



Pecos National Historical Park

Southern Plains Network and Southern Plains Fire Group 2014 Vegetation Monitoring Data Summary



ON THE COVER

Grassy plain at Pecos NHP. NPS Photo.

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Introduction

This report contains a data summary of results from all vegetation monitoring conducted by the Southern Plains I&M Network (SOPN) and the Southern Plains Fire Group (SPFG) during 2014 at Pecos National Historic Site (PECO). Data summaries are used to impart current monitoring data until enough years of data have been collected to facilitate trend analysis. More detailed synthesis reports will be produced in 2015-2017.

Grassland Monitoring Results

Grassland monitoring occurred during August and September of 2014 (Table 1). Data from five (5) permanent transects (Figure 2) were collected following the established monitoring protocol Grassland Monitoring Protocol and Standard Operating Procedures for the Southern Plains I&M Network and Fire Group (Folts-Zettner et al.)(Figure 1). The protocol calls for a series of permanent 50-meter transects containing five 2x1-meter plots. Species composition, relative cover and ground strata are collected during annual visits. Additional data is collected during visits that support the SPFG program.

Table 1. Plant community and sampling dates for each transect at Pecos NHP in 2014.

Group	Transect	Plant community	Date
Upland	LT-05	Blue Grama/Treatment	09/11
	LT-10	Blue Grama/Treatment	08/05
	LT-12	Blue Grama/Treatment	09/11
	LT-16	Blue Grama/Treatment	08/04
	LT-17	Blue Grama/Treatment	08/04

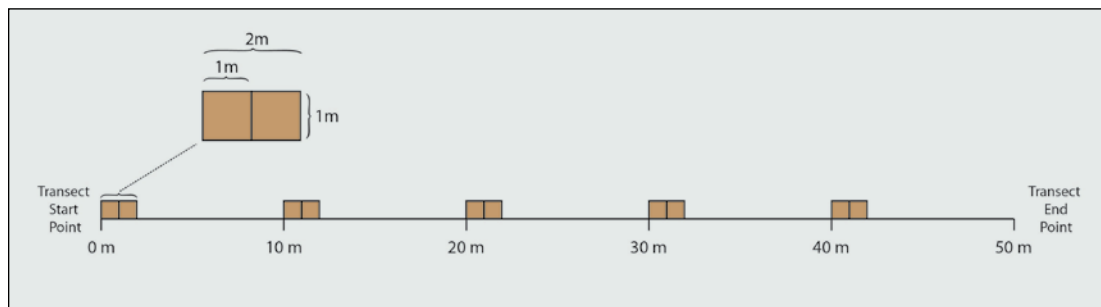


Figure 1. Layout of plots within each permanent transect.

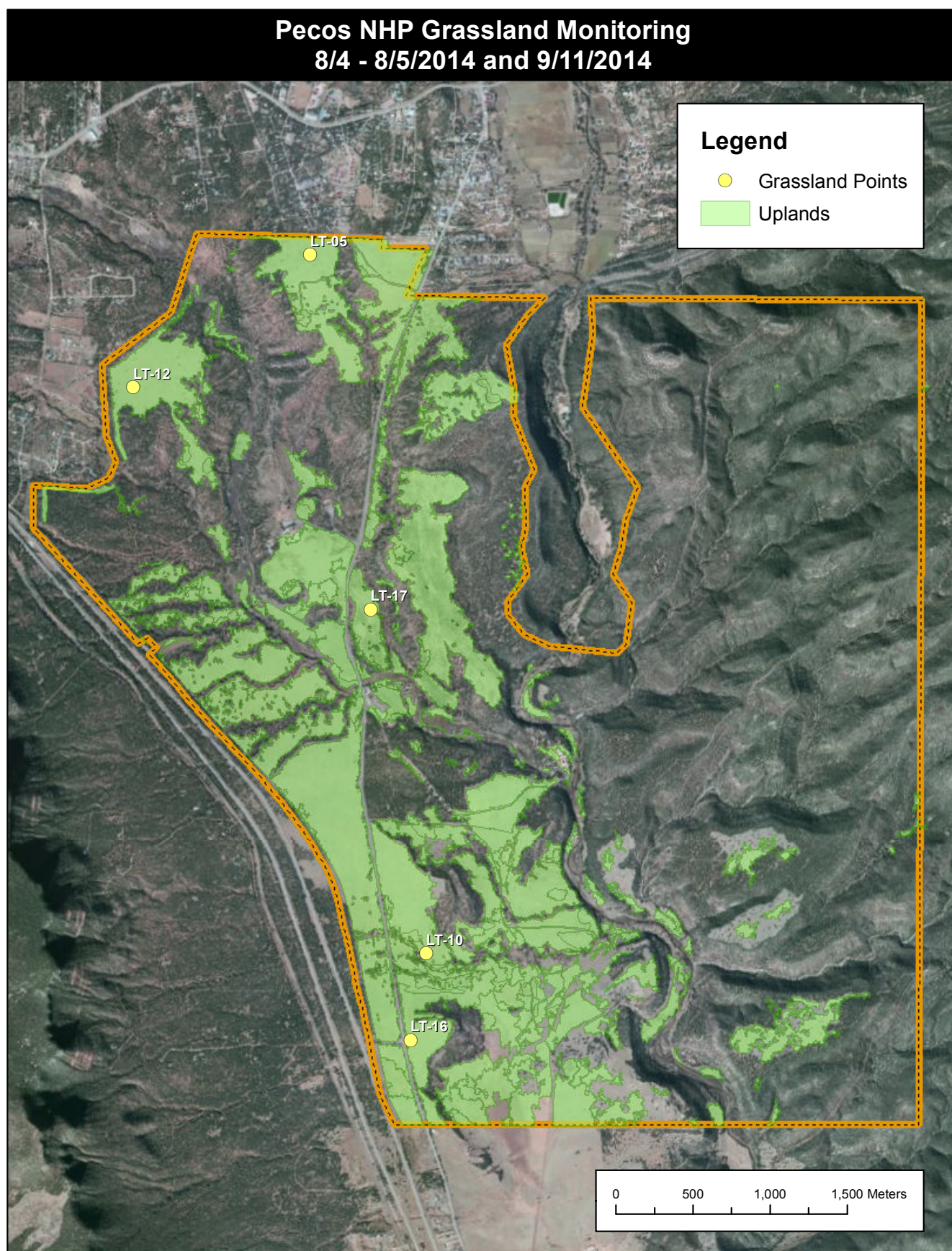


Figure 2. Location of each permanent grassland plot at PECO monitored in 2014.

The type and amount of ground strata (bare soil, litter, rock) influences many aspects of grassland health. The benefits of these influences vary along an east-west gradient. Litter accumulation, for example is considered more beneficial in the western parts of the Southern Great Plains because it protects the soil from erosion by wind and rain, and keeps soil root-zones cooler. These same benefits accrue in the eastern area, but because higher rainfall results in higher vegetative production, the greater accumulation of litter can negatively impact a grassland by limiting seedling recruitment. Ground strata estimates for each transect monitored at PECO in 2014 can be found in Table 2.

Table 3 contains numerical results of 2014 grassland monitoring at PECO. Each transect contains five plots. Frequency reflects the number of plots in each transect where a particular species was detected. Exotic plant species are highlighted in pink. Scientific and common names for each plant code, as well as that species attributes can be found in Table 4.

Table 2. Ground strata type and percentage for each transect monitored at PECO in 2014.

Cover	Upland Community				
	LT-05	LT-10	LT-12	LT-16	LT-17
SOIOPEN	36.6	42.2	37	25.4	36.2
SOILUNDER	27.4	4.8	47	11.2	17.4
LITTER	32.6	44.8	8.8	63.2	37.6
WOOD	12.4	6.8	7.2	1.2	7.4
ROCKSM	0	1	0	0	1.4
ROCKLG	0	0	0	0	0
LICHEN	0	0	0	0	0
MOSS	0	0	0	0	0
CRUST	0	0.4	0	0	0

Table 3. Species cover sum and frequency for each permanent transect monitored at PECO in 2014. Exotic species are highlighted in pink.

Species Code	Upland Community									
	LT-05		LT-10		LT-12		LT-16		LT-17	
	Cover Sum	Frequency	Cover Sum	Frequency	Cover Sum	Frequency	Cover Sum	Frequency	Cover Sum	Frequency
Forb										
ASTMIS	1	1	0.5	1					1	2
BRIEUP	12	3								
CASINT	1	1	1	1	1	1			0.5	1
CHAERI			2	4						
CHAFEN			1.5	3					3	3
CHEALB							1	1		
CHEINC	2	2	1	1						
CHELEP			2.5	3			2.5	3	0.5	1
CHEWAT							3.5	2		
CIROCH			1.5	2						
CIRUND	1	1			2	2				
CONCAN			0.5	1						
CORWRI			2	3					1.5	3
CRYCIN	1	1	5	4			7.5	4		
DALCAN									5.5	4
ERIALA	1	1	0.5	1	1	1			0.5	1
ERICAN					1	1				
ERIDIV	2	2	0.5	1	4	2	11.5	4	1.5	2
ERIFLA	1	1			2	2	10	4		
ERIJAM	23	2	2	2	6	2			24	4
EUPDAV	1	1								
GAIPIN									0.5	1
GAUCOC									2.5	3
GLABIP	1	1	16.5	5	3	3			7	3
GUTSAR	19	3	4	3	6	4	3	5	22	5
HELPET	1	1								
HETFUL	2	2								
HETVIL									5	4
HYMFIL			1	2					3	4
IOLON			1	2					0.5	1
LACSER	2	2								
LAPOCC			2.5	3			2	3		
LIAPUN					3	1				
LINPUB									1	2
MACCAN	2	2			3	3				
MACPIN	1	1	4.5	3	9	5	4.5	5	3.5	5
MACTAN							5	1		
MELLEU									0.5	1
MENSCA	16	4	8	4	1	1	0.5	1	1.5	2
MIRLIN									0.5	1
PENJAM			1	2			0.5	1	3	3
PHLNAN									5	1
PHYHED	1	1					0.5	1		

Table 3. Species cover sum and frequency for each permanent transect monitored at PECO in 2014. Exotic species are highlighted in pink (continued).

Species Code	Upland Community									
	LT-05		LT-10		LT-12		LT-16		LT-17	
	Cover Sum	Frequency	Cover Sum	Frequency	Cover Sum	Frequency	Cover Sum	Frequency	Cover Sum	Frequency
PHYVIR			1.5	2						
PLAPAT					7	3				
POROLE							10	5		
PSOTEN			0.5	1						
SALTRA			5.5	5	21	5	4	5	1	2
SCHLIN	1	1	1	2						
SENSPA	2	2	1	1	3	3				
SOLFEN							0.5	1		
SPHFEN	2	2							0.5	1
SYMLAN			0.5	1						
TETARG			2	1	1	1			6	5
THEMEG	2	2	1.5	2					1	2
TRADUB	3	3	1.5	3	3	3	1.5	2	5.5	4
Grass										
ARIPUR			3	1						
BOUCUR			5	3	1	1			9.5	5
BOUGRA	12	3	25	5	40	5	41	3	15	5
CYPFEN	3	1								
ELYELY	23	5	4	5	5	5	9	5	5	5
MUHTOR	6	2	3	3	3	1			1	1
MUHWRI							1	1	3.5	2
POABIG	1	1					0.5	1		
SPOCRY			0.5	1			1.5	2		
Shrub										
ARTFIL	13	3			11	2				
ERINAU							3	1		
Subshrub										
ECHVIR							0.5	1		
ESCVIV							0.5	1		
OPUPHA	1	1	5	1					1	1
Tree										
JUNMON	25	1								

Table 4. All plant species detected during grassland monitoring in 2011 and exotic monitoring in 2011 and 2014 at PECO. Exotic species are highlighted in pink.

Species Code	LifeForm	Scientific Name	Common Name	Primary Duration
AEGCYL	Grass	<i>Aegilops cylindrica</i>	jointed goat grass	Annual
ARIPUR	Grass	<i>Aristida purpurea</i>	purple threeawn	Perennial
ARTFIL	Shrub	<i>Artemisia filifolia</i>	sand sagebrush	Perennial
ASTMIS	Forb	<i>Astragalus missouriensis</i>	missouri milkvetch	Perennial
BOUCUR	Grass	<i>Bouteloua curtipendula</i>	sideoats grama	Perennial
BOUGRA	Grass	<i>Bouteloua gracilis</i>	blue grama	Perennial
BRIEUP	Forb	<i>Brickellia eupatorioides</i>	false boneset brickellbush	Perennial
BROCAT	Grass	<i>Bromus catharticus</i>	rescue grass	Annual/Perennial
BROINE	Grass	<i>Bromus inermis</i>	smooth brome	Perennial
BROJAP	Grass	<i>Bromus japonicus</i>	Japanese brome	Annual
BROTEC	Grass	<i>Bromus tectorum</i>	cheatgrass	Annual
CARNUT	Forb	<i>Carduus nutans</i>	nodding musk thistle	Biennial/Perennial
CASINT	Forb	<i>Castilleja integra</i>	wholeleaf indian paintbrush	Perennial
CHAERI	Forb	<i>Chaetopappa ericoides</i>	baby white aster	Perennial
CHAFEN	Forb	<i>Chamaesyce fendleri</i>	fendler's sandmat	Perennial
CHEALB	Forb	<i>Chenopodium album</i>	common lambsquarters	Annual
CHEINC	Forb	<i>Chenopodium incanum</i>	mealy goosefoot	Annual
CHELEP	Forb	<i>Chenopodium leptophyllum</i>	narrowleaf goosefoot	Annual
CHEWAT	Forb	<i>Chenopodium watsonii</i>	watson's goosefoot	Annual
CIROCH	Forb	<i>Cirsium ochrocentrum</i>	yellowspine thistle	Biennial/Perennial
CIRUND	Forb	<i>Cirsium undulatum</i>	wavyleaf thistle	Biennial
CIRVUL	Forb	<i>Cirsium vulgare</i>	bull thistle	Biennial
CONARV	Forb	<i>Convolvulus arvensis</i>	field bindweed	Perennial
CONCAN	Forb	<i>Conyza canadensis</i>	canada horseweed	Annual
CORWRI	Forb	<i>Cordylanthus wrightii</i>	wrights birdbeak	Annual
CRYCIN	Forb	<i>Cryptantha cinerea</i>	james cryptantha	Perennial
CYPFEN	Grass	<i>Cyperus fendlerianus</i>	fendler flatsedge	Perennial
DACGLO	Grass	<i>Dactylis glomerata</i>	orchardgrass	Perennial
DALCAN	Forb	<i>Dalea candida</i>	slender white prairie clover	Perennial
DESSOP	Forb	<i>Descurainia sophia</i>	flixweed	Annual
ECHVIR	Subshrub	<i>Echinocereus viridiflorus</i>	nylon hedgehog cactus	Perennial
ELYELY	Grass	<i>Elymus elymoides</i>	bottlebrush squirreltail	Perennial
ERIALA	Forb	<i>Eriogonum alatum</i>	winged buckwheat	Perennial
ERICAN	Forb	<i>Erigeron canus</i>	hoary fleabane	Perennial
ERIDIV	Forb	<i>Erigeron divergens</i>	spreading fleabane	Biennial
ERIFLA	Forb	<i>Erigeron flagellaris</i>	trailing fleabane	Biennial
ERIJAM	Forb	<i>Eriogonum jamesii</i>	james buckwheat	Perennial
ERINAU	Shrub	<i>Ericameria nauseosa</i>	rubber rabbitbrush	Perennial
EROCIC	Forb	<i>Erodium cicutarium</i>	red stem storksbill	Annual
ESCVIV	Subshrub	<i>Escobaria vivipara</i>	spinystar	Perennial
EUPDAV	Forb	<i>Euphorbia davidii</i>	davids spurge	Annual
GAIPIN	Forb	<i>Gaillardia pinnatifida</i>	red dome blanketflower	Perennial

Table 4. All plant species detected during grassland monitoring in 2011 and exotic monitoring in 2011 and 2014 at PECO. Exotic species are highlighted in pink. (continued).

Species Code	LifeForm	Scientific Name	Common Name	Primary Duration
GAUCOC	Forb	<i>Gaura coccinea</i>	scarlet guara	Perennial
GLABIP	Forb	<i>Glandularia bipinnatifida</i>	dakota mock vervain	Annual
GUTSAR	Forb	<i>Gutierrezia sarothrae</i>	broom snakeweed	Perennial
HELPEP	Forb	<i>Helianthus petiolaris</i>	prairie sunflower	Annual
HETFUL	Forb	<i>Heterotheca fulcrata</i>	mountain goldenaster	Perennial
HETVIL	Forb	<i>Heterotheca villosa</i>	hairy false goldenaster	Perennial
HYMFIL	Forb	<i>Hymenopappus filifolius</i>	fineleaf woollywhite	Perennial
IOLON	Forb	<i>Ipomopsis longiflora</i>	white-flowered skyrocket: flaxflowered gilia	Annual/Biennial
JUNMON	Tree	<i>Juniperus monosperma</i>	oneseed juniper	Perennial
KOCSKO	Forb	<i>Kochia scoparia</i>	kochia	Annual
LACSER	Forb	<i>Lactuca serriola</i>	prickly lettuce	Annual
LAPOCC	Forb	<i>Lappula occidentalis</i>	western sticktight	Annual
LIAPUN	Forb	<i>Liatris punctata</i>	dotted gayfeather	Perennial
LINPUB	Forb	<i>Linum puberulum</i>	desert flax	Annual
MACCAN	Forb	<i>Machaeranthera canescens</i>	hoary tansyaster	Annual/Biennial/Perennial
MACPIN	Forb	<i>Machaeranthera pinnatifida</i>	lacy tansyaster	Perennial
MACTAN	Forb	<i>Machaeranthera tanacetifolia</i>	tansyleaf tansyaster	Annual
MALNEG	Forb	<i>Malva neglecta</i>	roundleaf mallow	Annual/Biennial/Perennial
MARVUL	Forb	<i>Marrubium vulgare</i>	horehound	Perennial
MEDLUP	Forb	<i>Medicago lupulina</i>	black medic clover	Annual/Perennial
MEDMIN	Forb	<i>Medicago minima</i>	burr medic clover	Annual
MEDSAT	Forb	<i>Medicago sativa</i>	alfalfa	Annual/Perennial
MELLEU	Forb	<i>Melampodium leucanthum</i>	blackfoot daisy	Perennial
MELOFF	Forb	<i>Melilotus officinalis</i>	yellow sweetclover	Annual
MENSCA	Forb	<i>Menodora scabra</i>	rough menodora	Perennial
MIRLIN	Forb	<i>Mirabilis linearis</i>	narrowleaf four o'clock	Perennial
MUHTOR	Grass	<i>Muhlenbergia torreyi</i>	ring muhly	Perennial
MUHWRI	Grass	<i>Muhlenbergia wrightii</i>	spike muhly	Perennial
ONOACA	Forb	<i>Onopordum acanthium</i>	scotch thistle	Biennial
OPUPHA	Subshrub	<i>Opuntia phaeacantha</i>	brwnspine pricklypear cactus	Perennial
PENJAM	Forb	<i>Penstemon jamesii</i>	james penstemon	Perennial
PHLNAN	Forb	<i>Phlox nana</i>	santa fe phlox	Perennial
PHYHED	Forb	<i>Physalis hederifolia</i>	ivy leaf groundcherry	Perennial
PHYVIR	Forb	<i>Physalis virginiana</i>	lanceleaf groundcherry	Perennial
PLAPAT	Forb	<i>Plantago patagonica</i>	woolly plantain	Annual
POABIG	Grass	<i>Poa bigelovii</i>	bigelow bluegrass	Annual
POAPRA	Grass	<i>Poa pratensis</i>	Kentucky bluegrass	Perennial
POLAVI	Forb	<i>Polygonum aviculare</i>	yard knotweed	Annual/Perennial
POROLE	Forb	<i>Portulaca oleracea</i>	common purslane	Annual
PSAJUN	Grass	<i>Psathyrostachys juncea</i>	Russian wildrye	Perennial
PSOTEN	Forb	<i>Psoralea tenuiflorum</i>	slimflower scurfpea	Perennial
RUMCRI	Forb	<i>Rumex crispus</i>	curley dock	Perennial

Table 4. All plant species detected during grassland monitoring in 2011 and exotic monitoring in 2011 and 2014 at PECO. Exotic species are highlighted in pink. (continued).

Species Code	LifeForm	Scientific Name	Common Name	Primary Duration
SALTRA	Forb	<i>Salsola tragus</i>	prickly russian thistle	Annual
SCHLIN	Forb	<i>Schoenocrambe linearifolia</i>	slimleaf plains mustard	Perennial
SCOLAC	Forb	<i>Scorzonera laciniata</i>	cutleaf vipergrass	Perennial
SENSPA	Forb	<i>Senecio spartioides</i>	broom groundsel	Perennial
SISALT	Forb	<i>Sisymbrium altissimum</i>	tumble mustard	Annual/Biennial
SOLFEN	Forb	<i>Solanum fendleri</i>	fendlers horsenettle	Perennial
SPHFEN	Forb	<i>Sphaeralcea fendleri</i>	fendlers globemallow	Perennial
SPOCRY	Grass	<i>Sporobolus cryptandrus</i>	sand dropseed	Perennial
SYMLAN	Forb	<i>Symphyotrichum lanceolatum</i>	white panicle aster	Perennial
TAROFF	Forb	<i>Taraxacum officinale</i>	dandelion	Perennial
TETARG	Forb	<i>Tetrameuris argentea</i>	perky sue	Perennial
THEMEG	Forb	<i>Thelesperma megapotamicum</i>	hopi tea greenthread	Perennial
TRADUB	Forb	<i>Tragopogon dubius</i>	western salsify	Annual
TRITER	Forb	<i>Tribulus terrestris</i>	puncturevine	Annual
ULMPUM	Tree	<i>Ulmus pumila</i>	Siberian elm	Perennial
VERTHA	Forb	<i>Verbascum thapsus</i>	common mullein	Biennial

Exotic Monitoring Results

Exotic plant monitoring followed the protocol Multi-Network Exotic Plant Monitoring Protocol and Standard Operating Procedures (Folts-Zettner et al. 2013). Methodology requires a series of discreet 50-meter blocks along designated vectors chosen for high-probability of introduction. Exotic species detected within each block are assigned densities, and their proximity to the vector itself is divided into various Distance Classes (Figure 3).

Monitoring occurred June 27-28, 2014 and included the entrance road, Glorieta Creek two-track and Well Road areas of the park (Figure 4). These vectors have been previously monitored mid-July, 2011. It should be noted that 2011 was the beginning of years of severe to exceptional drought, including early 2014. Data summarized in this report compares the results of 2014 monitoring to that detected in 2011.

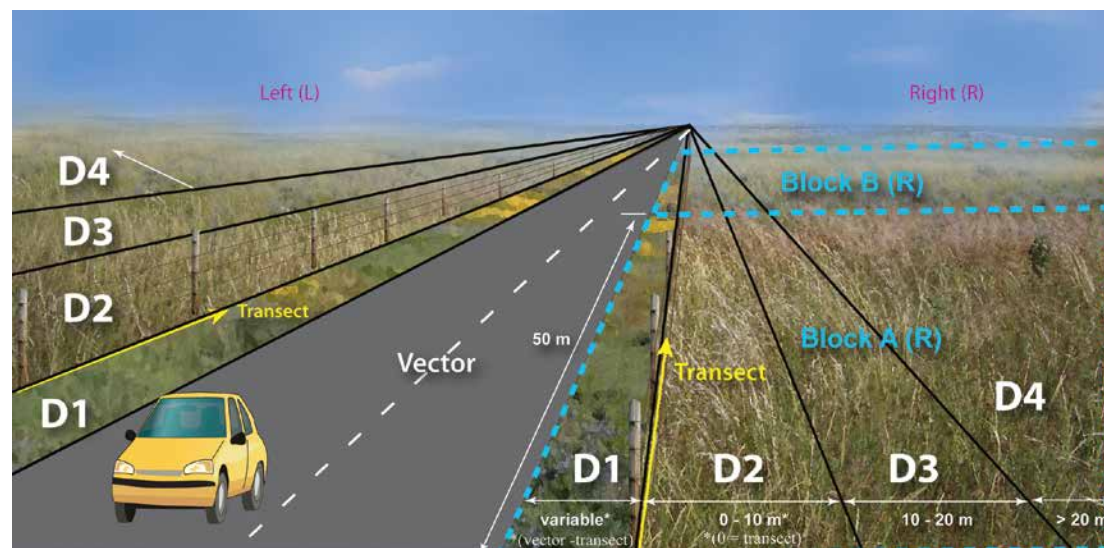


Figure 3. Layout of Vector Blocks and Distance Classes along a vector.

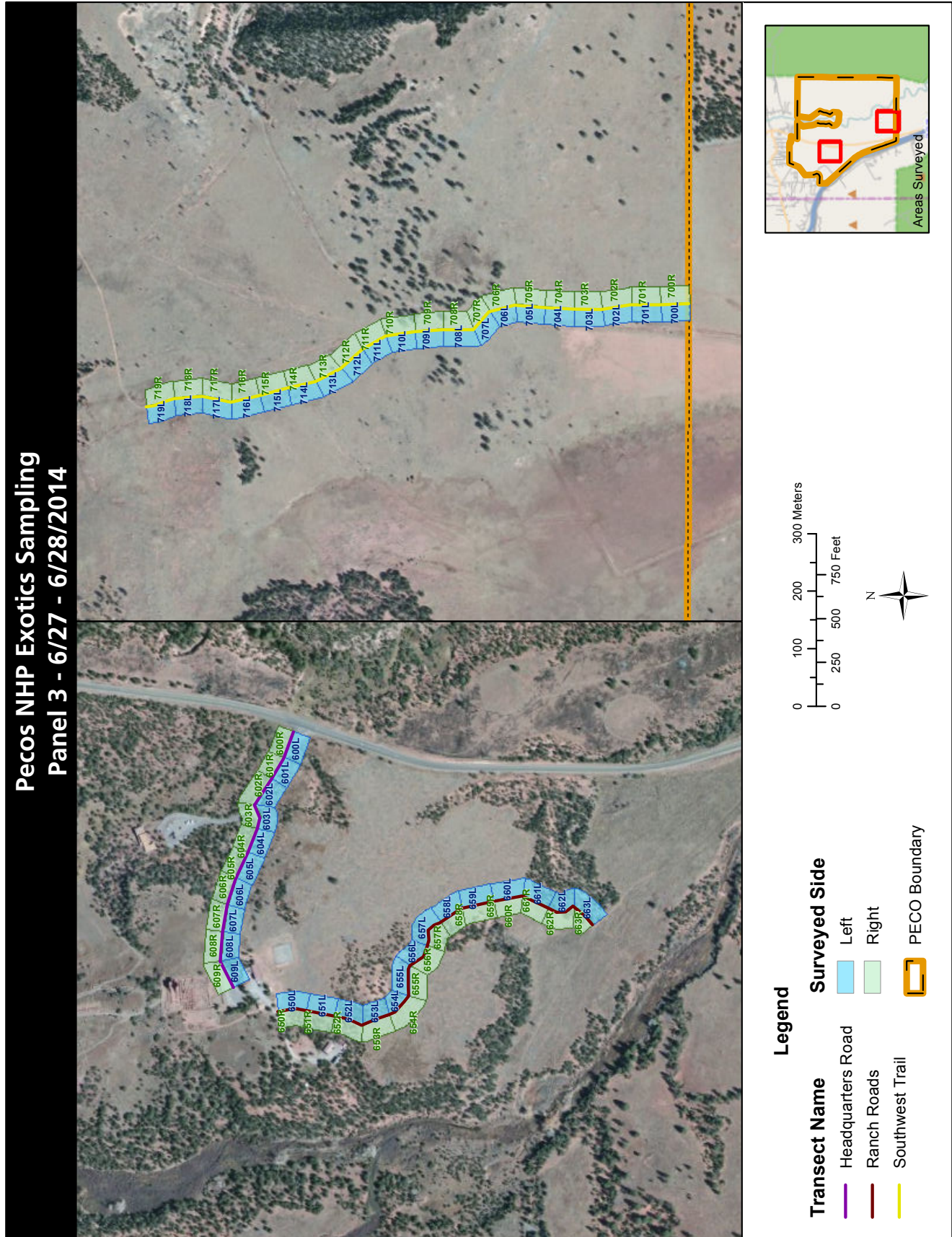


Figure 4. Panel 3 numbered vector blocks monitored at PECO in both 2011 and 2014.

Table 5 presents all exotic species detected during both exotic and grassland (secondary transects) monitoring in both years as well as the number and percentage of vector blocks (N=88) and transects (N=5)(Figure 5) in which these species were found.

Table 5. Number and percentage comparison of unit detections of exotic species found in repeated monitoring of vector blocks and permanent transects at PECO.

Scientific Name	Common Name	2011		2014		2011		2014	
		Primary Blocks (N=88)		Primary Blocks (N=88)		Secondary Blocks (N=7)		Secondary Blocks (N=5)	
		Total	% Blocks	Total	% Blocks	Total	% Blocks	Total	% Blocks
<i>Aegilops cylindrica</i>	jointed goatgrass	–	–	2	2.27%	–	–	–	–
<i>Agropyron desertorum</i>	desert wheatgrass	–	–	–	–	–	–	–	–
<i>Asparagus officinalis</i>	garden asparagus	–	–	–	–	–	–	–	–
<i>Bromus arvensis</i>	field brome	–	–	–	–	–	–	–	–
<i>Bromus catharticus</i>	rescuegrass	–	–	1	–	–	–	–	–
<i>Bromus inermis</i>	smooth brome	–	–	4	–	–	–	–	–
<i>Bromus japonicus</i>	Japanese brome	2	2.27%	30	34.09%	–	–	–	–
<i>Bromus tectorum</i>	cheatgrass	12	13.64%	8	9.09%	–	–	–	–
<i>Carduus nutans</i>	nodding plumeless thistle	–	–	1	–	–	–	–	–
<i>Chenopodium album</i>	lambsquarters	–	–	1	–	–	–	1	14.29%
<i>Cirsium arvense</i>	Canada thistle	–	–	–	–	–	–	–	–
<i>Cirsium vulgare</i>	bull thistle	4	4.55%	–	–	–	–	–	–
<i>Convolvulus arvensis</i>	field bindweed	6	6.82%	8	9.09%	–	–	–	–
<i>Dactylis glomerata</i>	orchardgrass	–	–	1	1.14%	–	–	–	–
<i>Descurainia sophia</i>	herb sophia	–	–	4	4.55%	–	–	–	–
<i>Eragrostis barrelieri</i>	Mediterranean lovegrass	–	–	–	–	–	–	–	–
<i>Erodium cicutarium</i>	redstem stork's bill	13	14.77%	28	31.82%	–	–	–	–
<i>Euphorbia davidii</i>	David's spurge	–	–	–	–	–	–	1	14.29%
<i>Kochia scoparia</i>	Mexican-fireweed	30	34.09%	31	35.23%	–	–	–	–
<i>Lactuca serriola</i>	prickly lettuce	12	13.64%	49	55.68%	–	–	1	14.29%
<i>Lactuca tatarica</i>	blue lettuce	–	–	–	–	–	–	–	–
<i>Malva neglecta</i>	common mallow	–	–	2	2.27%	–	–	–	–
<i>Marrubium vulgare</i>	horehound	1	1.14%	–	–	–	–	–	–
<i>Medicago lupulina</i>	black medick	1	1.14%	12	13.64%	–	–	–	–
<i>Medicago minima</i>	little bur-clover	–	–	2	2.27%	–	–	–	–
<i>Medicago sativa</i>	alfalfa	8	9.09%	–	–	–	–	–	–
<i>Melilotus officinalis</i>	sweetclover	33	37.50%	37	42.05%	1	14.29%	–	–
No Plant	No Plant	16	18.18%	5	5.68%	3	42.86%	–	–
<i>Onopordum acanthium</i>	Scotch cottonthistle	–	–	19	21.59%	–	–	–	–
<i>Poa compressa</i>	Canada blue grass	–	–	–	–	–	–	–	–
<i>Poa pratensis</i>	Kentucky bluegrass	–	–	4	4.55%	–	–	–	–
<i>Polygonum aviculare</i>	prostrate knotweed	–	–	5	5.68%	–	–	–	–
<i>Polygonum convolvulus</i>	black bindweed	–	–	–	–	–	–	–	–
<i>Psathyrostachys juncea</i>	Russian wildrye	–	–	5	5.68%	–	–	–	–
<i>Rumex crispus</i>	curly dock	1	1.14%	1	1.14%	–	–	–	–
<i>Salsola tragus</i>	prickly Russian thistle	41	46.59%	59	67.05%	1	14.29%	4	57.14%
<i>Scorzonera laciniata</i>	cutleaf vipergrass	–	–	52	59.09%	–	–	–	–
<i>Sisymbrium altissimum</i>	tall tumbled mustard	–	–	11	12.50%	–	–	–	–
<i>Taraxacum officinale</i>	common dandelion	2	2.27%	4	4.55%	–	–	–	–
<i>Tragopogon dubius</i>	yellow salsify	11	12.50%	73	82.95%	3	42.86%	5	71.43%
<i>Tribulus terrestris</i>	puncturevine	–	–	1	1.14%	–	–	–	–
<i>Ulmus pumila</i>	Siberian elm	1	1.14%	1	1.14%	–	–	–	–
<i>Verbascum thapsus</i>	common mullein	17	19.32%	8	9.09%	–	–	–	–

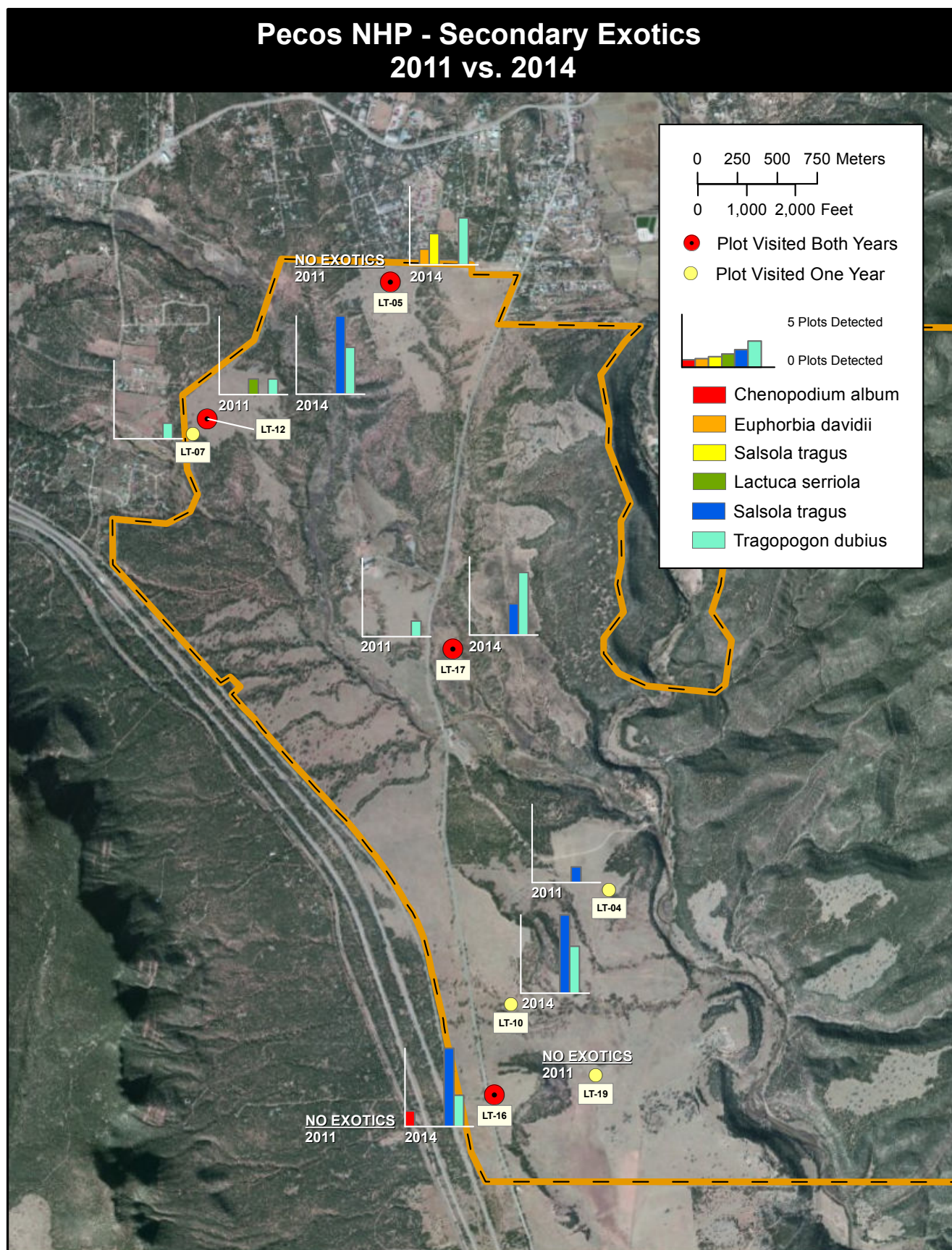


Figure 5. Comparison of exotics detected in 2011 and 2014 grassland monitoring permanent transects at PECO.

The density of a detection of any given exotic species informs us of the invasion stage of that area. A Density Code of 1 will point to either a new introduction in an area or a lack of suitable resources for that species to establish and spread. Conversely, a Density Code of 4 denotes a matrix of the exotic species that has successfully colonized the site and pushed out all native species. Table 6 is a comparison of the number of blocks containing that density in 2011 and 2014 in two Distance Classes. Distance Class 1 is from immediately along the vector to 2 meters into the landscape or the depth of the mowed verge (whichever is greater). Distance Class 2 is a constant 10 meters into the landscape beginning at the interior edge of Distance Class 1. This minimum depth of 12 meters will give the resource manager an idea of the ability of a given exotic species to invade into the interior of a landscape.

Table 6. A comparison of the number of blocks containing a given density in 2011 and 2014 in two Distance Classes.

Species Code	Scientific Name	Common Name	Density Code	Distance Class 1		Distance Class 2	
				2011	2014	2011	2014
AEGCYL	<i>Aegilops cylindrica</i>	jointed goat grass	2		2		2
BROCAT	<i>Bromus catharticus</i>	rescue grass	2		1		
BROINE	<i>Bromus inermis</i>	smooth brome	2		2		4
BROJAP	<i>Bromus japonicus</i>	Japanese brome	1	1	8		4
			2	1	19		25
BROTEC	<i>Bromus tectorum</i>	cheatgrass	1	1	1		
			2	5	2	5	7
CARNUT	<i>Carduus nutans</i>	nodding musk thistle	1				1
CHEALB	<i>Chenopodium album</i>	common lambsquarters	2		1		
CIRVUL	<i>Cirsium vulgare</i>	bull thistle	1	1		3	
CONARV	<i>Convolvulus arvensis</i>	field bindweed	1				1
			2	1	3	2	7
DACGLO	<i>Dactylis glomerata</i>	orchardgrass	1		1		
DESSOP	<i>Descurainia sophia</i>	flixweed	1		1		1
			2				3
EROCIC	<i>Erodium cicutarium</i>	red stem storksbill	1	4	2	1	4
			2	6	25		18
KOCSO	<i>Kochia scoparia</i>	kochia	1	5	4	4	1
			2	11	23	16	22
			3		4	1	2
LACSER	<i>Lactuca serriola</i>	prickly lettuce	1	5	17	5	11
			2		20	1	29
MALNEG	<i>Malva neglecta</i>	roundleaf mallow	2		2		1
MARVUL	<i>Marrubium vulgare</i>	horehound	1	1			
MEDLUP	<i>Medicago lupulina</i>	black medic clover	1	1	1		
			2		10		4
			3		1		
MEDMIN	<i>Medicago minima</i>	burr medic clover	1		1		
			2		1		1
MEDSAT	<i>Medicago sativa</i>	alfalfa	1	2		5	
			2	1			
MELOFF	<i>Melilotus officinalis</i>	yellow sweetclover	1	7	11	5	3
			2	20	8	13	21

Density Code Key: 1 = one to five individual plants; 2 = scattered patches; 3 = evenly distributed patches; 4 = matrix; X = non-detect.

Table 6. A comparison of the number of blocks containing a given density in 2011 and 2014 in two Distance Classes. (continued).

Species Code	Scientific Name	Common Name	Density Code	Distance Class 1		Distance Class 2	
				2011	2014	2011	2014
ONOACA	<i>Onopordum acanthium</i>	scotch thistle	1		5		5
			2		3		8
POAPRA	<i>Poa pratensis</i>	Kentucky bluegrass	2		1		4
POLAVI	<i>Polygonum aviculare</i>	yard knotweed	2		5		
PSAJUN	<i>Psathyrostachys juncea</i>	Russian wildrye	1				3
			2				2
RUMCRI	<i>Rumex crispus</i>	curley dock	1	1			
SALTRA	<i>Salsola tragus</i>	prickly Russian thistle	1	11	6	4	
			2	16	53	20	46
			3			2	
SCOLAC	<i>Scorzonera laciniata</i>	cutleaf vipergrass	1		12		5
			2		39		37
SISALT	<i>Sisymbrium altissimum</i>	tumble mustard	1		4		1
			2				7
TAROFF	<i>Taraxacum officinale</i>	dandelion	1	2	1		
			2		3		2
TRADUB	<i>Tragopogon dubius</i>	western salsify	1	3	33	5	20
			2		27	1	51
			3		1		
TRITER	<i>Tribulus terrestris</i>	puncturevine	2				1
ULMPUM	<i>Ulmus pumila</i>	Siberian elm	1	1	1		
VERTHA	<i>Verbascum thapsus</i>	common mullein	1	7	3	2	2
			2	7			3

Density Code Key: 1 = one to five individual plants; 2 = scattered patches; 3 = evenly distributed patches; 4 = matrix; X = non-detect.

Table 7 is included for the benefit of those resource managers with an active exotic management program. This table lists the specific species found in each vector block and the Density Code of that species in each Distance Class.

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class.

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
600L	<i>Bromus japonicus</i>	Japanese brome					2	2	0	0
600L	<i>Bromus tectorum</i>	cheatgrass	2	0	X	X				
600L	<i>Convolvulus arvensis</i>	field bindweed					0	1	0	0
600L	<i>Erodium cicutarium</i>	red stem storksbill	1	0	X	X	2	2	0	0
600L	<i>Kochia scoparia</i>	kochia					1	2	0	0
600L	<i>Lactuca serriola</i>	prickly lettuce					2	2	0	0
600L	<i>Medicago lupulina</i>	black medic clover					2	2	0	0
600L	<i>Melilotus officinalis</i>	yellow sweetclover	2	0	X	X	1	2	0	0
600L	<i>Polygonum aviculare</i>	yard knotweed					2	0	0	0
600L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
600L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	1	0	0
600L	<i>Sisymbrium altissimum</i>	tumble mustard					0	2	0	0
600L	<i>Tragopogon dubius</i>	western salsify					2	2	0	0
600L	<i>Verbascum thapsus</i>	common mullein	2	0	X	X				
600R	<i>Bromus catharticus</i>	rescue grass					2	0	0	0
600R	<i>Bromus inermis</i>	smooth brome					2	2	2	2
600R	<i>Bromus japonicus</i>	Japanese brome					2	2	2	0
600R	<i>Bromus tectorum</i>	cheatgrass	2	0	0	0	2	2	0	0
600R	<i>Dactylis glomerata</i>	orchardgrass					1	0	2	0
600R	<i>Descurainia sophia</i>	flixweed					0	2	0	0
600R	<i>Erodium cicutarium</i>	red stem storksbill	1	0	0	0	2	1	0	0
600R	<i>Kochia scoparia</i>	kochia					2	2	0	0
600R	<i>Lactuca serriola</i>	prickly lettuce					2	2	0	0
600R	<i>Malva neglecta</i>	roundleaf mallow					2	0	0	0
600R	<i>Medicago lupulina</i>	black medic clover	1	0	0	0	3	0	0	0
600R	<i>Melilotus officinalis</i>	yellow sweetclover	2	2	0	0	1	1	0	0
600R	<i>Poa pratensis</i>	Kentucky bluegrass					0	2	2	0
600R	<i>Rumex crispus</i>	curley dock	1	0	0	0	0	0	1	0
600R	<i>Salsola tragus</i>	prickly Russian thistle	1	0	0	0	2	2	0	0
600R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
600R	<i>Taraxacum officinale</i>	dandelion	1	0	0	0	2	2	0	0
600R	<i>Tragopogon dubius</i>	western salsify					2	2	0	0
600R	<i>Verbascum thapsus</i>	common mullein	1	0	0	0	0	1	0	0
601L	<i>Bromus inermis</i>	smooth brome					2	2	0	0
601L	<i>Bromus japonicus</i>	Japanese brome					1	2	0	0
601L	<i>Bromus tectorum</i>	cheatgrass	2	0	X	X				
601L	<i>Erodium cicutarium</i>	red stem storksbill					1	1	0	0
601L	<i>Kochia scoparia</i>	kochia					2	2	0	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
601L	<i>Lactuca serriola</i>	prickly lettuce					1	2	2	2
601L	<i>Melilotus officinalis</i>	yellow sweetclover	2	2	X	X	2	2	2	2
601L	<i>Salsola tragus</i>	prickly Russian thistle	1	1	X	X	2	2	0	0
601L	<i>Tragopogon dubius</i>	western salsify	0	1	X	X	1	2	1	1
601L	<i>Verbascum thapsus</i>	common mullein	1	0	X	X	0	1	0	0
601R	<i>Bromus japonicus</i>	Japanese brome					2	2	2	0
601R	<i>Bromus tectorum</i>	cheatgrass					1	2	2	0
601R	<i>Kochia scoparia</i>	kochia					1	0	0	0
601R	<i>Lactuca serriola</i>	prickly lettuce					2	2	2	0
601R	<i>Medicago lupulina</i>	black medic clover					2	2	0	0
601R	<i>Melilotus officinalis</i>	yellow sweetclover	1	1	X	X	0	2	0	0
601R	<i>Salsola tragus</i>	prickly Russian thistle					1	0	0	0
601R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	2	0	0
601R	<i>Tragopogon dubius</i>	western salsify					2	2	0	0
602L	<i>Bromus japonicus</i>	Japanese brome	1	0	X	X	2	2	2	2
602L	<i>Erodium cicutarium</i>	red stem storksbill	2	0	X	X	2	2	0	0
602L	<i>Lactuca serriola</i>	prickly lettuce					0	2	2	0
602L	<i>Medicago lupulina</i>	black medic clover					2	0	0	0
602L	<i>Melilotus officinalis</i>	yellow sweetclover	1	1	X	X	1	2	2	2
602L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
602L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	2	2	1
602L	<i>Taraxacum officinale</i>	dandelion	1	0	X	X				
602L	<i>Tragopogon dubius</i>	western salsify					0	2	2	0
602L	<i>Verbascum thapsus</i>	common mullein	2	0	X	X				
602R	<i>Erodium cicutarium</i>	red stem storksbill					2	0	0	0
602R	<i>Medicago lupulina</i>	black medic clover					2	0	0	0
602R	<i>Melilotus officinalis</i>	yellow sweetclover	2	0	X	X	2	0	0	0
602R	<i>Poa pratensis</i>	Kentucky bluegrass					0	2	0	0
602R	<i>Salsola tragus</i>	prickly Russian thistle					1	2	0	0
602R	<i>Verbascum thapsus</i>	common mullein	1	0	X	X	0	2	0	0
603L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	0
603L	<i>Erodium cicutarium</i>	red stem storksbill	2	0	0	X	2	2	0	0
603L	<i>Kochia scoparia</i>	kochia					2	0	0	0
603L	<i>Lactuca serriola</i>	prickly lettuce					1	2	2	0
603L	<i>Medicago lupulina</i>	black medic clover					2	2	0	0
603L	<i>Melilotus officinalis</i>	yellow sweetclover	1	1	0	X	1	2	2	2
603L	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
603L	<i>Verbascum thapsus</i>	common mullein	1	0	1	X	1	0	0	0
603R	<i>Cirsium vulgare</i>	bull thistle	1	1	X	X				
603R	<i>Lactuca serriola</i>	prickly lettuce					2	0	0	0
603R	<i>Medicago lupulina</i>	black medic clover					2	2	0	0
603R	<i>Melilotus officinalis</i>	yellow sweetclover	2	2	X	X	2	2	0	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
603R	<i>Poa pratensis</i>	Kentucky bluegrass					2	2	0	0
603R	<i>Salsola tragus</i>	prickly Russian thistle					1	0	0	0
603R	<i>Ulmus pumila</i>	Siberian elm	1	0	X	X				
604L	<i>Bromus japonicus</i>	Japanese brome	2	0	0	0	2	2	2	0
604L	<i>Erodium cicutarium</i>	red stem storksbill	1	0	0	0	2	2	0	0
604L	<i>Kochia scoparia</i>	kochia					2	2	0	0
604L	<i>Lactuca serriola</i>	prickly lettuce					2	2	2	0
604L	<i>Melilotus officinalis</i>	yellow sweetclover	1	0	0	0	1	2	2	2
604L	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
604L	<i>Verbascum thapsus</i>	common mullein	2	0	0	0	0	0	2	1
604R	<i>Lactuca serriola</i>	prickly lettuce					1	1	0	0
604R	<i>Medicago lupulina</i>	black medic clover					1	0	0	0
604R	<i>Melilotus officinalis</i>	yellow sweetclover	2	2	X	X	1	2	0	0
604R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
605L	<i>Bromus japonicus</i>	Japanese brome					1	2	2	2
605L	<i>Erodium cicutarium</i>	red stem storksbill	2	0	0	0	2	2	0	0
605L	<i>Lactuca serriola</i>	prickly lettuce					1	2	2	2
605L	<i>Melilotus officinalis</i>	yellow sweetclover	2	2	0	0				
605L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	0	0	0
605L	<i>Sisymbrium altissimum</i>	tumble mustard					1	2	2	0
605L	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
605L	<i>Ulmus pumila</i>	Siberian elm					1	0	0	0
605L	<i>Verbascum thapsus</i>	common mullein	2	0	0	0	1	0	0	0
605R	<i>Bromus tectorum</i>	cheatgrass					0	2	0	0
605R	<i>Erodium cicutarium</i>	red stem storksbill					1	0	0	0
605R	<i>Lactuca serriola</i>	prickly lettuce					2	1	0	0
605R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	2	0
605R	<i>Tragopogon dubius</i>	western salsify					0	1	0	0
605R	<i>Verbascum thapsus</i>	common mullein	1	0	X	X				
606L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	2
606L	<i>Bromus tectorum</i>	cheatgrass	1	2	0	0				
606L	<i>Erodium cicutarium</i>	red stem storksbill	2	0	0	0	2	2	0	0
606L	<i>Kochia scoparia</i>	kochia	1	2	0	0				
606L	<i>Lactuca serriola</i>	prickly lettuce					2	2	2	2
606L	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	2	0
606L	<i>Salsola tragus</i>	prickly Russian thistle	1	2	2	0				
606L	<i>Sisymbrium altissimum</i>	tumble mustard					1	2	2	0
606L	<i>Tragopogon dubius</i>	western salsify	0	2	0	0	2	2	2	2
606L	<i>Verbascum thapsus</i>	common mullein	2	0	0	0	1	2	1	0
606R	<i>Bromus tectorum</i>	cheatgrass					0	2	0	0
606R	<i>Erodium cicutarium</i>	red stem storksbill					0	1	0	0
606R	<i>Lactuca serriola</i>	prickly lettuce					0	1	0	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
606R	<i>Medicago minima</i>	burr medic clover					1	0	0	0
606R	<i>Poa pratensis</i>	Kentucky bluegrass					0	2	0	0
606R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
606R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					0	1	0	0
606R	<i>Sisymbrium altissimum</i>	tumble mustard					0	1	1	0
606R	<i>Verbascum thapsus</i>	common mullein	1	0	X	X				
607L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	2
607L	<i>Bromus tectorum</i>	cheatgrass	2	2	0	X				
607L	<i>Erodium cicutarium</i>	red stem storksbill	2	0	0	X	2	2	0	0
607L	<i>Kochia scoparia</i>	kochia	2	2	2	X	2	2	2	0
607L	<i>Lactuca serriola</i>	prickly lettuce					2	2	2	0
607L	<i>Marrubium vulgare</i>	horehound	1	0	0	X				
607L	<i>Medicago lupulina</i>	black medic clover					2	0	0	0
607L	<i>Onopordum acanthium</i>	scotch thistle					0	2	1	0
607L	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	X				
607L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	2	0	0
607L	<i>Sisymbrium altissimum</i>	tumble mustard					1	2	2	0
607L	<i>Tragopogon dubius</i>	western salsify	0	1	0	X	1	2	2	2
607L	<i>Verbascum thapsus</i>	common mullein	2	0	0	X				
607R	<i>Bromus tectorum</i>	cheatgrass					0	2	0	0
607R	<i>Descurainia sophia</i>	flixweed					0	2	0	0
607R	<i>Erodium cicutarium</i>	red stem storksbill					2	1	0	0
607R	<i>Kochia scoparia</i>	kochia	2	2	2	0	2	2	0	2
607R	<i>Lactuca serriola</i>	prickly lettuce					2	2	0	0
607R	<i>Salsola tragus</i>	prickly Russian thistle	2	0	0	0	2	2	0	0
607R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	0	0	0
607R	<i>Sisymbrium altissimum</i>	tumble mustard					0	2	2	0
607R	<i>Verbascum thapsus</i>	common mullein					0	2	0	0
608L	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0
608L	<i>Kochia scoparia</i>	kochia	2	2	2	0	2	2	2	0
608L	<i>Lactuca serriola</i>	prickly lettuce					0	2	0	0
608L	<i>Medicago lupulina</i>	black medic clover					2	0	0	0
608L	<i>Onopordum acanthium</i>	scotch thistle					1	1	1	0
608L	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	0	2	2	0	0
608L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	2	0	0
608L	<i>Sisymbrium altissimum</i>	tumble mustard					0	2	2	0
608L	<i>Tragopogon dubius</i>	western salsify					0	2	2	0
608L	<i>Verbascum thapsus</i>	common mullein	2	0	0	0				
608R	<i>Descurainia sophia</i>	flixweed					0	2	0	0
608R	<i>Erodium cicutarium</i>	red stem storksbill	1	0	0	0	2	0	0	0
608R	<i>Kochia scoparia</i>	kochia	2	2	0	0	2	2	0	0
608R	<i>Lactuca serriola</i>	prickly lettuce					2	2	2	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
608R	<i>Salsola tragus</i>	prickly Russian thistle	1	1	0	0				
608R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	0	0	0
608R	<i>Sisymbrium altissimum</i>	tumble mustard					0	2	2	2
608R	<i>Taraxacum officinale</i>	dandelion					1	0	0	0
609L	<i>Bromus tectorum</i>	cheatgrass					2	2	2	2
609L	<i>Descurainia sophia</i>	flixweed					1	1	0	0
609L	<i>Kochia scoparia</i>	kochia	0	2	X	X	2	2	2	0
609L	<i>Lactuca serriola</i>	prickly lettuce					0	2	2	0
609L	<i>Medicago lupulina</i>	black medic clover					2	0	0	0
609R	<i>Bromus tectorum</i>	cheatgrass					0	0	1	0
609R	<i>Erodium cicutarium</i>	red stem storksbill	2	0	0	0	2	0	0	0
609R	<i>Kochia scoparia</i>	kochia	2	2	2	0	2	2	0	0
609R	<i>Lactuca serriola</i>	prickly lettuce					2	2	0	0
609R	<i>Malva neglecta</i>	roundleaf mallow					2	2	0	0
609R	<i>Medicago minima</i>	burr medic clover					2	2	0	0
609R	<i>Salsola tragus</i>	prickly Russian thistle	2	2	0	0				
609R	<i>Sisymbrium altissimum</i>	tumble mustard					0	0	2	2
609R	<i>Taraxacum officinale</i>	dandelion					2	2	0	0
609R	<i>Tribulus terrestris</i>	puncturevine					0	2	2	0
650L	<i>Erodium cicutarium</i>	red stem storksbill	0	0	2	0	2	0	0	0
650L	<i>Kochia scoparia</i>	kochia					2	2	2	2
650L	<i>Melilotus officinalis</i>	yellow sweetclover	2	0	0	0				
650L	<i>Salsola tragus</i>	prickly Russian thistle					2	0	0	0
650L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	1	0	0
650L	<i>Tragopogon dubius</i>	western salsify					1	2	2	2
650L	<i>Verbascum thapsus</i>	common mullein	0	0	1	0				
650R	<i>Bromus japonicus</i>	Japanese brome					0	2	0	0
650R	<i>Erodium cicutarium</i>	red stem storksbill					2	0	0	0
650R	<i>Medicago sativa</i>	alfalfa	0	1	X	X				
650R	<i>Melilotus officinalis</i>	yellow sweetclover	2	0	X	X				
650R	<i>Onopordum acanthium</i>	scotch thistle					1	2	0	0
650R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	0	0	0
650R	<i>Tragopogon dubius</i>	western salsify	0	1	X	X	0	0	1	0
651L	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0
651L	<i>Medicago sativa</i>	alfalfa	1	0	0	0				
651L	<i>Melilotus officinalis</i>	yellow sweetclover	2	0	0	0				
651L	<i>Tragopogon dubius</i>	western salsify					0	2	2	2
651L	<i>Verbascum thapsus</i>	common mullein	0	1	0	0				
651R	No Plant	no plant	0	0	X	X	0	0	0	0
652L	No Plant	no plant	0	X	X	X	0	0	X	X
652R	<i>Medicago sativa</i>	alfalfa	0	1	X	X				
652R	<i>Melilotus officinalis</i>	yellow sweetclover	0	1	X	X				
652R	<i>Tragopogon dubius</i>	western salsify					0	1	0	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
653L	<i>Kochia scoparia</i>	kochia	2	X	X	X				
653L	<i>No Plant</i>	no plant					0	0	0	X
653R	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0
653R	<i>Melilotus officinalis</i>	yellow sweetclover	0	1	1	0	1	0	0	0
653R	<i>Salsola tragus</i>	prickly Russian thistle	1	0	0	0				
653R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	1	0	0
653R	<i>Tragopogon dubius</i>	western salsify					2	2	2	0
654L	<i>Kochia scoparia</i>	kochia	1	X	X	X				
654L	<i>No Plant</i>	no plant					0	0	0	X
654R	<i>Medicago lupulina</i>	black medic clover					2	0	0	0
654R	<i>Melilotus officinalis</i>	yellow sweetclover					1	0	0	0
654R	<i>Salsola tragus</i>	prickly Russian thistle	0	1	0	0				
654R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
654R	<i>Tragopogon dubius</i>	western salsify	0	1	0	0	2	2	2	2
655L	<i>No Plant</i>	no plant	0	0	0	X				
655L	<i>Tragopogon dubius</i>	western salsify					1	2	0	0
655R	<i>Medicago sativa</i>	alfalfa	0	1	1	0				
655R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
656L	<i>Kochia scoparia</i>	kochia	0	0	2	X				
656L	<i>Tragopogon dubius</i>	western salsify					1	1	0	0
656R	<i>Bromus japonicus</i>	Japanese brome					2	2	0	0
656R	<i>Cirsium vulgare</i>	bull thistle	0	1	0	0				
656R	<i>Erodium cicutarium</i>	red stem storksbill	0	1	0	0				
656R	<i>Melilotus officinalis</i>	yellow sweetclover					1	0	0	0
656R	<i>Onopordum acanthium</i>	scotch thistle					0	2	2	0
656R	<i>Salsola tragus</i>	prickly Russian thistle					2	0	0	0
656R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
656R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
657L	<i>Carduus nutans</i>	nodding musk thistle					0	1	0	0
657L	<i>Kochia scoparia</i>	kochia					2	0	0	0
657L	<i>No Plant</i>	no plant	0	0	0	0				
657L	<i>Onopordum acanthium</i>	scotch thistle					0	1	1	0
657L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
657L	<i>Tragopogon dubius</i>	western salsify					2	2	2	0
657R	<i>Bromus tectorum</i>	cheatgrass					0	2	2	0
657R	<i>Kochia scoparia</i>	kochia	2	1	0	0				
657R	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0
657R	<i>Melilotus officinalis</i>	yellow sweetclover					0	1	0	0
657R	<i>Onopordum acanthium</i>	scotch thistle					2	2	2	0
657R	<i>Salsola tragus</i>	prickly Russian thistle	2	1	0	0	2	0	0	0
657R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
658L	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
658L	<i>Melilotus officinalis</i>	yellow sweetclover	1	0	0	0				
658L	<i>Onopordum acanthium</i>	scotch thistle					0	0	1	0
658L	<i>Salsola tragus</i>	prickly Russian thistle					2	0	0	0
658L	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
658R	<i>Kochia scoparia</i>	kochia	1	1	X	X				
658R	<i>Lactuca serriola</i>	prickly lettuce					0	1	0	0
658R	<i>Medicago sativa</i>	alfalfa	1	0	X	X				
658R	<i>Onopordum acanthium</i>	scotch thistle					0	0	1	0
658R	<i>Salsola tragus</i>	prickly Russian thistle					1	0	0	0
658R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	0	0	0
658R	<i>Tragopogon dubius</i>	western salsify					2	2	2	0
659L	<i>Lactuca serriola</i>	prickly lettuce					1	2	2	0
659L	No Plant	no plant	0	0	0	0				
659L	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
659R	<i>Medicago sativa</i>	alfalfa	2	0	0	0				
659R	<i>Tragopogon dubius</i>	western salsify					2	2	2	0
660L	<i>Melilotus officinalis</i>	yellow sweetclover	1	0	0	0				
660L	<i>Salsola tragus</i>	prickly Russian thistle					1	0	0	0
660L	<i>Tragopogon dubius</i>	western salsify					0	2	2	2
660R	<i>Medicago sativa</i>	alfalfa	0	1	0	0				
660R	<i>Tragopogon dubius</i>	western salsify	0	1	0	0	2	2	2	2
661L	No Plant	no plant	0	0	0	X				
661L	<i>Salsola tragus</i>	prickly Russian thistle					2	0	0	0
661L	<i>Tragopogon dubius</i>	western salsify					0	1	1	0
661R	No Plant	no plant	0	0	0	0				
661R	<i>Salsola tragus</i>	prickly Russian thistle					2	0	0	0
661R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
661R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
662L	No Plant	no plant	0	X	X	X	0	0	X	X
662R	<i>Medicago sativa</i>	alfalfa	0	1	0	0				
662R	<i>Melilotus officinalis</i>	yellow sweetclover	0	2	1	0				
662R	<i>Tragopogon dubius</i>	western salsify					0	2	2	0
663L	No Plant	no plant	0	X	X	X				
663L	<i>Salsola tragus</i>	prickly Russian thistle					2	0	X	X
663R	No Plant	no plant	0	0	0	0				
663R	<i>Onopordum acanthium</i>	scotch thistle					0	0	2	2
663R	<i>Salsola tragus</i>	prickly Russian thistle					2	0	0	0
663R	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
700L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	2
700L	<i>Bromus tectorum</i>	cheatgrass	0	0	2	0				
700L	<i>Convolvulus arvensis</i>	field bindweed	0	0	2	0				
700L	<i>Kochia scoparia</i>	kochia	0	0	2	0	2	2	0	0
700L	<i>Melilotus officinalis</i>	yellow sweetclover	1	0	0	0	2	0	2	2

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
700L	<i>Salsola tragus</i>	prickly Russian thistle	0	0	2	0	2	2	2	0
700L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
700L	<i>Tragopogon dubius</i>	western salsify					2	1	1	0
700R	<i>Kochia scoparia</i>	kochia					2	2	0	0
700R	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0
700R	No Plant	no plant	0	0	0	0				
700R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
700R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
700R	<i>Sisymbrium altissimum</i>	tumble mustard					0	0	1	0
700R	<i>Tragopogon dubius</i>	western salsify					1	1	2	0
701L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	2
701L	<i>Bromus tectorum</i>	cheatgrass	0	0	2	0				
701L	<i>Cirsium vulgare</i>	bull thistle	0	1	0	0				
701L	<i>Convolvulus arvensis</i>	field bindweed	0	0	2	0				
701L	<i>Erodium cicutarium</i>	red stem storksbill	0	0	1	0				
701L	<i>Kochia scoparia</i>	kochia	1	1	2	0	2	2	2	2
701L	<i>Lactuca serriola</i>	prickly lettuce	1	0	0	0	2	2	2	0
701L	<i>Melilotus officinalis</i>	yellow sweetclover					2	2	2	2
701L	<i>Onopordum acanthium</i>	scotch thistle					1	2	2	2
701L	<i>Psathyrostachys juncea</i>	Russian wildrye					0	2	2	2
701L	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	0				
701L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	0
701L	<i>Tragopogon dubius</i>	western salsify	1	0	0	0	2	2	2	0
701L	<i>Verbascum thapsus</i>	common mullein	1	1	0	0				
701R	<i>Bromus japonicus</i>	Japanese brome					2	1	0	0
701R	<i>Kochia scoparia</i>	kochia	2	2	1	0				
701R	<i>Lactuca serriola</i>	prickly lettuce	1	2	1	0	2	2	0	0
701R	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	0				
701R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
701R	<i>Tragopogon dubius</i>	western salsify					2	1	1	0
702L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	2
702L	<i>Bromus tectorum</i>	cheatgrass	2	2	1	0				
702L	<i>Kochia scoparia</i>	kochia					2	2	2	0
702L	<i>Lactuca serriola</i>	prickly lettuce	0	0	2	0	2	2	2	2
702L	<i>Melilotus officinalis</i>	yellow sweetclover	0	0	1	0	0	2	2	2
702L	<i>Onopordum acanthium</i>	scotch thistle					1	0	0	0
702L	<i>Psathyrostachys juncea</i>	Russian wildrye					0	1	2	2
702L	<i>Salsola tragus</i>	prickly Russian thistle	2	0	3	2	2	2	2	2
702L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
702L	<i>Tragopogon dubius</i>	western salsify	0	0	1	0	1	1	1	1
702R	<i>Bromus japonicus</i>	Japanese brome					2	1	0	0
702R	<i>Lactuca serriola</i>	prickly lettuce					1	1	1	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
702R	<i>No Plant</i>	no plant	0	0	0	0				
702R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
702R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
702R	<i>Tragopogon dubius</i>	western salsify					1	1	0	0
703L	<i>Bromus inermis</i>	smooth brome					0	2	0	0
703L	<i>Bromus japonicus</i>	Japanese brome					0	2	2	0
703L	<i>Bromus tectorum</i>	cheatgrass	0	0	2	0				
703L	<i>Convolvulus arvensis</i>	field bindweed	0	0	2	0	0	2	0	0
703L	<i>Kochia scoparia</i>	kochia					2	2	0	0
703L	<i>Lactuca serriola</i>	prickly lettuce	0	1	0	0	2	2	2	0
703L	<i>Melilotus officinalis</i>	yellow sweetclover	0	0	1	0	0	2	2	2
703L	<i>Psathyrostachys juncea</i>	Russian wildrye					0	1	2	2
703L	<i>Salsola tragus</i>	prickly Russian thistle	0	0	2	0	2	2	2	2
703L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
703L	<i>Tragopogon dubius</i>	western salsify	0	0	1	0	1	2	0	0
703R	<i>Lactuca serriola</i>	prickly lettuce	0	0	1	0	2	1	1	0
703R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
703R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
703R	<i>Tragopogon dubius</i>	western salsify					1	1	1	1
704L	<i>Bromus japonicus</i>	Japanese brome					1	2	2	0
704L	<i>Bromus tectorum</i>	cheatgrass	0	0	2	0				
704L	<i>Convolvulus arvensis</i>	field bindweed	0	0	2	0	0	2	0	0
704L	<i>Kochia scoparia</i>	kochia	0	2	2	0	2	2	2	0
704L	<i>Lactuca serriola</i>	prickly lettuce					1	2	2	0
704L	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	2	2
704L	<i>Psathyrostachys juncea</i>	Russian wildrye					0	2	2	0
704L	<i>Salsola tragus</i>	prickly Russian thistle	0	0	2	0	2	2	2	2
704L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
704L	<i>Verbascum thapsus</i>	common mullein	0	0	1	0				
704R	<i>Bromus japonicus</i>	Japanese brome					1	0	0	0
704R	<i>Kochia scoparia</i>	kochia	2	2	0	0	2	0	0	0
704R	<i>Lactuca serriola</i>	prickly lettuce	1	0	0	0	2	2	2	0
704R	<i>Salsola tragus</i>	prickly Russian thistle	2	0	1	0	2	0	0	0
704R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
704R	<i>Tragopogon dubius</i>	western salsify					0	1	0	0
705L	<i>Bromus inermis</i>	smooth brome					0	2	0	0
705L	<i>Bromus japonicus</i>	Japanese brome					0	2	2	0
705L	<i>Bromus tectorum</i>	cheatgrass	0	2	2	0				
705L	<i>Convolvulus arvensis</i>	field bindweed					0	2	0	0
705L	<i>Kochia scoparia</i>	kochia	0	2	3	0				
705L	<i>Lactuca serriola</i>	prickly lettuce					0	2	2	0
705L	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	2	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
705L	<i>Psathyrostachys juncea</i>	Russian wildrye					0	1	1	0
705L	<i>Salsola tragus</i>	prickly Russian thistle	2	3	3	0	2	2	0	0
705L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	0	0	0
705L	<i>Tragopogon dubius</i>	western salsify					1	2	1	0
705R	<i>Kochia scoparia</i>	kochia	0	2	2	0				
705R	<i>Lactuca serriola</i>	prickly lettuce	0	1	0	0				
705R	<i>Salsola tragus</i>	prickly Russian thistle	0	2	2	0	2	2	0	0
705R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
705R	<i>Tragopogon dubius</i>	western salsify					3	2	2	0
706L	<i>Bromus japonicus</i>	Japanese brome					1	2	0	0
706L	<i>Convolvulus arvensis</i>	field bindweed					0	2	0	0
706L	<i>Kochia scoparia</i>	kochia	0	2	2	0	1	0	0	0
706L	<i>Lactuca serriola</i>	prickly lettuce	0	1	0	0	1	2	1	0
706L	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	2	0
706L	<i>Salsola tragus</i>	prickly Russian thistle	0	2	2	0	2	2	0	0
706L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
706L	<i>Tragopogon dubius</i>	western salsify	1	0	0	0	0	1	1	0
706R	<i>Bromus japonicus</i>	Japanese brome					1	1	0	0
706R	<i>Convolvulus arvensis</i>	field bindweed					2	2	0	0
706R	<i>Kochia scoparia</i>	kochia					1	2	2	0
706R	<i>Lactuca serriola</i>	prickly lettuce					1	2	2	0
706R	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	0	2
706R	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	0	2	2	0	0
706R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	2
706R	<i>Tragopogon dubius</i>	western salsify					0	2	2	2
707L	<i>Aegilops cylindrica</i>	jointed goat grass					2	2	0	0
707L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	2
707L	<i>Bromus tectorum</i>	cheatgrass	0	2	0	0				
707L	<i>Convolvulus arvensis</i>	field bindweed	2	2	0	0	2	2	0	0
707L	<i>Melilotus officinalis</i>	yellow sweetclover					2	2	2	2
707L	<i>Salsola tragus</i>	prickly Russian thistle	2	2	0	0	2	2	0	0
707L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	1	0	0
707L	<i>Tragopogon dubius</i>	western salsify					1	2	0	0
707R	<i>Aegilops cylindrica</i>	jointed goat grass					2	2	0	0
707R	<i>Bromus japonicus</i>	Japanese brome					1	2	2	0
707R	<i>Convolvulus arvensis</i>	field bindweed					2	2	0	0
707R	<i>Melilotus officinalis</i>	yellow sweetclover					2	2	2	2
707R	<i>Onopordum acanthium</i>	scotch thistle					0	1	1	0
707R	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	2	2	2	0	0
707R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
707R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
708L	<i>No Plant</i>	no plant	0	0	0	0				
708L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
708L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	0	0	0
708L	<i>Tragopogon dubius</i>	western salsify					1	1	1	0
708R	<i>Cirsium vulgare</i>	bull thistle	0	0	0	1				
708R	<i>Kochia scoparia</i>	kochia	0	0	2	2				
708R	<i>Lactuca serriola</i>	prickly lettuce					0	2	0	0
708R	<i>Melilotus officinalis</i>	yellow sweetclover					1	0	2	0
708R	<i>Salsola tragus</i>	prickly Russian thistle	0	0	2	2	2	2	2	2
708R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
709L	<i>Kochia scoparia</i>	kochia					2	1	0	0
709L	No Plant	no plant	0	0	0	0				
709L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	2	0
709L	<i>Tragopogon dubius</i>	western salsify					1	2	1	0
709R	<i>Lactuca serriola</i>	prickly lettuce					0	1	1	0
709R	<i>Melilotus officinalis</i>	yellow sweetclover	0	0	0	2	0	0	2	2
709R	<i>Salsola tragus</i>	prickly Russian thistle	0	0	0	2	2	2	2	0
709R	<i>Tragopogon dubius</i>	western salsify					1	2	2	2
710L	<i>Kochia scoparia</i>	kochia	0	0	2	2	2	0	0	0
710L	<i>Lactuca serriola</i>	prickly lettuce					0	1	0	0
710L	<i>Salsola tragus</i>	prickly Russian thistle	0	0	1	2	2	2	2	0
710L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
710L	<i>Tragopogon dubius</i>	western salsify					1	2	2	2
710R	<i>Kochia scoparia</i>	kochia	0	0	2	2				
710R	<i>Lactuca serriola</i>	prickly lettuce					0	2	2	0
710R	<i>Melilotus officinalis</i>	yellow sweetclover					2	0	2	2
710R	<i>Salsola tragus</i>	prickly Russian thistle	0	2	2	2	2	2	2	0
710R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
710R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
711L	No Plant	no plant	0	0	0	0				
711L	<i>Salsola tragus</i>	prickly Russian thistle					1	2	2	2
711L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	0	0	0
711L	<i>Tragopogon dubius</i>	western salsify					1	2	2	0
711R	<i>Kochia scoparia</i>	kochia	0	0	1	0				
711R	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	0	0
711R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
711R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
711R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
712L	<i>Kochia scoparia</i>	kochia	0	0	2	0				
712L	<i>Salsola tragus</i>	prickly Russian thistle	0	0	2	0	2	2	0	0
712L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	0	0	0
712L	<i>Tragopogon dubius</i>	western salsify					1	1	1	0
712R	<i>Melilotus officinalis</i>	yellow sweetclover					0	1	2	0
712R	<i>Salsola tragus</i>	prickly Russian thistle	0	2	2	0	2	2	2	0

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
712R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
712R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
713L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
713L	<i>Tragopogon dubius</i>	western salsify	1	0	1	0	2	2	1	0
713R	<i>Melilotus officinalis</i>	yellow sweetclover					0	0	2	2
713R	<i>Salsola tragus</i>	prickly Russian thistle	0	2	0	0	2	2	2	0
713R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
714L	<i>Lactuca serriola</i>	prickly lettuce	1	1	0	0				
714L	<i>Salsola tragus</i>	prickly Russian thistle	1	0	0	0	2	2	0	0
714L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					1	2	0	0
714L	<i>Tragopogon dubius</i>	western salsify					1	2	1	0
714R	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0
714R	<i>Melilotus officinalis</i>	yellow sweetclover					0	0	2	2
714R	<i>Salsola tragus</i>	prickly Russian thistle	1	2	0	0	2	2	0	0
714R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
714R	<i>Tragopogon dubius</i>	western salsify					2	2	2	2
715L	<i>Bromus japonicus</i>	Japanese brome					1	1	0	0
715L	<i>Convolvulus arvensis</i>	field bindweed	0	2	2	0				
715L	<i>Erodium cicutarium</i>	red stem storksbill					2	2	2	0
715L	<i>Lactuca serriola</i>	prickly lettuce	0	0	1	0	2	0	0	0
715L	<i>Onopordum acanthium</i>	scotch thistle					0	0	0	1
715L	<i>Polygonum aviculare</i>	yard knotweed					2	0	0	0
715L	<i>Salsola tragus</i>	prickly Russian thistle	1	2	0	0				
715L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
715L	<i>Taraxacum officinale</i>	dandelion					2	0	0	0
715L	<i>Tragopogon dubius</i>	western salsify					1	2	2	2
715R	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0
715R	<i>Kochia scoparia</i>	kochia	0	1	0	0				
715R	<i>Lactuca serriola</i>	prickly lettuce					1	0	0	0
715R	<i>Melilotus officinalis</i>	yellow sweetclover					1	0	2	2
715R	<i>Onopordum acanthium</i>	scotch thistle					0	1	0	1
715R	<i>Polygonum aviculare</i>	yard knotweed					2	0	0	0
715R	<i>Salsola tragus</i>	prickly Russian thistle	2	2	0	0				
715R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
715R	<i>Tragopogon dubius</i>	western salsify					1	2	2	2
716L	<i>Chenopodium album</i>	common lambsquarters					2	0	0	0
716L	<i>Erodium cicutarium</i>	red stem storksbill					2	2	2	0
716L	<i>Lactuca serriola</i>	prickly lettuce	1	0	0	0	0	1	0	0
716L	<i>Polygonum aviculare</i>	yard knotweed					2	0	0	0
716L	<i>Salsola tragus</i>	prickly Russian thistle					2	2	2	0
716L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
716L	<i>Tragopogon dubius</i>	western salsify					1	1	1	1

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
716R	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0
716R	<i>Lactuca serriola</i>	prickly lettuce	0	1	0	0				
716R	<i>Onopordum acanthium</i>	scotch thistle					0	1	0	0
716R	<i>Polygonum aviculare</i>	yard knotweed					2	0	0	0
716R	<i>Salsola tragus</i>	prickly Russian thistle	1	2	0	0	2	2	0	0
716R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
716R	<i>Tragopogon dubius</i>	western salsify					2	1	1	1
717L	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0
717L	<i>Kochia scoparia</i>	kochia					2	2	0	0
717L	<i>Lactuca serriola</i>	prickly lettuce					0	1	0	0
717L	<i>Melilotus officinalis</i>	yellow sweetclover					0	0	0	1
717L	<i>Salsola tragus</i>	prickly Russian thistle	1	0	0	0	2	2	0	0
717L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	0	0	0
717L	<i>Tragopogon dubius</i>	western salsify					2	0	0	0
717R	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0
717R	<i>Kochia scoparia</i>	kochia					2	2	0	0
717R	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	0	0
717R	No Plant	no plant	0	0	0	0				
717R	<i>Onopordum acanthium</i>	scotch thistle					0	2	0	0
717R	<i>Salsola tragus</i>	prickly Russian thistle					2	2	0	0
717R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
717R	<i>Sisymbrium altissimum</i>	tumble mustard					1	0	0	0
717R	<i>Tragopogon dubius</i>	western salsify					1	1	1	1
718L	<i>Bromus japonicus</i>	Japanese brome					2	2	2	0
718L	<i>Erodium cicutarium</i>	red stem storksbill					2	2	2	0
718L	<i>Kochia scoparia</i>	kochia	2	2	0	0	3	3	3	2
718L	<i>Lactuca serriola</i>	prickly lettuce					2	2	2	0
718L	<i>Melilotus officinalis</i>	yellow sweetclover					0	2	2	2
718L	<i>Onopordum acanthium</i>	scotch thistle					2	2	0	2
718L	<i>Salsola tragus</i>	prickly Russian thistle	0	0	2	0	2	2	0	0
718L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
718L	<i>Tragopogon dubius</i>	western salsify					1	1	1	1
718R	<i>Bromus japonicus</i>	Japanese brome					2	2	2	0
718R	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0
718R	<i>Kochia scoparia</i>	kochia	0	2	2	0	3	2	2	0
718R	<i>Lactuca serriola</i>	prickly lettuce					2	2	0	0
718R	<i>Onopordum acanthium</i>	scotch thistle					2	0	1	0
718R	<i>Salsola tragus</i>	prickly Russian thistle	1	2	2	0	2	2	0	0
718R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	2	0
718R	<i>Tragopogon dubius</i>	western salsify					1	2	2	1
719L	<i>Bromus japonicus</i>	Japanese brome					2	2	0	0
719L	<i>Erodium cicutarium</i>	red stem storksbill					2	2	0	0

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Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

Table 7. Comparison of 2011 vs. 2014 detections for each individual Vector Block, detailing the given Density Code for each Distance Class (continued).

Block	Scientific Name	Common Name	2011				2014			
			D1	D2	D3	D4	D1	D2	D3	D4
719L	<i>Kochia scoparia</i>	kochia	2	3	3	0	3	3	3	2
719L	<i>Lactuca serriola</i>	prickly lettuce					1	1	1	0
719L	<i>Melilotus officinalis</i>	yellow sweetclover					0	0	0	2
719L	<i>Onopordum acanthium</i>	scotch thistle					1	2	1	1
719L	<i>Salsola tragus</i>	prickly Russian thistle	2	3	3	0	2	2	2	0
719L	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
719L	<i>Tragopogon dubius</i>	western salsify					1	1	1	1
719R	<i>Bromus japonicus</i>	Japanese brome					2	2	0	0
719R	<i>Erodium cicutarium</i>	red stem storksbill					2	2	2	0
719R	<i>Kochia scoparia</i>	kochia	1	2	2	0	3	2	2	0
719R	<i>Salsola tragus</i>	prickly Russian thistle	2	2	2	0	2	2	0	0
719R	<i>Scorzonera laciniata</i>	cutleaf vipergrass					2	2	0	0
719R	<i>Tragopogon dubius</i>	western salsify					1	1	1	1

Distance Class Key: D1 = edge of vector to 2 meters into the landscape (or inner edge of mow line); D2 = interior edge of D1 to 10 meters; D3 & D4 = each additional 10 meters into the landscape.

Density Code Key: 0 = no plants; 1 = 1–5 plants; 2 = scattered patches; 3 = even distributed patches; 4 = matrix; X = non-detect

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