RQ-2016-09-12-79

9/12/2016
WBID 3259W
Lake Trafford at Center

SDREFLK091216
Field ID
STORET
28030024*

FD 9000-31: LAKE OBSERVATION FIELD SHEET

PHYTE ID: _____
#: _____
TIME: 930
LATITUDE: _____
LONGITUDE: _____
SAMPLING AGENCY: 21FLFTM
WBID: _____
LAKE SIZE: _____ RQ: _____
TE: _____
E NAME: _____
FIELD ID/NAME: _____

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
50		20	25	5			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)
LDI: 8
Land Use Source & Year:

Local Watershed Erosion (select one) : ☐ None ☑ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☑ Moderate ☐ Heavy

Artificially Impounded ☐ Yes ☑ No

STORMWATER INPUTS: 8	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
	20 19 18 17 16	15 14 13 12 11	10 9 **8** 7 6	5 4 3 2 1
LAKESIDE ALTERATIONS: 17	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)
	20 19 18 **17** 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
BUFFER ZONE: 18	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
	20 19 **18** 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water:
Nutrient Sample Taken? ☑ Yes ☐ No Preserved? ☑ Yes ☑ pH<2 ☐ No
Color Sample Taken? ☑ Yes ☐ No Lot # _____ Exp. Date: _____
Alkalinity Sample Taken? ☑ Yes ☐ No
Water Level ☐ Low ☑ Normal ☐ High

Water Odors: ☑ Normal ☐ Sewage ☐ Petroleum ☐ Other _____

Water Surface Oils: ☑ None ☐ Sheen/Slick ☐ Glob ☐ Other _____

Clarity: ☐ Clear ☑ Opaque ☐ Turbid ☐ Slightly Turbid

Color: ☐ Clear ☐ Tannic ☑ Green

Meter Readings:	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	0.3	29.1	7.8	7.3	95	275	0.13
Mid-Depth:							
Bottom :	2.9	29.1	7.7	6.2	80	276	0.13

SECCHI (M) 0.4
VOB ☐
Total Station Depth (M) 3.4

Meter ID: YSI A

Sediment Type: (may check more than one)
☐ Sandy ☑ Organic fibrous (peaty, CPOM) ☑ Vegetated
☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify):_____

Sample Taken? ☐ Yes ☑ No

Sediment Odors:
☐ Normal ☐ Other (Specify): _____
☐ Anaerobic

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

Abundance:

	Absent	Rare	Common	Abundant
Periphyton	☑	☐	☐	☐
Nuisance Plants	☐	☐	☐	☑
Submersed Plants	☐	☐	☑	☐
Exotic Apple Snails	☑	☐	☐	☐

Additional Notes:
Algal bloom, ID taken
Microcystin spp. dominant
Visit 76942

Weather Conditions :

SAMPLING TEAM: Corey Anderson, Ben Paswater
Veronica Runge

SIGNATURE:

DATE: 9-12-16

Sim File generated 4/12/17 CA

62-160.800, F.A.C.

Revision Date: March 1, 2014

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DEP Form FD 9000-6: Lake Habitat Assessment Fi

STORET STATION NUMBER:	DATE (M/D/Y)	LAKE NAME		FIELD ID / NAME:
ECO-REGION:	COUNTY: Collier	SAMPLING LOCATION/DESCRIPTION:		LAKE SIZE:
PARAMETER	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates	Surface water inflow present, but flow is rare, moderate to long water residence time	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time	Impounded, hydrology of system artificially controlled
HYDROLOGY	☐	☐	☑	☐
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☐	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☑
	Optimal	**Suboptimal**	**Marginal**	**Poor**
Secchi 4	Secchi >3 m Or VOB | 20 | 19 | 18 | 17 | 16	Secchi(m) 3 | 2.6 | 2.2 | 1.8 | 1.4 | 15 | 14 | 13 | 12 | 11	1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 10 | 9 | 8 | 7 | 6	0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 5 | (4) | 3 | 2 | 1
Vegetation Quality 14	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats	Lake choked (>40%) with nuisance macrophytes (duck-weed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)
	20 | 19 | 18 | 17 | 16	15 | (14) | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Stormwater Inputs 8	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
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | (8) | 7 | 6	5 | 4 | 3 | 2 | 1
Bottom Substrate Quality 18	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present	Moderate layer of CPOM/ mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom
	20 | 19 | (18) | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Lakeside Adverse Human Alternations 17	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)	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)
	20 | 19 | 18 | (17) | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Upland Buffer Zone 18	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
	20 | 19 | (18) | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Adverse Watershed Land Use 17	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial			
	20 | 19 | 18 | (17) | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1			

50
30
16

TOTAL SCORE	96	COMMENTS:
ANALYSIS DATE: 9-12-16	ANALYST: Corey Anderson	SIGNATURE:

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Date:	Waterbody: Lake Trafford	County: Collier
STORET:	Signature:	Analyst: Corey Anderson

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	10	7	4	Collected? (√)
Acer rubrum	√	√		√	
Alternanthera philoxeroides					
Andropogon sp.	√	√	√	√	
Annona glabra					
Azolla filiculoides (A. caroliniana)	√				
Baccharis sp.					
Bacopa caroliniana					
Bacopa monnieri					
Bidens laevis					
Bidens mitis					
Blechnum serrulatum				√	
Boehmeria cylindrica					
Brasenia schreberi					
Cabomba caroliniana					
Casuarina equisitifolia					
Centella asiatica					
Cephalanthus occidentalis					
Ceratophyllum demersum					
Chara sp.					
Cicuta sp.				√	
Cladium jamaicense					
Cliftonia monophylla					
Colocasia esculenta					
*Commelina					
Crinum americanum					
***Cyperus alternifolius** (C. involucratus)					
Cyperus articulatus		√			
Cyperus haspan					
*Cyperus lecontei					
*Cyperus polystachyos					
*Cyperus odoratus	√				
*Cyperus surinamensis					
Cyrilla racemiflora					
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri					
Eclipta prostrata (E. alba)					
Egeria densa		√		√	
Eichhornia crassipes					
*Eleocharis baldwinii					
*Eleocharis					
Eleocharis cellulosa					
Eleocharis equisetoides					
Eleocharis interstincta	√				
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium					

SPECIES	1	10	7	4	Collected? (√)
Fraxinus caroliniana		√			
*Fuirena					
Fuirena scirpoidea					
Gordonia lasianthus					
Habenaria repens				√	
Hibiscus grandiflora					
Hymenachne amplexicaulis					
Hydrilla verticillata		√	√	√	
Hydrocotyle sp.	t	√			
Hygrophila polysperma					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum myrtifolium					
Ilex cassine					
Ipomoea aquatica					
Ipomoea sagittata					
Itea virginica					
Juncus effusus					
*Juncus marginatus					
*Juncus megacephalus					
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana					
Leersia hexandra					
Landoltia punctata (Spirodela punctata)					
Lemna sp.					
Leucothoe racemosa (Eubotrys racemosa)					
Limnobium spongia					
Limnophila sessiliflora					
Liquidamber styraciflua					
*Ludwigia arcuata					
*Ludwigia leptocarpa					
*Ludwigia linearis					
*Ludwigia octovalvis					
***Ludwigia peruviana**					
*Ludwigia repens					
*Ludwigia					
Luziola fluitans (Hydrochloa carolinensis)					
Lyonia lucida					

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FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Date:

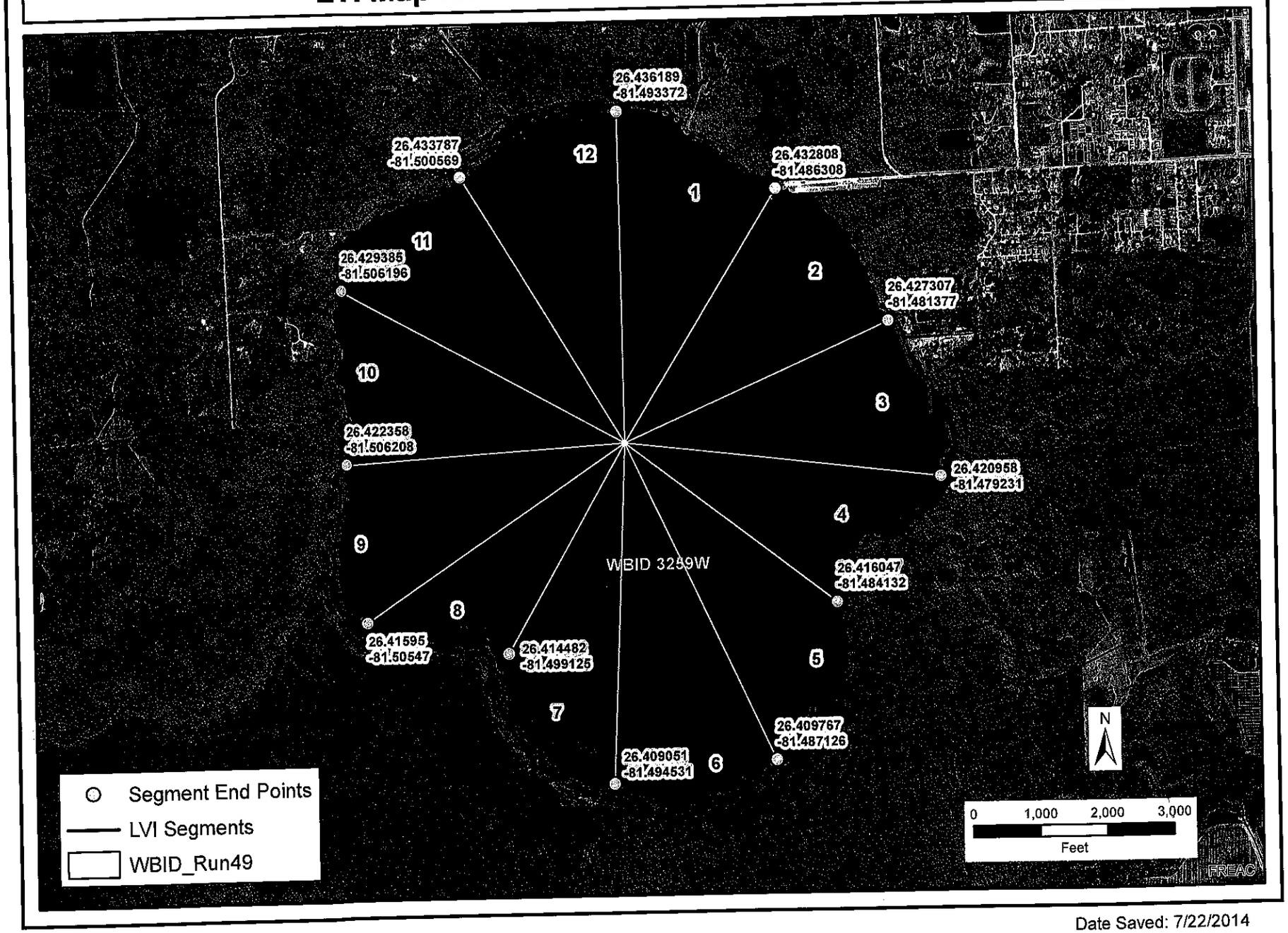
SPECIES	1	10	4	Collected?
Magnolia virginiana				
Mayaca fluviatilis				
Melaleuca quinquenervia				
Micranthemum glomeratum				
Micranthemum umbrosum				
Mikania scandens				
Mimosa pigra				
Myrica cerifera				
Myriophyllum aquaticum				
*Myriophyllum heterophyllum				
*Myriophyllum laxum				
*Myriophyllum pinnatum				
Myriophyllum spicatum				
*Najas filifolia				
*Najas guadalupensis				
*Najas minor				
Nelumbo lutea				
Nitella spp.				
Nuphar sp.				
Nymphaea odorata				
Nymphoides aquatica				
Nyssa sylvatica var. biflora				
Orontium aquaticum				
Osmunda cinnamomea				
Osmunda regalis				
Panicum hemitomon				
Panicum repens				
Paspalidium geminatum				
*Paspalum repens				
Paspalum urvillei				
Peltandra sp.				
Persea sp.				
Pennisetum purpureum				
Phragmites australis				
Pinus elliottii				
Pistia stratioides				
Pluchea sp.				
*Polygonum glabrum (densiflorum)				
*Polygonum hydropiperoides				
*Polygonum punctatum				
*Polygonum sp.				
Pontederia cordata				
*Potamogeton diversifolius				
*Potamogeton illinoensis				
*Potamogeton pusillus				
*Potamogeton pectinatus				
Proserpinaca pectinata				
*Rhexia				
*Rhynchospora corniculata				
*Rhynchospora inundata				
Rhynochospora tracyi				
Ricciocarpus natans				
Rumex sp.				

SPECIES	1	10	4	Collected?
Sabal palmetto				
Sacciolepis striata				
*Sagittaria filiformis				
*Sagittaria graminea				
*Sagittaria isoetiformis				
Sagittaria lancifolia				
Sagittaria latifolia				
Salix caroliniana				
Salvinia minima				
Sambucus canadensis				
Sapium sebiferum				
Saururus cernuus				
Schinus terebinthifolius				
*Schoenoplectus californicus (Cali bulrush)				
*Schoenoplectus pungens (three square)				
*Schoenoplectus tabernaemontani (softsteam)				
Scirpus cubensis (Oxycaryon cubense)				
Scirpus cyperinus				
*Sesbania				
Solidago sp.				
Sparganium americanum				
Spartina bakeri				
Sphagneticola trilobata (Wedelia)				
Spirodela polyrhiza				
Symphyotrichum carolinianum (Aster)				
Taxodium sp.				
Thalia geniculata				
Thelypteris palustris				
Triadenum virginicum				
Typha sp.				
Urochloa mutica (Brachiaria mutica)				
*Utricularia gibba (U. biflora)				
*Utricularia floridana				
*Utricularia foliosa				
*Utricularia inflata				
*Utricularia purpurea				
*Utricularia cornuta				
*Utricularia radiata				
Vallisneria americana				
*Websteria confervoides				
Wolffiella spp.				
Woodwardia virginica				
Xyris sp.				
Zizania aquatica				
Zizaniopsis milacea				

Sept 4 - No dest damage
Nelumbo, Pond apple, maple, miona

LVI Map for LAKE TRAFFORD, WBID 3259W

1, 4, 7, 10



Date Saved: 7/22/2014

Current Date: 7/31/2014