



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	LAKE LUCERNE SW				Sample Date:	6/7/2023	
WIN / Field ID:	G4CE0202	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.5341
County:	ORANGE	WBID:	3168Z1	LAKE		Longitude:	-81.3782
Receiving Body of Water:	-				RQ-	2023-06-05-28	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman		x		x	x
Jessie Atchison	x		x		

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
x	Syringe		Pole
	Syringe Lot#	2298556	Filter Lot#
			17769663
	Secchi Equipment ID:	Knothead	
Collection Method			
	Wading		Canoe/Kayak
	From Shore	x	Electric Motor
			Gasoline Motor
	Depth Measured With	Secchi	

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	No
Meter ID:	Craw Daddy
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1154	2.7	0.3	9.43	120.7	28.2	8.07	1.1	237.1	0.11
	1200		2	7.7	98.1	27.7	7.72		237.6	0.11
	1205		2.2	7.59	96.7	27.7	7.67		237.7	0.11

Biological Samples Collected: None

SBIO Visit ID: 87029 HA ID: RPS ID: Macrophyte ID: 12457 LIMS Sample ID Entered Into The Macrophyte Module: 2415975

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology							
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:2298556; Filter Lot#:17769663		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	1/25/24
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2230040	09/01/23
Organics (LC)	W-E8321-DI	W-E8321-MS					
Macroinvertebrates							
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
DOC					SyringeLot#		FilterLot#
Other(s)							
Field Comments:	80 and sunny						
Comments on COC:							
Relinquish Date:	06/07/2023	Signature:					

LIMS EVENT ID: CEN-DIST-2023-06-08-01

WIN Import ID: 41438

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 6/16/23

QC Station ID, Field Parameters In LIMS DMT: VLS 6/21/23

Save Field Sheets on Network: KWM 7/19/23 (Initials/Date)

Migrate Data to WIN: KWM 7/11/23 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: ~~316821~~
COUNTY: Orange
DATE: 6/7/23
SITE NAME: Lake Lucerne
FIELD ID/NAME: Lake Lucerne SW

MACROPHYTE ID:
STORET #: G4CE0202
TIME: 11:54

LATITUDE: 28.5341
LONGITUDE: -81.3782
SAMPLING AGENCY: DEP
WBID: 316821
LAKE SIZE: _____ **RQ:** 2023-06-05-28

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : <u>Roadside</u>										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)					
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)								
				<u>20</u>			<u>80</u>								
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy								Artificially Impounded ☐ Yes ☒ No							
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy															
STORMWATER INPUTS		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation			Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place			Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place			Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place				
<u>2</u>		20 19 18 17 16			15 14 13 12 11			10 9 8 7 6			5 4 3 <u>2</u> 1				
LAKESIDE ALTERATIONS		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)			Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)			Many structures, roads or other human disturbance visible (50%-70% lakeside affected)			Highly developed or disturbed (>70% of lakeside affected)				
<u>2</u>		20 19 18 17 16			15 14 13 12 11			10 9 8 7 6			5 4 3 <u>2</u> 1				
BUFFER ZONE		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer			89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer			50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer			< 29% of shoreline with >18m buffer				
<u>2</u>		20 19 18 17 16			15 14 13 12 11			10 9 8 7 6			5 4 3 <u>2</u> 1				

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☐ No Color Sample Taken? ☐ Yes ☐ No Lot #: <u>83013020</u> Exp. Date: <u>1/25/24</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High										Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____									
Meter Readings: Top: <u>0.3</u> <u>28.2</u> <u>8.07</u> <u>9.43</u> <u>120.7</u> <u>287.1</u> <u>0.11</u> Mid-Depth: <u>2.0</u> <u>27.7</u> <u>7.72</u> <u>7.7</u> <u>98.1</u> <u>237.6</u> <u>0.11</u> Bottom: <u>2.2</u> <u>27.7</u> <u>7.67</u> <u>7.59</u> <u>96.7</u> <u>237.7</u> <u>0.11</u>										Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____									
Meter ID: <u>Crawdaddy</u>										Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid									
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____										Color: ☐ Clear ☐ Tannic ☐ Green ☒ Blue <u>Treated w/dye</u> SECCHI (M) <u>1.1</u> Total Station Depth (M) <u>2.7</u> VOB ☐									
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☒ No Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know										Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic									
Abundance: Absent Rare Common Abundant Periphyton ☐ ☒ ☐ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☒ ☐ Exotic Apple Snails ☐ ☐ ☒ ☐										Additional Notes:									
Weather Conditions: <u>80 and sunny.</u>																			
SAMPLING TEAM: <u>Leif Boman & Jessie Atchison</u>										SIGNATURE: <u>[Signature]</u>					DATE: <u>6/7/23</u>				

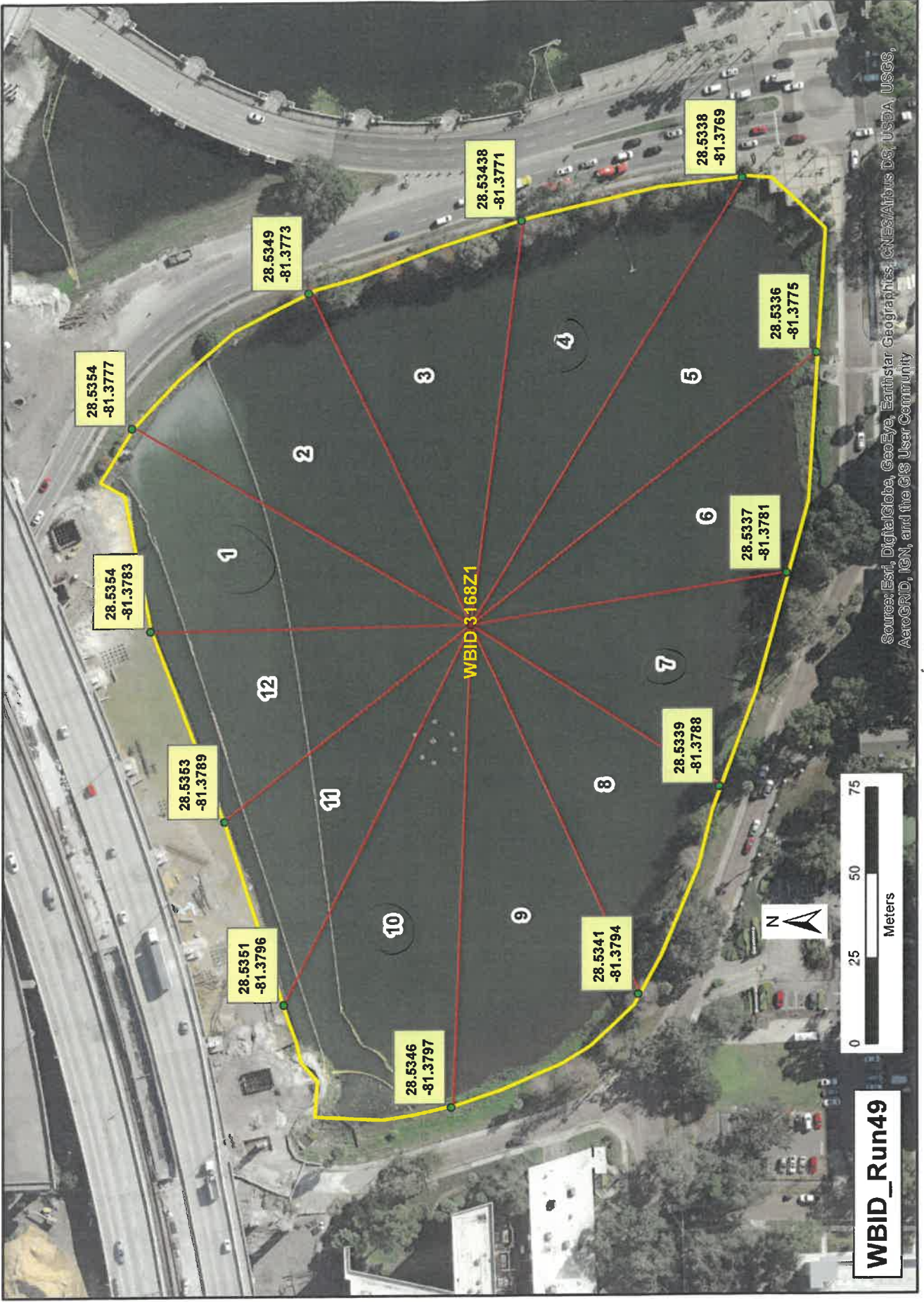
DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Lucerne</u>		County: <u>Orange</u>		Date: <u>6/7/23</u>							
Analyst: <u>Jessie Atchison & Leif Roman</u>		Signature: <u>[Signature]</u>		STORET: <u>65CE0202</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic. It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.				Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 3, 6, 9, 12							
SPECIES	1	4	7	10	Collected? (Y)	SPECIES	1	4	7	10	Collected? (Y)
Acer rubrum						Fraxinus					
Alternanthera philoxeroides						Fuirena scirpoidea					
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflorus					
Bacopa caroliniana						Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.					
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Boehmeria cylindrica						*Hypericum hypericoides					
Brasenia schreberi						*Hypericum myrtifolium					
Cabomba caroliniana						Ilex cassine					
Canna sp.						Ipomoea aquatica					
Centella asiatica						Ipomoea sagittata					
Cephalanthus occidentalis						Itea virginica					
Ceratophyllum demersum						Juncus effusus					
Chara sp.						*Juncus marginatus					
Cicuta maculata						*Juncus megacephalus					
Cinnamomum camphora						Juncus repens					
Cladium jamaicense						*Juncus scirpoides					
Colocasia esculenta						Lachnanthes caroliniana					
*Commelina						Leersia hexandra					
Crinum americanum						Landoltia punctata (Spirodela punctata)					
Cyperus articulatus						Lemna sp.					
Cyperus blepharoleptos (Scirpus cubensis)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus haspan						Limnium spongia					
*Cyperus involucratus						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus odoratus						*Ludwigia arcuata					
*Cyperus polystachyos						*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli						*Ludwigia peruviana					
*Echinochloa muricata						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata						Luziola fluitans (Hydrochloa carolinensis)					
Eichhornia crassipes						Magnolia virginiana					
*Eleocharis						Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens					
Eleocharis vivipara (submersed)						Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera					
*Eriocaulon decangulare											
Eupatorium capillifolium											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Lake Lucerne</u>					Date: <u>6/7/23</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						<i>Salix caroliniana</i>					
* <i>Myriophyllum heterophyllum</i>						<i>Salvinia minima</i>					
* <i>Myriophyllum laxum</i>						<i>Sambucus canadensis</i>					
* <i>Myriophyllum pinnatum</i>						<i>Sapium sebiferum</i>					
<i>Myriophyllum spicatum</i>						<i>Saururus cernuus</i>					
* <i>Najas filifolia</i>						<i>Schinus terebinthifolius</i>					
* <i>Najas guadalupensis</i>						* <i>Schoenoplectus californicus</i>					
* <i>Najas minor</i>						* <i>Schoenoplectus pungens</i>					
<i>Nelumbo lutea</i>						* <i>Schoenoplectus tabernaemontani</i>					
<i>Nitella</i> spp.											
<i>Nuphar</i> sp.						<i>Scirpus cyperinus</i>					
<i>Nymphaea mexicana</i>						* <i>Sesbania</i>					
<i>Nymphaea odorata</i>						<i>Solidago</i> sp.					
<i>Nymphoides aquatica</i>						<i>Sparganium americanum</i>					
<i>Nyssa sylvatica</i> var. <i>biflora</i>						<i>Spartina bakeri</i>					
<i>Orontium aquaticum</i>						<i>Spirodela polyrrhiza</i>					
<i>Osmunda cinnamomea</i>						<i>Taxodium</i> sp.					
<i>Osmunda regalis</i>						<i>Thalia geniculata</i>					
<i>Panicum hemitomon</i>						<i>Thelypteris interrupta</i>					
<i>Panicum repens</i>						<i>Thelypteris palustris</i>					
<i>Paspalidium geminatum</i>						<i>Triadenum virginicum</i>					
* <i>Paspalum repens</i>						<i>Typha</i> sp.					
<i>Paspalum urvillei</i>						<i>Urochloa mutica (Brachiaria mutica)</i>					
<i>Peltandra</i> sp.						* <i>Utricularia gibba</i> (U. <i>biflora</i>)					
<i>Persea</i> sp.						* <i>Utricularia foliosa</i>					
* <i>Persicaria glabra</i> (<i>densiflora</i>)						* <i>Utricularia inflata</i>					
<i>Persicaria hirsuta</i>						* <i>Utricularia purpurea</i>					
* <i>Persicaria hydropiperoides</i>						* <i>Utricularia radiata</i>					
* <i>Persicaria punctata</i>						* <i>Utricularia resupinata</i>					
* <i>Persicaria</i>						<i>Vallisneria americana</i>					
<i>Pennisetum purpureum</i>						<i>Vitis</i> sp.					
<i>Phragmites australis</i>						* <i>Websteria confervoides</i>					
<i>Pinus elliotii</i>						<i>Wedelia trilobata (Sphagneticola trilobata)</i>					
<i>Pistia stratiotes</i>						<i>Wolffiella</i> spp.					
<i>Pluchea</i> sp.						<i>Woodwardia virginica</i>					
<i>Pontederia cordata</i>						<i>Xyris</i> sp.					
* <i>Potamogeton diversifolius</i>						<i>Zizania aquatica</i>					
* <i>Potamogeton illinoensis</i>						<i>Zizaniopsis milacea</i>					
* <i>Potamogeton pusillus</i>											
* <i>Potamogeton pectinatus (Stuckenia pectinatus)</i>											
<i>Proserpinaca pectinata</i>											
* <i>Rhexia</i>											
* <i>Rhynchospora corniculata</i>											
* <i>Rhynchospora inundata</i>											
<i>Rhynchospora nitens</i>											
<i>Ricciocarpus natans</i>											
<i>Sabal palmetto</i>											
<i>Sacciolepis striata</i>											
* <i>Sagittaria filiformis</i>											
* <i>Sagittaria graminea</i>											
* <i>Sagittaria isoetiformis</i>											
<i>Sagittaria lancifolia</i>											
<i>Sagittaria latifolia</i>											

LVI Map for Lake Lucerne (West), WBID 3168Z1



WBID_Run49

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DQ, USDA USGS, AeroGRID, IGN, and the GIS User Community