## **APPENDIX 1 - SUMMARY OF DATASETS AND LINKS**

Category	Subcategory	Filename	Source Data Location	Description	Scale	Metadata	Extent
				Lists streams and lakes in the United States that are not achieving			
303d List			hand the second of the second	an acceptable level of certain environmental parameters. Total		v	US
303a List	rad 303d Isde.shp		http://www.epa.gov/waters/data/downloads.html	Maximum Daily Loads (TMDLs).		<u>ү</u>	US
	rad_303d_p_sde.shp			points		Ý	US
							US
Aquifers	aquifrp025.mdb		www.nationalatlas.gov	The shallowest principal aquifers of the conterminous U.S.  Major Bedrock Aquifers at Depths Greater Than 500 Feet Below	2,500,000	Υ	US
	IL - aqmbg500		http://www.isgs.uiuc.edu/nsdihome/webdocs/st-hydro.html	Ground Surface	500,000	Υ	11
Base Layers							
	drain_sheds ind_basin_usgs_250k		USGS - Lansing USGS website	Combined 8-dig HUCs that represent major river drainages General basin and watershed boundaries	24000? 250,000	N N	US GL Basin US GL Basin
	IIIU Dasiii Usys_230K		O3O3 Website	As basins and broken out into individual watersheds. These are the	230,000	IN	O3 GL DaSIII
				watersheds used for basin-wide screening and match the DEM sent			
	sheds_geo_correct		NORTAD watersheds from Great Lakes Commission	to us by the GL GIS project.	250,000	Υ	US GL Basin
	tono com umbdo		USGS website	General basin and watershed boundaries with masks and land-only units.	250,000	N	US GL Basin
	topo_corr_wshds cities		O3O3 Website	Greater than 10,000 in population.	230,000	IN	US GL Basin
	diss_usawshed_huc_Project.shp			A			
	gl_arealand.shp						
	gl_areawtr.shp ql_counties.shp						US and CA US and CA
	gi_counties.snp glbasin.shp						US and CA
	glbasin_landonly.shp						US and CA
	glpolit_sub.shp						US and CA
	usa_gl_sheds_Project.shp						
				BASINS tools and data available for download (and/or CD's can be			
Basins	4010101-04030112		EPA Basins	ordered) from: http://www.epa.gov/waterscience/basins/			Partial US Basin
C-CAP	NOAA LandCover		http://www.csc.noaa.gov/crs/lca/greatlakes.html	Landcover data from Landsat Thematic Mapper and Landsat Enhanced Thematic Mapper satellite imagery			Most US Basin
C-CAF	NOAA Lalidcover		IIIID // WWW. CSC. III dad guw CIS/ICal greatiakes. III III	Cililatice i fieriatic wapper satellite ililagery			WOSE OF DASIII
Census	BlockCentroid Populations		ESRI data CD	2000 Census	100,000	Υ	US Basin
				The destination folder for the previously mentioned intersections and			
				CN calculations. Further stream power calcs are stored in this			
CN	LHB		Derived data - precipitation, statsgo soils, and NLCD land cover.	folder			LHB
	LMB						LMB
	LSB						LSB
County Water Us	se .		http://water.usgs.gov/lookup/getgislist	Describes county water use for the conterminous U.S.		Υ	US
Dams	dams00x020.shp		www.nationatlas.gov	General layer for conterminous U.S. that describes water storage by dam. Dams 50 ft or more or normally store 5,000 acre-ft or more.		v	US
Dams	nid		US Army Corps of Engineers	dami. Damis 30 it of more of normally store 3,000 acre-it of more.		Y Y	US
	DAMS_1996_EPA_IN.shp		http://igs.indiana.edu/arcims/statewide/metadata/Dams_1996_EPA_IN.html	EPA Basins dams locations.		Y	IN
	MI_dams_MIDEQ.mdb widam		MNDNR or MNDEQ or Michelle DePhillipe? WIDNR	State dam layer, better than the NID. State dam layer, better than the NID.		Y - elec Y - elec	MN WI
	Widaiii		YYIDIN	State dain layer, better than the Nib.		1 - 6160	771
	075		e a	Ecosystems of regional extent. Third level of detail. Differentiated			ue l
Ecoregions	ecoregp075.shp ecoatlas.shp		www.nationatlas.gov	by temperature, precipitation, vegetation, and terrain features.  Canada	?	Y N	US CA
	ECODIST.shp		?	Canada	?	N N	CA
Floodzones				100 1500 4 11:	0000 040		
	cook lake		http://www.isgs.uiuc.edu/nsdihome/browse/cook/index.html http://www.isgs.uiuc.edu/nsdihome/browse/lake/index.html	100 and 500 yr floodplains 100 and 500 yr floodplains	6000-24000 6000-24000	Y	IL IL
	iant		map.//www.isgs.uidc.edu/iisuiidine/uidws8/iikke/iiideX,/iiffiii	100 and 300 yr illoudplains	0000-24000	ſ	IL.
Geo							
	Bedrock						
		il - bedgeo, bedtopo	http://www.isgs.uiuc.edu/nsdihome/webdocs/st-geolb.html	bedrock geology and topography	500,000 500.000	Y Y - elec	IL IN
		in - bedrock_geol_mm48_in.shp mi - 1987_bedrock_geology.shp		bedrock geology	UUU,UUC	Y - elec N	IN MI
		mn - bgpg2000	http://www.lmic.state.mn.us/chouse/metadata/stmaps20_3.html	bedrock geology	1,000,000	Y - elec	MN
		ny - adir_bedr1a; bndadir;	A				
		fing_bedr1a; niag_bedr1a	http://www.nysm.nysed.gov/gis/#state	bedrock geology for GL portion of New York	250,000	Υ -!	NY
	L	oh -	Ohio Geologic Survey	shaded bedrock topography		Y - elec	OH

Category	Subcategory	Filename	Source Data Location	Description	Scale	Metadata	Extent
		no nomely sho	http://www.pasda.psu.edu/documents.cgi/dcnr/pags/dcnr_bedrockgeology_shp_2001.xml	bedrock geology	250,000	V	PA
		pa - pagpoly.shp superior - geology.shp	Unknown	bedrock geology	1,000,000	Y - elec	LSB
		us - kbge_project_glbasin.shp	www.nationalatlas.gov	us bedrock geology	2,500,000	Υ	US
		0.110					
	Quaterny	CHIC HUDR	From Michelle DePhilip - from USGS data CD From Michelle DePhilip - from USGS data CD	surficial geology surficial geology	1,000,000 1,000,000	Y- elec Y- elec	IL NY
		il - quat96	http://www.isas.uiuc.edu/nsdihome/webdocs/st-aeola.html	surficial geology	2,500,000	N	IL IL
		il - quat79	http://www.isgs.uiuc.edu/nsdihome/webdocs/st-geolg.html	surficial geology	500,000	Y	IL
		in - surficial_geol_mm49_in.shp	<a href="http://igs.indiana.edu/arcims/statewide/download.html">http://igs.indiana.edu/arcims/statewide/download.html</a>	surficial geology	500,000	Y - elec	IN
		LERI LNIP	From Michelle DePhilip - from USGS data CD From Michelle DePhilip - from USGS data CD	surficial geology surficial geology	1,000,000 1,000,000	Y- elec Y- elec	PA, IN, NY
		LSUP	From Michelle DePhilip - from USGS data CD	surficial geology	1,000,000	Y- elec	WI
		LWDS	From Michelle DePhilip - from USGS data CD	surficial geology	1,000,000	Y- elec	MN
		mi	5 Mil II B BUT 6 11000 1 1 00	surficial geology	?	N N	MI MN
		MINN	From Michelle DePhilip - from USGS data CD http://www.lmic.state.mn.us/chouse/metadata/quatgeo.html	surficial geology surficial geology	1,000,000 500,000	Y- elec Y- elec	MN
		ny - adir_s; fing_s; niag_s	www.nysgis.state.ny.us/gis3/data/sed.nyssurf.thml	surficial geology	250,000	Y	NY
		oh -	Ohio Geologic Survey	surficial geology and thickness	?	Y - elec	OH
		ОПА	From Michelle DePhilip - from USGS data CD	surficial geology	1,000,000	Y	CA GL BASIN
		SUDB sfgeoem020 polygon.shp	From Michelle DePhilip - from USGS data CD www.nationalatlas.gov	surficial geology surficial geology	1,000,000 2,500,000	Y	CA GL BASIN US
		sigeoemozo_polygon.snp	www.nationalatias.gov	suricial geology	2,500,000	Т	03
Graphic dls	USGS_wrir_004008						
		bed_aquifers.gif					
		carb_sand_aquifer.gif gbay_confiningunit.gif					
		gbay_potent_sfc57.gif					
		gbay_potent_sfc90.gif					
		gen_gwflow.gif					
		gen_sfcgeo.gif					
		gw_decline_wlmich.gif gw_sfc_comp.gif					
		gw wdrate.gif					
		lmich_wat_bug.gif					
		loc_reg_gwflow.gif					
	evaporitic maps.jpg	toledo_pot_sfc.gif					
	GW-CanyonsWI-IL.jpg						
	gw_subsidence.jpg						
	peat_soils.jpg						
	-		ftp://ftpext.usgs.gov/pub/cr/co/denver/musette/pub/open-file-reports/ofr-02-				
Grav	bouger_albers		0414/LL27 unpri/	complete Bouguer gravity anomaly at 2.67	?	N	US
			ftp://ftpext.usgs.gov/pub/cr/co/denver/musette/pub/GEOPHYSICAL_DATA/cdrom_DD	isostatic residual gravity anomaly 30km, 35 g/cc			
	isograv_alber		S-9/GRIDS/ARC_INFO/		?	N	US
gw_well	Wi		http://water.usgs.gov/	USGS groundwater well locations		N	WI
y <b>n_w</b> en	ohio		http://water.usgs.gov/	OCC groundwater were locations		N	OH
hwys	il :		USDOT?	Federal Highways	?	N	IL IN
	in mi			Federal Highways Federal Highways		N N	IN MI
	mn			Federal Highways	?	N	MN
	ny			Federal Highways	?	N	NY
	oh			Federal Highways	0	N	ОН
	pa pa			Federal Highways	?	N N	PA
	Wi			Federal Highways	?	N	WI
14			Demind data	Percent imperviousness by 8-digit HUC. Based on NLCD and 2000 census block centroids.		N.	US Basin
isat	project_glb_isat_high		Derrived data.	Cerisus Block Centrolas.		N	US Basin
jia_scripts							
	cal_total_sel_area.txt			calculates length of selected lines			
	dam distance2.txt			creates network and determines distance upstream from a dam to			
	Update CN.txt			next impoundment and downstream to next impoundment.			
	Operato Oterini						
karst	US	karst.shp	http://pubs.usgs.gov/of/2004/1352/		7,500,000	Y - elec	US
	9	subside.shp				Y - elec	US
		karst	http://www.isgs.uiuc.edu/nsdihome/webdocs/st-hydro.html			N	IL
land cover	glb	nlcd	GL GIS	land cover		Y- elec	US GL BASIN
	leb	nlcd	I GL GIS	land cover		Y- elec	LEB
	Ihb	us -nlcd	GL GIS	land cover		Y- elec	LHB

Category	Subcategory	Filename	Source Data Location	Description	Scale	Metadata	Extent
	lhb	canada - lulc - omnr	GL GIS	land cover		Y- elec	LHB - Canada
	lmb	nled	GL GIS	land cover		Y- elec	LMB
	lob	nicd	GL GIS	land cover		Y- elec	LOB
	Isb	nlcd	GL GIS	land cover		Y- elec	LSB
	wiscland	wlciw930.tif	Wisconsin Department of Administration GIS, Jerry Sullivan	land use land cover		?	WI
mag field	USmag origmrg LL27.grd		ftp://ftpext.usgs.gov/pub/cr/co/denver/musette/pub/open-file-reports/ofr-02-0414/	Magnetic Anamoly Data	1,000,000	N	US
			Y Y				
matrix_comp	matrix_1 matrix_2		Derived data	Summation of critical hydrologic factors as determined by the group.	varies	N	US GL BASIN
	matrix_3						
	matrix_4						
	matrix_5						
	matrix_6						
	matrix_7						
natcons_class	edu.shp		Michelle DePhilip	Nature Conservency hydrologic/ecological groupings	?	Y - elec	US GL BASIN
NHD	ditch						
	grids						
	high_res_data	NHDH0401.mdb - NHDH0415.mdb, n	USGS	High resolution hydrography, no area 413, however.	24,000	N	US GL BASIN
	med_res_data	NHDH0401.mdb - NHDH0415.mdb	USGS	Medium resolution hydrography	1,000,000	N	US GL BASIN
	polylines						
	Shapefiles						
	streamdensity						
ргесір	1						
	2yr_event						
		24_hour - f_2y24h	http://www.tucson.ars.ag.gow/agwa/rainfall_frequency.html	2-yr storm event in 24 hours	?	N	US GL BASIN
		2_hour - f_2y2h	http://www.tucson.ars.ag.gov/agwa/rainfall_frequency.html	2-yr storm event in 2 hours	?	N	US GL BASIN
	apr		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	aug		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	dec		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	feb		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	jan		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	jul		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	jun		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	mar		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	may nov		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	oct		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month  Avg annual precip for the month			US
	sep		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precip for the month			US
	snow		http://www5.ncdc.noaa.gov/cgi-bin/climaps/climaps	Avg annual precipion the month			US
	precip		Derived from us_poly.shp	Derived from us_poly.shp	2.000.000	ν	US
	piecip		Delived nonrius pory, sup	Delived from as poly, sup	2,000,000		00
			http://www.ncgc.nrcs.usda.gov/products/datasets/climate/data/precipitation-	This data set shows polygons of average annual precipitation in the			
	us_poly.shp		metadata.html	contiguous United States, for the climatological period 1961-1990.	2,000,000	Υ	US
presett_veg	1		Illinois Natural History Survey		9	Y - elec	IL
	"		Illifiois Natural Filstory Survey	Michigan Native Landscape, As Interpreted from the GLO Surveys		T - elec	IL.
	mi		Michigan Native Landscape, As Interpreted from the GLO Surveys 1816-56	1816-57	24,000	Y - elec	MI
	1111		Inicingal Native Caluscape, As interpreted notifitie OLO Sulveys 1010-50	Presettlement vegetation of Minnesota based on	24,000	1 - 6160	1411
				Marschner's original analysis of Public Land Survey notes			
				and landscape patterns. Marschner compiled his results in			
				map format, which was subsequently captured in digital			
	l mn	grid and shapefile	hal.watson@dnr.state.mn.us (651) 297-2330	format	1,000,000	Y-elec	MN
	mn	grid of wetlands	derived		1,000,000	N	MN
	wi	grid and shapefile		pre-settlement vegetation	.,,,	N	WI
	wi	grid of wetlands	derived			N N	WI
	in	n/a					
	pa	n/a					
	ny	n/a					
	oh	n/a					
rf1			www.epa.qov	Reach File 1	500,000	Y	US
Scans							
Stalls	widptbdrk		Roger Kuhns	georeferenced TIF	1,000,000	N	WI
	BEDROCK NORTHWEST GEOL	OGY TIE	Roger Kunns Roger Kunns	georgical care in	000,000,1	N N	WI, IL, MI
	GENERALIZED BEDROCK TIF	T	Roger Kunns Roger Kunns			N N	WI, IL, MI
	HYDROGEO A-A.TIF					N N	IL, IN, OH
	HYDROGEO B-B.tif		Roger Kuhns Roger Kuhns			N N	IL, IIN, UП
	ne wi simpotent sandstone.gif		Roger Kunns Roger Kuhns			N N	NE WI
	PHYSICAL SETTING.TIF					N N	WI - LMB
	THE STOPPE SETTING, HE	I	Roger Kuhns		l	IN IN	AA1 - FIAID

Category	Subcategory	Filename	Source Data Location	Description	Scale	Metadata	Extent
	WATER RESOURCE 2.TIF		Roger Kuhns			N	WI - LMB
	WATER RESOURCE OF WI.TIF		Roger Kuhns		1,000,000	N	WI - LMB
	WATER RESOURCE3.TIF		Roger Kuhns		1,000,000	N	WI - LMB
	wi depth to bedrock.tif		Roger Kuhns				
statsgo							
Suisgo	hyd_group		derived	soils broken out by soil hydrologic grouping	250,000		US GL BASIN
	hydric grid		derived	hydric soils	250,000		US GL BASIN
	IL T		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Υ	IL
	IN		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Υ	IN
	layers		derived	layer files for hydrologic groupings	250,000	Υ	US GL BASIN
	lhb		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	From merging state coverages into a shapefile.	250,000 250,000	N	LHB
	lmb Isb		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/ http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	From merging state coverages into a shapefile. From merging state coverages into a shapefile.	250,000 250,000	N N	LMB LSB
	MI		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	V	MI
	MN		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Y	MN
	T NY		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Ϋ́	NY
	ОН		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Ϋ́	OH
	PA		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Ϋ́	PA
	WI		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	coverages and tables	250,000	Y	WI
	glb_statsgo_comp_proj		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	From merging state coverages into a shapefile.	250,000	Y	US GL BASIN
	broken down my states		http://www.ncgc.nrcs.usda.gov/products/datasets/statsgo/	From merging state coverages into a shapefile.	250,000	Υ	US GL BASIN
storet	usstoret.shp		http://www.epa.gov/storet/	Locations of US STORET locations	?	N	US
otro ana mana-	al oa obn		http://waterdata.usgs.gov/nwis/sw	Location of GL stream gages	0	N	US GL BASIN
stream_gage	gl_sg.shp Ontario Q data		Michele Dephilip	Location of GL stream gages  Location of Ontario stream gages		N N	ONTARIO
	Ontario Q data		Michele Dephilip	Lucation of Ontario stream gages		IN	UNIARIO
stream rd inter	sect		derived from nhd canals/streams and TIGER roads	Point shapefiles showing the intersection of streams and roads.		N	
ou cum ru mich	leb		derived from rhd canals/streams and TIGER roads	Point shapefiles showing the intersection of streams and roads.		N	LEB
	lhb		derived from nhd canals/streams and TIGER roads	Point shapefiles showing the intersection of streams and roads.		N	LHB
	Imb		derived from nhd canals/streams and TIGER roads	Point shapefiles showing the intersection of streams and roads.		N	LMB
	lob		derived from nhd canals/streams and TIGER roads	Point shapefiles showing the intersection of streams and roads.		N	LOB
	lsb		derived from nhd canals/streams and TIGER roads	Point shapefiles showing the intersection of streams and roads.		N	LSB
_	1			Shows USGS sampling stations that are actively transmitting			
streamflow	realstx.shp		http://water.usgs.gov/lookup/getspatial?realstx	information.	24,000	Υ	USA
streams	hydrogl020.shp		www.nationalatlas.gov	Streams and water bodies.	2,000,000	Y - elec	USA
Sueams	nydrogiozo.snp		www.nationalatias.gov	Streams and water bodies.	2,000,000	I - elec	U3A
				91 and 94 NAWQA study units' major surface-water sampling sites.			
				This sites are in NAWQA's fixed network and/or in a bed sediment			
swss	sw9194x020.shp		www.nationalatlas.gov	and tissue network.	?	Υ	USA
tiger	illi	illi_roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files	100,000	N	IL
	indi	indi_roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files	100,000	Y	IN
	leb	leb_tiger.shp, leb_tiger_maj.shp, leb_	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files, major and minor roads selected.	100,000	N	LEB
	lhb	lhb_tiger.shp, lhb_tiger_maj.shp, lhb	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files, major and minor roads selected.	100,000	N	LHB
	Imb	lmb_tiger.shp, lmb_tiger_maj.shp, lm	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files, major and minor roads selected.	100,000	N N	LMB
	lob Isb	lob_tiger.shp, lob_tiger_maj.shp, lob_ lsb_tiger.shp, lsb_tiger_maj.shp, lsb_	http://www.esri.com/data/download/census2000_tigerline/ http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files, major and minor roads selected. Merged from cty files, major and minor roads selected.	100,000 100,000	N N	LOB LSB
	mich	mich roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files.	100,000	N N	MI
	minn	minn roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files.	100,000	N N	MN
	newy	newy roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files.	100,000	N N	NY
	ohio	ohio roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files.	100,000	N	ОН
	penn	penn_roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files.	100,000	N	PA
	wisc	wisc_roads.shp	http://www.esri.com/data/download/census2000_tigerline/	Merged from cty files.	100,000	N	WI
	gl_roads_usa2.shp		http://www.esri.com/data/download/census2000_tigerline/	Merged from state files.	100,000	N	US GL BASIN
	gl_roads_usa2_Intersect.shp		http://www.esri.com/data/download/census2000_tigerline/	Merged from state files.	100,000	N	US GL BASIN
	gl_roads_usa2_Project		http://www.esri.com/data/download/census2000_tigerline/	Merged from state files.	100,000	N	US GL BASIN
	linedenglr1_summ_huc.shp						
4			Allerando fra da CLOIS				
topography	GLB	all and 4 and	All topogrphy from the GL GIS.	NED			LEB
	J SLD	glb_ned_1as glb_slope		derived slope		N Y	LEB
	-	glbslop_summ_huc.shp		shapefile that summarized slope by 8 dig HUC.		N N	LEB
		project_glb_1		projected NED		N N	LEB
		Project dip 1		projected NED		N N	LEB
	il mi wi topogrid					18	LED
		il	MIUSGS	hydrologically correct DEM by processing unit		N	II
		mi	MIUSGS	hydrologically correct DEM by processing unit		N	MI, IN
		wi	MIUSGS	hydrologically correct DEM by processing unit		N	WI
	LEB	leb_ned_1as		NED		N	LEB
		fill leb		Filled NED with spatial analyst 'fill' command.		N	LEB
		project_leb_1		projected NED		N	LEB
		slope leb		derived slope		N	LEB

about the second	tegory	Subcategory	Filename	Source Data Location	Description	Scale	Metadata	Extent
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Male Comment (1)   decided attent aspected actions by and office a country of whicheast (comment of the bidder)   decided attent aspected actions (1)   decided attent aspected (1)   decided (1)							N	LEB
Abstraces over large  Well _ interval Dispersion  Well _ i							N	LEB
Big showards   development of every 2017 is as a resoluted					derived stream shapefile using fa of 400 as cutoff		N	LEB
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In the profession of the profe							N.	LEB
No.			leb_str (1UUU)				NN	LEB
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seyed Tile Stops Rib Stops			160 311 (400)		1 20000			CLD
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In the finance of the control of the							N	LHB
Bit							N	LHB
In the first control of the control							N	LHB
In the Junes   Special Conference   Special Confere							N	LHB
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titlewe, 1000 spurm work titlewe, procer titlewe, proceed ti							N.	LHB
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LMB indicated the process of the pro					grid of flow acc >1000			LHB
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Slope_lob					shapefile summary of slope by 8 digit HUC.		N N	LOB LOB
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flowdir lab							N N	LSB
Projected NED.   Projected NED.   Derived slope.   Slope.   Isb. Stream 1000   Shapefile of derived stream at f.a. cutoff of 1000   Shapefile of derived stream at f.a. cutoff of 1000   Shapefile summarizing slope by 8 digit HUC   Slobstream summ. slope   Shapefile summarizing slope by 8 digit HUC   Slobstream summ. slope   Shapefile summarizing slope by 8 stream segment   Str. ord. 1000   Grid of Stream order at 1000 f.a. cutoff of 1000   Grid of Stream order at 1000 f.a. cutoff of 1000   Grid of Streams derived from NED at f.a. c							N N	LSB
Slope   Isb	·····						N N	LSB
Isb. stream 1000							N N	LSB
Isbslop_summ_huc   Shapefile summarizing slope by 8 digit HUC							N	LSB
Isbstream summ_slope							Ň	LSB
Str_ord_1000   grid of stream order at 1000 f.a. cutoff.			Isbstream summ slope		shapefile summarizing slope by stream segment		N	LSB
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			Isb_str_400				N	LSB
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## **APPENDIX 2 - WATER ALLOCATION PROGRAM LIST**

Descriptive Name Model Development Short Name Organization Contact

<u>Models Developed by the Corps of Engineers</u> HEC-5 Simulation of Flood Control and Conservation Systems USACE Hydrologic Engineering Center http://www.hec.usace.army.mil/USACE Hydrologic Engineering Center http://www.hec.usace.army.mil/ HEC-5

HEC-PRM Prescriptive Reservoir Model

SSARR Streamflow Synthesis and Reservoir Regulation USACE North Pacific Division http://www.nwd-wc.usace.army.mil/report/ssarr.htm

Models Developed by State Agencies

WRIMS (CALSIM) Water Resources Integrated Modeling System StateMOD State of Colorado Stream Simulation Model CA Department of Water Resources CO Water Conservation Board http://modeling.water.ca.gov/hydro/model/description.html http://cdss.state.co.us/

CO Division of Water Resources

<u>Models Developed by International Consulting Firms and Research Institutes.</u>
OASIS Operational Analysis and Simulation of Integrated Systems HydroLogics, Inc. http://www.hydrologics.net/

Acres Reservoir Simulation Program Acres International, BOSS International GIS-Based Decision Support for Water Planning & Mgmnt Danish Hydraulic In http://civilcentral.com/html/arsp\_tech\_info.html http://www.dhisoftware.com/mikebasin/ ARSP MIKE BASIN Danish Hydraulic Institute

River Basin Simulation
Water Evaluation and Planning RIBASIM http://www.wldelft.nl Delft Hydraulics Stockholm Environment Institute **WEAP** http://weap21.org

General River and Reservoir Simulation Models

Short Name Descriptive Name Model Development Organization Contact

SUPER SWD HEC-ResSim Reservoir System Model Reservoir System Simulation USACE Southwestern Division
USACE Hydrologic Engineering Center RiverWare River and Reservoir Operations Bureau of Reclamation, TVA,

http://animas.colorado.edu/riverware/ MODSIM Colorado State University http://modsim.engr.colostate.edu/modsim.html

Generalized River Basin Network Flow Model Water Rights Analysis Package TX Commission on Environmental Quality WRAP USACE, TWRI http://ceprofs.tamu.edu/rwurbs/wrap.htm 103

http://www.swd.usace.army.mil/ http://www.hec.usace.army.mil/

## **APPENDIX 3 - PRESENTATIONS AND MEETINGS**

## **Presentations/Meetings**

June 2005 - Great Lakes Protection Fund Growing Water Initiative Workshop, Evanston, IL Presentation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

January 2006 – Project Site Visit with local Nature Conservancy Staff – Shiawassee Watershed - Owosso, MI

Project Update and Field Validation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

February 2006 – Project Site Visit with local Nature Conservancy Staff – St. Joseph Watershed - Angola, IN

Project Update and Field Validation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

February 2006 - Project Site Visit with University of Wisconsin at Milwaukee Staff – Milwaukee River Watershed - Milwaukee, WI

Project Update and Field Validation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

October 2006 - Minnesota GIS/LIS Consortium - St. Cloud, MN

Presentation: Prioritizing and Valuing Hydrologic Restoration Opportunities & Evaluating the Effects of Differing BMPs on Pollutant Load Reductions Using Custom GIS Tools

July 2006 – The Joyce Foundation – Chicago, IL

Presentation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

January 2007 - Project Presentation – The Conservation Fund – Brodhead, WI Presentation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

February 2007 – Wisconsin Wetlands Association. Conference: Riverine Wetlands:

Connections, Corridors and Catchments – La Crosse, WI

Presentation: "Wetlands as Regulators of Flow Regime in the Milwaukee River Watershed"

February 2007 – (MN) Wetland Professionals Association, Conference: Landscape Level Functional Assessment

Presentation: Landscape Assessments of Hydrologic Restoration Opportunities and BMP's Using GIS Tools

March 2007 – Lake Erie Millennium Workshops on Implementing Watershed/Nearshore Nutrient Loading Management and Targets, Lake Erie Lakewide Management Plan - Windsor, ON Presentation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

March 2007 – U.S. EPA, Great Lakes National Program Office – Chicago, IL Presentation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

April 2007 – Bay Lakes Regional Planning Commission, USFWS, Wisconsin DNR – Green Bay, WI

Presentation: Identifying and Valuing Restoration Opportunities and Resource Improvements at Watershed and Subwatershed Scales

April 2007 – 2nd National Conference on Ecosystem Restoration – Kansas City, MO Presentation: Identifying and Valuing Hydrologic Restoration Opportunities in the Great Lakes Basin

May 2007 – International Association for Great Lakes Research - 50th Conference on Great Lakes Research – College Station, PA