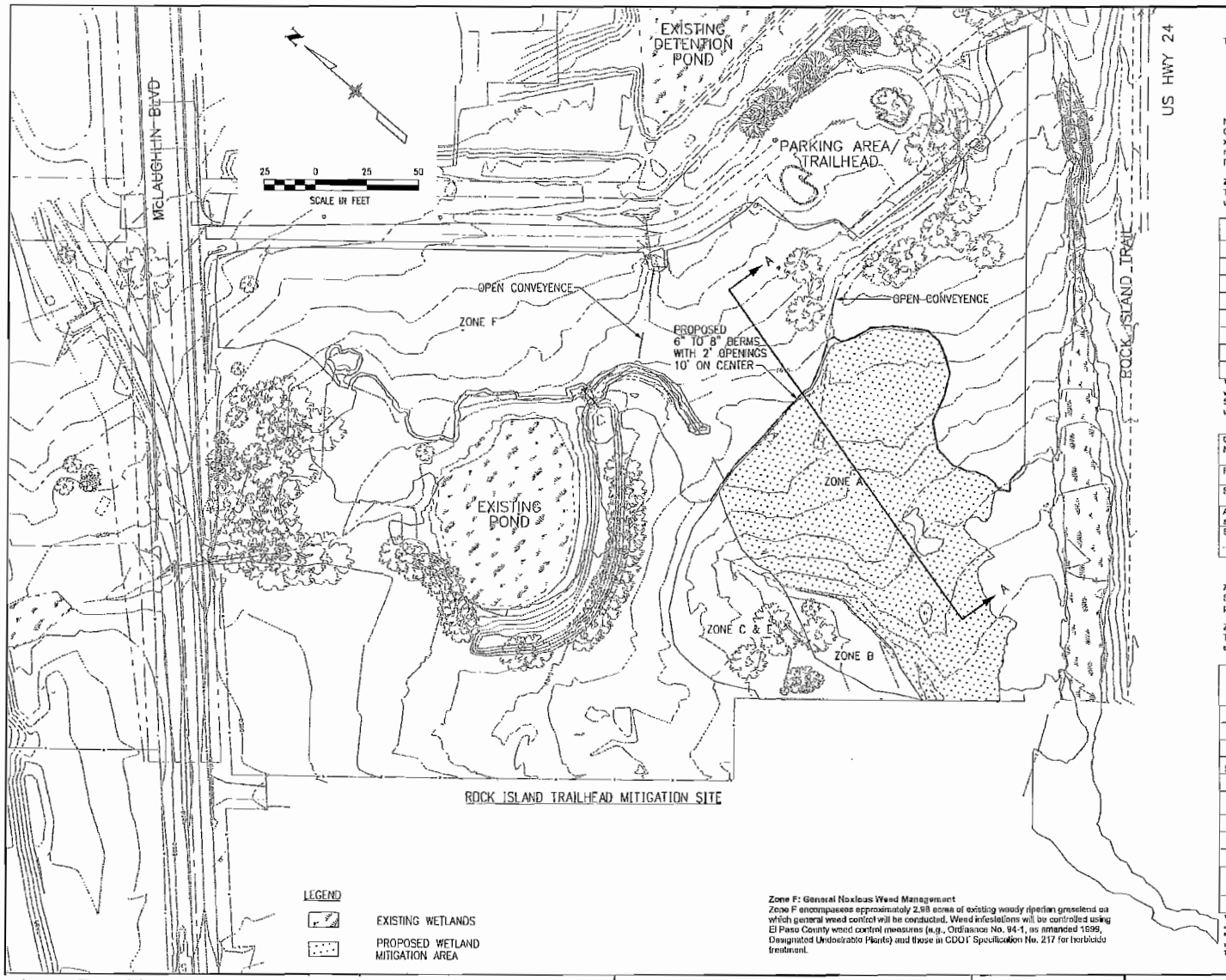

Rock Island Trailhead

The mitigation objectives, ratios, and credits are as follows:

Emergent wetlands – 1.33 acres @ 1:1 = 1.33 acres
Scrub shrub wetlands – 0.14 acres @ 1:1 = 0.14 acres
Riparian shrub plantings – 0.42 acres @ 5:1 = 0.08 acres
Weed control – 2.99 acres @ 10:1 = 0.30 acres

Total mitigation = 1.85 acres

No soils from excavated areas will be used for mitigation because of the presence of Canada thistle. After excavation, the site will be planted using live material on either a 3 x 3-foot area for live emergent herbaceous species or 12-foot or 6-foot centers for shrubs (the per acre density number for a 12 x 12-foot density is 302.5 and for a 6 x 6-foot density is 1210.).

Zone A: Palustrine Emergent

The species specified as Zone A (Table 4) will be used on 1.33 acres to expand existing wetlands.

Table 4. Zone A Live Planting Species and Amounts (Plugs)

Common Name	Scientific Name	Quantity[1]
Wooly sedge	*Carex lanuginosa*	1287 (10%)
Nebraska sedge	*Carex nebrascensis*	6438 (50%)
Fox sedge	*Carex vulpinoidea*	644 (5%)
Creeping spikerush	*Eleocharis palustris*	1288 (10%)
Torrey's rush	*Juncus torreyi*	644 (5%)
Small-fruit bulrush	*Scirpus microcarpus*	1288 (10%)
Three-square	*Scirpus pungens*	1288 (10%)
	TOTAL	12,877 (rounded)

[1] Based on 2 plugs within each 3x3-foot area on 1.33 acres (2 plugs x 4840 x 1.33 = 12,874); ratios (%) vary among species.

Seeding of redtop, switchgrass, American sloughgrass, and saltgrass in emergent wetland areas (Table 5). Seeds must be raked into top ¼ to 1/2-inch of soil.

Table 5. Grass seeding species and amounts

Common Name	Scientific Name	% Mix	Seeds/lb	PLS* Lbs/AC Broadcast**	Site amount (1.33 ac) Broadcast
Redtop	*Agrostis gigantea*	40	4,900,000	1	1.3
Switchgrass	*Panicum virgatum*	20	389,000	6	7.9
American sloughgrass	*Beckmannia syzigachne*	20	1,150,000	2	2.7
Saltgrass	*Distichlis spicata*	20	520,000	5	6.7
		100		14 lbs/AC	18.6 lbs PLS

*PLS = Pure live seed
** Rates to be reduced by ¼ if drilled

Zone B: Palustrine Scrub Shrub

Sandbar willow, golden currant and lesser amounts of peach-leaved willow will be planted on 0.14 acres of this site (Table 6).

Zone C/E: Shrub Plantings with Caragana / Locust Removal

This part of the mitigation plan includes removal of caragana and locust, and establishing Zone C trees/shrubs on 0.42 acres (Table 6).

Table 6: Zones B and C/E Riparian Plants

Common Name	Scientific Name	Zone B Quantity[1] / 0.14 acres	Zone C/E Quantity[2] / 0.42 acres
Trees (12-foot intervals)			1/3 of zone
Plains cottonwood	*Populus deltoides (sargenti)*	NA	24
Peachleaf willow	*Salix amygdaloides*	NA	24
Shrubs (6-foot intervals)			2/3 of zone
Sandbar willow	*Salix exigua*	85	NA
Wild plum	*Prunus americana*	NA	85
Chokecherry	*Padus (Prunus) virginiana*	NA	85
Golden currant	*Ribes aureum*	84	
Wild rose	*Rosa woodii*	NA	85
Snowberry	*Symphoricarpos occidentalis*	NA	85
TOTAL		169	340

[1] The total number of plants in Zone B is based on and 6-foot centers for shrubs on 0.14 acres (1210 x 0.14 = 169).
[2] The total number of plants in Zone C/E is based on 12 foot centers for trees on 1/3 of the zones (0.42 acres / 3 = 0.14 x 302.5 = 42), and 6-foot centers for shrubs on 2/3 of the zones (0.42 acres / 1.5 = 0.28 x 1210 = 339 plants).

Zone F: General Noxious Weed Management

Zone F encompasses approximately 2.98 acres of existing weedy riparian grassland on which general weed control will be conducted. Weed infestations will be controlled using El Paso County weed control measures (e.g., Ordinance No. 94-1, as amended 1999, Designated Undesirable Plants) and those in CDOT Specification No. 217 for herbicide treatment.

Woodmen Road improvements in tributaries of Sand Creek and Black Squirrel Creek near Colorado Springs, El Paso County, Colorado
Application by: El Paso County Department of Transportation
Application No. SPA-2007-271
Sheet 19 of 20

May 18, 2007

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EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

As Constructed	
No Revisions:	–
Revised:	–
Void:	–

WOODMEN RD CAPACITY PROJECT
WETLAND MITIGATION PLAN

Designer:	SJM	Structure Numbers	
Detailer:	LPS		
Sheet Subset:	WETLANDS	Subset Sheets:	WT03 of 4

Project No./Code
STU M240-062
13263
Sheet Number

FIGURE 5