LAND USE

Historic and Recent Land Use

Prior to settlement, prairie grasses such as big and little bluestem dominated the landscape of the Platte River basin. Timber was generally confined to deep, narrow ravines or along major tributaries. Ravines or minor tributary draws opening to the east had less timber than those opening to the west. In addition, along the major south-flowing streams the woodland corridor was very narrow or absent on the west side, but was thicker on the eastern side (Schroeder 1982). This asymmetry was thought to be related to eastward moving fires that were stopped by the river channel firebreak (Clouser 1978).

Native American tribes inhabited the region prior to the 1830's and included the Sauk, Fox, Otoe, Ioway, Pottawattamie, and Sioux. Most of the Native Americans were displaced to the Kansas Territory from the Platte Territory during the 1830's when the State of Missouri acquired this portion of the state as part of the Platte Purchase of 1836. However, a few tribes in Gentry and Worth counties remained there until the early 1850's. Settlers of the region began arriving in the early 1830's, and most were from the eastern states of Kentucky, Tennessee, Georgia, Virginia, Ohio, and Indiana. Initially the soils in the woodland areas along the tributaries were cultivated because newcomers to the region did not believe that land supporting only grass had any value other than for grazing (Kramer 1993). However, settlers soon found that the deep, dark-colored prairie soils produced superior crops, and intensive breaking of the prairie sod began and did not cease until nearly all of the land was converted to agricultural production (Brown 1968). Corn was the primary crop, but wheat, oats, tobacco, hemp, flax, cotton, fruit trees, cattle, and hogs were also grown in the region (Kramer 1993).

The first railroads, built in the 1870's, increased the momentum of the agricultural movement by providing easy access to plows, reapers, and fencing. This enabled settlers to aggressively convert native prairie to cropland. Drainage of bottom lands also occurred during this time period. This opened up large new areas for settlement. The population of northwest Missouri peaked in the early 1900's after which the population began to decline, a trend within the region that continues to this day. Only the lower portion of the basin in Platte County is experiencing any population growth. This area will likely continue to grow at an accelerated rate as the suburbs of Kansas City continue to expand northward.

Current land use within the basin continues to be dominated by row crop production (Table 1 , Figure lu). In 1992, about 56% of land within the basin was in row crop production. Pasture and forest areas accounted for 29% and 8%, respectively, of the land use within the Platte River basin. However, there were differences in land use patterns between the states of Iowa and Missouri within the basin (Table 1). Almost 70% of the Platte River basin in Iowa was in row crop production, compared to only 50% in the Missouri portion of the basin. Forest and grassland areas accounted for 4% and 20%, respectively, of land use in the Iowa portion of the basin, while 9% and 32%, respectively, of the land use in Missouri were attributed to these two habitat types.

Soil Conservation Projects

Missouri has about 56,000 acres (3.6%) of the Platte River basin within Watershed Protection and Flood Prevention Act (PL 83-566) watershed projects (USDA-SCS 1993). Two watershed projects have been completed under PL 83-566 (Table 2). The Platte River Tributaries Watershed Project was completed in 1967, and it included 11 grade stabilization structures and 1.6 miles of channelization on small tributary streams. The 102 River Tributaries Watershed Project was completed in 1977, and it included 10 grade stabilization structures, 18 land treatment stabilization structures and one multipurpose dam. The Mozingo Creek Watershed Project designed to provide watershed protection, flood prevention, municipal water, and recreation, was completed in 1996. Mozingo Lake (1,000 surface acres), completed in 1994, is at full pool with three stabilization structures scheduled for construction above the lake and the fourth planned project canceled (Ross Braun NRCS personal communication). Three remaining watershed projects that were planned under PL 83-566 within the basin are currently inactive, including Little Third Fork Platte River, East 102 River, and Lower 102 River.

Special Area Land Treatment (SALT) and EARTH projects are state-funded programs administered by local Soil and Water Conservation Districts. These projects are designed to reduce soil erosion within each Conservation District by taking a watershed approach. There are currently six SALT projects and one EARTH project planned within the Platte River basin (Table 3) , however , none were completed as of February 1996.

Public Areas

The Missouri Department of Conservation (MDC) manages 6,946 acres of land within the Platte River basin (Table 4)(Figure mo). Lan d managed by MDC within the basin includes both pastured and forested areas, as well as land that is in row crop production. Opportunities exist for both consumptive and non-consumptive recreational activities on public lands owned by MDC.

There are 22 stream access or frontage sites in the Missouri portion of the Platte River basin (Figure mo), and boat ramps are provided at five of these areas (Table 4). McPherson (1994) identified seven additional significant stream resource areas (four access sites and three frontage sites) within the basin that were potential areas to be acquired by MDC (Table 5) . These sites would not only provide additional wade and bank fishing opportunity but would preserve high quality or remnant habitat and quality natural features. An additional stream access site on the Platte River in Buchanan County was identified as a high priority for acquisition by MDC in northwest Missouri (Table 5; see Kerns memorandum dated 6-27-96).

There are several other public areas within the Missouri portion of the watershed that are not owned by MDC (Figure ot). Two public ponds are located in the town of Savannah (Andrew County), and they total 2.5 acres. Four public ponds are located on the campus of Missouri Western State College in St. Joseph (Buchanan County) that total 4.0 acres. The city of Maryville (Nodaway County) owns 3,325 acres of public land, and included in this total is the recently (1994) impounded 1,000-acre Mozingo Creek Lake. Smithville Lake is a 7,190 acre U.S. Army, Corps of Engineers (USCOE) impoundment located in Clinton and Clay counties, Missouri. Construction of the dam at Smithville Lake was completed in 1977 and the reservoir began filling in October 1979. The reservoir impounded 18 miles of the Little Platte River valley. There

are 12,519 acres of public land that surround Smithville Lake that provide various recreational activities. This land is owned by the USCOE, and portions are managed by Clay County Department of Parks, Recreation, and Historic Sites, city of Plattsburg, and MDC.

There are 11 public areas within the Iowa portion of the Platte River basin (Table 6; Figure ia). These areas contain a variety of habitat types including wetlands, grasslands, timber, and row crops. These 11 areas total 2,755 acres. There are 10 impoundments on these 11 public areas that total 1,042 surface acres of water (includes Mitchell Marsh, a 50-acre marsh located within the Iowa portion of the basin).

Corps of Engineers 404 Jurisdiction

The Missouri portion of the Platte River basin is under the jurisdiction of the Kansas City District of the USCOE. The Iowa portion of the basin is administered by the Rock Island District of the USCOE. Applications for 404 permits should be addressed to the following offices:

In Missouri:

US Army Corps of Engineers
700 Federal Building
Kansas City, MO 64106-2896
Attention: MRKOD-P
phone: (816) 426-5357

In Iowa:

US Army Corps of Engineers
Clock Tower Building
Rock Island, IL 61201-2004
Attention: NCROD-S
phone: (309) 788-6361 ext. 6370

Table 1. Land use within the Platte River basin for Iowa, Missouri and the entire basin during 1992. Land use is expressed as acres and percentage of land use in parenthesis.

Land Use	Iowa	Missouri	Total
Cultivation	271,100 (68.8%)	469,100 (46.1%)	740,200 (55.7%)
Forest	16,500 (4.2%)	89,000 (8.7%)	105,500 (7.9%)
Pasture	78,800 (20.0%)	300,500 (29.5%)	379,300 (28.5%)
Federal (USCOE)	0 (0.0%)	15,600 (1.5%)	15,600 (1.2%)
Rural Transportation	11,700 (3.0%)	20,000 (2.0%)	31,700 (2.4%)
Urban	7,500 (1.9%)	27,000 (2.7%)	34,500 (2.6%)
Stream	8,200 (2.1%)	14,900 (1.5%)	23,100 (1.7%)

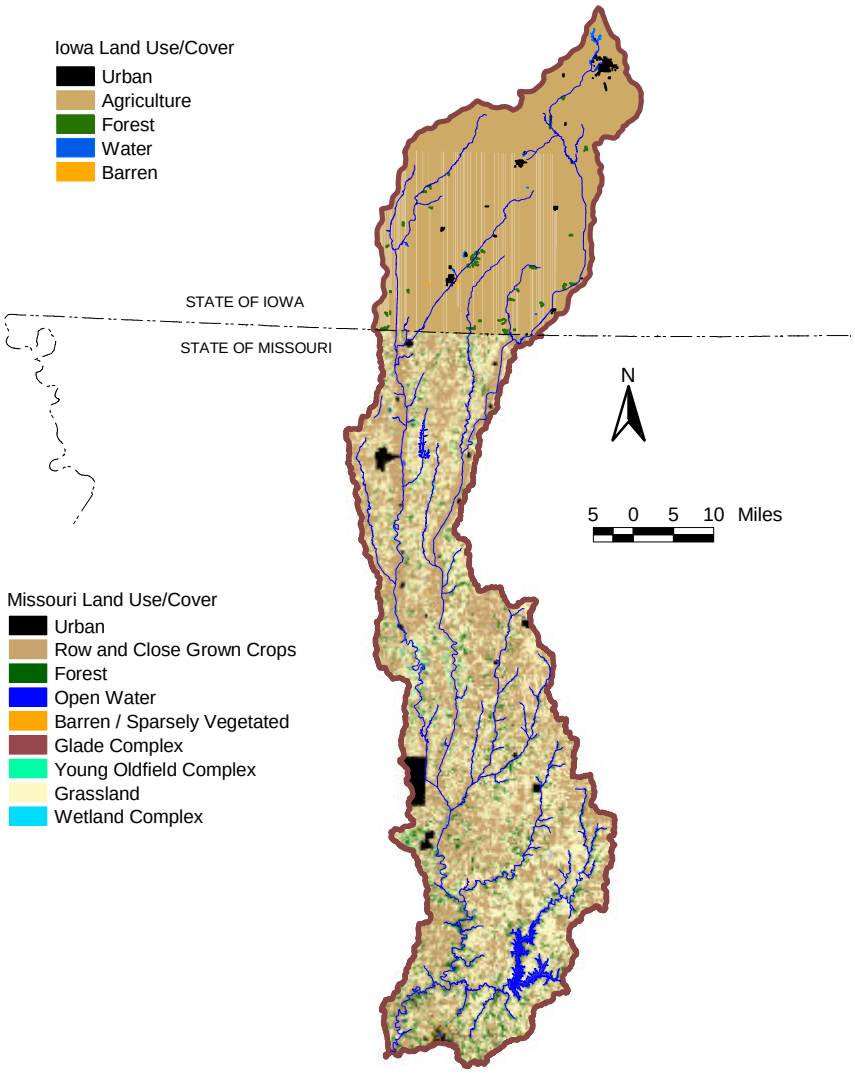

Figure lu. Land use within the Platte River basin in Iowa and Missouri (MORAP 1999 preliminary data).

Table 2. Information on PL-566 watershed projects in the Platte River basin (USDA-SCS 1993).

Watershed	County	Acres	Project Purpose	Status
Platte River Tributaries	Worth, MO	12,800	Watershed Protection Flood Prevention	Completed 1967
102 River Tributaries	Nodaway, MO	19,301	Watershed Protection Flood Prevention Recreation	Completed 1977
Mozingo Creek	Nodaway, MO	23,988	Watershed Protection Flood Prevention Municipal Water Recreation	Completed 1996
Little Third Fork Platte River	DeKalb, MO Gentry, MO	41,600		Inactive
East 102 River	Nodaway, MO Taylor, IA	110,305		Inactive
Lower 102 River	Nodaway, MO	27,523		Inactive

Table 3. Status of Special Area Land Treatment (SALT) and EARTH projects within the Platte River basin as of June 1996.

District	Project	Watershed Acres	Treated Acres	Completion Date	Type
Andrew	Agee Creek	6,071	698	1998	SALT
Andrew	Long Branch	4,864	515	1998	SALT
Clinton	McGuire Branch	12,160	3,610	1996	SALT
Clinton	Horse Fork	9,600	2,513	1996	SALT
Clinton / DeKalb	Little Platte	14,992	2,448	1997	SALT
Platte	Jowler Creek	4,142	1,938	1996	SALT
DeKalb	Third Fork	40,414	3,716	1999	EARTH

Table 4. Public areas within the Missouri portion of the Platte River basin owned by MDC.

Area Name	County	Total Acres	Impoundment Acres	Stream Access
Agency Access	Buchanan	1	0	Access to Platte R.
Agency C.A.	Buchanan	94	0	Frontage on Platte R.
Belcher Branch Lake C.A.	Buchanan	405	55	None
Bridgewater Access	Nodaway	14	0	Frontage on 102 R.
Bristle Ridge Access	Nodaway	1	0	Access to Platte R.
Burton Bridge Access	Buchanan	16	0	Frontage on Platte R.
Christie Memorial C.A.	Andrew	174	3	None
Elrod Mill Access	Andrew	57	0	Frontage on Platte R.
Davis Memorial C.A.	Andrew	30	0	None
Hadorn Bridge Access	Andrew	93	0	Frontage on 102 R.
Happy Holler Lake C.A.	Andrew	2,207	67	Frontage on 102 R.
Humphrey Access	Platte	12	0	Frontage on Platte R.
Keever Bridge Access	Nodaway	6	0	Frontage on Platte R.
Kendzora C.A.	Platte/ Buchanan	772	35	Frontage on Platte R.
Lathrop Bridge Access	Clinton	25	0	Frontage & ramp on L. Platte R.
Limpp Comm. Lake	Gentry	70	29	None
Midway Access	Andrew	1	0	Access to 102 R.
Nodaway Co. Comm. Lake	Nodaway	237	73	None
Pigeon Hill C.A.	Buchanan	336	0	None
Platte Falls C.A.	Platte	2,333	3	Frontage & ramps (2) on Platte R.
Ringgold Access	Platte	22	0	Frontage on Platte R.
Rochester Falls Access	Andrew	14	0	Frontage on Platte R.

Rock Quarry Access	**Andrew**	**9**	**0**	**Frontage & ramp on 102 R.**
Saxton Access	**Buchanan**	**5**	**0**	**Frontage on Platte R.**
Schimmel City Access	**Platte**	**11**	**0**	**Frontage & ramp on Platte R.**
Sharps Station Access	**Platte**	**10**	**0**	**Frontage & ramp on Platte R.**
Sheridan Access	**Worth**	**1**	**0**	**Access to Platte R.**
Union Mill Access	**Platte**	**2**	**0**	**Access to Platte R.**

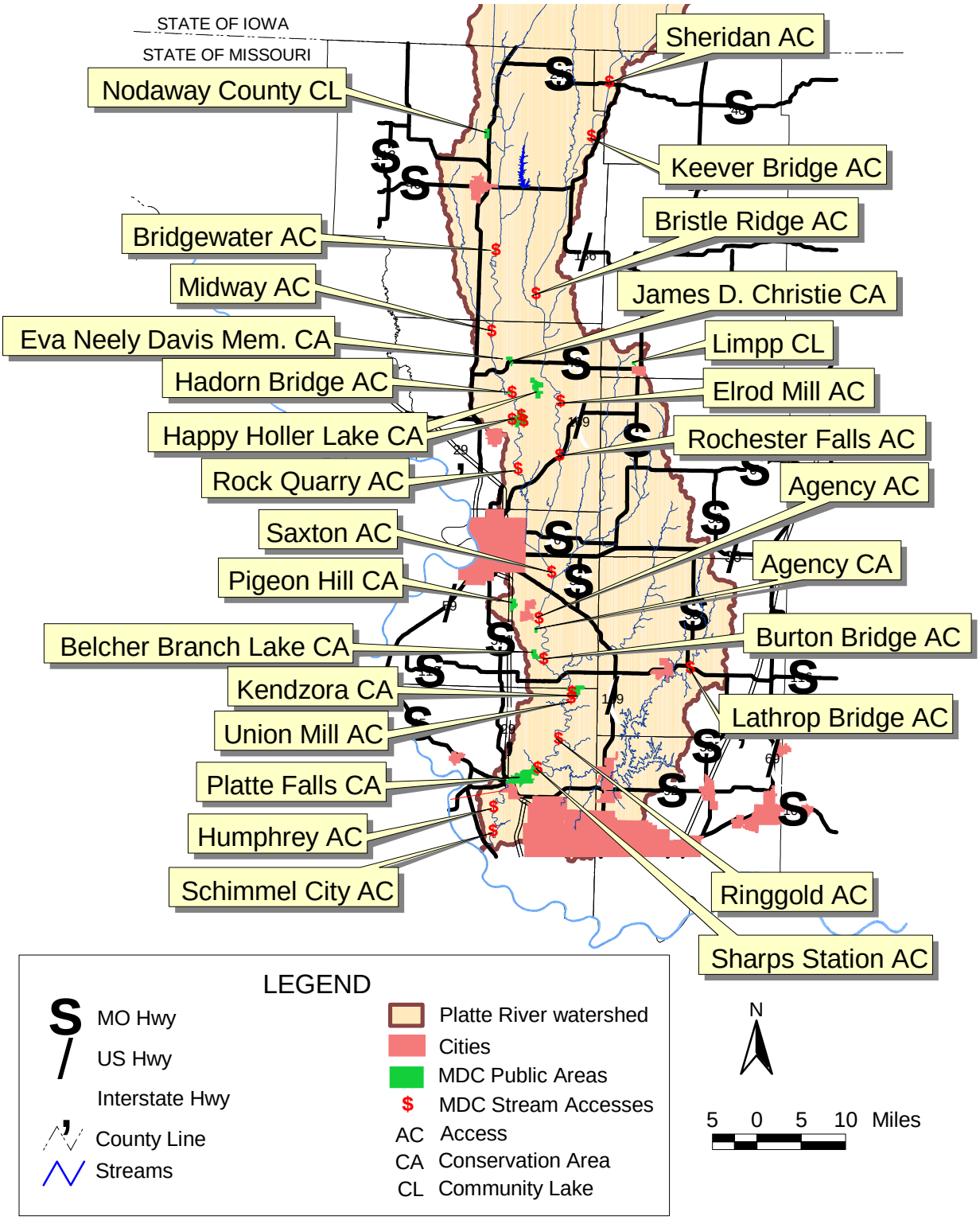

Figure mo. Public area in Missouri within the Platte River watershed and owned by the Missouri Department of Conservation.

Table 5. Potential stream acquisition areas within the Missouri portion of the Platte River basin (McPherson 1994; Kerns memorandum June 27, 1996).

County	Stream	Location (T,R,S)	Priority	Area Type
Buchanan	Platte R.	57N,34W,S4	Moderate	Access
Buchanan	Platte R.	56N,34W,S3,S10	High	Access
Buchanan	Platte R. / 102 R.	57N,34W,S21	High	Frontage
Buchanan	Castile Cr.	55N,33W,S16 55N,34W,S25	High	Frontage
Nodaway	Platte R.	64N,34W,S36	Moderate	Access
Nodaway	102 R.	64N,35W,S15	High	Access
Nodaway	Honey Cr.	65N,34W,S12 64N,34W,S14	High	Frontage

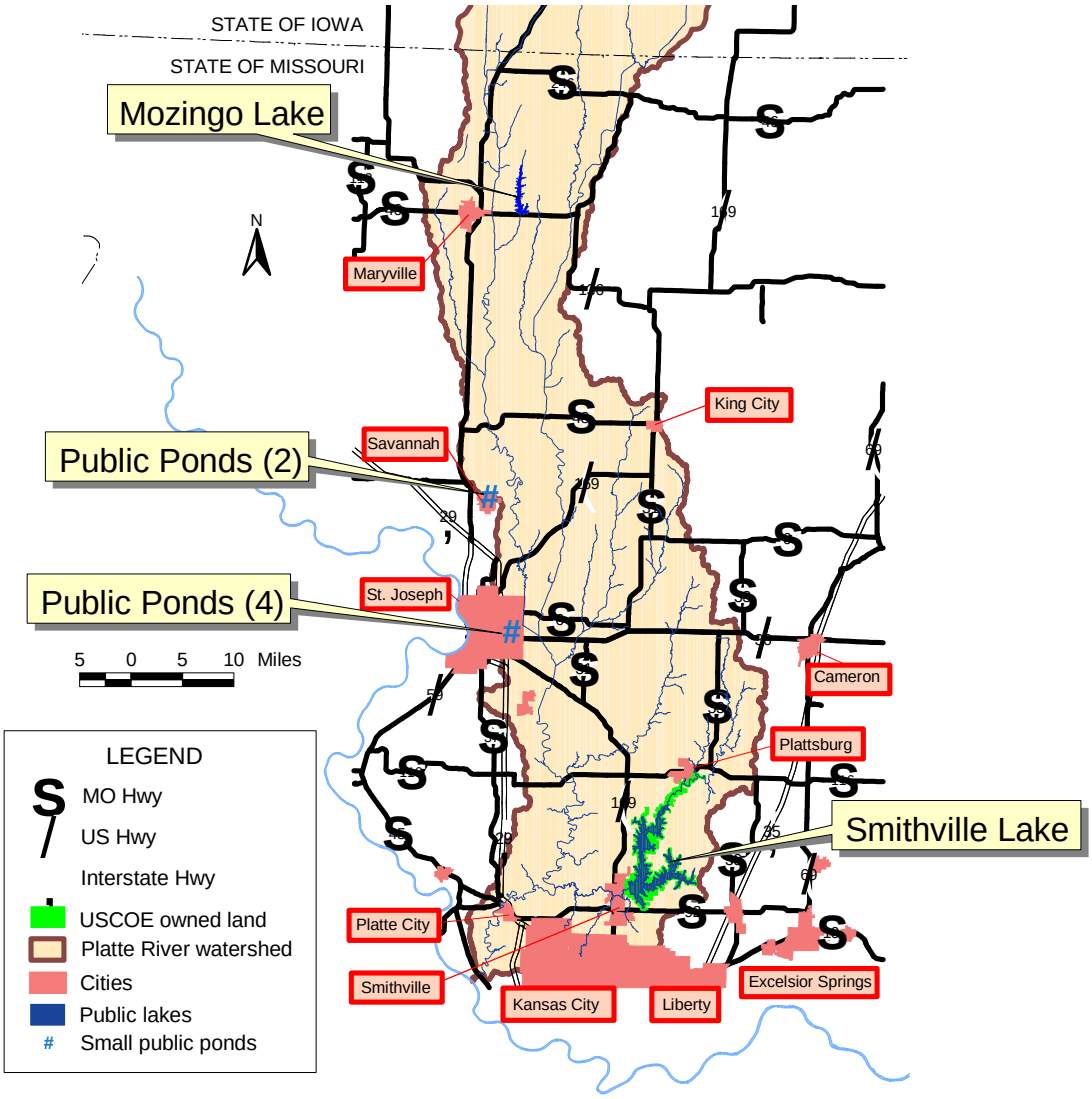

Figure ot. Public area in Missouri within the Platte River watershed and not owned by the Missouri Department of Conservation.

Table 6. Public areas within the Iowa portion of the Platte River basin.

Area Name	County	Total Acres	Impoundment Acres	Location (T,R,S)
Lenox Lake	Adams / Taylor	160	48	70N,32W,S5
French Wildlife Area	Taylor	80	0	68N,32W,S14
Lake of Threefires St. Park	Taylor	694	85	68N,34W,S1
Sands Timber	Taylor	235	70	68N,32W,S15
Wilson County Park	Taylor	50	24	70N,32W,S28
Windmill Lake County Park	Taylor	60	17	69N,35W,S36
Green Valley State Park	Union	1000	428	73N,31W,S23
Lake McKinley	Union	40	20	72N,31W,S11
Mitchell Marsh	Union	160	50	73N,31W,S26
Summit Lake	Union	250	220	72N,31W,S2

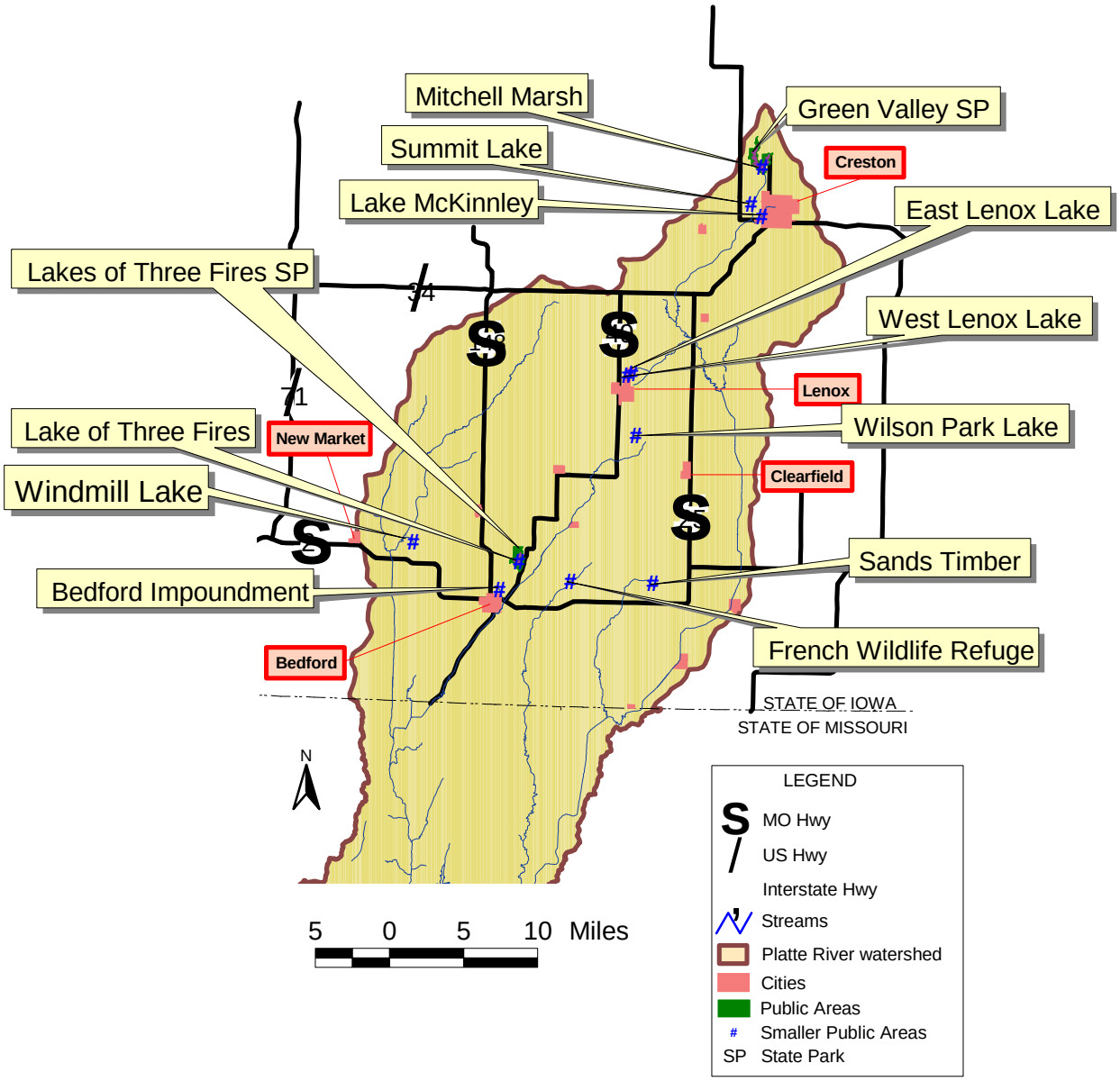

Figure ia. Public area in Iowa within the Platte River watershed.