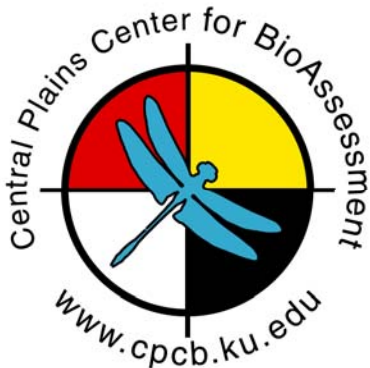

USEPA Region 7 wetland database

Central Plains Center for BioAssessment
Kansas Biological Survey



Nov. 2008 Denver, EPA and GLEC grants
FED41930 & IND0060718

Review

- Reference wetlands in three ecoregions (Deb)
 - Missouri River floodplain wetlands (Don)
 - Now – R7 database for nutrient criteria
-

Thanks

- USEPA Region 7
- Wetland Regional Technical Assistance Group (RTAG)
- Data contributors:
 - NDEQ
 - KDHE
 - IDNR
 - USGS
 - CPCB



CPCB field crew on Cooley Lake, MO



Purpose

Determination of potential wetland

- ❑ **reference condition schemes**
- ❑ **classification schemes**

for use in future development of regional benchmark values for wetlands.

Database

- 5 sources of data
 - >700 sampling events
 - 265 sites
 - 1994 – 2008
 - 9 Level III ecoregions (Omernik 2000)
-

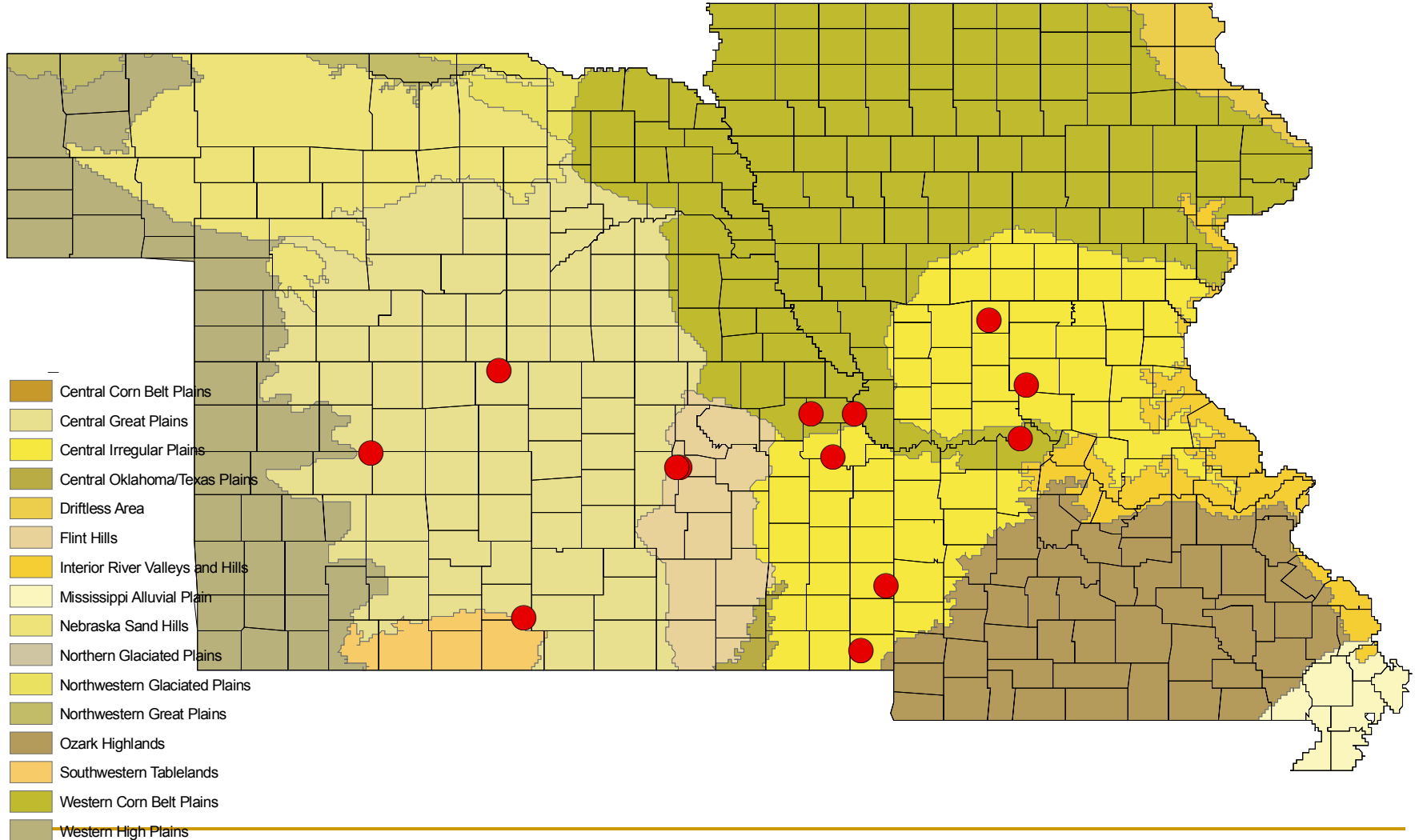
Data sources

Agency	Dataset	#sites	#records	Contact	MinOfDate	MaxOfDate	Format
CPCB	CPCBMOoflood	21	21	Debbie Baker	12-Jul-2005	26-Aug-2005	MSAccess
CPCB	CPCBphase2	28	38	Debbie Baker	23-Jun-2008	15-Aug-2008	MSAccess
CPCB	CPCBref	36	36	Debbie Baker	16-May-2006	3-Aug-2006	MSAccess
IDNR	IDNR2005	58	58	Vince Evelsizer	15-Jun-2005	25-Jul-2005	MSExcel
KDHE	KDHE	23	90	Ed Carney	2-Aug-1999	7-Sep-2005	MSExcel
NDEQ	NDEQstoret1995	24	89	John Bender	24-May-1995	12-Dec-1995	MSExcel
NDEQ	NDEQstoret1996	8	43	John Bender	21-May-1996	16-Oct-1996	MSExcel
NDEQ	NDEQstoret1997	19	70	John Bender	16-Apr-1997	3-Dec-1997	MSExcel
NDEQ	NDEQstoret1998	23	107	John Bender	20-Apr-1998	5-Nov-1998	MSExcel
NDEQ	NDEQstoret1999	17	64	John Bender	2-Jun-1999	18-Nov-1999	MSExcel
USGS	USGS	8	33	online NWIS	12-May-1994	12-Aug-2008	MSExcel
USGS	USGSpubs	2	76	Dale Blevins	15-Feb-1996	19-Dec-1997	paper

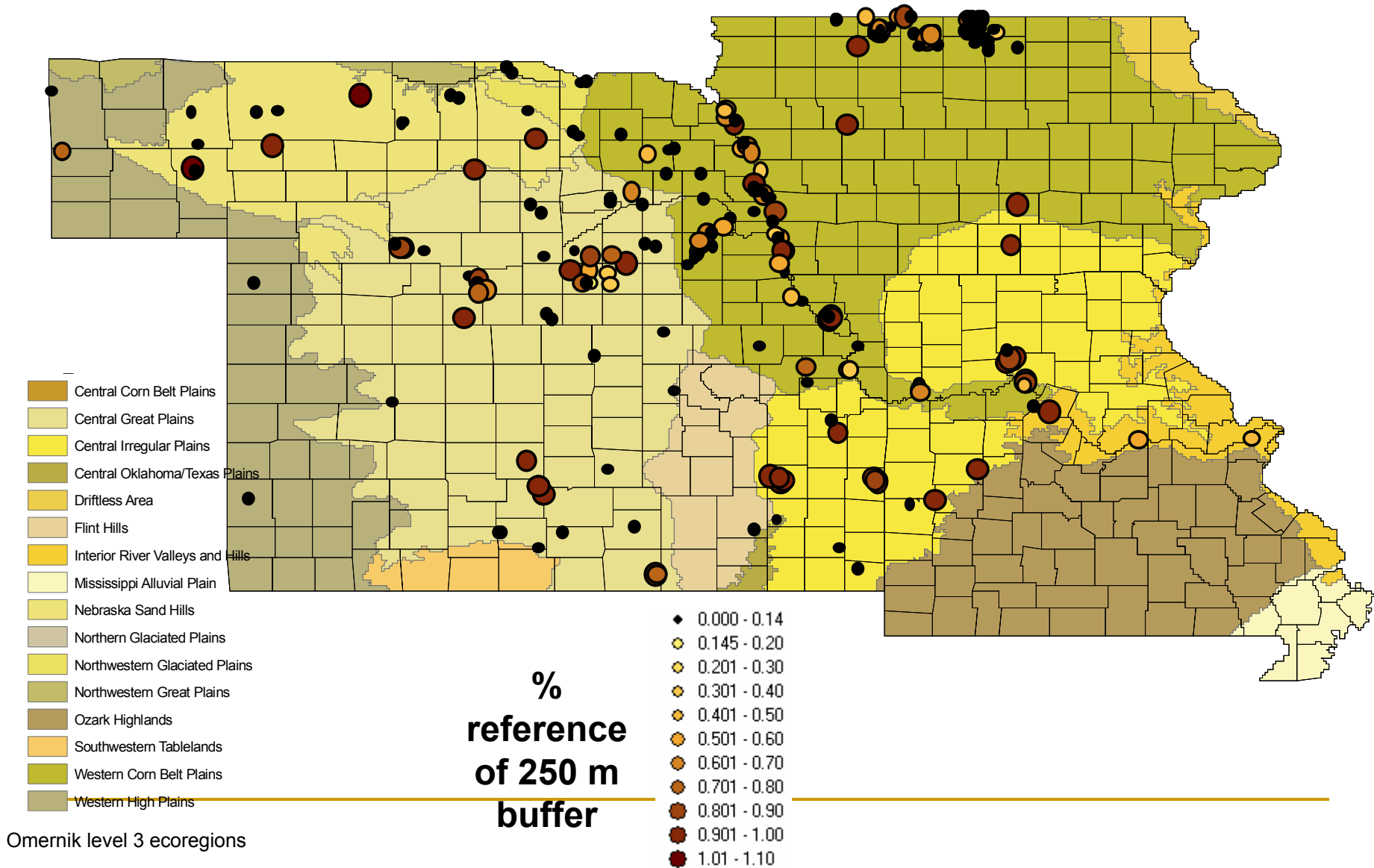
Parameters

- Total Nitrogen
 - Total Phosphorus
 - Suspended Chlorophyll *a*
 - Turbidity
-

Reference sites by BPJ



Reference sites by GIS

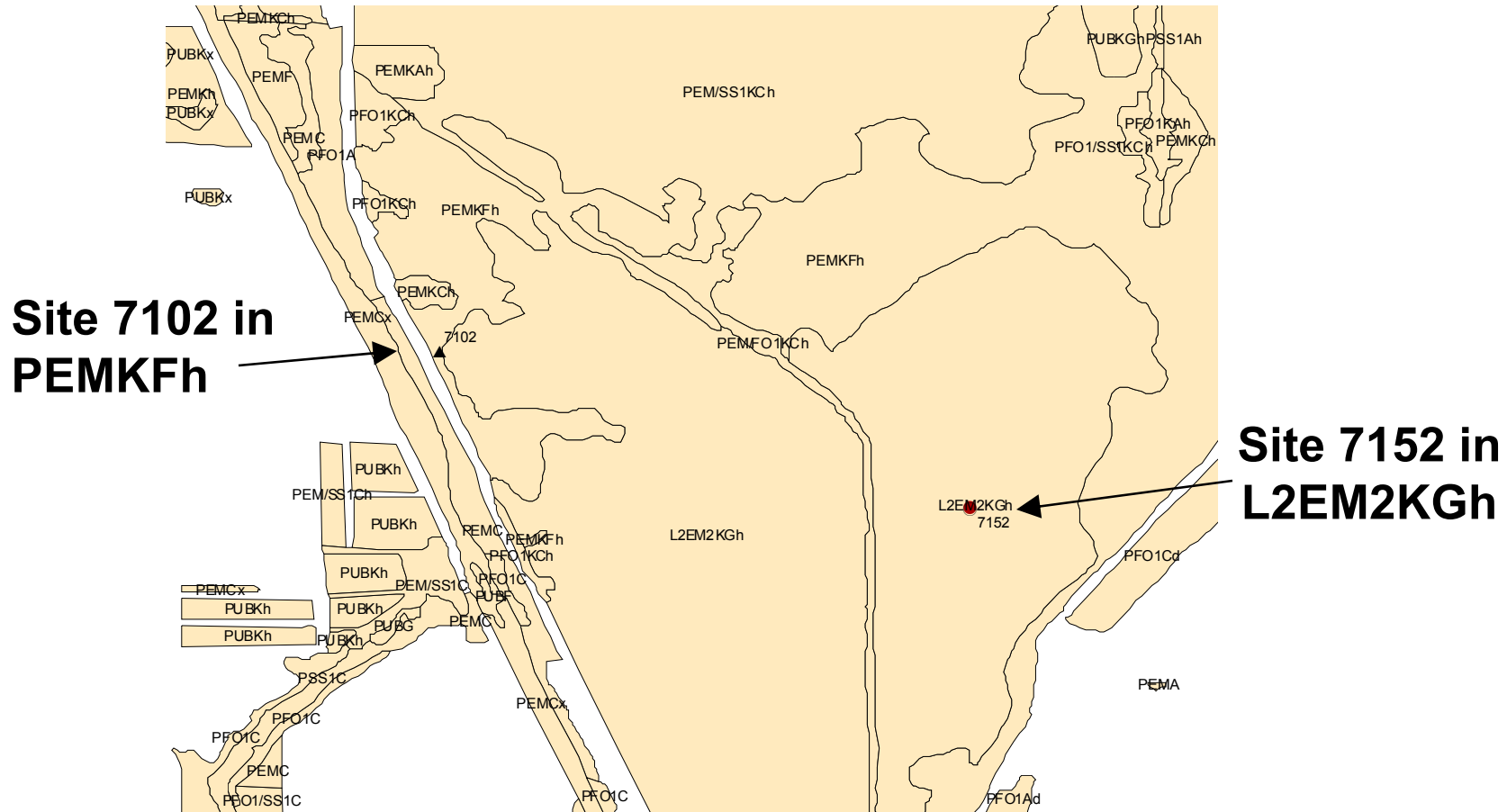


Reference Fraction

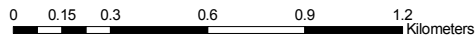
- 111 sites have reference fraction value

Ref buffer	# sites
1	2
0.90 to 0.99	40
0.80 to 0.89	16
0.70 to 0.79	14
0.60 to 0.69	15
0.50 to 0.59	8
0.40 to 0.49	7
0.30 to 0.39	8
0.20 to 0.29	0
0.10 to 0.19	1
0.00 to 0.09	0

NWI polygons



Squaw Creek NWR, Missouri



Classification

Possibilities:

- Cowardin
- Hydrogeomorphology
- Soil
- Etc.

Use what the states use!

Classification Reality

- NWI misclassification
- IDNR, NDEQ, CPCB provided ground-truthed classifications

	by NWI	by agency
lacustrine	53	16
palustrine	92	88

- Commission % of NWI
- Omission % of NWI

