antenna to reach live Sarasota County monitoring stations? If a telemetry antenna is knocked out in a storm what happens to PC sewage?

Implications and Possible Actions, both Short and Long-Term?

- Repair some fence where possible and easily accessible, but does PC need to remove/prune some trees first?
- What about removing or pruning leaning or dead trees on adjoining property? Can PC make deals? Or what? When?
- What about PC trees leaning badly towards the fence? Remove and/or prune when? Make a phased plan? Start when?
- High winds and normal plant growth are likely to put constant pressure on the boundary fence? How to plan for this?
- Are there new native species trees and plants that might work better for the constrained space along PC boundary fences? This was not really a specific focus of the Beaver study. Have other condo areas around Florida studied this?
- Study the cost of the potential damage that could come from falling trees damaging sewer lift station equipment? What is essential to protect the operation of these lift stations? (New approaches–install standalone/standby diesel pumps?)
- Is there a longer-term question of management and reserve funding for keeping up the fences? Given tree and planting growth what is the expected life of the various segments of PC boundary fencing? Currently may need outlays to catch up on delayed actions to maintain and improve the fences?

Continued- Sections (5-15) of this work will be covered in a "Part II Presentation" now in process.

- 5. What can we learn from experiences Pelican Cove already has with mangrove windows near the point?
- 6. Learn from evaluating replacement trees planted over the years, especially since 2001. Study how they are faring before planting more?
- 7. What's the story behind many hollow "eyes" and rotten splits on many PC trees. Are these windows into slow, or quickly, dying trees? Lessons?
- 8. Views from new and old tree damage in Harbor Club hot tub are which way should and will we go towards timely tree pruning?
- 9. Do we have a policy of trying to salvage (re-right) selected small trees that were slightly blown over? What limits its use if we have a policy?
- 10. Leaning but still standing large trees what, if anything, to do about each of them, and when? What is a Feasible Action Plan For Them?
- 11. Can we study how tree and under canopy policies/practices work elsewhere around SRQ. Which actions improve tree health and reduce damage in other tree intensive developments like P C. Visit/learn from practices at places like Bay View, The Meadows, Glen Oaks, Village Walk? Also learn from resources available from the Florida Urban Forestry Council, new University of Florida studies, and what other Condo Association have/are doing, such as removing all schefflera trees due to potential storm and root damage to buildings. How to learn about trees left after creek dredging?
- 12. What to do about limbs over roofs, falling leafs continually stopping up gutter downspouts, increasingly heavy rains and water in your face from over spilling roof gutters, regardless of gutter size! This is especially a problem for condos of year-around residents.
- 13. How did existing, and alternative native species trees recommended in the Beaver study, hold up during Irma in the PC area? In Sarasota? In other Florida locations? What can we learn from this about enhancing and protecting PC's urban forest? What about trees heal well?
- 14. How do we help PC residents appreciate and consider the bigger picture features of native species trees and plants recommended by Beaver? Use the on-line portals available and get the Photo Club to document visually trees/plantings at other sites, and create photo galleries for PC residents?
- 15. Can we learn anything by studying the history & follow up from damage to specific trees and structures in Pelican Cove during Hurricane Gabrielle in 2001? Specifically which trees and structures were damaged, and what policies changed after this Hurricane? Did these help? Also how have new plantings from that period survived and prospered, or faced challenges in the PC urban forest environment?