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July 31, 2006

Arizona Corporation Commission
Docket Control – Utilities Division
1200 W. Washington Street
Phoenix, Arizona 85008

Re: LSP Arlington Valley, LLC
2006 and Management Plan Annual Report
Docket No: L-00000P-01-0117

As a follow up to the Land Management Annual Report letter delivered on June 29, 2006, please find attached an original and fifteen (13) copies of LSP Arlington Valley, LLC's Annual Report on the Land Management Plan. The report includes the annual report from the University of Arizona on the re-vegetation efforts and a 2006 Ducks Unlimited report on the seasonal wetlands.

This report is being filed in compliance with Condition No. 13 (iv) in ACC Amended Decision No. 62995 and Condition 14 (d) in ACC Amended Decision No. 64495.

Very truly yours,

Michael Holcomb

LSP Arlington Valley, LLC

File: 400.080.50

cc: Brian K.Bozzo, Compliance Manager

REVEGETATION OF ABANDONED FARMLAND AT ARLINGTON VALLEY ENERGY

T. M. Bean and M. M. Karpiscak
University of Arizona
July 2006

Summary of revegetation efforts

The University of Arizona has continued to study and implement a comprehensive revegetation program to restore a large portion of the Arlington Valley Energy property with self-sustaining native plant communities similar to the adjacent desert lands. The primary purpose of the revegetation program is to return these former agricultural lands to beneficial use as open space that will attract wildlife and enhance the surrounding environment. The scope of the project is large: approximately 1,810 ac of retired agricultural land exists on the site, having lain fallow for a period of 5-15 years, as well as an additional 910 ac of currently farmed agricultural lands.

A total of approximately 1,127 ac has been revegetated as of the date of this report. A small experimental planting of 16 ac was made in March 2001, followed by a scaled-up planting of 206 ac in November 2001, and a large-scale implementation planting of 630 ac in March 2003. An additional 60 ac was planted in the northeast corner of the property during late 2004 and early 2005. A small (17 ac) desert riparian planting was made in cooperation with Ducks Unlimited in May 2005. During the spring of 2006 an additional 200 acres was planted just south of the power generating facility. Table 1 presents species included in each of the revegetation plantings. Results of the March 2001 and November 2001 plantings and preliminary results from the March 2003 planting were presented in previous reports. No assessment of survivorship or recruitment in these plantings was possible during 2005 due to the El Niño conditions experienced in the fall and winter of 2004-05, which generated rank weed growth thus preventing field surveys. Field surveys were restarted in late spring 2006 and available data are noted below.

This report briefly describes the status of the most recent plantings and also discusses future plantings on the retired agricultural lands owned by Arlington Valley Energy. Please refer to past reports for detailed descriptions of the March and November 2001 plantings and observations from the March 2003 planting as well as the 2005 plantings. Areas revegetated through May 2006 are displayed in Figure 1.

April 2006 Planting

A 200 acre planting was made in during spring 2006 using one-gallon transplants in the area just south of the generating facility. This location was originally being considered for a second phase addition to the generating facility. The species list remains similar to the 2005 planting (Table 1). We continued to exclude *Baileya multiradiata* (desert marigold) and *Sphaeralcea ambigua* (desert globemallow) based on their relatively short lifespans (~2 yr), which left empty spaces as they senesced and died, leaving an opening for the potential invasion by exotics. During this 2006 planting event we placed an increased number of plants per acre. We used about 25% more transplants per acre and in general every third irrigation emitter was planted with two one-gallon plants instead of just one. As the planting area was adjacent to and visible from the power plant

this area may require extra care to keep weed densities at a minimum to both provide for greater initial survivorship among planted species as well as to provide a buffer to the generating facility. Not enough time has elapsed since the 2006 plantings to accurately assess success, although initial planting survival appears high and appears to be consistent with survivorship in previous one-gallon plantings.

Desert Riparian Planting with Ducks Unlimited

Seventeen acres of desert riparian vegetation were planted in a cooperative project with Ducks Unlimited in 2005. Details of the wetland planting were presented in a planting scheme prepared by Ducks Unlimited as well as photographs presented in last years report. This effort is an opportunity to investigate the use of different native community assemblages and different irrigation methods. The plantings occurred in flood-irrigated level basins that occur next to seasonal wetlands holding food crops for migrating waterfowl and shorebirds. Our goal is for the desert riparian vegetation to provide cover and an additional food source for wildlife. Many difficulties were experienced with the planting, most of which involved a very wet October 2004 to April 2005 period. The wet winter prevented planting until May 2005. Following the planting of the one-gallon transplants and the distribution of the selected seed the fields within the ponds were flood irrigated (Figure 2). Some fields appear to be draining very well at present, but due to poor quality irrigation water and an inevitable buildup of salts, drainage will likely decrease over time. It will be critical to manage the salt build up in these ponds so that water logging is reduced and plant mortality minimized. Most of the desert riparian vegetation has done very well in the flood irrigated basin of the wetland (Figures 3 and 4). The periodic flooding and extended periods of standing water have however drowned a number of the grass transplants. It will take several years to determine the success of this planting, so it will be monitored closely.

Future plantings

Much of the property south of the railroad has begun to recover naturally and we will not intervene. To do so would probably cause more damage than good because of the soil disturbances involved in planting and infrastructure installation. However, fallow agricultural lands that do not appear to be recovering on their own occur in Parcel 1 (Figure 5) and will be revegetated using the standard approach. We plan to plant some 200 acres during the fall of 2006 in the southeast corner of Parcel 1 (see Figure 1). In 2006 and 2007 we will continue to assess the status of the plant community south of the railroad tracks and will determine the exact location and detailed requirements for any needed additional plantings.

Current status

Approximately 1,810 ac of retired agricultural land exists on the site, having lain fallow for a period of 5-15 years, as well as an additional 910 ac of currently farmed agricultural lands. A total of approximately 1,127 ac has been revegetated as of the date of this report. A small experimental planting of 16 ac was made in March 2001, followed by a scaled-up planting of 206 ac in November 2001, and a large-scale implementation planting of 630 ac in March 2003. An additional 60 ac was planted in the northeast corner of the property during late 2004 and early 2005. A small (17 ac) desert riparian planting was made in cooperation with Ducks Unlimited in May 2005. An additional 200 acres was planted in the spring of 2006. Table 1 presents species included in each of the revegetation plantings. Results of the March 2001 and

November 2001 plantings and preliminary results from the March 2003 planting were presented in previous reports. No assessments of survivorship or recruitment in these plantings were possible due to the El Niño conditions experienced in the fall and winter of 2004-05.

During May, June and July of 2006 data was collected on the rose pot, paper pot and one-gallon plantings. These data are shown in Table 2 and Figures 6, 7 and 8. The five-year survival data indicate that some of the species have done very well (Figure 6 and Table 2). Survival of the species planted differed by species and pot size. Some species (*Ambrosia, Atriplex polycarpa, Larrea, Pleuraphis*) showed significantly higher survival in larger pot sizes, while others showed high survival regardless of pot size (*Atriplex canescens, A. lentiformis*). Although some species do well when planted from smaller pots, all plantings after fall 2001 have utilized one-gallon size transplants due to the higher overall survival (~71% at five years since planting).

The number of individuals of *Atriplex canescens* and *Prosopis veluntina* have actually increased from the initial rose pot planting in 2001 and two other species *Atriplex lentiformis* as well as *Larrea tridentate* are at or near 100 percent survival. The high rates of survival of these species likely reflects recruitment of new individuals from seed produced by the original transplants. Paper pot transplants of the above species did not do as well. These data appear to support the decision to go exclusively to the use of one-gallon plants.

Individual plant densities of the species placed in the revegetated areas differ for the various plantings. Both the Rose pots as well as the Paper pots show a decrease in the number of plants per acre from the initial planting of some 110 plants per acre. The areas planted with One-gallon plants showed increased densities of up to about 160 plants per acre after three years and 180 plants per acre after 5 years (Figure 7).

With the exception of the field planted to Rose pot transplants, most fields have vegetation cover that equal or exceed those found in natural adjacent desert areas (Figure 8). Although mortality of transplants has been high in some fields, recruitment of seedlings has also been high enough to offset this. Dominant species (*Atriplex* spp., *Larrea*, *Prosopis*) in the planted fields are also reflective of those species found in adjacent natural areas. Some invasion by native weedy species like *Isocoma* has occurred (Figure 9), but this is a natural phenomenon associated with soil disturbance and is not known to have any negative effect on the more desirable species.

Matched photographs are shown in Figures 9.1 to 9.4. These photos are taken from the same photo station and illustrate the changes and progress in plant growth in one of the fields planted with One-gallon plants in 2003. The first photo shows the field shortly after planting. In August 2004 the transplanted plants are well established. In March 2005 there is a dense ground cover of annuals from the abundant rains of the winter of 2004-2005. In the July 2006 photograph there is a dramatic decrease in the annual cover as would be expected because of the low rainfall of the winter of 2005-2006. The perennials continue to do well and show additional growth since the previous photo. In the foreground there are the remains of a few salt cedar plants that were removed in early 2006. The salt cedar had become established in 2003 when the field was being irrigated to established the transplants; although some of the salt cedar planted had died once the irrigation stopped it was necessary to manually remove the remaining plants.

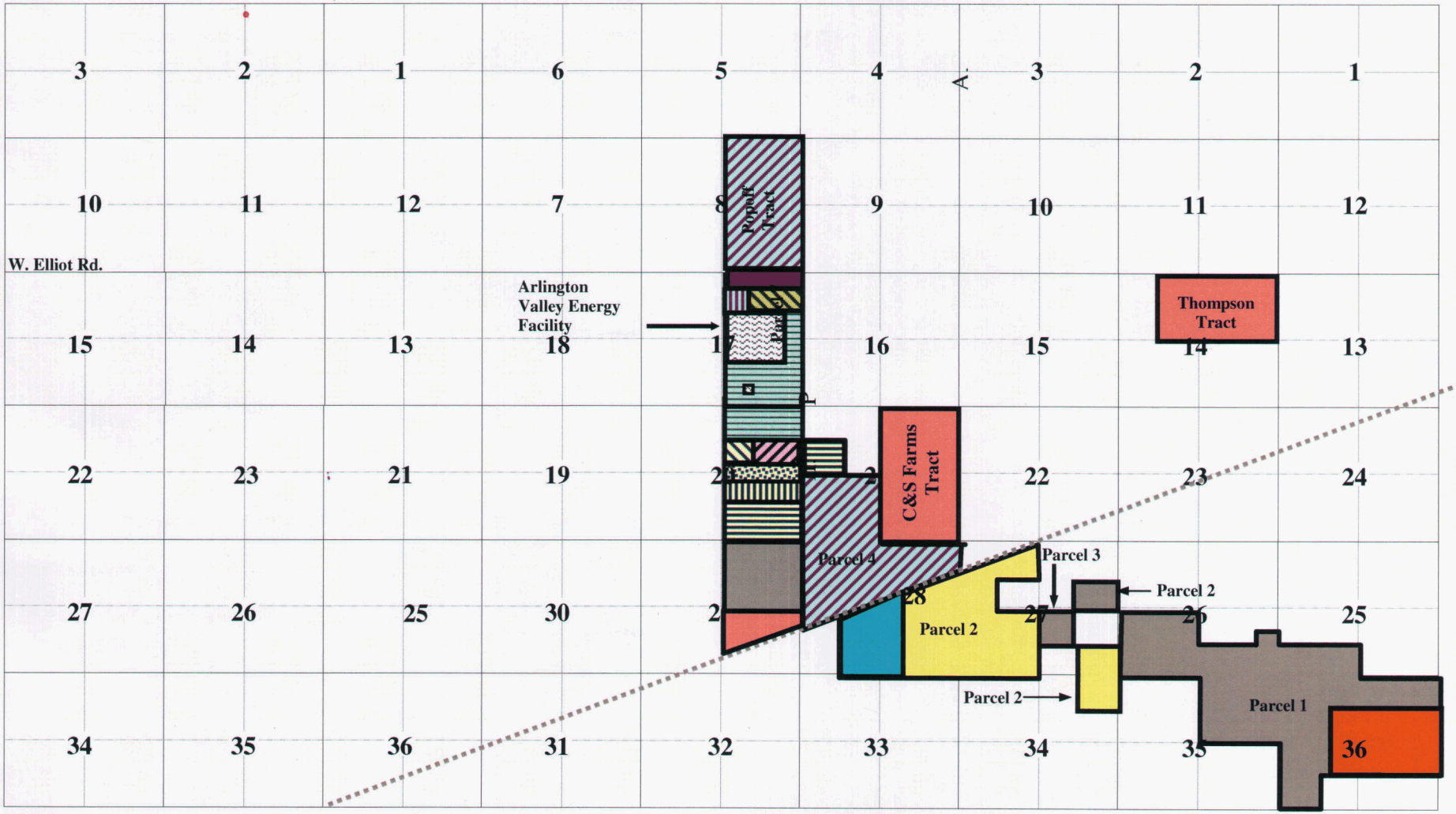

Figure 1. Map of Revegetation Efforts at the Arlington Valley Energy Facility.

Figure 2. Flood-Irrigated Cell at the Ducks Unlimited Seasonal Wetland.

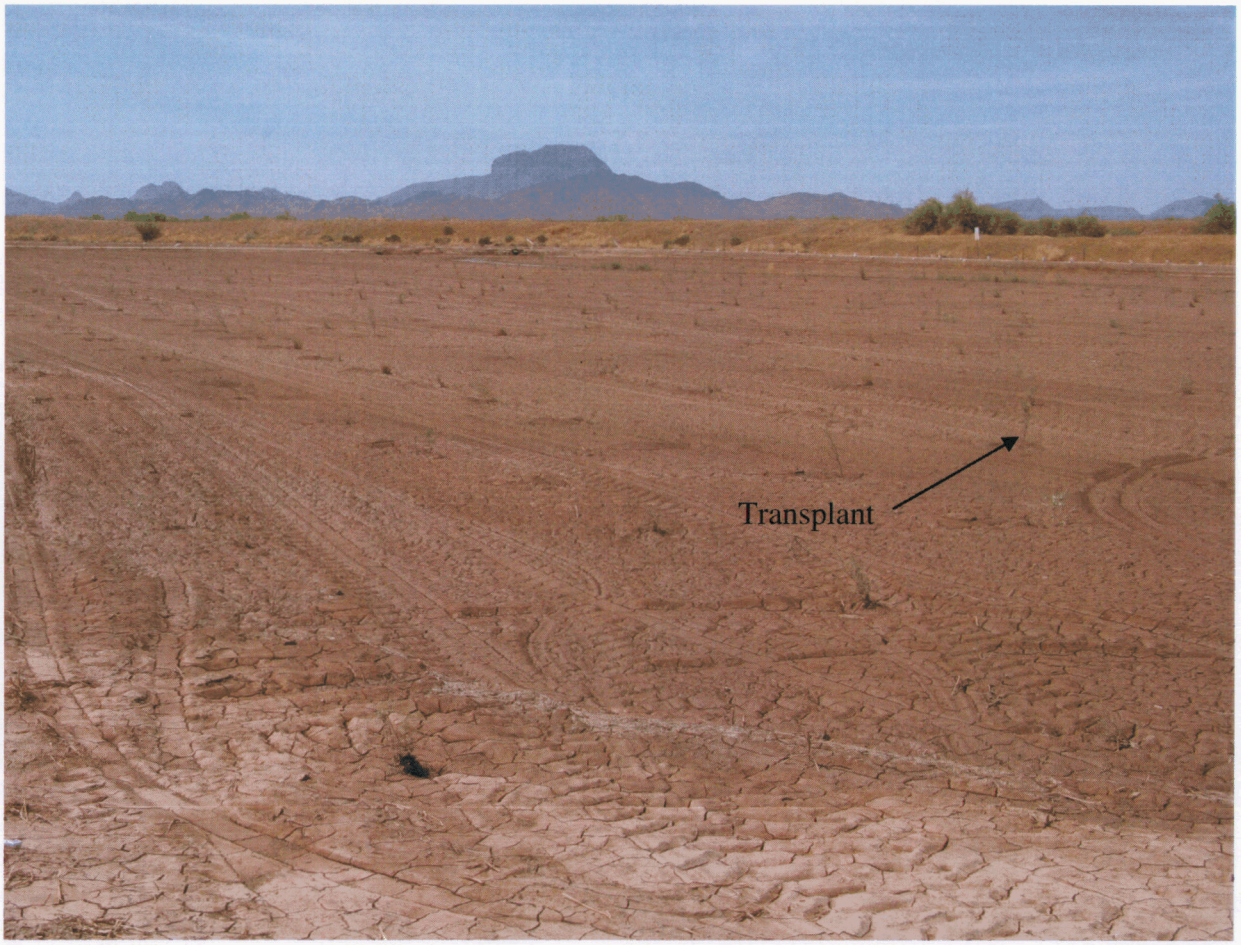

Figure 3. Flood-Irrigated Desert Riparian Plants at the Ducks Unlimited Wetland Shortly After Planting in Spring 2005.

Figure 4. Desert Riparian Vegetation July 2006 some 15 Months following Planting in Spring of 2005.

Figure 5. View of Parcel 1 Field Scheduled for Planting in Fall 2006.

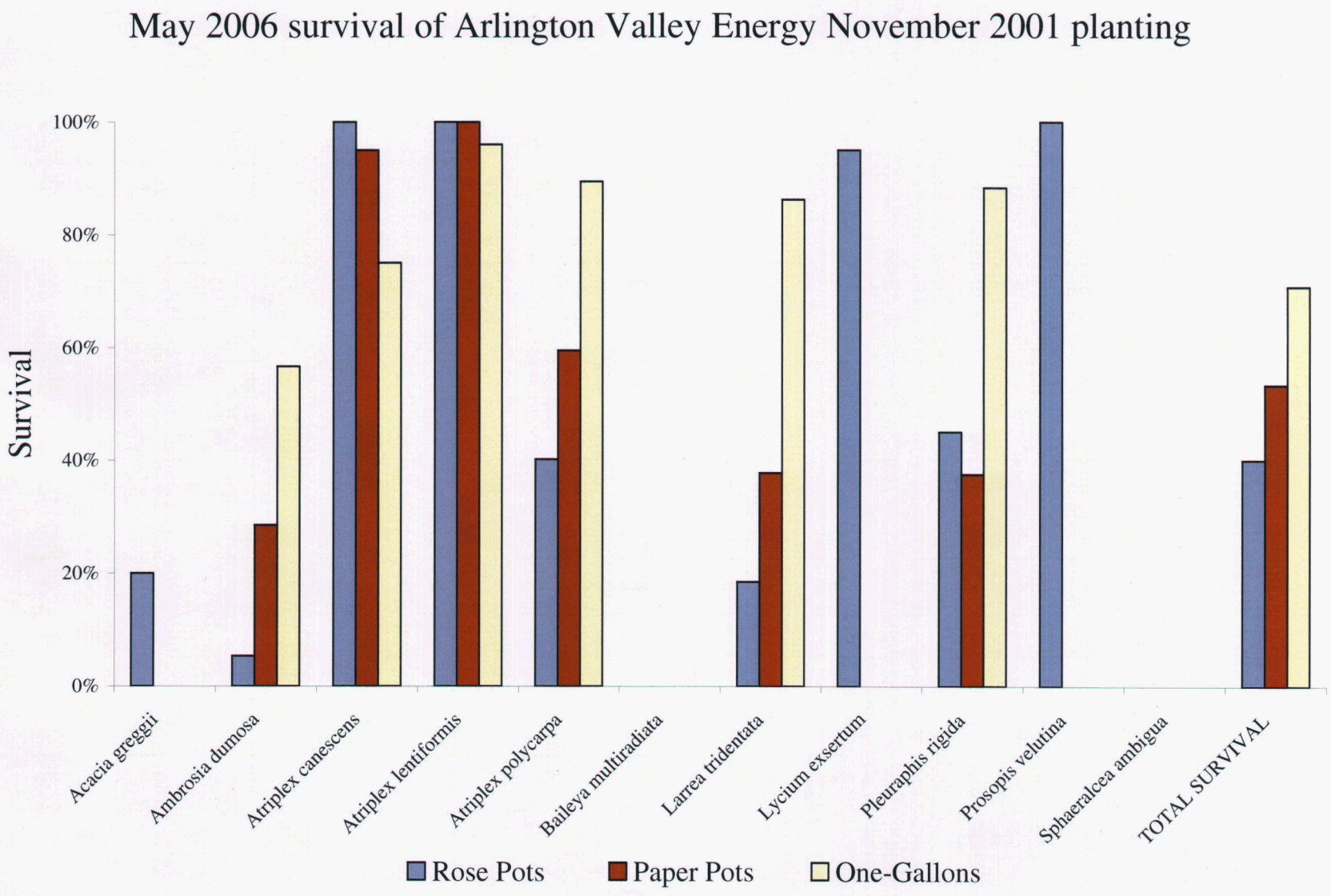

Figure 6. May 2006 Survival Data of May 2001 Plantings.

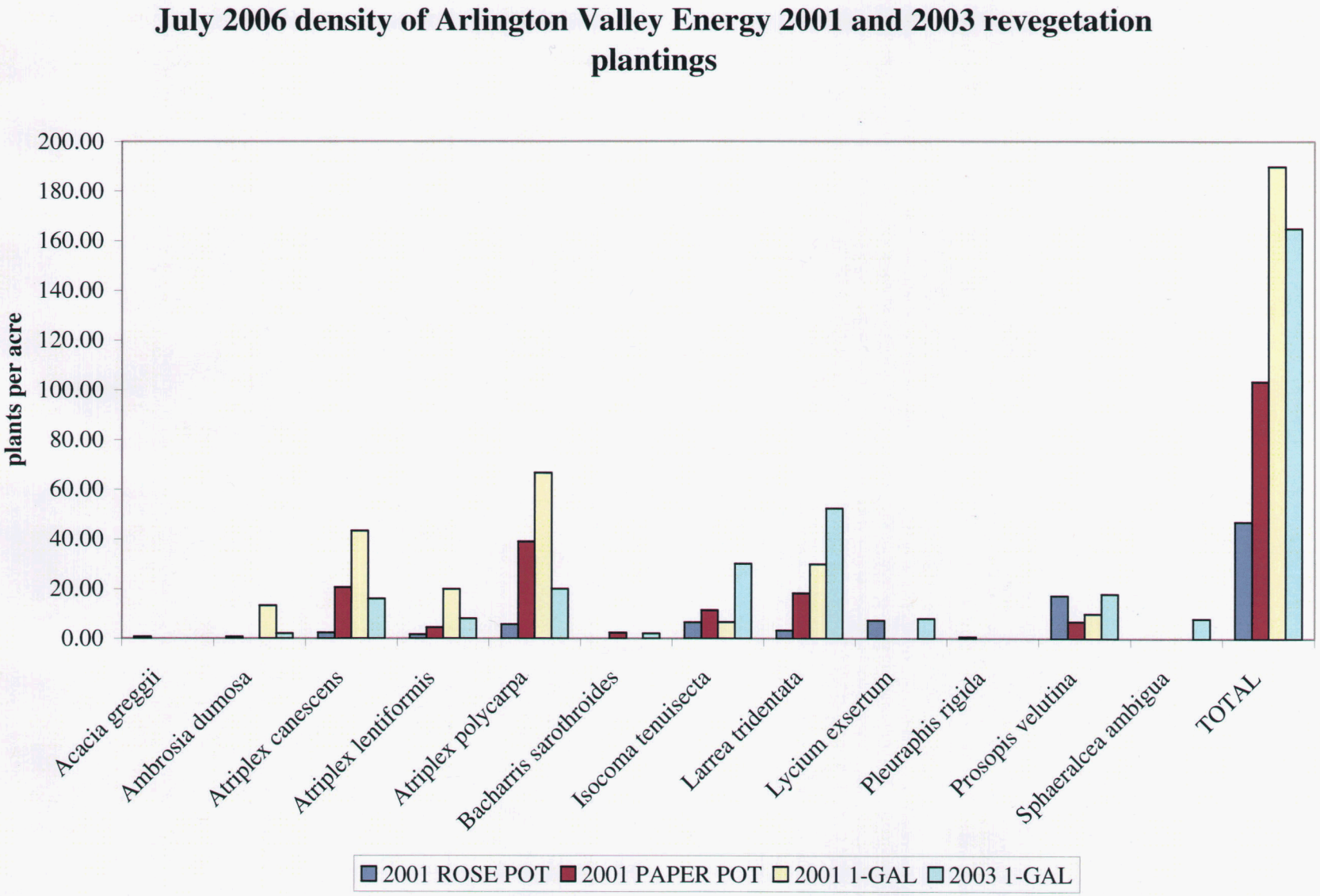

Figure 7. July 2006 Density of 2001 and 2003 Plantings.

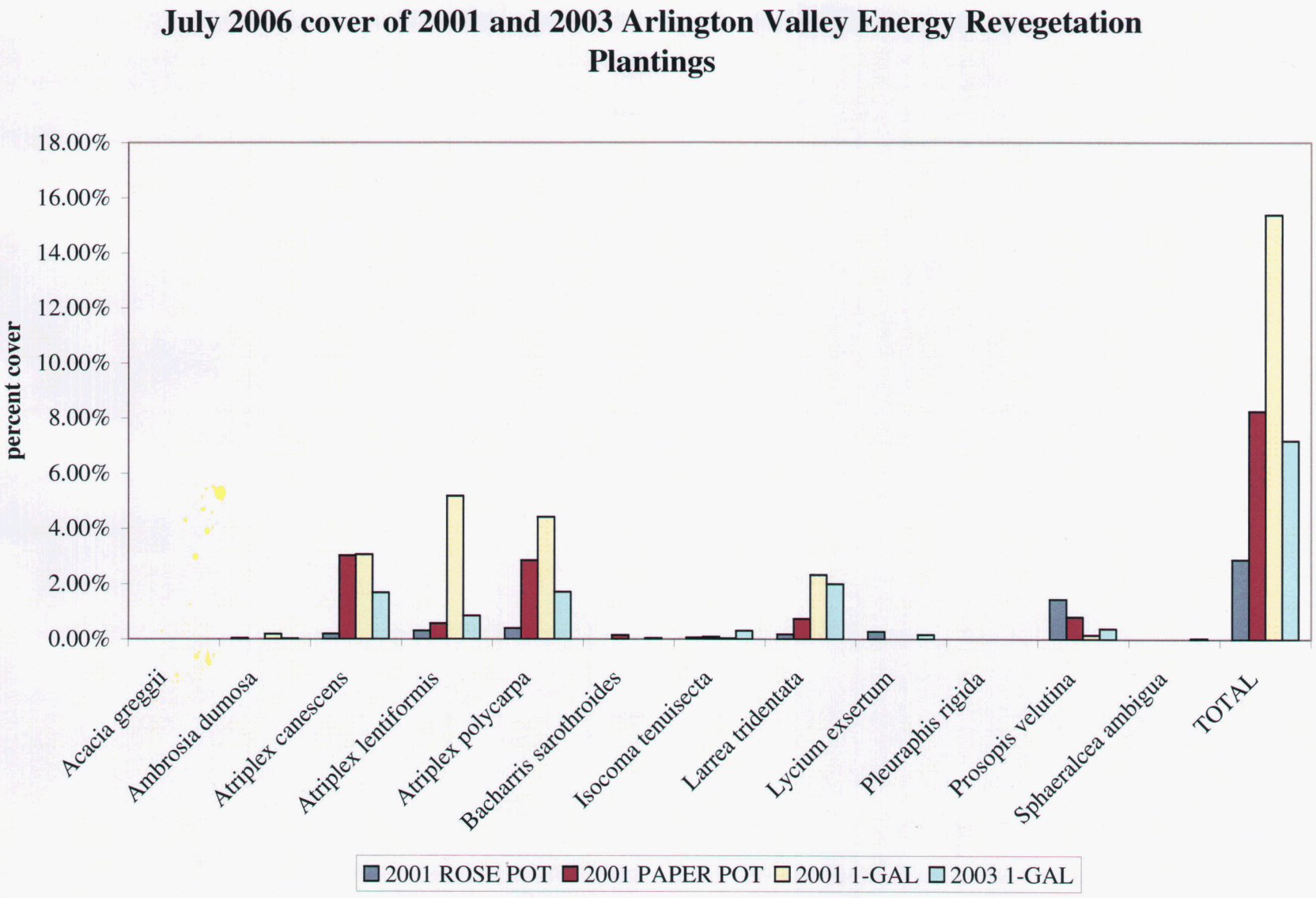

Figure 8. July 2006 Cover of 2001 and 2003 Plantings.

Figure 9.1. March 2003 View of One-gallon plants.

Figure 9.2. August 2004 View from the Same Photo Point as March 2003.

Figure 9.3. March 2005 View. Note dense annual cover from recent rains.

Figure 9.4. July 2006 View, Note decrease in annual plant cover compared to 2005 as well as growth in the size of shrubs and trees since 2005. Dead plants in foreground are salt cedar that was removed in early 2006.

Table 1. Species included in each of the revegetation plantings at Arlington Valley Energy to date.

Botanical name	Common name	March 2001	November 2001	March 2003	April 2005	May 2005	April 2006
Acacia greggii	Catclaw acacia	S, OG	RP	OG	OG	OG	OG
Ambrosia deltoidea	Triangleleaf bursage	S, RP	NP	NP	NP	NP	NP
Ambrosia dumosa	White bursage	S	RP, PP, OG	OG	OG	NP	OG
Aristida purpurea	Purple threeawn	S	RP	OG	OG	OG	OG
Atriplex canescens	Fourwing saltbush	S	RP, PP, OG	OG	OG	OG	OG
Atriplex lentiformis	Quailbrush	S	RP, PP, OG	OG	OG	OG	OG
Atriplex polycarpa	Desert saltbush	S, OG	RP, PP, OG	OG	OG	OG	OG
Baileya multiradiata	Desert marigold	S	OG	OG	NP	NP	NP
Bouteloua aristidoides	Needle grama	S	NP	NP	NP	NP	NP
Calliandra eriophylla	Fairy duster	S	NP	NP	NP	NP	NP
Cassia covesii	Desert senna	S	NP	OG	OG	NP	OG
Festuca microstaycha	Desert fescue	S	NP	NP	NP	NP	NP
Larrea tridentata	Creosotebush	S, RP	RP, PP, OG	OG	OG	NP	OG
Lesquerella gordoni	Gordon's bladderpod	S	NP	NP	NP	NP	NP
Lycium exsertum	Woflberry	S, OG	RP	OG	OG	OG	OG
Muhlenbergia porteri	Bush muhly	NP	NP	OG	OG	OG	OG
Olneya tesota	Ironwood	S	NP	NP	NP	OG	NP
Opuntia acanthocarpa	Buckhorn cholla	S	NP	NP	NP	NP	NP
Parkinsonia microphylla	Littleleaf paloverde	S	RP	OG	OG	NP	OG
Parkinsonia florida	Blue paloverde	NP	NP	NP	NP	OG	NP
Plantago ovata	Indianwheat	S	NP	NP	NP	NP	NP
Pleuraphis rigida	Big galleta	S	RP, PP, OG	OG	OG	OG	OG

Prosopis velutina	Velvet mesquite	S, OG	RP	OG	OG	OG	OG
Sphaeralcea ambigua	Desert globemallow	S	RP	OG	NP	NP	NP
Sphaeralcea coulteri	Coulter's globemallow	S	NP	NP	NP	NP	NP
Zizyphus obtusifolia	Graythorn	NP	NP	NP	NP	OG	NP

"S" = seed "PP" = paper pots
"NP" = not planted "OG" = 3.8-l pots
"RP" = rose pots

Table 2. Five-year transplant survival for the Arlington Valley Energy 2001 Revegetation Planting

Species	Rosepots*	Paperpots*	One-gallon pots
Acacia greggii (catclaw acacia)	20.0%	np	np
Ambrosia dumosa (white bursage)	5.4%	28.6%	56.7%
Atriplex canescens (fourwing saltbush)	100.0%	95.0%	75.0%
Atriplex lentiformis (quailbush)	100.0%	100.0%	96.0%
Atriplex polycarpa (desert saltbush)	40.2%	59.6%	89.4%
Baileya multiradiata (desert marigold)	np	np	0.0%
Larrea tridentata (creosotebush)	18.5%	37.8%	86.2%
Lycium exsertum (wolfberry)	95.0%	np	np
Pleuraphis rigida (big galleta)	45.0%	37.5%	88.3%
Prosopis velutina (velvet mesquite)	100.0%	np	np
Sphaeralcea ambigua (globemallow)	0.0%	np	np
TOTAL	40.0%	53.4%	70.8%

*Pots increase in size from Rosepot to Paperpot to One-gallon pot. For a more detailed description of the pots used, see the report text.

"np" = not planted