Site Characterization, Habitat and Land Use Mapping and Data/Wildlife Management Plan

Dr. Natalie Kruse Jennifer Bowman David Simon Robert Wiley



Overview

Field Work Started

 Data Collection Procedures

- Data Entry, Storage and Analysis
- GIS progress



Habitat and Land Use Study Area

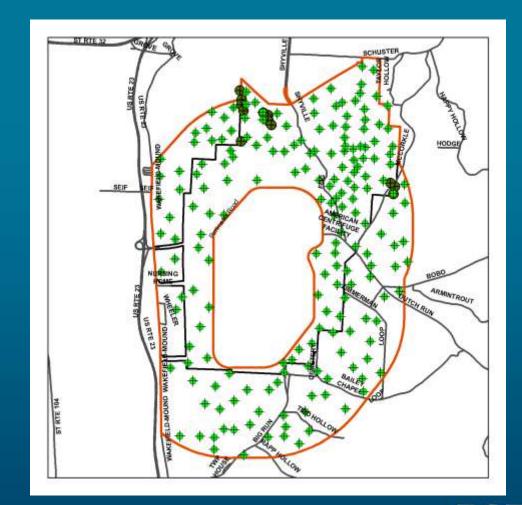






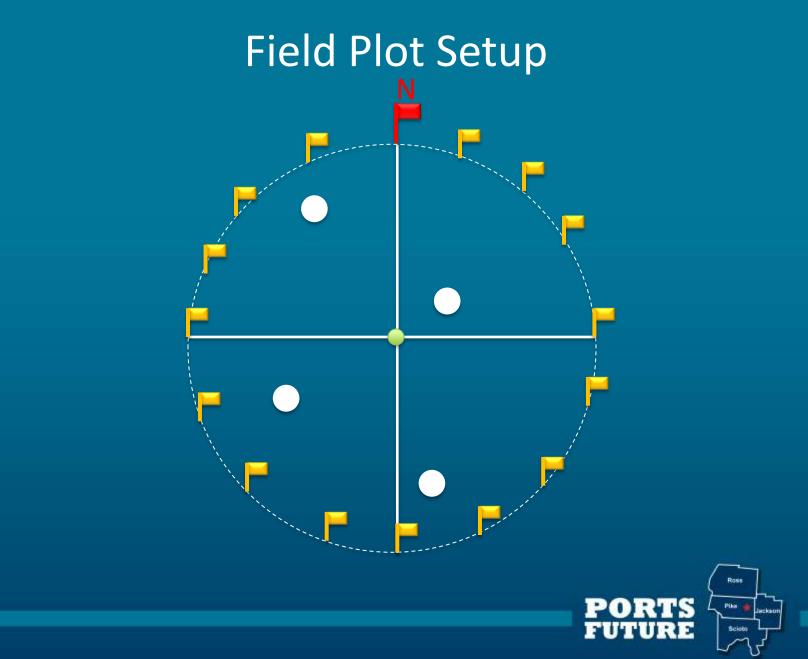
Ross

GIS : Sampling Plan



PORTS

4



Field Plot Setup







Field Plot Setup



Field Tools





Field Tools



PORTS



Ross

Pike Scioto







Field Plot Setup



Field Plot Setup





FUTURE

Field Note Sheets

	PORTS Ve	egetation	Sample D	ata Shee	t	Sample ID:		
Date:		Time:		Temp *F:		Weather Cond.		
Deg Slope:		Deg Aspect :		%Canopy Cov		Canopy Ht (ft)		
	nopy Stratum:	Tree	Sapling	Shrub	Herb	Graminoid	Lia	na
	aplings (in)		"DBH and > 4 feet					
Species	DBH	Species	DBH	Species	DBH	Species	DE	ч
Species	DBH	Species	DBH	Species	DBN	Species		n
		Sample cores and	stems collected in	field. Counts to be	e completed in			
Wood		lab.						
Species	Diameter (in)	Ring Count	Core or Sect	Species	Diameter (in)	Ring Count	Core o	or Sect
Species	Diameter (in)	Ring Count	Core or Sect	Species	Diameter (in)	Ring Count	Core o	or Sect
		Woody Stems < 1" DBH and < 4'						
		Height by basal						
	os (in)							
Stem count		Diameter Class						
		hes diam. at base; t		1/4's Sampled	NW NE SV			
pecies	by diam. class; incl 0.25	-	oy Box Count 0.75	1/4's Sampled	NW NE SV 1.25	V SE or ALL 1.5	1.75	2
pecies		hes diam. at base; t					1.75	2
ipecies		hes diam. at base; t					1.75	2
pecies		hes diam. at base; t					1.75	2
pecies		hes diam. at base; t					1.75	2
ipecies		hes diam. at base; t					1.75	2
ipecies		hes diam. at base; t					1.75	2
Species		hes diam. at base; t					1.75	2
Species		hes diam. at base; t					1.75	2
Species		hes diam. at base; t					1.75	2
Species		hes diam. at base; t					1.75	2
Species		hes diam. at base; t					1.75	2
Species	0.25	hes diam. at base; b	0.75				1.75	2
		hes diam. at base; t	0.75				1.75	2
Woody V Stem count	0.25	hes diam. at base; b	0.75			1.5		2
Woody V Stem count	0.25	hes diam, at base; b 0.5	0.75		1.25	1.5	1.75	2
Woody V Stem count	0.25	hes diam. at base; b 0.5	0.75	1	1.25	1.5		
Woody V Stem count	0.25	hes diam. at base; b 0.5	0.75	1	1.25	1.5		
Woody V Stem count	0.25	hes diam. at base; b 0.5	0.75	1	1.25	1.5		
Woody \	0.25	hes diam. at base; b 0.5	0.75	1	1.25	1.5		

POR	TS Veget	ation Sar	nple Data	Sheet (k	nack)	Sample ID:	
		1					
	ar Herbs		cies and percent g			% Total G.Cover	
Northwest %		Northeast %	1		%Cov:	Southeast %	
Species	% Cover	Species	% Cover	Species	% Cover	Species	% Cover
Landform, Su	bstrate and So	il Characterist	ics	Circle all that ap	ply		
Surface Shape:							
	Planer	r Conves	c Concavi	e Depressiona	Benched	i Sigmoid	
Position:	Hill Crest	r Conves	Concavi Hill Slope	e Depressiona Toe	I Benched	I Sigmoid	Lower Flood
	Hill Crest		Hill Slope Organic Layer De	Toe			
Position:	Hill Crest th (inches):		Hill Slope	Toe		Upper Flood	
Position: Duff & Litter Dep Woody Debris % (Hill Crest th (inches):	Ridge Top	Hill Slope Organic Layer De	Toe pth (inches):	Valley	Upper Flood	Lower Flood
Position: Duff & Litter Dep Woody Debris % (Hill Crest th (inches): Cover:	Ridge Top	Hill Slope Organic Layer De	Toe pth (inches):	Valley	Upper Flood	Lower Flood
Position: Duff & Litter Dep Woody Debris % (Soil Characte	HIII Crest th (inches): Cover: ristics to 12 Inc	Ridge Top	Hill Slope Organic Layer De Debris Scale:	Toe pth (inches): >12"	Vallev 6-12"	Upper Flood D&L % Cover: 1-5*	Lower Flood =/>1"
Position: Duff & Litter Dep Woody Debris % (Soil Characte	HIII Crest th (inches): Cover: ristics to 12 Inc	Ridge Top	Hill Slope Organic Layer De Debris Scale:	Toe pth (inches): >12"	Vallev 6-12"	Upper Flood D&L % Cover: 1-5*	Lower Flood =/>1"
Position: Duff & Litter Dep Woody Debris % (Soil Characte	HIII Crest th (inches): Cover: ristics to 12 Inc	Ridge Top	Hill Slope Organic Layer De Debris Scale:	Toe pth (inches): >12"	Vallev 6-12"	Upper Flood D&L % Cover: 1-5*	Lower Flood =/>1"
Position: Duff & Litter Dep Woody Debris % (Soil Characte	HIII Crest th (inches): Cover: ristics to 12 Inc	Ridge Top	Hill Slope Organic Layer De Debris Scale:	Toe pth (inches): >12"	Vallev 6-12"	Upper Flood D&L % Cover: 1-5*	Lower Flood =/>1"
Position: Duff & Litter Depr Woody Debris % I Soil Characte Horizon Other Surface/sul	Hill Crest th (inches): Cover: ristics to 12 Ind Depth	Ridee Too	HIII Stope Organic Laver De Debris Scale:	Toe pth (inches): >12" Class	Grade	Unper Flood D&L % Cover: 1-5* Type	Lower Flood =/>1"
Position: Duff & Litter Depr Woody Debris % (Soil Characte Horizon Horizon Other Surface/sul Features:	Hill Creat th (inches): Cover: ristics to 12 Inc Depth Depth	Ridge Top	HIII Slope Organic Laver De Debris Scale: Mottle Color Storn/Plate	Toe pth (inches): 212" Class Class Residual	Vallev 6-12"	Upper Flood D&L % Cover: 1-5*	Lower Flood =/>1"
Position: Duff & Litter Dep Woody Debris % Soil Characte Horizon Horizon Other Surface/sul Features: Hydrologic Ch	kill Crest th (inches): Cover: ristics to 12 Ind Depth Depth sourface naracteristics	Ridae Too ches Matrix Color Gravelly	Hill Slope Organic Laver De Debris Scale: Mottle Color Sonu/Platy Circle all that ap.	Toe pth (inches): >12" Class Class Retidual ply	Valley 6-12" Grade Colluvial	Upper Flood D&L % Cover: 1.5* Type Allinoial	Lower Flood =/>1"
Position: Duff & Litter Dep Woody Debris % f Soil Characte Horizon Other Surface/su Features: Hydrologic CH Drainage:	Hill Creat th (inches): Cover: ristics to 12 Inc Depth Depth	Ridee Too	HIII Slope Organic Laver De Debris Scale: Mottle Color Storn/Plate	Toe pth (inches): 212" Class Class Residual	Grade	Unper Flood D&L % Cover: 1-5* Type	Lower Flood =/>1"
Position: Duff & Litter Dep Woody Debris % Soil Characte Horizon Other Surface/sul features: Hydrologic Ct Drainage: Water Presence:	HII Crest th (inches): Cover: ristics to 12 Inc Depth Depth bsurface Naracteristics Very Paorly Piowine	Ridae Too ches Matrix Color Gravelly	Hill Slope Organic Laver De Debris Scale: Mottle Color Stony/Flatv Circle all that ap Mod Poorly Saturated	Toe pth (inches): >12" Class Class Retidual ply	Valley 6-12" Grade Colluvial	Upper Flood D&L % Cover: 1.5* Type Allinoial	Lower Flood =/>1"
Position: Duff & Litter Deepi Soil Characte Horizon Other Surface/sul Features: Hydrologic Ch Drainage: Water Presence: Antecedent Mois	Hill Crest th (inches): Cover: ristics to 12 Inc Depth bsurface tsurface very Poorly Rowing ture Conditions:	Ridge Too ches Matrix Color Gravelly Poorly	Hill Slope Organic Laver De Debris Scale: Mottle Color Stonw/Flaty Circle all that ap Mod-Poorty	Toe pth (inches): 212* Class Class Bestidual bly Mod-Well	Valley 6-12" Grade Colluvial	Uccer Flood D&L & Cover: 1-5* Type Albroad Albroad Excessively well	Lower Flood =/21" Consistence
Position: Duff & Litter Dep Woody Debris % Soil Characte Horizon Other Surface/sul features: Hydrologic Ct Drainage: Water Presence:	Hill Crest th (inches): Cover: ristics to 12 Inc Depth bsurface tsurface very Poorly Rowing ture Conditions:	Ridee Too	Hill Slope Organic Laver De Debris Scale: Mottle Color Stony/Flatv Circle all that ap Mod Poorly Saturated	Toe pth (inches): >212* Class Class Residual Residual Poly Mod-Well Within Soil Hole	Valley 6-12" Grade Colluvial Colluvial Well	Upper Flood D&L % Cover: 1.5° Type Allword Excessively well Statining	Lever Flood =/>1" Consistence Acolian Dom, Hickophyles
Position: Duff & Litter Deepi Soil Characte Horizon Other Surface/sul Features: Hydrologic Ch Drainage: Water Presence: Antecedent Mois	Hill Crest th (inches): Cover:	Ridee Too	Hill Slope Organic Laver De Debris Scale: Mottle Color Stony/Flatv Circle all that ap Mod Poorly Saturated	Toe pth (inches):	Valley 6-12" Grade Colluvial Colluvial Well	Upper Flood D&L % Cover: 1.5° Type Allword Excessively well Statining	Lever Flood =/>1" Consistence Acolian Dom, Hickophyles
Position: Duff & Litter Depi Woody Debris % / Soil Characte Horizon Other Surface/su Features: Hydrologic Ct Drainage: Water Presence: Antecedent Moiss Other Hydrologic	HI Creat th (Inches): Cover: ristics to 12 Inc Depth Depth sourface waracteristics Very Poorly Fiscan User Sonty Conditions: Observations:	Rejer Too	Hill Sope Organic Laver De Debris Scale: Mottle Color Boow/Plab Circle all that ap Mod Poorly Shinzab Recent Bood Count, estimate	Toe pth (inches):	Valley 6-12" Grade Colluvial Colluvial Well	Uteer Floot D&L % Cover: 1.5" Type Albertal Decessively well Station 27 Data	Lever Flood =/>1" Consistence Acolian Dom, Hickophyles
Position: Duff & Litter Depl Woody Debris %: Soil Characte Horizon Other Surface/sul Features: Hydrologic Cl Drainage: Antecedent Moliso Other Hydrologic Habitat Obse	Hill Cent th (Inches): Cover: Sistics to 12 Inn Depth Depth Desurface Vary Pooly Resear Vary Pooly Resear Sure Conditions: Vary Rooty Resear Sure Conditions: Vary Rooty Resear Sure Conditions:	Baier Too	stil Sone Orranic Layer De Debris Scale: Mottle Color Storn/Flatv Circle all that ap Mod Porty Schurztel Recett Bood Count, estimate	Tor Tor 212' Class Class Beridual Div Mod-Well Within Soft Hole 	Valley 6-12" Grade Cathoral Cathoral Well Water-born Debris C7Dros	Uteer Floot D&L % Cover: 1.5" Type Albertal Decessively well Station 27 Data	Loger Flood u/p* Consistence Consistence Accilian Accilian Com Hokoohute Droubt
Position: Duff & Litter Deal Woody Debrix 5X Soil Characte Horizon Hydrologic Ch Panage: Hydrologic Ch Panage: Antecedent Molisi Other Hydrologic Other Hydrologic Other Hydrologic	Hill Cent th (Inches): Cover: Sistics to 12 Inn Depth Depth Desurface Vary Pooly Resear Vary Pooly Resear Sure Conditions: Vary Rooty Resear Sure Conditions: Vary Rooty Resear Sure Conditions:	Refer Too Refer Too Matrix Color Gravity Peodel Ranno n standing woody mature tree such	stil Sone Orranic Layer De Debris Scale: Mottle Color Storn/Flatv Circle all that ap Mod Porty Schurztel Recett Bood Count, estimate	Tor Tor 212' Class Class Beridual Div Mod-Well Within Soft Hole 	Voltev E127 E127 Grade Grade Gelocal Wet Wate Son Datas Galacian Mana Few Son	Uteer Floot D&L % Cover: 1.5" Type Albertal Decessively well Station 27 Data	Loger Flood u/p* Consistence Consistence Accilian Accilian Com Hokoohute Droubt
osition: Duff & Litter Degi Woody Debrix 5X Soil Characte Horizon Other Surface/sul Features: Hydrologic Cf Drainage: Muter Presence Antecedent Molisi Other Hydrologic Char Hydrologic Habitat Obse	Hill Cest th (Inches): Cover: ristics to 12 Ind Depth begy sourface acacteristics Wer Nearly Fiberon ure Conditions: Observations: routions routions routions routions routions routions routions routions	Refer Too Refer Too Matrix Color Gravity Peodel Ranno n standing woody mature tree such	stil Sone Orranic Layer De Debris Scale: Mottle Color Storn/Flatv Circle all that ap Mod Porty Schurztel Recett Bood Count, estimate	Toe State (Inches): State Stat	Voltev E127 E127 Grade Grade Gelocal Wet Wate Son Datas Galacian Mana Few Son	Uteer Floot D&L % Cover: 1.5" Type Albertal Decessively well Station 27 Data	Loger Flood u/p* Consistence Consistence Accilian Accilian Com Hokoohute Droubt
Position: Duff & Litter Dep/ Woody Dehris %: Soll Characted Horizon Other Surface/sul Features: Hydrologic Ch prainage: Water Presence: Antecedent Mico Other Hydrologic Other Gogen I Presence of Ioose	Hill Cest th (Inches): Cover: ristics to 12 Ind Depth begy sourface acacteristics Wer Nearly Fiberon ure Conditions: Observations: routions routions routions routions routions routions routions routions	Refer Too Refer Too Matrix Color Gravity Peodel Ranno n standing woody mature tree such	stil Sone Orranic Layer De Debris Scale: Mottle Color Storn/Flatv Circle all that ap Mod Porty Schurztel Recett Bood Count, estimate	Tor Total findness: 212' Class Class Fierdual Poly Mod Well Write for Hole Comment Class Fierdual Poly Mod Well Write for Hole Class Fierdual Poly Pol	Voltev E127 E127 Grade Grade Gelocal Wet Wate Son Datas Galacian Mana Few Son	Uteer Floot D&L % Cover: 1.5" Type Albertal Decessively well Station 27 Data	Loger Flood u/p* Consistence Consistence Accilian Accilian Com Hokoohute Droubt
Position: Duff & Litter Depl Woody Debrix 32: Soil Characte Horizon Other Surface/sur Features: Hydrologic CI Denage: Hydrologic CI Denage: Habitat Obse Habitat Obse Number of open I Presence of losse	Hill Cost th finches): cover: ristics to 12 Int Depth surface very factor very	Refer Too Refer Too Matrix Color Gravity Peodel Ranno n standing woody mature tree such	stil Sone Orranic Layer De Debris Scale: Mottle Color Storn/Flatv Circle all that ap Mod Porty Schurztel Recett Bood Count, estimate	Tor Tor 212' Class Class Revided Revided With Set Hele -22 In Revided or comment canore Yes No	Voltev E127 E127 Grade Grade Gelocal Wet Wate Son Datas Galacian Mana Few Son	Uteer Floot D&L % Cover: 1.5" Type Albertal Decessively well Station 27 Data	Loger Flood u/p* Consistence Consistence Accilian Accilian Com Hokoohute Droubt



13

arkarr.

Ophioglossum vulgatum Southern Adder's Tongue





Goodyera pubescens Rattlesnake Plantain







Field Data Entry

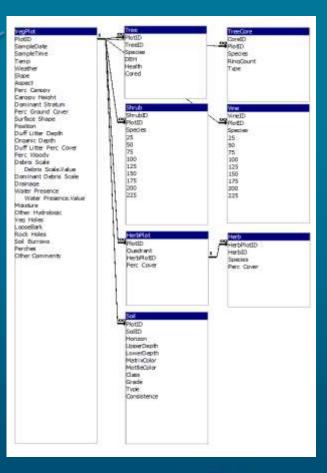
provide and the second second second	n Data Sheet	San	pie Nat:		
tunt Side Rack Side					
Dele Maye Desinant Caracy State	Trans Angravit	Terip % Carety		Westfree Height of Cen	1
Trees and Sa	and as many				
	participation of	ind .			
•	Healthy (2)				
Woody Age					
799.00	RegCent 1				
•					
Shrubs					
Shrubs	n as 201 a	18 18 18 2			
Spaces (11		120 18 129 2			
Spaces (L)					
Spaces (L)					
Spaces (L)					
Spaces (L)					
Spaces (L)					
39000 (L) 	0 0 0 0				
Noody Vine	a b a a 	0 0 0 0 0	P		
Noody Vine	8 0 0 0 ********************************	0 0 0 0 0 0	P		
Noody Vine	8 0 0 0 * * * * *	0 0 0 0 0	P		
Noody Vine	8 0 0 0 ********************************	0 0 0 0 0 0	P		
Noody Vine	8 0 0 0 ********************************	0 0 0 0 0 0	P		
Noody Vine	8 0 0 0 ********************************	0 0 0 0 0 0	P		
Noody Vine	8 0 0 0 ********************************	0 0 0 0 0 0	P		

RTS Vegetation Data Sheet	Satata No.
et Side Back Side	
Vascular Herbs	to Grownal Co
Instituto (See)	
Constinut D Corps	
- Specier, B Canon	
	8
x x x	
Landform, Substrate, and Soil	5 J
Suttace Shape:	
Profiles	-
Dulf Jahr Deglis (mbusi	Grannis Loyer Depth (Institut) 175, 6 Circu
Doff Jahr Degle (milwe) Wendy Delew 'n Geree	
Dulf Jahr Deglis (mbusi	Organia Layer Depth (Insteel 175, % Cree
Doff Jahr Degle (milwe) Wendy Delew 'n Geree	Crassa Layer Depth (Indiae)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Cigana Layer Depth (Inclus)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Crassa Layer Depth (Indiae)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Crassa Layer Depth (Indiae)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Crassa Layer Depth (Inclus)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Crama Layer Depth (Indied)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Crama Layer Depth (Indied)
Dell'Liber Centr Gadeel Viela Della Science Soll Characteristics to 12 Inches	Crama Layer Depth (Indied)
Daff Lifer Tegle (sched) Weals Dere 's Cene Soil Characteristics to 12 Inches Entance (specDath SeverDath StelesCate 14	Crassa Layer Depth (Inclus)
Daff Lifer Tegle (active) Wead Ober % Core Soll Characteristics to 12 Inches Increase Type/Daffi Scree/Daffi Meteodate 14	Cogness Layer Dayth (nation) Dig & Core Dutor faultic
Daf Like Tegle (Laber) Weak Detre % Corre Soll Characteristics to 12 Inches Iterane TypeDiffi SeverDiffi MeteoDate 14	Cogness Layer Dayth (nation) Dig & Core Dutor faultic
Daft Lifer Tegle (sched) Wealt Dere 's Core Soll Characteristics to '12 Inches Inner: CapeDath SeverDath Stelescher 14 1 4 4 Hydrologic Characteristics Creenge Wate Present	Cogana Layor Dayle (Indied)
Daff Like Tegle (adve) Wead Date 's Core Soll Characteristics to 12 Inches Iterany TypeDath StreeDath Meteodate 14 Inches Hydrofogic Characteristics Creatige Web Treases Armochet Michae Condition	Crapter Layer Depth (name)
Daff Jaho Tegle (adapt) Wead (Mete 's Cone Soil Characteristics to 12 Inches Iterane, TypeDaffi JanenDaffi Meteriate 14 Al	Crysta Layer Dayth (milled) Dij, 6 Crystallen
Daff Jaho Tegle (adapt) Weat Ories & Const Soil Characteristics to 12 Inches Iterane //gps:Dafti JanenDafti Meksilain 14 Iterane //gps:Dafti JanenDafti Meksilain 14 Iterane //gps:Dafti JanenDafti Meksilain 14 Iterane //gps:Dafti JanenDafti Meksilain 14 Iterane //gps:Dafti JanenDafti Meksilain 14 Provident Meksilain Conditions Orieshad Meksilain Conditions Habitat Observations	Crassing Control (1998)
Daff Jahr Tegle (noise) Weak Ories & Cene Soil Characteristics to 12 Inches Inces: TypeOuth: See Digits StatesCare 14 Autorial StatesCare Control of Control of Control of Characteristics Consults: Characteristics Consults: Control of Co	Crassing Control (1998)
Daff Jaho Tagla (adam) Wang Data 's Caree Soil Characteristics to 12 Inches Iterany TypeDiffs JarenDaffs MeteoDate 14	Crassing Control (1998)
Daff Jaho Togle (adapt) Windy Outre 's Correr Soil Characteristics to 12 Inches Iterative Type:Digth StreenDepth StatesCalar 14 The Streen Control of Characteristics Develope Web Treenter Armeched Nation Conditions Other Dightshape Characteristics Develope Habitat Observations Preme at hole/vertice proofly registant Tenents of toke/vertice proofly registant Develope that of voorly registant Develope that of voorly registant	Crassing Control (1998)
Daff Jaho Togle (adapt) Weat Ories & Const Soil Characteristics to 12 Inches Iteranic / TypeDaffic JanenDaffic JahonDaler 14 Inches Inc	Crysta Layer Cayle (andies) Die 6 Cree
Daff Jaho Togle (adapt) Windy Outre 's Correr Soil Characteristics to 12 Inches Iterative Type:Digth StreenDepth StatesCalar 14 The Streen Control of Characteristics Develope Web Treenter Armeched Nation Conditions Other Dightshape Characteristics Develope Habitat Observations Preme at hole/vertice proofly registant Tenents of toke/vertice proofly registant Develope that of voorly registant Develope that of voorly registant	Crassic Layer Crastel (and see) Dig & Crestelland (and see) Dig & Creste



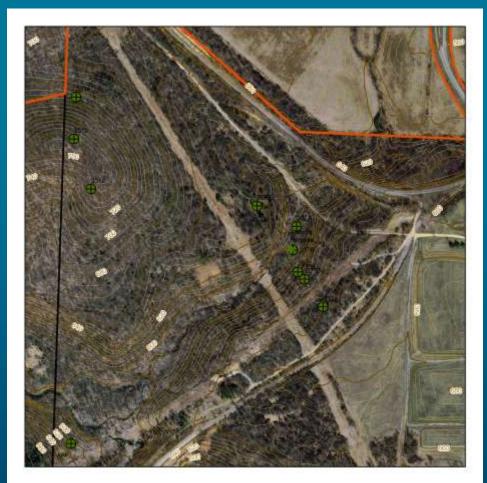
Field Data







GIS: Aerial Image





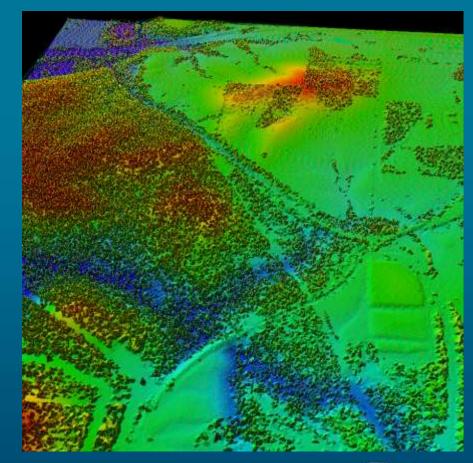


Ross

Pike

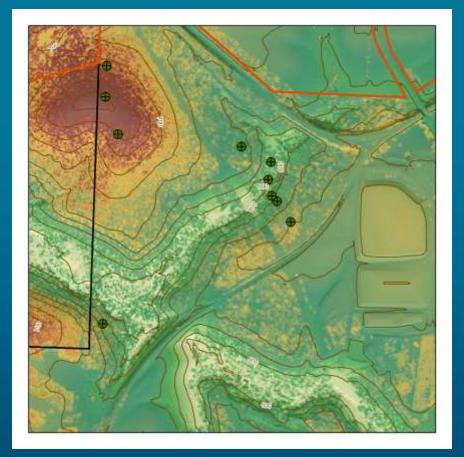
Surface Analysis: LiDAR

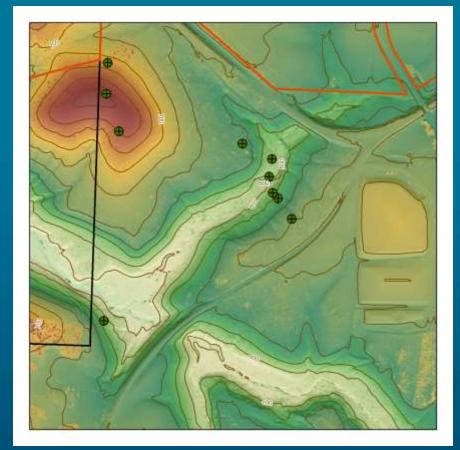






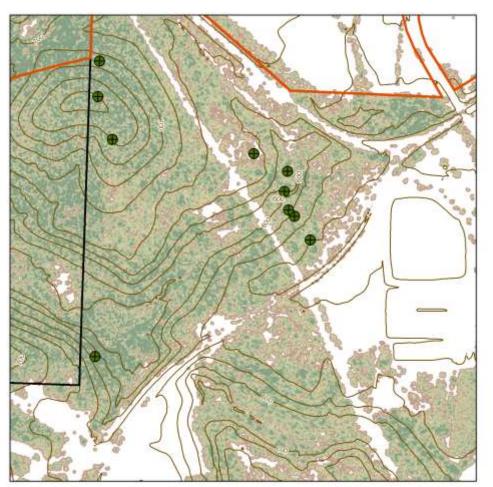
Surface Analysis : LiDAR Returns





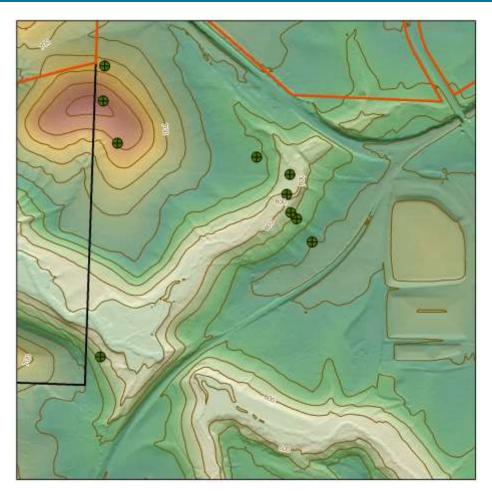


Surface Analysis : Canopy Heights





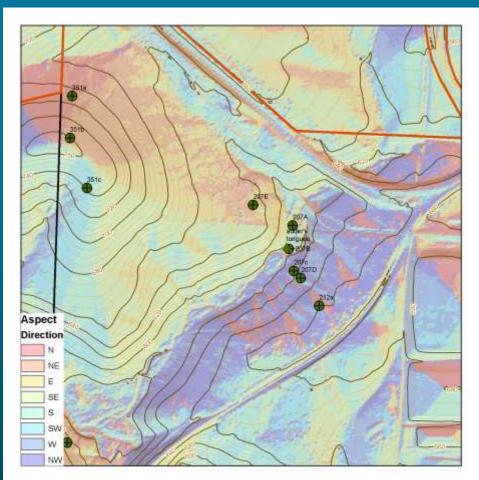
Surface Analysis : Digital Elevation Model







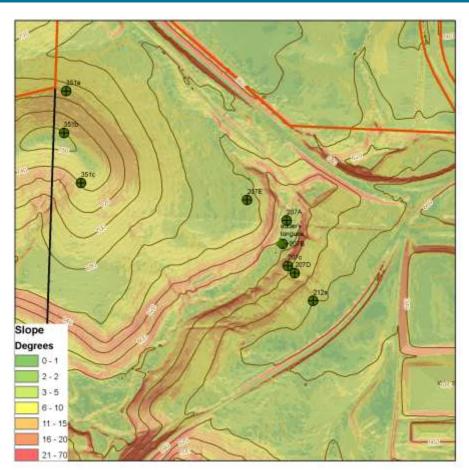
Surface Analysis : Aspect





Ross

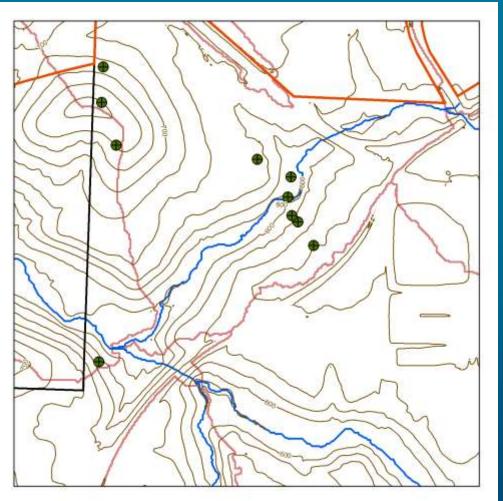
Surface Analysis : Slope







Surface Analysis : Drainage



PORTS

GIS: Adjacent Land Owners



ACP location is incorrect here but this error has since been rectified.

