

WWALS Watershed Coalition, Inc.
the WATERKEEPER® Alliance Affiliate for the
upper Suwannee, Withlacoochee, and Alapaha Rivers
a 501(c)(3) nonprofit charity
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April 4, 2016

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Cc: Georgia Department of Natural Resources
Environmental Protection Division
Watershed Protection Branch
Attention: James A. (Jac) Capp - Branch Chief
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Re: Application Numbers: SAS-2013-00942 (GA), SAJ-2013-03030 (FL), SAM-2014-00655-JSC (AL)
Applicants: Sabal Trail Transmission, LLC, Attn Mr. George McLachlan;
Florida Southeast Connection, LLC, Attn: Mr. Randall LaBauve
Transcontinental Gas Pipe Line Company, LLC, Attn: Ms. Karen Olson

Dear U.S. Army Corps of Engineers and Georgia DNR EPD Watershed Protection Branch,

Since my previous letter of December 10, 2015, the Georgia legislature has resoundingly rejected Sabal Trail's allegations of need, new evidence has arisen of numerous discrepancies in what Sabal Trail told the Federal Energy Regulatory Commission (FERC), and at least one Florida county commission has called for the Corps to come investigate those discrepancies on the ground. The present letter calls attention to further discrepancies in Georgia, and to several related projects in Alabama, Pennsylvania, Georgia, and Florida that were not considered cumulatively with the Southeast Market Pipelines Project (SMPP). Finally, FERC's allegation that the market could have chosen solar power but did not is refuted by recent solar power developments. Therefore WWALS Watershed Coalition, Inc. requests the Corps to examine these numerous developments, especially by site visits on the ground in Georgia and Florida, and to reject any permit for SMPP prior to such examination.

According to the Jacksonville District's Public Notice SAJ-2013-03030 and SAJ-2013-03099 of September 11th, 2015:¹

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and in general, the needs and welfare of the people.

In addition, the U.S. DC Circuit Court of Appeals in 2014 ruled² that FERC according to the National Environmental Policy Act (NEPA) must consider cumulative effects of related pipelines, without segmenting projects. FERC has not considered along with SMPP numerous related pipelines and liquid natural gas (LNG) export projects and proposed power plants that Sabal Trail would feed, even though more than one of those projects were in FERC dockets at the same time as the three parts of SMPP that are the subject of the Corps' Public Interest Review.

The Needs and Welfare of the People

Sabal Trail told FERC that need for the pipeline was determined by the Florida Public Service Commission, and FERC in its Order of February granting a Certificate of Convenience and Necessity to Sabal Trail³ alleged that customers for Sabal Trail were sufficient need.⁴

Yet the Georgia legislature in March resoundingly rejected any alleged need for the Sabal Trail pipeline that might possibly outweigh the needs and welfare of the people regarding the public wetlands of the State of Georgia, especially regarding drilling under Okapilco Creek or the Withlacoochee, Ochlockonee, Flint, or Chattahoochee Rivers. The Georgia House of Representatives voted 34 aye to 128 nay on SR 954

¹ SAJ-2013-03030 and SAJ-2013-03099, JOINT PUBLIC NOTICE U.S. Army Corps of Engineers State of Alabama State of Georgia State of Florida, 11 September 2015, <http://www.saj.usace.army.mil/Portals/44/docs/regulatory/Public%20Notices/2015%2010%20October/20151009-SoutheastMarketPipeline-multiple-1211.pdf>

² Document #1496336, 6 June 2014, U.S. DC Circuit Court of Appeals Case No. 13-1015, DELAWARE RIVERKEEPER NETWORK, ET AL., PETITIONERS v. FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT, [https://www.cadc.uscourts.gov/internet/opinions.nsf/30B6F48600A85C1E85257CEF004E34F1/\\$file/13-1015-1496336.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/30B6F48600A85C1E85257CEF004E34F1/$file/13-1015-1496336.pdf)

³ "Order issuing certificates and approving abandonment re Florida Southeast Connection, LLC et al under CP14-554 et al.", FERC Accession Number 20160202-3056, 2 February 2016, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14425623.

⁴ "87. As discussed above, 93 percent of the total design capacity of the Sabal Trail project is subscribed under precedent agreements with initial terms of 25 years. This is persuasive evidence of market need for this project." In FERC Accession Number 20160202-3056, 2 February 2016.

(confirmed March 24),⁵ to deny easements for Sabal Trail to drill under Georgia rivers and creeks, after debate that included eminent domain, property rights, and environmental concerns.⁶

That same week, the Georgia legislature approved in HB 1036 an eighteen-month moratorium, pending review of environmental permitting procedures, on eminent domain for petroleum products pipelines⁷ such as the Palmetto Project Kinder Morgan wanted to build from South Carolina across every Georgia coastal river to Jacksonville, Florida.⁸ Kinder Morgan the next week acknowledged that rejection by suspending its Palmetto pipeline,⁹ explicitly citing that moratorium as the reason.¹⁰

Clearly the state of Georgia has rejected pipeline company profit or alleged need by Florida as sufficient reason for use of state lands in Georgia or for eminent domain over private property. Spectra Energy, like Kinder Morgan, should acknowledge that rejection and cancel its Sabal Trail pipeline project.

Cumulative Effects

First we will consider Georgia, then Florida.

Cumulative Effects in Georgia

Lowndes County, Georgia has a chronic and widespread sinkhole problem, which was not addressed by Sabal Trail in its filings to FERC. Sabal Trail's consideration only of hydrogeology such as springs within a short distance from its proposed pipeline path flies in the face of decades of known science published by the U.S. Geological Survey (USGS) and in numerous peer-reviewed papers and presentations. Numerous springs, sinkholes, aquifer recharge zones, underground conduits known and unknown, known long-distance underground water transmissivity, and known sources of contamination were not adequately considered by Sabal Trail or FERC.

WWALS Watershed Coalition requests the U.S. Army Corps of Engineers to consider all these factors, by conducting its own investigation including site visits.

⁵ SR 954, "Public Property; granting of nonexclusive easements for the construction, operation, and maintenance of facilities, utilities, roads; 16 counties", 2015-2016 Regular Session, Georgia General Assembly, <http://www.legis.ga.gov/Legislation/en-US/display/20152016/SR/954>

⁶ "Senate Resolution 954 was crushed by a vote of 34-128 after more than an hour of debate." Georgia House defeats bill to grant easements for S. Georgia pipeline, by Aaron Gould Sheinin, The Atlanta Journal-Constitution, 22 March 2016,

<http://www.myajc.com/news/news/state-regional-govt-politics/georgia-house-defeats-bill-to-grant-easements-for-/nqgdd/>

⁷ HB 1036, "Eminent domain; construction of petroleum pipelines and the environmental permitting requirements; change certain provisions", 2016-2016 Regular Session, Georgia General Assembly, <http://www.legis.ga.gov/Legislation/en-US/display/20152016/HB/1036>

⁸ "PIPELINES: Ga. lawmakers move to block 2 interstate projects," by Kristi E. Swartz, EEnews, 28 March 2016, <http://www.eenews.net/energywire/stories/1060034650>

⁹ "Notice: Kinder Morgan has suspended further work on the Palmetto Pipeline project, following the unfavorable action by the Georgia legislature regarding eminent domain authority and permitting restrictions for petroleum pipelines. While this legislative action was disappointing, we remain committed to providing customized transportation solutions to our customers." Palmetto Project, Kinder Morgan, 30 March 2016, http://www.kindermorgan.com/business/products_pipelines/palmetto/

¹⁰ "Kinder Morgan suspends work on Palmetto Pipeline," WRDW TV News 12, August, GA, 30 March 2016, <http://www.wrdw.com/home/headlines/Kinder-Morgan-suspends-work-on-Palmetto-Pipeline-374026231.html>

Widespread interconnected underground conduit system

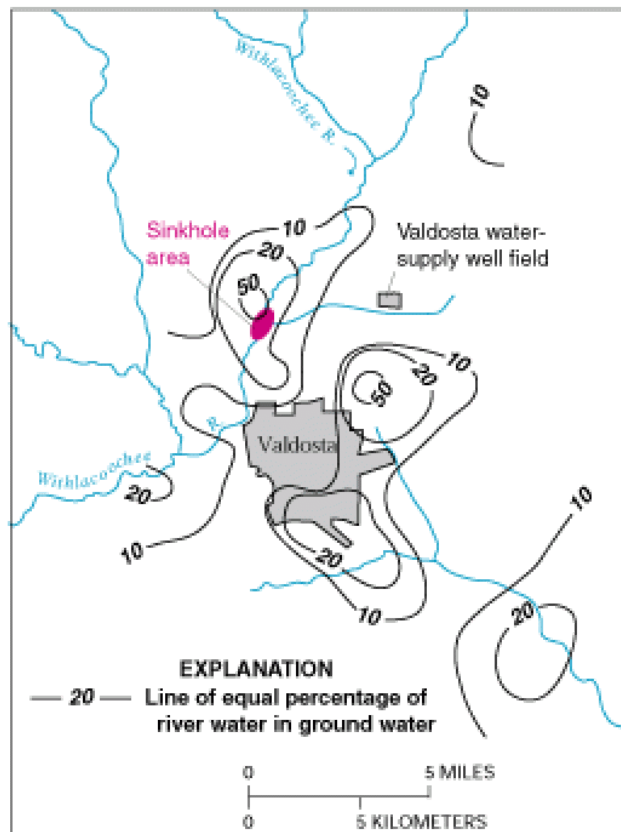
As the U.S. Geological Survey wrote in 1999 about Lowndes County, Georgia and its county seat, Valdosta:

*A highly interconnected conduit system has developed in the Upper Floridan aquifer in this area, which extends **at least 15 miles** from the sinkhole area.*¹¹

Sabal Trail's proposed drilling path under the Withlacoochee River near US 84 **is less than 15 miles** from the site USGS referred to near Cherry Creek, where Withlacoochee River water from Shadrick Sink leaking into the Upper Floridan Aquifer forced Valdosta to double the depth of its water wells, and led Lowndes County to purchase the land surrounding Shadrick Sink.¹²

The City of Valdosta's water treatment plant web page says:¹³

The Floridan Aquifer in the area of Valdosta and Lowndes County is known as a karst aquifer. This is an aquifer that has cracks, underground solution channels, and caverns. These cracks can provide a route to allow contaminants to enter the aquifer, move about in the aquifer and alter the water supply and can cause special challenges for the City's water system.



Rapid sinkhole formation

Another sinkhole, the Cherry Creek Sink, formed within a matter of months in 2010 near Shadrick Sink, according to Valdosta State University (VSU) Geology Prof. Don Thieme.¹⁴

¹¹ "The Connection Between Surface-Water Quality and Ground-Water Quality in a Karst Aquifer", Box E on Page 63 in Sustainability of Ground-water Resources, by William M. Alley Thomas E. Reilly O. Lehn Franke, USGS Survey Circular 1186, 1 January 1999, <http://pubs.usgs.gov/circ/circ1186/>.

¹² Lowndes County parcel 0072 023, which the county obtained in 2001, http://qpublic7.qpublic.net/ga_display.php?county=ga_lowndes&KEY=0072%20%20023. VSU Prof. Brad Bergstrom assisted with that purchase.

¹³ Water Treatment Plant, City of Valdosta, accessed 2 April 2016, <http://www.valdostacity.com/water-treatment-plant>.

¹⁴ Cherry Creek Sink, in Coastal Plain Surficial Deposits, Groundwater Resources, and Recent Subsidence in south Georgia, by Prof. Don Thieme, at Valdosta State University for WWALS, 9 October 2013, https://www.youtube.com/watch?v=MFrO6Mt10EE&index=7&list=PLKwQ5xfKf-Qy_Er-K1p0IF_Rw_qCfrlKb, <http://www.wwals.net/2013/11/04/videos-aquifers-sinkholes-groundscans-prof-don-thieme/>

In 2010 Lowndes County discovered a sinkhole on Snake Nation Road, west of Shadrick Sink.¹⁵

Lowndes County Engineer Mike Fletcher said the county hired Geohazards to conduct a geological survey around the hole. By drawing grids north and south, east and west, extending 550 feet around the hole, the company has found a large section adjacent to the hole that is in danger of collapsing as well as a second area farther down the road.

"This is much more serious than we first thought," said Fletcher. "We are looking at our options now to see what can be done."¹⁶



Chronic recurrence of sinkholes

That wasn't the first sinkhole in that location:

A sinkhole opened in that same spot in June 2007. It was 8 to 10 feet in diameter and 65 feet deep.¹⁷

Further examples of recurring sinkholes can be supplied on request.

Costly remediation of sinkholes

The eventual Snake Nation Road solution was costly, in county tax dollars and in disruption to the county:

"We are purchasing the property to the north, 5.22 acres, for \$40,000 to reroute the road," said County Manager Joe Pritchard.

Rerouting the road will cost approximately \$300,000 versus at least twice that amount to reinforce the hole, put in concrete supports, and fill it to prevent the road from collapsing again.

Fletcher said three driveways will have to be rebuilt to reach the new road.¹⁸

¹⁵ Sinkhole discovered on Snake Nation Road, by Paul Leavy, Valdosta Daily Times, 1 November 2010, http://www.valdostadailytimes.com/news/local_news/sinkhole-discovered-on-snake-nation-road/article_c0d5b304-7ad0-5652-88bf-ec7884c9955e.html

¹⁶ "Solutions to fixing sinkhole not easy", by Kay Harris, The Valdosta Daily Times, 19 November 2010, http://www.valdostadailytimes.com/news/local_news/solutions-to-fixing-sinkhole-not-easy/article_3365a95a-878b-5dc1-bd9c-ebc940f222f5.html

¹⁷ "Sinkhole opens in Lowndes County", by Jade Bulecza, WALB, 4 November 2010, <http://www.walb.com/story/13425198/sinkhole-opens-in-lowndes-co>

¹⁸ "Snake Nation Road sinkhole repairs on the way", by Kay Harris, The Valdosta Daily Times, 1 April 2011, http://www.valdostadailytimes.com/news/local_news/snake-nation-road-sinkhole-repairs-on-the-way/article_4c7e4551-4f1c-5ba7-88a9-92aa4f13c3a5.html

Lines of sinkholes

A 150-foot sinkhole opened farther west of Shadrick Sink and the Snake Nation Road sinkhole in 2015, briefly closing Shiloh Road.¹⁹ The county was lucky that time, since the sinkhole did not require road repairs or rerouting, but the landowner was not as lucky, suffering extensive property damage.

Continuing in a line westwards, there is the Myers Bluff Sinkhole on the Little River, attested by numerous local people, and clearly visible on google maps.²⁰



This line of sinkholes demonstrates Valdosta Utilities' point that *"This is an aquifer that has cracks, underground solution channels, and caverns" that "can provide a route to allow contaminants to enter the aquifer, move about in the aquifer and alter the water supply and can cause special challenges for the City's water system."*

There are far more sinkholes in Lowndes County, such as farther north in a man's garage on Norman Hall Road²¹ and in Moody Family Housing on Val Del Road,²² and farther west under a house.²³

Farther south, VSU's Lake Louise research station on Touchton Road just north of Lake Park is a sinkhole,²⁴ not to mention probably most of the lakes around Lake Park. You only have to glance at a map to see such lakes continue westwards to the Withlacoochee River. Moody Air Force Base's Grassy Pond has sinkholes,²⁵ on Loch Laurel Road, near where Lowndes County in January 2016 signed a contract for Sabal Trail to dig its pipeline through the closed Lowndes County landfill.²⁶

¹⁹ "Road Reopened in Lowndes County After 150-Foot Sinkhole Opens", by Winnie Wright, WCTV, 13 August 2015, <http://www.wctv.tv/home/headlines/150-Foot-Sinkhole-Opens-In-Lowndes-County-Residential-Area-320842571.html>

²⁰ Myers Bluff Sinkhole, 30.9306396, -83.437268, WWALS, Withlacoochee and Little River Water Trail, <http://www.wwals.net/maps/withlacoochee-river-water-trail/wrwt-map/wrwt-points/#Myers-Bluff-Sinkhole>, Lowndes County parcel 0012 004.

²¹ Sinkhole in garage, by John S. Quarterman, On the LAKE Front, 29 August 2012, <http://www.l-a-k-e.org/blog/?p=532>

²² Phase II of Moody Family Housing already has a sinkhole –Tom Kurrie @ LCC 2013-08-13, video by Lowndes Area Knowledge Exchange at Lowndes County Commission Regular Session, 13 August 2013, <http://www.l-a-k-e.org/blog/?p=5190>

²³ Karst subsidence beneath a house in Lowndes County, by VSU Prof. Don Thieme, On the LAKE Front, 20 August 2013, <http://www.l-a-k-e.org/blog/?p=5235>

²⁴ Lake Louise Environmental Research Station, Valdosta State University, accessed 2 April 2016, Lowndes County Parcel 0169 006, <http://www.valdosta.edu/colleges/arts-sciences/physics-astronomy-geosciences/geo-fac-lake-louise.php>

²⁵ Grassy Pond Sinkhole, by April Huntley, On the LAKE Front, 22 August 2013, <http://www.l-a-k-e.org/blog/?p=5251>

²⁶ Videos: Sold out to Sabal Trail @ LCC 2016-01-26, by John S. Quarterman, On the LAKE Front, 26 January 2016, <http://www.l-a-k-e.org/blog/?p=15694>

Sinkhole interactions with groundwater and drinking water

All these sinkholes can interact with groundwater and affect drinking water. USGS summed up the situation in Florida, which does not stop at the state line:²⁷

In most watersheds (river basins) in Florida the interactions between groundwater and surface water typically result in a single dynamic flow system. This direct hydraulic linkage results from numerous karst features (such as sinkholes, conduit systems in the underlying limestone, and springs) that facilitate the exchange of water between the surface and subsurface (fig. 1). Unique problems can arise in protecting water quality in karst areas because of the direct and rapid transport of recharge through conduits to the subsurface and through resurgence by springs. In some areas, recharge from unknown drainage pathways to areas of discharge may contribute to chemical and biological contamination of water supplies. Such contamination in karst areas has been documented by many studies....

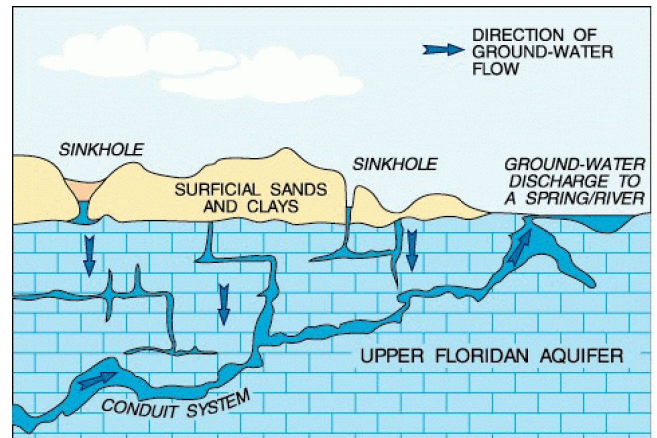


Figure 1. Generalized cross section in the Suwannee River basin showing karst features that facilitate the exchange of water between the surface and subsurface.

Sabal Trail did not take into account this hydraulic and hydrochemical linkage between groundwater and surface water. Nor did it take into account chemical peculiarities of such interaction:²⁸

Water from the Upper Floridan aquifer is the sole source of municipal water supply to the City of Valdosta and vicinity. In the early 1980s, it was recognized that chlorination of the DOC-rich Upper Floridan aquifer water at Valdosta produced trihalomethane concentrations that exceeded the maximum contaminant level (MCL) of 100 mg/L for drinking water established by the Georgia Department of Natural Resources (1990) (McConnell and Hacke, 1993). Subsequent unsuccessful attempts to resolve the trihalomethane problem and water treatment problems related to high concentrations of dissolved Fe and H₂S eventually led to relocation and development of a new well field, and use of ozone treatment.

Such effects can turn up years or decades later in wells miles away, with no recourse other than to drill much deeper or expensive water treatment facilities.²⁹

²⁷ "The Suwannee River Basin Pilot Study: Issues for Watershed Management in Florida," USGS FS-080-96, 1996, <http://pubs.usgs.gov/fs/FS-080-96/>

²⁸ "Flow of river water into a Karstic limestone aquifer. 1. Tracing the young fraction in groundwater mixtures in the Upper Floridan Aquifer near Valdosta, Georgia," by L. N. Plummer, et al., Applied Geochemistry, Vol. 13, No. 8, pp. 995-1015, 1998, DOI: 10.1016/S0883-2927(98)00031-6, <https://pubs.er.usgs.gov/publication/70020487>

²⁹ "Flow of river water into a Karstic limestone aquifer. 2. Dating the young fraction in groundwater mixtures in the Upper Floridan Aquifer near Valdosta, Georgia," by L. N. Plummer, et al., Applied Geochemistry, Vol. 13, No. 8, pp. 1017-1043, 1998, DOI: 10.1016/S0883-2927(98)00032-8, <https://pubs.er.usgs.gov/publication/70020591>

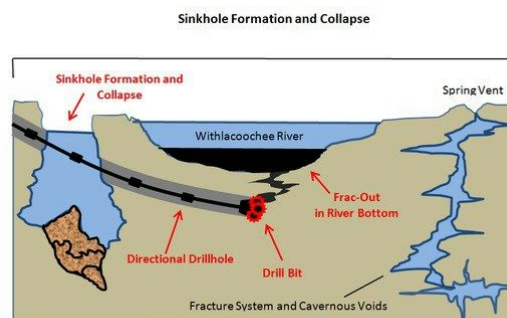
Sabal Trail wants to drill under the floodplain of the Withlacoochee River at US 84.³⁰ That is the type of area reported on by former VSU Geology Prof. James A. Hyatt in 1996:³¹

Flooding of the Flint River in July 1994 triggered the collapse of at least 312 sinkholes in the karstic Dougherty Plain at Albany, Georgia. We examined the distribution and morphology of these new sinkholes to evaluate the mode of formation, to characterize early stages of the evolution of sinkhole form, and to estimate the lowering of the surface associated with the development of new sinkholes. Eighty-eight percent of sinkholes occur inside the limits of flooding, especially in areas of sandy overburden, and they often follow joint-controlled linear trends.... Flooding triggered the formation of sinkholes by saturating and liquefying overburden, which caused soil arches to collapse and flow into cavities in bedrock. The prevalence of sinkholes near the periphery of flooding suggests that drainage and loss of buoyant support as flood waters subsided may also have contributed to failure.

Pipeline construction potentially causing sinkholes

Add to naturally-occurring sinkholes the distinct possibility of horizontal directional drilling (HDD) by Sabal Trail under the Withlacoochee River producing a frac-out and collapse, as indicated by David Brown, P.G., in a report of 22 August 2014 that was instrumental in getting Sabal Trail to move off the Withlacoochee River in Florida, where the conditions are not much different than the Withlacoochee River at the Brooks-Lowndes County line in Georgia.³²

Any sinkhole formed at the Withlacoochee River, or anywhere Sabal Trail drills or digs, could leak drilling fluid, road contaminants, river water, agricultural runoff, or even more toxic materials into groundwater, perhaps forming more toxic materials.



Corrosion by acidic tannic blackwater river water

The famously acid soil of this southeast region and the acidic waters of our blackwater rivers, including Okapilco Creek and the Withlacoochee, Suwannee, and Santa Fe Rivers. could exacerbate the already severe corrosion issues of pipelines. Issues illustrated by the 21 December 2013 PHMSA Final Order to

³⁰ "Sabal Trail now aims to cross Withlacoochee River north of US 84," by John S. Quarterman, WWALS, 14 August 2015, using Sabal Trail's own route maps, <http://www.wwals.net/?p=10287>

³¹ "Distribution and morphology of sinkholes triggered by flooding following Tropical Storm Alberto at Albany, Georgia, USA", by James A. Hyatt and Peter M. Jacobs, GEOMORPHOLOGY 17(4):305-316 · SEPTEMBER 1996, DOI: 10.1016/0169-555X(96)00014-1

https://www.researchgate.net/publication/223758527_Distribution_and_morphology_of_sinkholes_triggered_by_flooding_following_Tropical_Storm_Alberto_at_Albania_Georgia_USA

³² Sinkhole formation and collapse due to drilling under the Withlacoochee River, by John S. Quarterman, WWALS, 18 October 2014, <http://www.wwals.net/?p=3929>, referencing Hydrogeology Report: Sabal Trail methane pipeline crossing of Withlacoochee River, by David Brown, P.G., 22 August 2014, <http://www.wwals.net/wp-content/themes/pianoblack/img/2014/08/HydrogeologyXreport.pdf>

Spectra Energy CEO Greg Ebel for five violations of Spectra's company procedures and federal regulations regarding inadequate corrosion inspection and prevention.³³

Corrosion is also illustrated by the PHMSA Final Order of 26 October 2014 for a civil penalty of \$74,300 to Mr. Larry Hjalmarson, VP Safety, Environment & Integrity, Transcontinental Gas Pipe Line Company, LLC., also about inadequate inspection for and prevention of corrosion.³⁴

Prior to that PHMSA Final Order to Transco, Jason Cannon reported in the Demopolis Times 21 February 2012, "Corrosion cited in pipeline explosion",³⁵

"Although we have systems and processes in place to prevent and identify corrosion, our investigation indicated there were multiple factors working in conjunction that led to this problem not being recognized," said Transco spokesman Chris Stockton. "Extremely corrosive soil conditions, combined with failures in the pipeline's protective coating and cathodic protection system ultimately weakened the pipe, causing it to rupture."

"Stockton said the rupture forced the company to make several changes in its corrosion control program."

"These changes are designed to more closely monitor levels of pipeline protection from corrosion, assure a higher degree of protection equipment uptime, and provide higher standards for levels of corrosion protection," he said. "We are also continuing our investigation into this failure to better enhance our corrosion control procedures in the future."

Apparently the changes Transco made did not satisfy PHMSA anymore than Spectra's inadequate corrosion inspection and maintenance, because Transco, like Spectra, also received a PHMSA Final Order.

The same Chris Stockton has also been quoted in Alabama newspapers speaking for the Transco's Hillabee Expansion Project, which is part of the same Southeast Market Pipeline Project as Spectra and FPL's Sabal Trail Transmission pipeline.³⁶

Corrosion in a Transco pipeline in Alabama could contaminate the contents of a Sabal Trail pipeline in Georgia or Florida. Corrosion in a Sabal Trail pipeline could cause leaks into our fragile karst limestone that contains our drinking water in the Floridan Aquifer. Leaks at high-pressure could cause sinkholes. This is all in addition to the issue of boring under rivers and through that fragile karst limestone potentially causing sinkholes.

³³ "Re: CPF No. 4-2012-1009," Final Order, to Mr. Gregory L. Ebel, President and Chief Executive Officer, Spectra Energy Corporation, by Jeffrey D. Wiese, Associate Administrator for Pipeline Safety, U.S. Pipeline and Hazardous Materials Safety Agency, 21 December 2012, http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_4555279B07507EA7A114AC79C8C3B32231D10000/filename/420121009_Final%20Order_12212012.pdf

³⁴ Re: CPF No. 1-2012-3002," Final Order, to Mr. Larry Hjalmarson, VP Safety, Environment & Integrity, Transcontinental Gas Pipe Line Company, LLC. by Jeffrey D. Wiese, Associate Administrator for Pipeline Safety, U.S. Pipeline and Hazardous Materials Safety Agency, 26 October 2012, http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_DD5ABC53E182FD16B2E61455F431F947A7141600/filename/120123002_Final%20Order_10262012.pdf

³⁵ "Corrosion cited in pipeline explosion", by Jason Cannon, Demopolis Times, 21 February 2012, <http://www.demopolistimes.com/2012/02/21/corrosion-cited-in-pipeline-explosion/>

³⁶ "Natural gas pipeline plans moving forward," by Mitch Sneed, Alexander City Outlook, 18 October 2014. <http://www.alexcityoutlook.com/2014/10/18/natural-gas-pipeline-plans-moving-forward/>

Lateral movement of contaminants in groundwater from sinkholes to wells

Discharge from Valdosta's water wells, or from other wells, could draw anything that goes into that sinkhole to those wells, according to even older research from 1966:³⁷

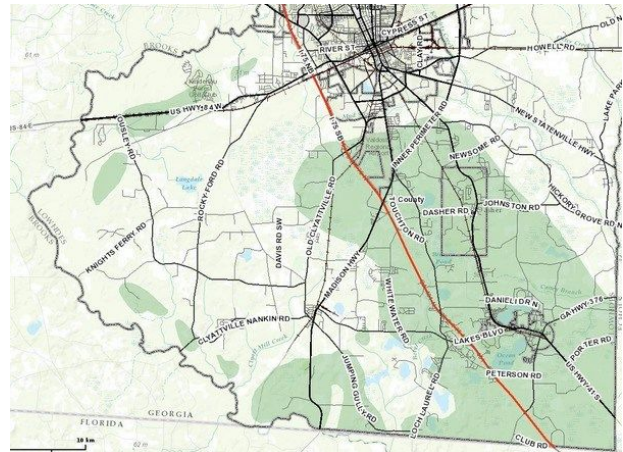
The aquifer is recharged, not only in areas where it is at or near the land surface, but also where the overlying beds have been penetrated by sinkholes. In general the piezometric surface slopes to the east, southeast, and south from the high area in Georgia. In the Valdosta area in Lowndes and Brooks Counties, where there is local recharge through sinkholes and drainage wells, the piezometric surface is as much as 100 feet above sea level.

The lateral movement of water is generally from the recharge areas. Although the lateral movement may be controlled over considerable distances by geologic structure and the movement may be parallel to the dip of the formations, the relative positions of the recharge and discharge areas are more important than the geologic structure in controlling the direction of the movement of the water in the area of this report. ...

Thus any natural sinkhole or frac-out at the Withlacoochee River, caused by drilling or corrosion, could contaminate wells elsewhere. Our sole water source, the Floridan Aquifer, is widely interconnected underground. Any contamination at the Withlacoochee River, or even at Albany, could contaminate Valdosta's water wells, or any private well.

Contamination risks from closed Lowndes County landfill hazardous waste site

Sabal Trail boring through the closed Lowndes County landfill presents additional issues, since that site is on the Georgia Environmental Protection Division's Hazardous Site Inventory³⁸ as Lowndes County-State Road 31 MSWL,³⁹ which says "This site has a known release of Mercury in groundwater at levels exceeding the reportable quantity" and has checked under "REGULATED SUBSTANCES": 1,1-Dichloroethane, Arsenic, Benzene, Barium, Beryllium, Cis-1,2-Dichloroethene, Cis-1,2-Dichloroethane, Dichloromethane, Lead, Mercury, Tetrachloroethene, and Trichloroethene.



That landfill is in an aquifer recharge zone, according to VALORGIS, the graphical information system of Valdosta and Lowndes County.⁴⁰

³⁷ Artesian Water in Tertiary Limestone in the Southeastern States, By V. T. Stringfield, GEOLOGICAL SURVEY PROFESSIONAL PAPER 517, 1966. <http://pubs.usgs.gov/pp/0517/report.pdf>

³⁸ Hazardous Site Inventory, Georgia Environmental Protection Division, revised July 2015, <http://epd.georgia.gov/hazardous-site-inventory>

³⁹ Lowndes County-State Road 31 MSWL, Hazardous Site Inventory, GA-EPD, http://epd.georgia.gov/sites/epd.georgia.gov/files/2015hsi_Complete/HSI_Single_Sites/10453.pdf

⁴⁰ The hazardous waste Lowndes County Clyattville landfill is not just another Sabal Trail easement @ LCC 2016-01-26, by John S. Quarterman, On the LAKE Front, 26 January 2016, <http://www.l-a-k-e.org/blog/?p=15689>, referencing VALORGIS, <http://www.sqwebmaps.com/livemap/>

Contamination risks in other aquifer recharge areas

Sabal Trail would also drill or dig through more aquifer recharge areas, both east of the Withlacoochee River, and near the state line and Jumping Gully Creek. Jumping Gully Creek is on the most recent GA-EPD list of stream segments already exceeding Total Maximum Daily Load Evaluation for Fecal Coliform.⁴¹

Summary of cumulative environmental effects in Georgia

Sabal Trail did not adequately demonstrate that its construction or operational activities would not risk leaking fecal coliform, landfill materials, river water, or other contaminants into groundwater, where it could travel for many miles, especially towards wells. The examples cited above for Lowndes County are not exhaustive of the environmental effects in Georgia, but they are actual examples of chronic, recurring, related, and widespread issues of surface and groundwater interchange that were not adequately addressed by Sabal Trail or FERC.

Meanwhile, information on several sites just south of the state line in Florida has come to light in a geological report (see next section) that directly contradicts data that Sabal Trail Transmission has provided. If Sabal Trail omitted or perhaps misrepresented so much important information in Florida, the Corps also needs to double-check everything Sabal Trail said about Georgia.

Sabal Trail did not adequately address these special karstic conditions in the information it sent to the Federal Energy Regulatory Commission (FERC), on which the U.S. Army Corps of Engineers appears to be depending. Therefore WWALS Watershed Coalition, Inc. request the Corps to come see for itself, and to produce an independent evaluation.

Cumulative Effects in Florida

Meanwhile in Florida, the Hamilton Board of County Commissioners approved unanimously March 15, 2016 a letter dated March 18, 2016⁴² requesting the Corps' Jacksonville District to come examine directly numerous discrepancies between what Sabal Trail told FERC and what those Commissioners saw with their own eyes at the proposed Sabal Trail crossings of the Suwannee River and the Falmouth Cathedral Cave System, including numerous springs and sinkholes documented in a geological report by independent Practicing Geologist Dennis Price.⁴³

⁴¹ Draft Total Maximum Daily Load Evaluation for Five Stream Segments in the Suwannee River Basin for Fecal Coliform, Submitted to: The U.S. Environmental Protection Agency Region 4, Atlanta, Georgia, Submitted by: The Georgia Department of Natural Resources Environmental Protection Division, Atlanta, Georgia, November 2015, http://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/document/Suwannee%20Draft%20Fecal%20Coliform%20TMDL%202015.pdf

⁴² "Correspondence from Board of County Commissioners of Hamilton, FL to U.S. Army Corp of Engineers re the Environmental Geology report under CP15-17," ,Hamilton, FL BOCC, FERC Accession Number 20160328-0091, 28 March 2016, http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160328-0091, legible copy: <http://www.wwals.net/?p=18433>

⁴³ "Geological determinations about Sabal Trail and Suwannee River," by Dennis Price P.G., 25 October 2015, <http://www.wwals.net/?p=18117>

Suwannee River and Falmouth Cathedral Cave System

Information on several sites has come to light in [a geological report by Southeast Environmental Geology dated 10/25/2015](#) that directly contradicts data that Sabal Trail Transmission has provided. Moreover, this contradiction raises questions and uncertainties that need to be addressed:

1. Did Sabal Trail perform complete and proper due diligence at the Suwannee River and Falmouth Cathedral Cave crossing sites? If not, why not?
2. What specific tests were performed to determine the depth of the Falmouth Cathedral Cave System? If tests were in fact performed, where is the data?
3. Has proper consideration been given to The Falmouth Cathedral Cave System considering that it is the Spring conduit for Lime Run Spring, a 1st magnitude spring, and, that the cave system is one of the longest underwater cave systems in the world, attracting divers from all over the world to explore its passages?
4. Exactly how far from the proposed pipeline route is Lime Run Spring?
5. What type of survey was done at the Suwannee River crossing site to determine quantity and location of sinkholes and is that type of survey the most current and up to date method?
6. **How does Sabal Trail explain that their data shows that the closest sinkhole to the center of the proposed route at the Suwannee River crossing is 750' from the center of the route, when in actuality the closest sinkhole to the route at this site is right on the centerline?**
7. How does Sabal Trail explain the fact that their data shows only a small number of "closed topo depressions" and Mr. Price's geological report shows a large number of sinkholes including active sinkholes very close to the centerline of the pipeline route?
8. **Have the cumulative impacts of multiple pipelines through Suwannee River State Park been thoroughly explored? If so, how? If not, why not?**

Hildreth Compressor Station and Little River Cave System

The Hildreth/O'Brien compressor station and nearby Little River Cave system are two sites that are not addressed by the Southeast Environmental Geology report but, raise similar questions and uncertainties as the above sites.

The compressor station is proposed to be constructed in a known karstic area. In fact the Little River cave system crossing site lies just to the north of the proposed compressor station site.

1. Has Sabal Trail used tools such as Ground Penetrating Radar (GPR) to map the subsurface area at the Little River Cave and Compressor station sites to ensure that solid ground exists to support construction and operation of the pipeline and compressor station?
2. Has proper consideration been given to the Little River Cave system considering that it is the spring conduit for Little River Spring located on the Suwannee River?

For both compressor station questions, if so, how, and if not, why not?

Groundwater recharge, flow, and recharge over long distances and under rivers

Sabal Trail lead geologist has stated:

"The rivers are the base of the groundwater flow system and are the discharge areas.

- *There is little or no flow beneath the river*
- *Potential impacts would be confined to the vicinity of the HDD crossing"*

Ample proof exists that water does indeed flow under the rivers, as evidenced by mapped cave systems in the Suwannee-Withlacoochee confluence region that actually go under both the rivers. Other evidence exists that shows deep groundwater flow and that impacts could be felt miles away in deep wells in the region. The water in these wells, some miles from the river, turns brown in color as the river water rises. The tannic water from the river only takes days to work its way through deep underground porous rock and caverns.

We know by the example in Lowndes County, Georgia (see previous section on Georgia) of Shadrick Sink on the west side of the Withlacoochee River contaminating Valdosta's water wells miles away on the east side of the river that there is indeed flow beneath the Withlacoochee River in Lowndes County, where the karstic conditions are very similar to those just south of the state line.

Re-examine other river and creek crossings

Since there are such known discrepancies in what Sabal Trail reported about its proposed crossings of the Suwannee River and the Falmouth Cathedral Cave System, the Corps should examine all the river and creek crossings in Florida Congressional District 3, including:

- Jumping Gully Creek; see [ERP_332811 SABAL TRAIL GEOTECH / NEAR MILEPOST 248](#)⁴⁴
- Santa Fe River; see [ERP_326338 SABAL TRAIL TRANSMISSION / SANTA FE RIVER HDD CROSSING](#)⁴⁵

Summary of Cumulative Effects in Florida

Essentially all of Sabal Trail's assertions which FERC accepted need to be re-examined by the Corps, plus additional information which has since come to light. WWALS Watershed Coalition, Inc. invites the Corps to inspect all these sites on the ground in order to produce an independent re-evaluation.

⁴⁴ Facility ID = ERP_332811, Facility Details:, Program = ERP, Facility Name = SABAL TRAIL GEOTECH / NEAR MILEPOST 248, Address = NEAR MILEPOST 248, City = JENNINGS, District/County = NED / HAMILTON, DEP Information Portal, accessed 4 April 2016,

http://webapps.dep.state.fl.us/DepNexus/public/electronic-documents/ERP_332811/facility%21search

⁴⁵ Facility ID = ERP_326338, Facility Details: Program = ERP, Facility Name = SABAL TRAIL TRANSMISSION / SANTA FE RIVER HDD CROSSING, Address = SANTA FE RIVER, City = not available, District/County = NED / SUWANNEE, http://webapps.dep.state.fl.us/DepNexus/public/electronic-documents/ERP_326338/facility%21search

Segmented projects not considered cumulatively with SMPP

All that FERC considered in SMPP was these three pipelines, which are far from all the related projects:

1. Williams Company's Transco Hillabee Expansion Project (HEP), FERC Docket No. CP15-16 (in Alabama, but is start of this pipeline chain)
2. Spectra Energy, FPL, and Duke Energy's Sabal Trail Transmission (Sabal Trail), FERC Docket no. CP15-17, through southwest Georgia then through the Florida Springs heartland, across the Suwannee, Santa Fe, and Withlacoochee (south) Rivers to Orlando.
3. FPL's Florida Southeast Connection (FSC), FERC Docket no. CP15-554, From Orlando to Martin County.

Numerous other pipeline projects in Alabama, Pennsylvania, Georgia, and Florida are clearly related to SMPP. Why were they segmented and not considered cumulatively?

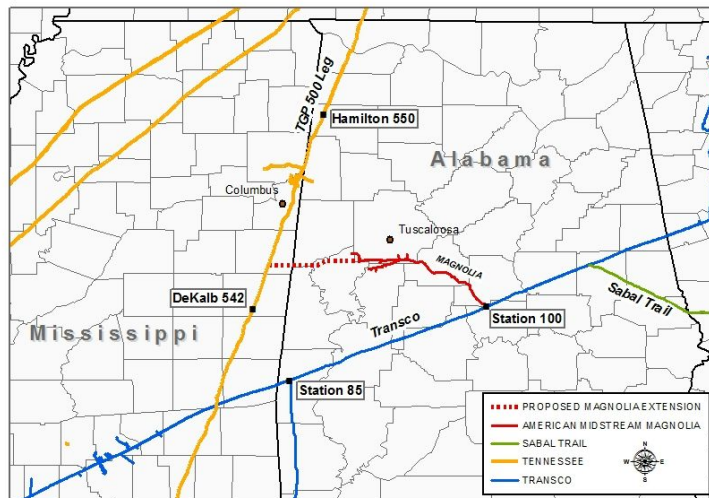
Alabama

Amongst the six rehearing requests for SMPP in FERC Docket CP15-17, sub-docket 001, is one from Greenlaw for Kiokee-Flint Group, Sierra Club, Flint Riverkeeper, and Chattahoochee Riverkeeper.⁴⁶ That filing notes that FERC failed to consider with SMPP the clearly connected Magnolia Extension pipeline.

American Midstream says on its web page about Magnolia Extension:⁴⁷

The proposed pipeline ("Magnolia Extension") is a 45-mile extension of the existing Magnolia pipeline that would transport up to 500,000 dekatherms ("Dth") per day of natural gas from Tennessee Gas Pipeline's ("TGP") 500 Line to Williams' Transco pipeline beginning in 2019. The non-binding open season for the Magnolia Extension will commence on February 22, 2016 and terminate at 6:00pm CT on April 11, 2016. The Magnolia extension would be designed to receive natural gas supplies from

TGP's 500 Line and to deliver the gas through an existing interconnect to Williams' Transco pipeline in Zone 4, a highly liquid trading area upstream of the new Sabal Trail pipeline.



⁴⁶ "Request for Rehearing of the Commission's February 2, 2016 Order, Rescission of Certificates, and Stay of Project by Kiokee-Flint Group, Sierra Club, Flint Riverkeeper, and Chattahoochee Riverkeeper under CP15-17, et. al.", FERC Accession Number 20160303-5069, 3 March 2016, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14435326

⁴⁷ "Proposed Magnolia Extension", American Midstream, accessed 3 April 2016, <http://www.americanmidstream.com/segments/gathering-and-processing/magnolia/>

Georgia

Transco's Dalton Expansion Project (DEP) in Georgia was in the FERC process at the same time as Sabal Trail, as [CP15-117](#)⁴⁸ and feeds off the same Transco pipeline. Is it related to Sabal Trail? If so, why was it not considered as part of SMPP?

According to Oil & Gas Journal, DEP includes expansions all the way from New Jersey to Georgia to ship Marcellus Shale fracked methane:⁴⁹



Transcontinental Gas Pipe Line Co. LLC (Transco), a wholly owned subsidiary of Williams Partners LP, has filed an application with the US [Federal Energy Regulatory Commission](#) for its Dalton expansion project, which would transport [Marcellus shale](#) gas to the US Southeast for electric power generation and local natural gas distribution.

Transco has executed long-term agreements with shippers for 100% of the 448,000 dth of firm transportation capacity to be created under the Dalton project. Transco held an open season for the project in mid-2012 ([OGJ Online, June 1, 2012](#)).

The project will consist of an expansion of Transco's mainline from its Station 210 in New Jersey to points as far south as Holmesville, Miss., and an 111-mile lateral pipeline from Transco's Station 115 to Murray County, Ga.

Also included in the expansion is a compressor facility in Carroll County, Ga., as well as three metering facilities and other related pipe and valve modifications to existing facilities.

Are we to believe none of that natural gas will go to Sabal Trail through the same Transco pipeline? Why was the Dalton Expansion Project segmented and not considered cumulatively with SMPP?

Pennsylvania

The industry publication Oil & Gas Financial Journal told us in January 2014 that Williams Company's Atlantic Sunrise pipeline project in Pennsylvania is exactly to ship Marcellus Shale methane down Transco to Sabal Trail and other pipeline and LNG export projects:⁵⁰

Spectra Energy and NextEra Energy's planned Sabal Trail natural gas pipeline from near Transco Station 85 in southwestern Alabama to near Orlando in central Florida will do more than provide additional gas-delivery capacity to Florida and the welcomed redundancy of a third pipeline to the Sunshine State. The big news is that Williams' Atlantic Sunrise project by July 2017 will enable large volumes of Marcellus-sourced gas to be shipped south (backwards!) along the Transco pipeline all the way to Station 85. That (and Sabal Trail) will give Marcellus producers something unthinkable until now: access to major gas users as far south as Miami. Today we lay out the basics of what is being planned....

⁴⁸ "Major Pipeline Projects Pending (Onshore), Data as of March 14, 2016," FERC, <http://www.ferc.gov/industries/gas/indus-act/pipelines/pending-projects.asp>

⁴⁹ "Transco files FERC application for Dalton expansion project," by OGJ editors, Oil & Gas Journal, 20 March 2015, <http://www.ogj.com/articles/2015/03/transco-files-ferc-application-for-dalton-expansion-project.html>

⁵⁰ "Miami 2017 - Marcellus Gas Heading To Florida," Housley Carr, Oil & Gas Financial Journal, 17 January 2014, <http://www.ogfj.com/articles/2014/01/miami-2017-marcellus-gas-heading-to-florida.html>

But Marcellus producers, eager to continue ramping up their operations, are looking for gas buyers well beyond the Northeast. Williams (the owner of Transco, the mainline that runs from Texas to New York City) is helping them in that effort by developing the Atlantic Sunrise project (and the related Hillabee Expansion—a Station 85-to-Sabal-Trail connector we'll get to in a bit) to help make Marcellus gas deliveries to the southeastern US possible.



Atlantic Sunrise would include pipeline looping, compressor additions, and modifications to Transco's mainline to accommodate southerly flow. By July 2017 the project would provide Marcellus producers with somewhere between 450 Mdth/d up to more than 1 Mdth/d of firm, southbound transportation capacity on Transco as far south as Station 85 (see Figure 2).

Note that part about Miami. SMPP doesn't go as far south as Miami. What does? See below.

Also in that same industry story:

The Florida Public Service Commission ruled in late October that FPL's commitment for Sabal Trail capacity is "prudent", and at least two other big electric utilities—Duke Energy Florida and Tampa Electric—are looking into making smaller commitments of their own.

Duke Energy announce 5 May 2015 that it was buying a 7.5% stake in Sabal Trail,⁵¹ so apparently this industry source was privy to what was being planned. Where does Tampa Electric come into the story? See below for that, too, under KMI FGT JEP. And note on that story's Figure 2 the two offshoot pipelines from Transco leading to LNG export operations proposed at Cove Point, Maryland and Elba Island, Georgia: see FERC dockets CP13-113 and CP14-114, respectively.

Meanwhile, why was this Williams Company Atlantic Sunrise Project segmented and not considered cumulatively with SMPP, when its industry clearly considered it directly related to Sabal Trail?

Spectra Energy, co-owner of Sabal Trail, in October 2014, bought part of another Marcellus Shale feeder pipeline, Penneast,⁵² which pre-filed with FERC as Docket No. PF15-1, and later in formal filing as CP15-558.⁵³ Why was Penneast segmented and not considered cumulatively along with SMPP?

⁵¹ "Duke Energy buys 7.5% of previously announced Sabal Trail pipeline that will meet growing need for natural gas in Southeast U.S.," Duke Energy PR, 5 May 2015, <http://www.duke-energy.com/news/releases/2015050501.asp>

⁵² "Spectra Energy Partners Becomes Newest Member in PennEast Pipeline Project", PennEast Pipeline PR 29 October 2014, <http://penneastpipeline.com/spectra-energy-partners-becomes-newest-member-in-penneast-pipeline-project/>

⁵³ "Major Pipeline Projects Pending (Onshore), Data as of March 14, 2016, FERC, <http://www.ferc.gov/industries/gas/indus-act/pipelines/pending-projects.asp>

Florida

Many related projects in Florida were not considered as part of SMPP.

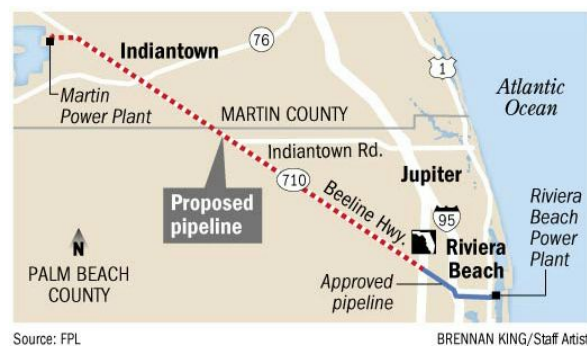
More pipelines

FERC did not consider these other pipelines, which would get natural gas from Sabal Trail: FPL's Riviera Beach pipeline, KMI FGT JEP,

FPL pipeline from Martin County to Riviera Beach.⁵⁴

FERC may argue that this FPL pipeline is wholly within Florida, and thus not an interstate pipeline under FERC jurisdiction. Exactly the same argument would apply to FPL's Florida Southeast Connection pipeline, which is in SMPP. So why was this other FPL pipeline not included? Perhaps FPL's Riviera Beach pipeline was already completed when the SMPP FERC filings began. But why was it not mentioned in those FERC filings, since it is clearly related, as mentioned in news reports:⁵⁵

"FPL's parent company, NextEra, is involved in numerous natural gas pipelines. The goal is to supply natural gas to power plants. One such pipeline, pictured above during construction in 2013, now serves FPL's power plant in Riviera Beach....



The 36-inch pipeline [SMPP], if approved by the FERC and other agencies, would be Florida's third major pipeline. It would carry as much as 1 billion cubic feet of natural gas per day.

The pipeline is slated to begin providing fuel for FPL's Riviera Beach, Martin County and Port Everglades plants by May 2017. The project is winding its way through the complex approval process."

Why was FSC included in SMPP and not FPL's Riviera Beach pipeline?

Kinder Morgan's proposed natural gas Jacksonville Expansion Project (JEP) from Sabal Trail in Suwannee County to Jacksonville, FERC Docket no. CP15-144.

In 2014 TECO People's Gas proposed to build a natural gas pipeline to Jacksonville:⁵⁶

⁵⁴ "FPL proposes 32-mile natural gas pipeline for Riviera Beach plant," by Susan Salisbury, Palm Beach Post, 9 March 2012, <http://www.palmbeachpost.com/news/business/fpl-proposes-32-mile-natural-gas-pipeline-for-ri-1/nLhYY/>

⁵⁵ "Gas pipeline slated to supply FPL's plants faces opposition," by Susan Salisbury, Palm Beach Post, 29 August 2015,

<http://www.mypalmbeachpost.com/news/business/gas-pipeline-slated-to-supply-fpls-plants-faces-op/nnTDS/>

⁵⁶ "TECO Peoples Gas looks to expand natural gas pipeline to Jacksonville", by John Burr, Jacksonville Business Journal, 10 March 2014,

<http://www.bizjournals.com/jacksonville/news/2014/03/10/teco-peoples-gas-looks-to-expand-natural-gas.html>

TECO Peoples Gas, the largest supplier of natural gas to Florida, plans to extend its natural gas pipeline within Northeast Florida and increase the size of the pipeline to transmit more gas to the area, a spokeswoman said.

The company see the need to provide more gas supplies to Northeast Florida, with increased use of natural gas to generate electricity and use of liquified natural gas at the port. The Jacksonville Electric Authority and one cargo shipper wants to build liquified natural gas plants near the port.⁵⁷

...

TECO brings its natural gas to Florida via pipelines from gas fields in Texas, Louisiana, Mississippi and Alabama, Jacobs said. In the future, TECO plans to access gas from the fields in West Virginia and Pennsylvania.

See above under Pennsylvania for the January 2014 Oil & Gas Industry prediction that "Tampa Electric", which is TECO,⁵⁸ would get methane from the Marcellus Shale through the Williams Co. Atlantic Sunrise pipeline in Pennsylvania, through Transco and Sabal Trail. And in April 2015 Kinder Morgan subsidiary Florida Gas Transmission (FGT) filed for exactly such a pipeline as TECO proposed, as CP15-144.⁵⁹ The same day, FERC accepted FGT's application into its permitting process.⁶⁰ FGT's application says:

Florida Gas Transmission Company, LLC ("FGT") hereby submits for filing this Section 7(c) request for Authorization for a Certificate of Public Convenience and Necessity to construct, own, and operate facilities consisting of approximately 3.0 miles of 30-inch mainline looping, one new 5,000 horsepower compressor unit at Compressor Station 16, re-wheeling of an existing turbine compressor unit, approximately 5.7 miles of 20-inch looping on the Jacksonville Lateral, and appurtenant/auxiliary facilities, all located in Suwannee, Columbia, Bradford, and Clay Counties, Florida, to support the Peoples Gas System, a division of Tampa Electric Company ("PGS") service expansion utilizing existing volumes pursuant to FGT's rate Schedule FTS-3.

In FGT's application, second document, Exhibit I, Market Data, Precedent Agreement, pages 8 and 9:

In the event Sabal Trail Transmission LLC ("Sabal") requests and constructs an interconnection with Transporter relating to the Sabal Trail Transmission, LLC project, Transporter shall provide access to such delivery point to Shipper, in accordance with the Commission's open access policies as reflected in Section 21 of the GT&C of Transporter's Tariff in the quantity identified in Attachment 1, Section II as "Service Effective with In-Service Date of Sabal Trail Transmission LLC" The provision of the Sabal interconnection is conditioned upon all open access and other Tariff requirements and upon all approvals, including appropriate certificate authorization by FERC, and shall be effectuated in the future by either an amendment to the exhibits to the Initial

⁵⁷ "Why is Jacksonville suddenly LNG central?" by John Burr and Timothy Gibbons, Jacksonville Business Journal, 14 February 2014,

<http://www.bizjournals.com/jacksonville/print-edition/2014/02/14/why-is-jacksonville-suddenly-lng.html>

⁵⁸ "Peoples Gas is a TECO Energy company | Tampa Electric | New Mexico Gas Company", TECO Peoples Gas main web page, <http://www.peoplesgas.com/>

⁵⁹ "submits its Certificate Application re the Jacksonville Expansion Project, under CP15-144." FERC Accession Number 20150331-5692, by Florida Gas Transmission, LLC, a Kinder Morgan subsidiary, 31 March 2015, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14319322

⁶⁰ "Notice of Florida Gas Transmission, LLC's 3/31/15 filing of an application requesting authorization to construct, own, and operate approximately 3.0 miles of 30-inch mainline loop extension (Branford Loop) etc under CP15-144." FERC Accession Number: 20150413-3014, by FERC, 13 April 2015, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14323518

Service agreement or Expansion Service (depending on the completion date of the interconnect) or separate agreement. The parties understand that Sabal, as requester of the interconnect, will be responsible for the cost of the interconnection and the installation thereof and that neither Transporter nor Shipper will have responsibility for these costs.

This KMI, FGT, TECO JEP pipeline is exactly what Oil & Gas Financial Journal predicted in January 2014, to draw gas from Sabal Trail, from Transco, from Atlantic Sunrise, from the Marcellus Shale.

Further evidence of this connection appears in two construction permits Sabal Trail has in process with the Florida Department of Environmental Protection (FDEP), for Meter and Regulation (M&R) stations in Suwannee and Orange Counties.

The one in Orange County is called "Hunters Creek M&R"⁶¹ and is at the end of Sabal Trail's Hunters Creek lateral, apparently to connect to Florida Gas Transmission (FGT), since Sabal Trail has said that is the purpose of that lateral.

The Suwannee County application⁶² is confused, saying it is for City: Lake City and County: Suwannee, even though Lake City is in Columbia County. The actual location specified, "at the southeast portion of Suwannee county near the intersection of FL 247 S and FL 49 S", is the same as the beginning of Kinder Morgan's proposed natural gas FGT Jacksonville Expansion Project (JEP), FERC Docket No. CP15-144. This FDEP Construction Permit Application says that M&R station has been in the Sabal Trail application all along:

This M&R station has already been included in a detailed environmental impact study prepared by the Federal Energy Regulatory Commission (FERC) that demonstrated that this M&R station will not cause harm to the environment and public health is not adversely affected by this project.

That would seem to mean that the KMI FGT JEP project has been planned all along as part of the Sabal Trail project.

So an industry publication predicted a Tampa Electric pipeline to draw from Sabal Trail from Transco from Atlantic Sunrise from Marcellus Shale fracking; Kinder Morgan's FGT applied to FERC for just such a pipeline, saying Sabal Trail can connect; and Sabal Trail applied to FDEP for an M&R station exactly where JEP would connect to Sabal Trail, saying that station was already reviewed by FERC in Sabal Trail's FERC docket. How can there be any doubt that this KMI FGT JEP project is directly related to Sabal Trail, and was planned to be so related all along?

Why did FERC segment JEP instead of considering it cumulatively as part of SMPP?

⁶¹ "HUNTERS CREEK M & R STATION", applicant Sabal Trail Transmission, LLC, City: Orlando, County: Orange, Project Number: 0951367-001-AC, 3 February 2016, Submitted Application Report: <http://www.wwals.net/wp-content/themes/pianoblack/img/2016/03/Orange-County-STT-EPSAP-Submitted-Application.pdf>, Construction Permit Application: <http://www.wwals.net/wp-content/themes/pianoblack/img/2016/03/Hunters-Creek-Construction-Permit-Application-20160202-final-updated-reduced-size.pdf>

⁶² "SUWANNEE M&R STATION", Applicant: SABAL TRAIL TRANSMISSION, LLC, City: LAKE CITY, County: SUWANNEE, Project Number: 1210474-001-AC, Submitted Application Report: <http://www.wwals.net/wp-content/themes/pianoblack/img/2016/03/Suwannee-County-STT-EPSAP-Submitted-Application.pdf>, Construction Permit Application: <http://www.wwals.net/wp-content/themes/pianoblack/img/2016/03/Suwannee-Construction-Permit-Application-20160202-final-updated-reduced-size.pdf>

AES Ocean Express pipeline from Florida to Bahamas, currently stopped by Bahamas,⁶³ but could start back up as LNG export.

This pipeline was permitted by FERC in 2004 in Docket Nos. CP02-90, CP02-91, CP02-92, CP02-93 for LNG import, and vacated by FERC in 2013 for failure to construct.⁶⁴ If the government of the Bahamas ever relents, nothing stops AES from reapplying to FERC for LNG export, just like KMI's Elba Island LNG import project turned into LNG export.

LNG export operations

These are mostly already approved by the U.S. DoE Office of Fossil Fuels.

And indeed FERC argued in its Order of 2 February 2016:

86. Allegations that the projects will be used to export gas also do not persuade us to find that the applicants have not demonstrated project need. Neither Sabal Trail nor Florida Southeast has proposed to connect to any LNG export facilities. In addition, Florida Power & Light stated that it lacks legal authority to export natural gas, and that it is contracting for capacity to serve its natural gas plants. Florida Power & Light adds that it is not an owner of the Floridian LNG project in Martin County, Florida, nor is any of its affiliates.⁶⁴ Moreover, the Commission does not have jurisdiction over the exportation and importation of natural gas. Such jurisdiction resides with the U.S. Department of Energy (DOE), which must act on any applications for natural gas export and import authority.⁶⁵

⁶⁴ Florida Power & Light December 23, 2014 Motion to Intervene and Comments in Docket No. CP15-17-000 at 6.

⁶⁵ *Id.* at 4, 6.

Yet, as noted above, FERC accepted both Cove Point LNG in Maryland and Elba Island LNG in Georgia into the FERC permitting process. And numerous LNG export projects have proposed and been authorized to get their natural gas from Sabal Trail. Some of them do involve permits from FERC, in addition to permits from FE.

1. LNG export from Jaxport, already mentioned above under Jacksonville Expansion Project.
2. Crowley Maritime's Carib Energy can export from apparently anywhere in Florida, especially Jaxport, already approved by DoE FE.
3. Floridian LNG (FLiNG), from Martin County, already approved by DoE FE. FLiNG is exactly on FPL's Riviera Beach pipeline route, as well as being on Florida East Coast Railway.
4. Florida East Coast Railway (FECR), to pick up LNG from FLiNG and ship by rail up and down the Florida coast as far as Miami and Jacksonville. Supported by Fortress Investment Group. Already approved by DoE FE. In the Pennsylvania section above, remember the Oil & Gas Financial Journal predicted Marcellus Shale gas would go through Atlantic Sunrise to Transco to Sabal Trail to Miami. Yet even FSC doesn't go all the way to Miami, nor even FPL's Riviera Beach pipeline. But FECR's LNG trains would.

Why were these FECR LNG trains segmented and not considered cumulatively with SMPP?

⁶³ "Failed diplomacy in LNG bid," by Candia Dames, The Nassau Guardian, 24 June 2011, http://www.thenassauguardian.com/index.php?option=com_content&id=11181&Itemid

⁶⁴ "FERC Nixes Approval For Fla. LNG Import Project", by Linda Chiem, Law360, 12 April 2013, <http://www.law360.com/articles/432577/ferc-nixes-approval-for-fla-lng-import-project>

5. AES from Port of Palm Beach, already approved by DoE FE.
6. Goven, from Martin County, based in Miami, already approved by DoE FE.
7. Strom, Inc., Citrus County, next to Duke's failed Crystal River nuclear plant and Duke's proposed natural gas power plant, plus permission for FECR to pick up LNG to ship via rail. Already approved by DoE FE. Application in process to get gas from Sabal Trail or from Duke.

Before moving to Citrus County, Strom originally asked FERC about a location in Starke, Bradford County, Florida.⁶⁵

On March 24, 2014, in Docket No. CP14-121-000, Strom, Inc. (Strom) filed a petition for issuance of a declaratory order requesting that the Commission find Strom's use of a mobile natural gas liquefaction unit to export natural gas will not be subject to the Commission's jurisdiction under the Natural Gas Act. Accompanying its petition for a declaratory order, Strom submitted a petition for a waiver of the filing fee for issuance of a declaratory order.

In FERC's one-page Order dismissing Strom's petition (part quoted above), FERC said nothing about jurisdiction, dismissing the petition solely because FERC did not want to pay a fee to FERC. This is yet more evidence, in addition to FERC's own dockets for Cove Point LNG export and Elba Island LNG export, that FERC's claim to have no jurisdiction over LNG export is specious.

FE's Order authorizing LNG export for Strom from Citrus County was issued 21 October 2014,⁶⁶ one month to the day before Sabal Trail applied to FERC's formal permitting process. In that Order, FE states:

Source of Natural Gas. Strom states that the natural will come from the robust, liquid US. natural gas market. which includes natural gas produced from shale deposits. In the Amendment to its Application, Strom asserts that the Project can receive natural gas by short lateral pipeline from either Florida Gas Transmission Company's current interstate transmission pipeline or, in the future, from the proposed Sabal Trail Transmission Pipeline, which Strom asserts has received state approval by the Florida Public Service Commission. Strom states that it intends to purchase natural gas from these pipeline companies under long-term purchase agreements, as well as from utilities that have excess natural gas.

Strom, apparently not being satisfied with that initial approval by FE, reapplied in 2015 for further authorization, including to export LNG via rail without further permits from anyone, and including this text spelling out its desire to get gas from Sabal Trail:⁶⁷

⁶⁵ "Notice to Dismiss Petition for Declaratory Order and Terminate Docket re Strom, Inc under CP14-121." by FERC, Docket No., CP14-121-000, 22 August 2014, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14245339

⁶⁶ "ORDER GRANTING LONG-TERM MULTI-CONTRACT AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS IN ISO CONTAINERS LOADED AT THE PROPOSED STROM LNG TERMINAL IN CRYSTAL RIVER, FLORIDA AND EXPORTED BY VESSEL TO FREE TRADE AGREEMENT NATIONS," UNITED STATES OF AMERICA DEPARTMENT OF ENERGY OFFICE OF FOSSIL ENERGY, FE DOCKET NO. 14-56-LNG, STROM. INC., DOE/FE ORDER NO. 3537, OCTOBER 21, 2014, <http://energy.gov/fe/downloads/strom-inc-fe-dkt-no-14-56-lng>

⁶⁷ "Re: Strom, Inc. request to withdraw FE Docket No. 14~57-LNG and 14-58-LNG Applications for Long-Term Authorization to Export Liquefied Natural Gas To Non-Free Trade Agreement Countries and replace with a new application to be Docketed as No. 15 - ____ - LNG.", by Michael Lokey, CEO, Strom Inc., FE Docket No. 15-78-LNG, 6 May 2015, http://energy.gov/sites/prod/files/2015/05/f22/15_78_lng.pdf

Strom's CRFL is located within less than two miles of two major natural gas trunk lines which currently have the reserve capacity for transmission of natural gas to support Strom's combined domestic and export liquefaction activities. These two pipelines are named and operated by Florida Gas Transmission and Sabal Trail, respectively.

Florida Gas Transmission ("FGT") is a natural gas pipeline which brings gas from Texas, Louisiana, Mississippi, and Alabama into Florida. It is owned 50% by Energy Transfer Partners (Owner/Operator) and 50% by Kinder Morgan Partnership each respectively representing units in Citros Corporation.

Sabal Trail Transmission, LLC ("Sabal Trail") is a joint venture of Spectra Energy Corp and NextEra Energy, Inc. They are proposing to design, construct and operate a nearly 500-mile interstate natural gas pipeline to provide transportation services for power generation needs to Florida Power and Light ("FPL") and Duke Energy of Florida ("DEF") beginning in May 2017.

There are also at least two regulated Local Distribution Companies ("LDC") with laterals or proposed lateral pipelines near the CRFL who can provide a state regulated lateral pipeline connection to the CRFL. Strom is currently negotiating for such services.

In that new request, Strom asked FE to do what FERC did not:

In regard to Strom's compliance with the National Environmental Policy Act ("NEPA"), Strom respectfully requests that the DOE evaluate our compliance with NEPA directly or designate the proper agency since Strom contends that our operation will not be subject to FERC jurisdiction pursuant to FERC's Emera and Pivotal rulings.

Obviously Strom doesn't think it is clear that FERC does not have any jurisdiction over LNG export, or it would not keep asking federal agencies to clarify that point.

It is inconceivable that FERC and Sabal Trail did not know Strom planned to use gas from Sabal Trail. Why was Strom's LNG export operation segmented, and not considered as part of SMPP?

New Gas Power Plants

These proposed natural gas plants that would certainly or probably draw their gas from Sabal Trail. All will produce carbon dioxide and leak methane.

FPL "modernizing" coal plants when FPL should be going straight to solar energy:

1. Riviera Beach
2. Cape Canaveral
3. Port Everglades
4. Hendry County next to the Everglades
5. Probably there are more.

Duke Energy natural gas plants

1. Citrus County
2. bought Calpine plant in Polk County
3. Probably there are more.

Why did FERC not consider the cumulative effects of all these power plants along with SMPP?

Summary of segmented projects not cumulatively with SMPP

A dazzling number of pipeline, LNG export, and natural gas projects were segmented and not considered cumulatively with SMPP, even though there is massive evidence that many of them (especially the pipelines Magnolia Expansion, Atlantic Sunrise, FPL's Riviera Beach pipeline, and KMI FGT JEP, as well as Strom LNG export, the FECR LNG trains, and most of the other LNG export projects, plus clearly many of the proposed power plants) were considered part of the same project by industry and were planned all along as part of the same project. Why was FERC allowed to segment all these projects?

WWALS Watershed Coalition, Inc. requests the U.S. Army Corps of Engineers to consider all these projects cumulatively as part of SMPP.

Solar Power instead of Pipelines

FERC claimed in its Order of 2 February 2016:⁶⁸

*87. As discussed above, 93 percent of the total design capacity of the Sabal Trail project is subscribed under precedent agreements with initial terms of 25 years. This is persuasive evidence of market need for this project. Even though the market, in its consideration of alternative means for addressing energy needs, could have selected renewable energy alternatives and energy efficiency gains, we find that the precedent agreements sufficiently demonstrate the need for the project.*⁶⁶

⁶⁶ Final EIS at 4-1 to 4-2.

First, that claim is specious in that it relies on decisions by a monopoly utility, FPL, backed up by a state government agency, the Florida Public Service Commission, which grants that monopoly a guaranteed profit. That is not "the market": that is regulatory capture.

Second, that claim ignored that the market has indeed chosen solar power since FERC first considered Sabal Trail in 2013.⁶⁹

Since FERC considers state government actions as "the market", first let's review some more of those.

In July 2013, the Georgia Public Service Commission (GA PSC) by a 4:1 vote required Georgia Power to purchase twice as much solar power as it had requested.⁷⁰ That GA PSC approval has far more claim to have been due to "the market" than the FL PSC approval of Sabal Trail on which FERC relies, because the Georgia approval was backed by the solar industry and organizations for property rights and environmental

⁶⁸ "Order issuing certificates and approving abandonment re Florida Southeast Connection, LLC et al under CP14-554 et al.", FERC Accession Number 20160202-3056, 2 February 2016, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14425623.

⁶⁹ "Sabal Trail Transmission, LLC submits its Request for Approval to Use the Pre-Filing Process for its Sabal Trail Project under PF14-1.", FERC Accession Number: 20131004-5122, 4 October 2013, http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14151902

⁷⁰ "PSC approves plan ordering Georgia Power to add more solar power," by Joeff Davis, Creative Loafing, 11 July 2013, <http://clatl.com/freshloaf/archives/2013/07/11/psc-approves-plan-ordering-georgia-power-to-add-more-solar-power>

issues throughout Georgia,⁷¹ including WWALS, which sent two board members to testify before GA PSC in its deliberations the previous month.⁷²

In November 2014, Georgia was recognized as the fastest-growing U.S. solar market.⁷³

Georgia, blessed with abundant sunshine, has nevertheless been slow to embrace solar energy. But that's changing, a new report from the Pew Charitable Trusts points out.

"State and federal policies have helped to make the Peach State the fastest-growing solar market in the country," Pew reports.

The Peach State saw the largest gain of any state in solar jobs, from 800 in 2012 to 2,600 in 2013, a 225 percent increase, according to Pew's "Clean Economy Rising" report on Georgia, released Tuesday. Georgia also ranked seventh nationwide in new solar capacity in 2013, with 91 megawatts installed....

Last year the Georgia Public Service Commission approved a motion for Georgia Power, the state's largest utility, to add 525 MW of solar power generation to its portfolio by 2016.

"That pushed out the growth of solar, especially projecting forward," Swanson said.

The PSC's decision acted on solar much like a renewable energy portfolio — a requirement for utilities to obtain a set amount of energy from renewable sources. Pew recommends that Georgia adopt a renewable energy portfolio to bring in more diverse energy solutions.

In March 2015, both houses of the Georgia legislature unanimously passed and the governor signed a solar financing law, HB 57, effective 1 July 2015.⁷⁴

As already discussed in the section on Georgia Cumulative Effects, the Georgia legislature in March 2016 resoundingly rejected, 34 aye to 128 nay, mere customers for a pipeline as sufficient market need to justify eminent domain or use of state lands to drill under rivers and creeks in Georgia.

In Florida, Southern Company subsidiary Gulf Power announced in 2015 that is building three solar power projects at military bases in Florida, totaling 120 megawatts, all to be completed in 2016.⁷⁵

Even Duke Energy is building some small solar farms in Florida, including one in Perry, Taylor County, announced in 2015.⁷⁶ Duke publicly claimed in June 2015 that it backs solar power in Florida:⁷⁷

⁷¹ "HISTORIC ENERGY PLAN RETIRES ONE-FIFTH OF GEORGIA POWER'S COAL PLANTS , CREATES NEW SOLAR PROGRAM: Positions Georgia as Clean Energy Leader in the Southeast," Press Release by Colleen Kiernan of Sierra Club and Ashten Bailey of GreenLaw, 11 July 2013,

<http://content.sierraclub.org/press-releases/2013/07/historic-energy-plan-retires-one-fifth-georgia-powers-coal-plants-creates-new>
⁷² "Historic solar financing bill started in GA PSC more than a year ago," by John S. Quarterman, WWALS, 31 March 2015, <http://www.wwals.net/2015/03/31/historic-solar-financing-bill-started-in-ga-psc-more-than-a-year-ago/>

⁷³ "Georgia is fastest growing solar market," by Mary Landers, SavannahNow.com, 18 November 2014, <http://savannahnow.com/news/2014-11-18/georgia-fastest-growing-solar-market>

⁷⁴ "HB 57 Solar Power Free-Market Financing Act of 2015; enact," 2015-2016 Regular Session, Georgia General Assembly, 12 May 2015, <http://www.legis.ga.gov/Legislation/en-US/display/20152016/HB/57>

⁷⁵ Solar power for military bases in Florida: Gulf Power, a Southern Company, by John S. Quarterman, On the LAKE Front, 26 August 2015, <http://www.l-a-k-e.org/blog/?p=14135>

⁷⁶ "Duke to build solar in Perry, Taylor County, Florida," by John S. Quarterman, On the LAKE Front, 20 November 2015, <http://www.l-a-k-e.org/blog/?p=14632>

⁷⁷ "The sleeping giant of the solar industry: Florida," Reem Nasr, CNBC, 12 June 2015, <http://www.cnbc.com/id/102742034>

Duke Energy Florida told CNBC that it "is a strong supporter of solar energy and we are committed to helping to grow solar in Florida." Last month it announced an additional 500 megawatts of solar facilities by 2024, among other solar projects.

That's small potatoes compared to what Gulf Power is doing in Florida, and still far behind even New Jersey, which had more than 1,000 MW of solar power deployed years ago, but if even Duke is doing solar power in Florida, the market has spoken.

Even FPL announced in 2015 that it is finally building three new 74 megawatt solar farms in Florida, totalling 222 MW.⁷⁸

Projected for completion by the end of 2016, the three new plants will triple FPL's current solar capacity cost-effectively – with no net cost to customers over the plants' operating lifetimes.

It's sad when FPL's solar production is so small that 222 MW will triple it, but at least after several years of building no new solar capacity,⁷⁹ FPL is finally doing something. FPL will be able to do a lot more solar power when it cancels the unnecessary, destructive, and hazardous Sabal Trail pipeline.

It's not just the big electric utilities that are turning to solar power. Formerly coal-fired Tampa-based Seminole Electric Cooperative announced in March 2016 that it is adding 2 megawatts of solar power.⁸⁰

For more about these recent solar developments in Georgia and Florida, see the letter from WWALS to the Suwannee County, FL Board of County Commissioners (SBOCC) of December 15, 2016⁸¹

It's not even just power companies getting into solar power; it's also cities, including the capital of the Sunshine State, which announced in March 2016.⁸²

The City of Tallahassee is poised to sign off on a 20 megawatt solar farm, to be located on 100 acres near the airport. The plant would power about 3400 homes, the equivalent of 6,000 roof top panels. This "community solar" program could provide renewable energy access for those who can't install their own roof-top panels. Newly minted City Manager Rick Fernandez counts himself among that group.

"And I have these huge oak trees on the south side of my house, and there's no way I could put panels on my house. Even if I could afford it or wanted to invest in it, physically I can't unless I cut

⁷⁸ "FPL Details Progress on LargeScale Solar Expansion", Transmission & Distribution World, 16 September, 2015, <http://tdworld.com/generation-renewables/fpl-details-progress-large-scale-solar-expansion>

⁷⁹ "FPL supports solar power without spending money on it –FPL to FERC", John S. Quarterman, SpectraBusters, 25 April 2014, <http://spectrabusters.org/?p=2477>

⁸⁰ "Seminole Electric Adding Solar to Fuel Mix: Tampa-based Seminole Electric Cooperative is adding 2 megawatts of solar power to its portfolio", by Derrill Holly, ECT, 28 March 2016, <http://www.ect.coop/editors-pick/seminole-electri-adding-solar-to-fuel-mix/90385>

⁸¹ "Re: Sabal Trail", WWALS to Suwannee, FL Board of County Commissioners, 15 December 2015, <http://www.wwals.net/wp-content/themes/pianoblack/img/2016/01/2015-12-15-wwals-to-sbocc.pdf>

⁸² "A Sunny Outlook For Tallahassee's Proposed Solar Power Plant: The future is bright for a proposed solar power plant in the capital of the Sunshine State," by Kate Payne, 24 March 2016, <http://news.wfsu.org/post/sunny-outlook-tallahassee-proposed-solar-power-plant>

down those oak trees. And I'm not about to do that. This way you can participate. It's more economical. And the community has that asset," he said.

A private company would own and operate the plant, and the city would buy the solar output, sheltering taxpayers from any start-up costs or liabilities. Fernandez hopes to offer solar subscriptions to Tallahassee's utilities customers.

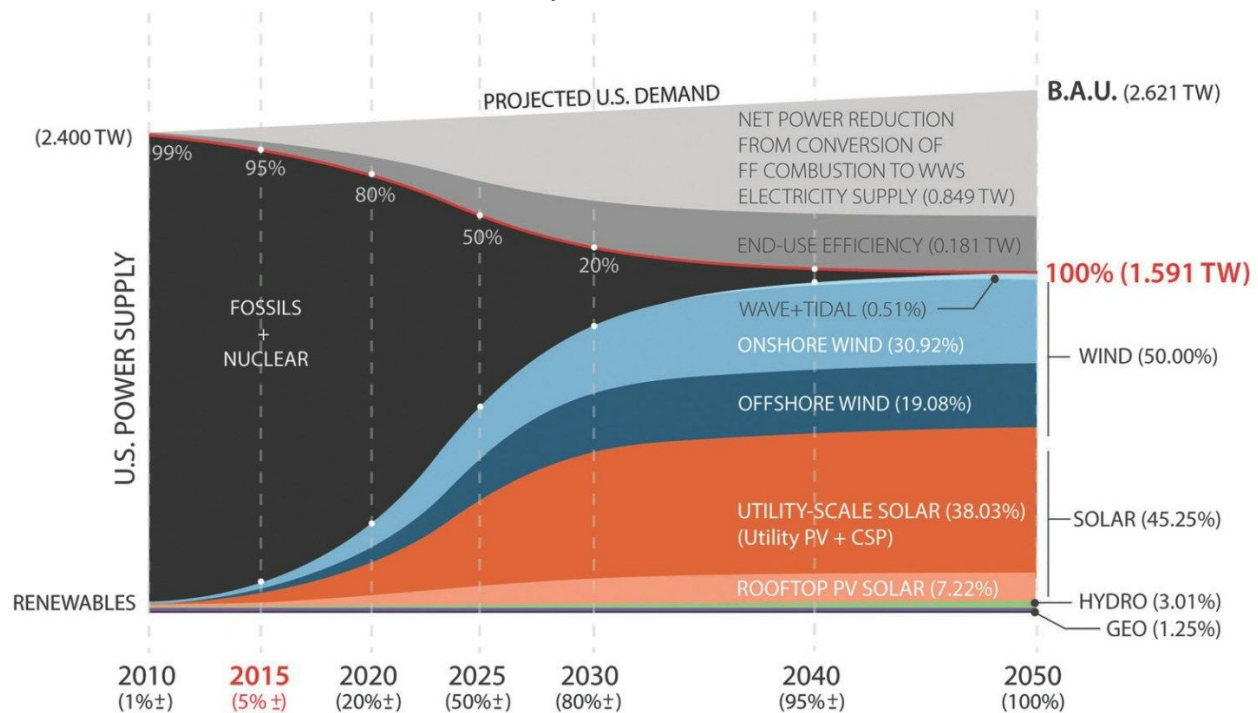
"I think that's what we'll do, we'll provide some subscriptions so you can decide how much you want. So you could buy half your electricity, or do we offer it in blocks of say 500 kilowatt hours, that's about the average that a person uses," he said.

With cheaper and more efficient solar cells coming down the pike, the cost of renewable energy continues to drop. David Byrne is the manager of the city's electric system planning, and he says customers won't have to pay extra for solar.

"It also is probably about the same as the cost of energy in our current energy costs in our electric system. So our anticipation is that building this project, while we are adding clean solar energy to our energy supply here, it won't be affecting the rates that our customers have to pay," he said.

If the utilities don't move fast enough, cities, counties, and cooperatives will go ahead of them.

For a peer-reviewed plan from Stanford Prof. Mark Z. Jacobson to convert first the electric grid and then everything else (including heating, cooling, and transportation) to sun, wind, and water power by 2050, see the letter from WWALS to SBOCC of 19 January 2016.⁸³



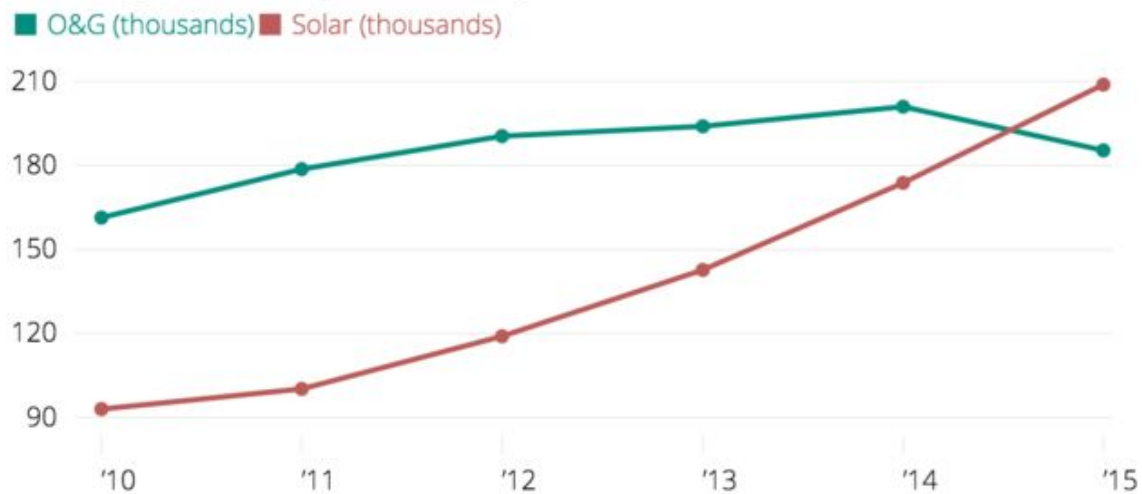
Prof. Jacobson's projections are already happening. See WWALS letter to SBOCC of 1 February 2015.⁸⁴

⁸³ "Solar and wind can make coal go away with no need for natural gas", WWALS to Suwannee BOCC 2016-01-19, <http://www.wwals.net/?p=15640>

⁸⁴ "High voltage DC evidence that solar and wind can make coal go away with no need for natural gas", WWALS to Suwannee BOCC, 1 February 2016, <http://www.wwals.net/?p=16232>

As of 2015, there are more U.S. jobs in the solar industry than in all of oil and gas extraction.⁸⁵

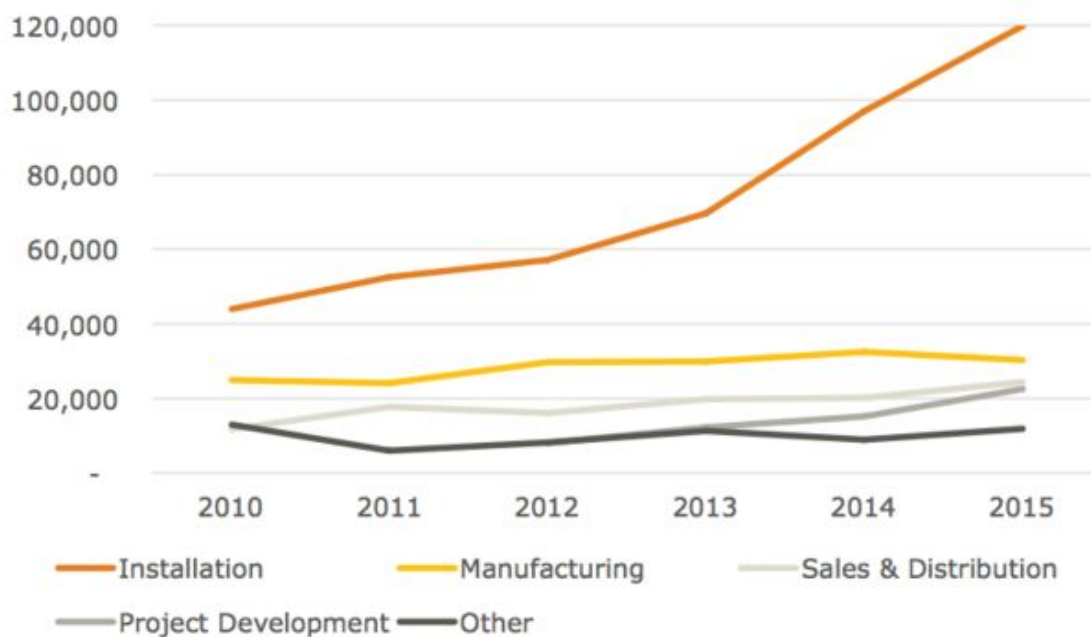
Energy Jobs By Industry



The Huffington Post

Source: The Solar Foundation and the Bureau of Labor Statistics

Solar jobs are booming, while oil and gas jobs are flat or declining:



The market has indeed spoken: solar power has won.

⁸⁵ "There Are Now More Solar Jobs In America Than Oil Extraction Jobs", by Shane Ferro, Huffington Post, 14 January 2016, http://www.huffingtonpost.com/entry/solar-jobs-rising_us_569409e5e4b0cad15e65be87

Summary

Technical decisions regarding the proposed Sabal Trail pipeline route should be based on sound site-specific hydrogeologic information, taking into consideration all the cumulative effects of all the related projects. This is vitally important to reduce the risk of structural failure and adverse impacts on the natural environment, the owner/operator, and most importantly the welfare and safety of the public.

In this letter you will find numerous indications of detriments that are likely to accrue from the Sabal Trail pipeline, and from all the numerous additional pipelines, LNG export operations, and power plants that were not included in FERC's review of SMPP, including cumulative effects on the surface and groundwaters on which all our environment, agriculture, economy, and life itself depend.

FERC stated it depended on the market to decide a need for SMPP. In the years it took Sabal Trail and its related pipelines to wend their way through the FERC permitting process, the market has indeed spoken decisively: solar power has won.

WWALS Watershed Coalition requests that the Army Corps of Engineers visit and evaluate the sites discussed in this letter to make their own determination as to whether these sites can support construction and operation of a 36" natural gas pipeline. WWALS further requests that the Corps include in its analysis all the segmented projects that FERC did not.

Thank you for your consideration, and we ask you to refuse any permit for SMPP,

For the rivers and the aquifer,

[/s]

John S. Quarterman, President

WWALS Watershed Coalition advocates for conservation and stewardship
of the Withlacoochee, Willacoochee, Alapaha, Little, and Upper Suwannee River watersheds
in south Georgia and north Florida
through awareness, environmental monitoring, and citizen activities

