

Vegetation Lateral Selection Methodology Comparison

(1) Lateral selection vs. (2) Substation holistic selection

- Both methodologies leverage sigma level (z-Score) performance of laterals (weighted function)
- Accounts for last-trim date to maintain the 3/6 cycle

z-Score function & weights =
CI (30%) +
CM (20%) +
CEMI-3 (20%) +
CEMM-35 (20%) +
Lbar (10%)

Method Comparison

	Lateral Driven	Substation Holistic Driven <i>Current method</i>
Objectives & Benefits	Targets poor performing laterals and outlier laterals	<ul style="list-style-type: none"> • Targets poor performing laterals as a function of substation reliability • Helps mitigate sympathetic momentaries • Operational efficiencies & cost savings
Tested our model: How many of the YTD worst performing laterals would be picked up by competing approaches?	~2% of the worst performing CB's YTD would have been on the vegetation plan	~32% of the poor performing circuit bodies YTD are on the 2014 plan

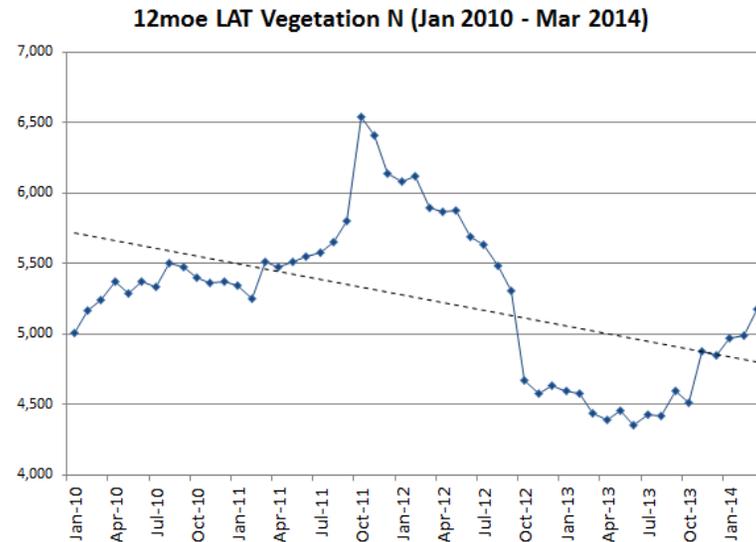
Substation Driven selection appears to be the more prudent approach, but the enhanced Momentary focus might warrant review of the weights in the z-Score function and introducing a target N for laterals



Vegetation Lateral N Comparison

March YTD Lateral Vegetation Interruptions					
Month	2010	2011	2012	2013	2014
Jan	278	247	183	140	262
Feb	253	158	203	189	210
Mar	315	578	347	202	386
MAR YTD	846	983	733	531	858

Despite the spike in Mar YTD 2014 compared to prior downward 3 year 12MOE trend



313 Circuit bodies representing 386 N Identified:

- 30% (100) Circuit bodies representing 116 N (30%) are on the 2014 plan or trimmed in the prior two years.
- The remaining (70%) circuit Bodies representing 270 N were trimmed in 2011 or prior
- Of the 2014 work, 14% are complete and 6% are in progress

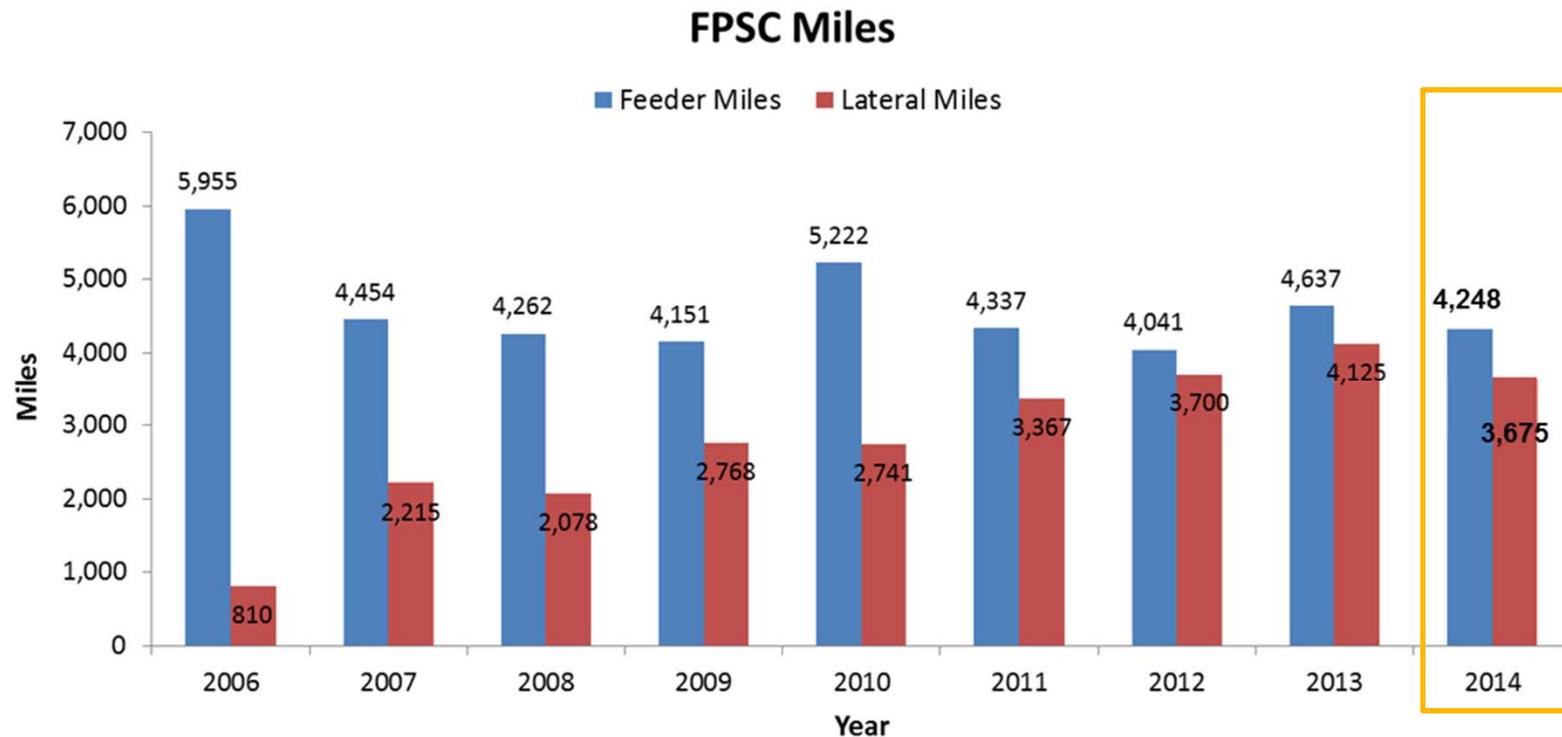
**Note: Units trimmed in 2012 or later were not eligible for 2014 Trimming

30% of CB are on 2014 plan representing



We have met our obligation to ramp up our lateral miles execution to 1/6 while keeping our feeder miles steady at 1/3

Selection criteria devised to gain additional reliability benefits and operational efficiencies while meeting regulatory commitments.



2014 Plan was reviewed with each Management area in October. Refinement meetings with each Management area have been completed to this week to respond to the recent reliability patterns

Veg Volume & Cause Code Trending of Q1 Lateral Interruptions - 2009 thru 2014

Lateral VEG interruptions volume trending observations: Q1's 2009 to present?

- Preventable & Unpreventable categories experienced double digit increases or decreases in year over year failure rates, suggesting significant volatility (*why?*). Preventable consistently high bar.
- Y12 and Y13 showed the most marked improvement, coinciding with the two highest years of lateral mile trimming from '06 – '13 period. Note that Y14 lateral mileage plan is only slightly below Y12 (3,675 mi).
- Proportions of Preventable VEG dropped to 70% in Q1 '14, and improvement over Q1 '13 while Unpreventable increased to 25% (+4%)

Q1's Veg Interruptions 2009 to present

Row Labels	TOTAL N						% of Tot						% YOY Change				
	'09	'10	'11	'12	'13	'14	'09	'10	'11	'12	'13	'14	Y09 - Y10	Y10 - Y11	Y11 - Y12	Y12 - Y13	Y13 - Y14
A Tree/Limb Prev	248	444	493	395	313	522	67%	69%	64%	69%	73%	70%	67%	9%	19%	24%	54%
Tree/Limb Unprev	105	178	259	158	92	189	29%	28%	34%	27%	21%	25%	70%	35%	42%	40%	94%
Vines/Grass	15	18	14	22	24	34	4%	3%	2%	4%	6%	5%	8%	10%	0%	16%	47%
Grand Total	368	640	766	575	429	745	100%	100%	100%	100%	100%	100%	64%	16%	25%	28%	62%

Significant historical swings in failure rates for Q1 lateral Vegetation interruptions



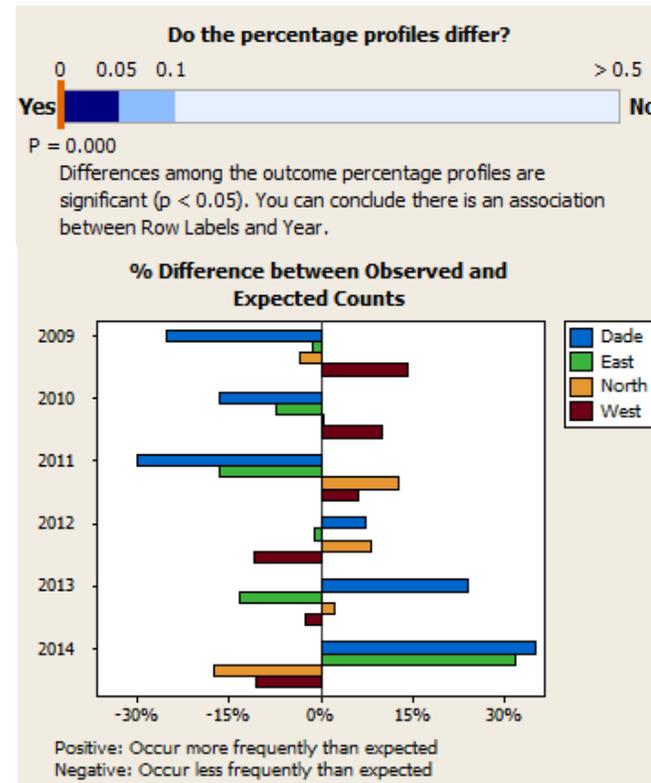
Where are preventable lateral N's occurring?

A VEG Preventable Lateral N's

Row Labels	TOTAL N						% of Tot					
	'09	'10	'11	'12	'13	'14	'09	'10	'11	'12	'13	'14
Dade	21	42	39	48	44	80	8%	9%	8%	12%	14%	15%
East	47	79	79	75	52	132	19%	18%	16%	19%	17%	25%
North	89	166	207	159	119	160	36%	37%	42%	40%	38%	31%
West	91	157	168	113	98	150	37%	35%	34%	29%	31%	29%
Grand Total	248	444	493	395	313	522	100%	100%	100%	100%	100%	100%

Are proportions out of line with historical?

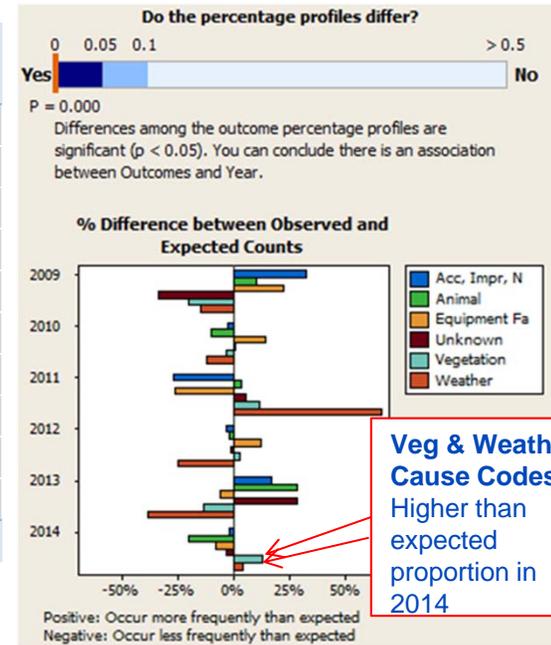
YES, Dade & East higher than expected



Veg Proportion of Q1 Lateral Interruptions - 2009 thru 2014

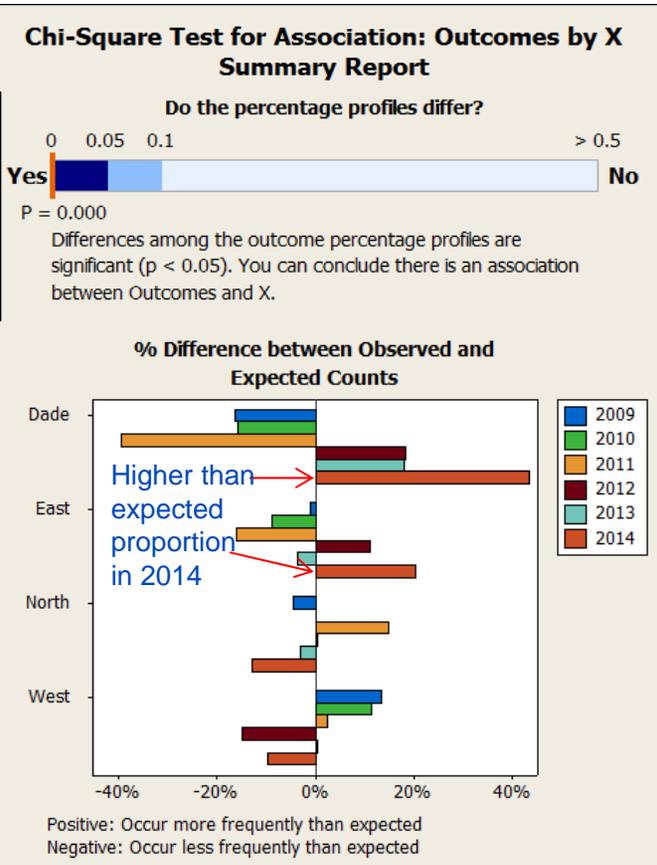
- Vegetation's proportion of lateral N is back to 2011 level after two consecutive Q1's dropping.
- Chi-square indicates that proportion of VEG and WEATHER related cause codes for lateral N is markedly higher than expected in 2014.

Row Labels	TOTAL N						% of Tot					
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014
Accident	72	58	47	62	58	64	4%	2%	2%	3%	3%	3%
Animal	118	139	165	128	148	122	7%	6%	7%	6%	8%	5%
Equipment Failure	465	628	416	520	386	500	28%	26%	17%	26%	21%	21%
Improper Process	69	133	73	67	67	78	4%	6%	3%	3%	4%	3%
Not Available			2	1			0%	0%	0%	0%	0%	0%
Other	105	115	106	96	149	147	6%	5%	4%	5%	8%	6%
Request	170	135	112	142	121	151	10%	6%	5%	7%	7%	6%
Unknown	156	342	369	282	325	325	9%	14%	15%	14%	18%	14%
Vegetation	368	640	766	575	429	745	22%	27%	31%	28%	24%	31%
Weather	148	219	429	158	114	258	9%	9%	17%	8%	6%	11%
Grand Total	1671	2409	2485	2031	1797	2390	100%	100%	100%	100%	100%	100%



Veg Volume & Cause Code Trending of Q1 Lateral Interruptions - 2009 thru 2014

Row Labels	2009	2010	2011	2012	2013	2014	Y09 - Y10	Y10 - Y11	Y11 - Y12	Y12 - Y13	Y13 - Y14
Dade	45	74	62	90	65	128	64%	-16%	45%	-28%	97%
East	95	143	153	151	95	192	51%	7%	-1%	-37%	102%
North	211	362	483	315	220	320	72%	33%	-35%	-30%	45%
West	166	267	285	177	151	220	61%	7%	-38%	-15%	46%
Grand Total	517	846	983	733	531	860	64%	16%	-25%	-28%	62%



- All areas have experienced double digit growth in Veg Lateral interruptions in Q1.
- The last time that happened was in Y10

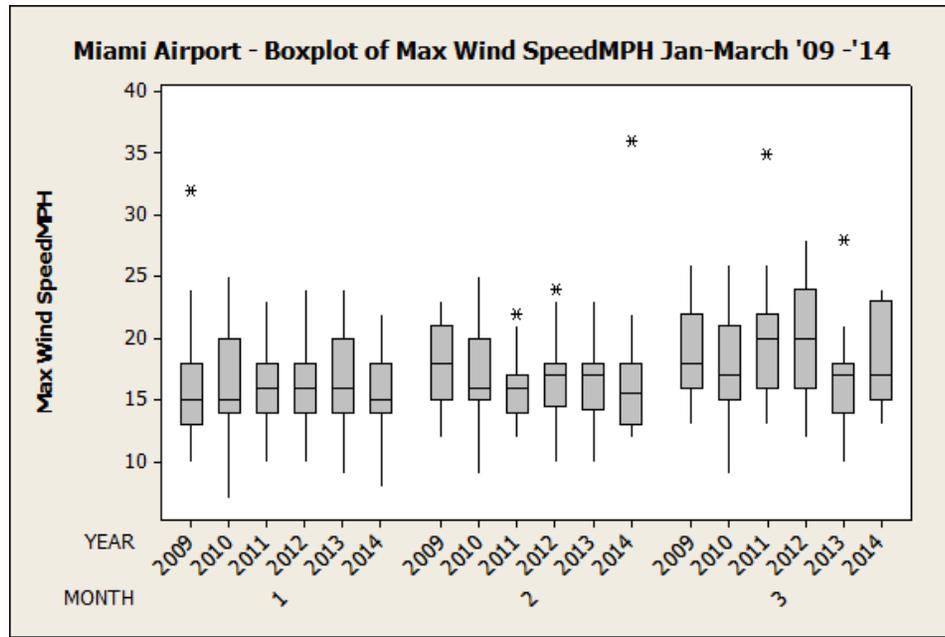
Perhaps volumes are up but proportions are consistent with historical? **NO**

- Chi-square indicates that proportion of lateral N is markedly higher than expected in both Dade and East in 2014 vs. other areas.

Dade & East palm management programs and target trimming are being reviewed to identify opportunities for surgical funding & strengthening



With so much uptick in Dade, let's look at how the mean windspeeds at Miami Airport (proxy) compare across Jan, Feb, March to see if there is anything noteworthy...



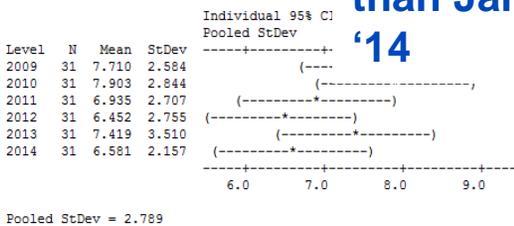
> Miami Airport wind patterns are generally back to what they were in prior years (2013 mildest March)

> If we assume (big assumption) that Dade is a good proxy, and on balance '14 has not been windier than '13, how then do we explain such a systemic uptick in veg... **very strange**

One-way ANOVA: Mean Wind SpeedMPH versus YEAR

Source	DF	SS	MS	F	P
YEAR	5	56.09	11.22	1.44	0.211
Error	180	1399.74	7.78		
Total	185	1455.83			

S = 2.789 R-Sq = 3.85% R-Sq(adj) = 1.1

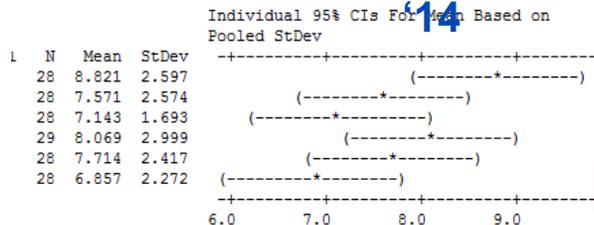


Jan '13 windier than Jan '14

-way ANOVA: Mean Wind SpeedMPH versus YEAR

Source	DF	SS	MS	F	P
YEAR	5	68.21	13.64	2.25	0.052
Error	163	987.40	6.06		
Total	168	1055.61			

61 R-Sq = 6.46% R-Sq(adj) = 3.59%

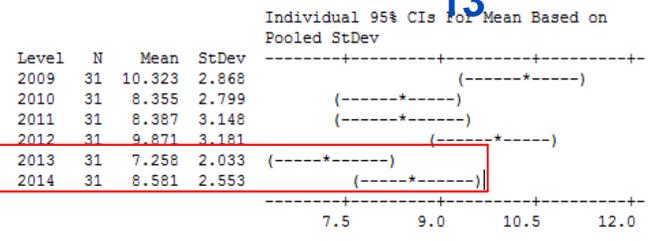


Feb '13 windier than Feb '14

MARCH WIND-SPEED COMPARISONS ACROSS YEARS
One-way ANOVA: Mean Wind SpeedMPH versus YEAR

Source	DF	SS	MS	F	P
YEAR	5	194.04	38.81	4.98	0.000
Error	180	1402.19	7.79		
Total	185	1596.24			

S = 2.791 R-Sq = 12.16% R-Sq(adj) = 9.71%



Mar '14 windier than Mar '13

Vital feeder work for this year, from a VEG perspective, is 53% Complete or In Progress

Manny's Due by Date		DUE JUNE	
Row Labels	Count of ID	% of TOT	
Complete	30	33%	
In Progress	18	20%	
Pending	43	47%	
Grand Total	91	100%	
53% Complete or In Progress			

91 feeders, so far, represent the synthesis of the 77 CEMM35 and 57 Chronic feeders from this year and VEG will have ALL completed by 6/1

