

## OSC/ NRPR Summary for 5/17/2017 BOS Budget Hearing

### Office of Sustainability & Conservation:

1. Please provide an inventory of open space lands including the cost of acquisition. What is the total amount the County has in open space land?

A list of open space lands acquired with 1997 and 2004 bonds is provided below, but other large open space tracts like Tucson Mt. Park were acquired as early as the 1920s and are not shown here.

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#### Pima County Conservation Acquisition Bond Programs List of Properties

1997 – On May 20, 1997, Pima county voters approved funding in the amount of \$27.9 million for the acquisition of properties for conservation. To date, 27 properties have been purchased, totaling 7,200 acres.

2004 – On May 18, 2004, voters approved \$164.3 million in bond funds for conservation purposes. To date, 50 properties have been acquired, totaling 45,300 acres in fee lands and 127,000 acres of grazing leases. Approximately \$7 million remains in this program.

#### 1997 and 2004 Bond Acquisitions

| Property (Location)  | Acres | Grazing Lease Acres | Acquisition Cost | Acquisition Date |
|--|-------|---------------------|------------------|------------------|
| A-7 Ranch (San Pedro Valley Reserve)                                   | 6,829 | 34,195              | \$2,041,933      | Sep-04           |
| Akers/Dailey (Cienega Valley-Empire Ranch Reserve)                     | 158   |                     | \$1,222,720      | Oct-99           |
| Alpher (Cienega Valley-Empire Ranch Reserve)                           | 147   |                     | \$514,412        | Feb-00           |
| Amadon (Cienega Valley-Empire Ranch Reserve)                           | 39    |                     | \$122,257        | Dec-06           |
| Baker (Cienega Valley-Empire Ranch Reserve)                            | 155   |                     | \$226,342        | Oct-04           |
| Bar V Ranch (Cienega Valley-Empire Ranch Reserve)                      | 1,763 | 12,674              | \$8,189,228*     | Feb-05           |
| Baxter (Tucson Mountains Reserve)                                      | 33    |                     | \$274,472        | Mar-99           |
| Bee (Northern Altar Valley Reserve)                                    | 120   |                     | \$60,873         | Feb-05           |
| Belvedere (Tucson Mountains Reserve)                                   | 72    |                     | \$615,972        | Jan-06           |
| Berard (Tucson Mountains Reserve)                                      | 7     |                     | \$81,792         | Aug-05           |
| Bradley (Cienega Valley-Empire Ranch Reserve)                          | 40    |                     | \$266,036        | Oct-99           |
| Buckelew Farms (Northern Altar Valley Reserve)                         | 505   | 2,200               | \$5,080,467      | Oct-06           |
| Canoa Ranch (Upper Santa Cruz-Southern Altar Valley Reserve)           | 4,700 |                     | \$6,150,000*     | May-01           |
| Canoa Ranch II (Upper Santa Cruz-Southern Altar Valley Reserve)        | 33    |                     | \$1,801,106      | Aug-05           |
| Canoa Ranch Phase III (Upper Santa Cruz-Southern Altar Valley Reserve) | 52    |                     | \$1,200,581      | Dec-06           |
| Carpenter Ranch (Tortolita Reserve)                                    | 200   |                     | \$520,011        | Apr-99           |
| Carpenter Ranch Phase II (Tortolita Reserve)                           | 360   |                     | \$1,180,036      | Aug-05           |
| Cates (Cienega Valley-Empire Ranch Reserve)                            | 39    |                     | \$132,957        | May-06           |
| Chess (Cienega Valley-Empire Ranch Reserve)                            | 37    |                     | \$124,865        | Feb-07           |
| Clyne Ranch (Cienega Valley-Empire Ranch Reserve)                      | 880   |                     | \$4,979,434      | Jan-10           |
| Cochie Canyon (Tortolita Reserve)                                      | 290   |                     | \$2,901,044      | Jun-08           |
| Continental Ranch Development LLC (Wildlife Corridor)                  | 15    |                     | \$750,448        | Jul-07           |
| Cortaro and Hartman (Tortolita Reserve)                                | 50    |                     | \$1,175,000*     | Aug-09           |
| Des Rochers (Tucson Mountains Reserve)                                 | 19    |                     | \$294,028        | Oct-06           |
| Diamond Bell Ranch (Northern Altar Valley Reserve)                     | 191   | 30,702              | \$897,730        | Mar-08           |
| Diocese of Tucson (Tucson Mountains Reserve)                           | 216   |                     | \$636,462        | Jun-98           |
| Dos Picos (Tucson Mountains Reserve)                                   | 60    |                     | \$1,425,677      | Nov-09           |
| Doucette (Agua Caliente Wash)  | 21    |                     | \$569,608        | Dec-04           |
| Drewes (Agua Caliente Wash)  | 11    |                     | \$388,000        | Mar-98           |
| Empirita (Cienega Valley-Empire Ranch Reserve)                         | 2746  |                     | \$10,835,000     | Aug-09           |
| Firkins (Tucson Mountains Reserve)                                     | 1.4   |                     | \$30,987         | Mar-06           |
| Habitat for Humanity (Tucson Mountains Reserve)                        | 80    |                     | \$1,102,832*     | Jul-08           |
| Heater (Tucson Mountains Reserve)                                      | 50    |                     | \$991,743        | Sep-05           |
| Hiatt (Tucson Mountains Reserve)                                       | 25    |                     | \$721,863        | Sep-05           |
| Holsclaw (Tucson Mountains Reserve)                                    | 10    |                     | \$159,969        | Jun-99           |
| Huntington (Tucson Mountains Reserve)                                  | 3.6   |                     | \$72,163         | Jan-06           |
| Jacobs Trust (Tucson Mountains Reserve)                                | 80    |                     | \$601,336        | Mar-04           |

|   |       |        |              |        |
|---|-------|--------|--------------|--------|
| Joshua Tree II (Tucson Mountains Reserve)                             | 40    |        | \$130,389    | May-00 |
| King 98 Ranch (Northern Altar Valley Reserve)                         | 1,034 | 3,096  | \$2,102,921  | Mar-05 |
| Knez (Cienega Valley-Empire Ranch Reserve)                            | 80    |        | \$240,967    | Aug-06 |
| L & F International (Tucson Mountains Reserve)                        | 294   |        | \$2,589,225  | Jun-99 |
| Las Lomas 1 & 2 (Tucson Mountain Park)                                | 50    |        | \$748,400    | Jun-99 |
| Leaf (Tortolita Reserve)  | 80    |        | \$280,000    | Mar-98 |
| Lefkovitz/Lakia (Tucson Mountains Reserve)                            | 115   |        | \$275,825    | Jul-01 |
| Linda Vista/Patrick (Tortolita Reserve)                               | 9.1   |        | \$451,561    | Feb-07 |
| Madera Highlands (Upper Santa Cruz-Southern Altar Valley Reserve)     | 366   |        | \$385,733    | Aug-05 |
| Marley Ranch Phase I (Upper Santa Cruz-Southern Altar Valley Reserve) | 6,337 |        | \$20,006,112 | Apr-09 |
| Matesich (Tucson Mountains Reserve)                                   | 4     |        | \$85,586     | Nov-05 |
| Mission and 33rd Street (Tucson Mountains Reserve)                    | 9     |        | \$191,896    | Sep-10 |
| Mordka (Northern Altar Valley)  | 40    |        | \$20,265     | Feb-05 |
| Nunez (Cienega Valley-Empire Ranch Reserve)                           | 19    |        | \$68,502     | May-06 |
| Orach (Tucson Mountains Reserve)                                      | 3     |        | \$60,620     | May-01 |
| Pacheco (Tucson Mountains Reserve)                                    | 20    |        | \$241,010    | Dec-05 |
| Perper/Rollings (Tucson Mountains Reserve)                            | 746   |        | \$5,975,258  | Feb-00 |
| Poteet (Cienega Valley-Empire Ranch Reserve)                          | 83    |        | \$275,820    | Aug-05 |
| Rancho Seco (Upper Santa Cruz-Southern Altar Valley Reserve)          | 9,574 | 27,361 | \$18,503,948 | May-05 |
| Reid (Tortolita Reserve)  | 4     |        | \$316,920    | Mar-07 |
| Route 606 (Tucson Mountains Reserve)                                  | 22    |        | \$241,134    | Oct-06 |
| Ruddick (Agua Caliente Wash)  | 13    |        | \$369,993    | Sep-00 |
| Saguaro Cliffs (Tucson Mountains Reserve)                             | 155   |        | \$1,548,244  | Nov-98 |
| Sands Ranch (Cienega Valley-Empire Ranch Reserve)                     | 5,040 |        | \$21,015,503 | Dec-08 |
| Selective Marketing (Tucson Mountains Reserve)                        | 10    |        | \$92,372     | Oct-05 |
| Serr (Tucson Mountains Reserve)                                       | 10    |        | \$94,776     | Dec-05 |
| Six Bar Ranch (San Pedro Valley Reserve)                              | 3,292 | 9,000  | \$11,525,322 | Aug-06 |
| Sopori Ranch Phase (Upper Santa Cruz-Southern Altar Valley Reserve)   | 4,135 | 10,480 | \$18,602,695 | Jan-09 |
| South Wilmot LLC (Pima Pineapple Cactus Mitigation Bank)              | 36    |        | \$112,690    | Jul-06 |
| Sweetwater (Tucson Mountains Reserve)                                 | 695   |        | \$11,733,653 | Jun-04 |
| Tang (Tortolita Reserve)  | 40    |        | \$2,377,079  | Jul-07 |
| Tanque Verde & Houghton LLC (Agua Caliente Wash)                      | 77    |        | \$1,558,137  | Sep-10 |
| Terra Rancho Grande (Agua Caliente Wash)                              | 72    |        | \$1,376,628  | Jan-10 |
| Treehouse Realty (Wildlife Corridor)                                  | 13    |        | \$922,742    | Apr-10 |
| Tumamoc Hill  | 277   |        | \$2,350,000* | Feb-09 |
| Valenica Site   | 67    |        | \$940,000*   | Mar-10 |
| Walden (Cienega Valley-Empire Ranch Reserve)                          | 477   |        | \$1,400,000* | Sep-04 |
| Habitat at 36 <sup>th</sup> and Kino                                  | 20    |        | \$750,376    | Nov-11 |
| Tortolita Mountain Park Expansion                                     | 1,416 |        | \$3,997,020  | Mar-13 |
| Painted Hills   | 286   |        | \$8,500,000  | Sep-14 |
| M Diamond   | 624   | 7,800  | \$400,000*   |        |

\*Acquisition cost includes non-bond funding and/or donation.

The County controls and manages a total of approximately 230,000 acres of open space; roughly 100,000 acres in fee, including about 50,000 ranch acres in fee, and about 143,000 acres held through state and federal grazing leases. Acquisition of these open space acres (including grazing leases to continue ranching use) executes direction from the public expressed in the 1997 and 2004 bond elections.

**2. Please provide an inventory of all ranches and include the amount of acquisition, acreage, income generated, and cost to maintain.**

Pima County has acquired 16 ranches, 14 of which continue to operate as working ranches (See Table 1). County ranches total over 192,000 acres with approximately 49,600 acres owned in fee; the balance of nearly 143,000 acres controlled via state and federal grazing leases. However, the impetus for engaging in ranch conservation extends back to the very foundation of the Sonoran Desert Conservation Plan.

In an October 21, 1998 memo to the Board of Supervisors, the County Administrator presented the Sonoran Desert Conservation Plan (SDCP) as a response to the Board’s discussions on “... urban growth issues and the need to balance economic, environmental, and human interests.” The SDCP contains 6 elements: 1) ranch conservation, 2) historic and cultural preservation, 3) riparian restoration, 4) mountain parks, 5) habitat, biological and ecological corridor conservation, and 6) critical and sensitive habitat preservation.

Ranch conservation is a focal point because ranches are critical in defining our metropolitan urban area, represent unique facets of our Western culture and heritage, and maintain a rural economy. Minutes from the October 27, 1998, Board of Supervisors meeting reflect a unanimous (5-0) vote approving the SDCP. In subsequent implementation of the Ranch Conservation Element, the County has almost exclusively relied on 2004 Bond dollars to acquire ranches via lease and fee. In most cases, the County uses Ranch Management Agreements that allow the same family to operate the ranch, which usually means that the same family that owned the ranch for many generations stays on the ranch. Ranch Management Agreements are an effective means of promoting the continuation of active ranches and provide a fiscally efficient strategy for the County in managing these lands.

**Table 1. Ranches acquired with Open Space Bonds comprise the majority of County MSCP mitigation lands.**

| Ranch*   | Acquisition Cost      | Acquisition Date | County Fee Acres** | ASLD Lease Acres** | BLM Grazing Lease acres | Working Ranch (Y/N) | Ranch Mgmt Agreement |
|--|-----------------------|------------------|--------------------|--------------------|-------------------------|---------------------|----------------------|
| A-7  | \$ 2,041,933          | 9/15/2004        | 6,829              | 34,195             | 30                      | Y                   | Y                    |
| Bar V Ranch  | \$ 7,689,228          | 2/17/2005        | 1,763              | 12,674             | 0                       | Y                   | N                    |
| King 98 Ranch  | \$ 2,102,921          | 3/18/2005        | 1,034              | 3,096              | 0                       | Y                   | Y                    |
| Rancho Seco  | \$ 18,503,948         | 5/19/2005        | 9,574              | 21,662             | 5,899                   | Y                   | Y                    |
| Carpenter Ranch  | \$ 1,700,047          | 1999; 8/29/2005  | 560                | 0                  | 0                       | N                   | N                    |
| Six Bar Ranch  | \$ 11,525,322         | 8/23/2006        | 3,292              | 9,000              | 0                       | Y                   | Y                    |
| Bucklew Farm   | \$ 5,080,467          | 10/13/2006       | 1,013              | 1,971              | 191                     | Y                   | Y                    |
| Diamond Bell Ranch   | \$ 897,730            | 3/14/2008        | 191                | 29,904             | 764                     | Y                   | Y                    |
| Sands Ranch  | \$ 21,015,503         | 12/30/2008       | 5,040              | 0                  | 0                       | Y                   | Y                    |
| Sopori Ranch   | \$ 18,602,695         | 1/2/2009         | 4,135              | 10,480             | 0                       | Y                   | Y                    |
| Marley Ranch   | \$ 18,006,112         | 4/30/2009        | 6,337              | 0                  | 0                       | Y                   | Y                    |
| Empirita Ranch   | \$ 10,839,500         | 8/14/2009        | 2,700              | 0                  | 0                       | Y                   | Y                    |
| Clyne Ranch  | \$ 4,900,000          | 1/8/2010         | 880                | 0                  | 0                       | Y                   | Y                    |
| Canoa Ranch  | \$ 10,800,000         | 2001, 2005, 2006 | 4,800              | 0                  | 0                       | N                   | N                    |
| Old Hayhook Ranch  | \$ 1,409,786          | 2005             | 839                | 0                  | 5,146                   | Y                   | Y                    |
| M-Diamond Ranch  | \$ 400,000            | 2012             | 624                | 7,798              | 0                       | Y                   | N                    |
| <b>TOTAL Costs</b>   | <b>\$ 135,515,192</b> |                  |                    |                    |                         |                     |                      |
| <b>TOTAL Ranch Acres</b>   |                       |                  | <b>49,611</b>      | <b>130,780</b>     | <b>12,030</b>           |                     |                      |
| <p>* All acquired with voter-approved 1997 and 2004 bond funds with \$500,000 from a Federal Scenic Transportation grant for Bar V; \$352,989 US Fish &amp; Wildlife Service grant for Old Hayhook; Flood Prone lands funds for part of Bucklew Farm; and some properties include donations.</p> |                       |                  |                    |                    |                         |                     |                      |
| <p>** Designated as MSCP Section 10 Permit Mitigation Lands with partial credit for ASLD lands.</p>  |                       |                  |                    |                    |                         |                     |                      |

Pima County received its Section 10 Permit of the Endangered Species Act in July 2016, which provides “insurance” coverage through the implementation of the Multi-species Conservation Plan. County ranches have also taken on added importance, as these ranchlands comprise the majority of the County’s MSCP mitigation lands. If the County were unable to rely on our ranches for MSCP mitigation, we would

lose at least 85% of our capacity to mitigate for the 36,000 acres of development impacts allowed under the MSCP. The County would either have to find another way to replace that lost mitigation capacity, or be forced to similarly reduce the number of development acres we cover under the MSCP.

### **3. What is the full cost of implementation and oversight related to the MSCP Section 10? Staff, required reports, etc.**

Open space management and MSCP ecological monitoring of mitigation lands are two complementary components of preserving the conservation values of these open space lands while allowing public access, recreation, hunting and ranching to continue.

- **“Open Space Management”** actions are largely handled by the County Natural Resource Parks & Recreation and are necessary to manage these open space lands for the public’s benefit. Some of these tasks include the following:
  - Inventory existing buildings, trails, roads, fencing, water features, utilities, and other infrastructure.
  - Inspect and maintain infrastructure to ensure public access and safety.
  - Work with ranchers and manage ranch management agreements to ensure compliance.
  - Conduct range and forage conditions and usage.
  - Maintain, repair, improve, and add water systems to more evenly distribute livestock grazing use.
  - Ensure that the public in natural areas and trails is observing park rules.
  - Identify and assess levels of use and impacts from recreational and other permitted uses of County conservation lands, as well as illegal use, law enforcement activity, and fire.

Costs for NRPR to manage these open space lands during the current fiscal year FY16-17 are \$370,000 with an average cost of about \$1.61 per acre. Revenues, with minor exceptions from cattle sales, are not part of the Ranch Management Program. Estimated costs for Open Space Management for FY17-18 are \$620,000 or \$2.69 per acre.

- **“MSCP Section 10 Permit Implementation”** is largely handled by Sustainability & Conservation and include the following tasks to meet the terms of the Permit.
  - Providing Section 10 Permit coverage for County capital Improvement projects and private development projects, including the private sector development Certificate of Coverage Program.
  - Compliance monitoring to ensure that development impacts are appropriately mitigated and in compliance with the terms of the U.S. Fish and Wildlife Service Section 10 Incidental Take Permit
  - Ecological monitoring and field collection of scientific data on different animal and plant species, soils, and natural conditions to document and analyze ecological health of mitigation lands, species population trends, and habitat conditions.
  - Required reports include annual, biennial, and decadal reports to the US Fish & Wildlife Service and provide a public record to disclose actions relating to covered development impacts, mitigation provided, ecological monitoring results, management and conservation measures, and compliance monitoring issues.

Costs for OSC to implement these MSCP tasks during the current fiscal year FY16-17 are about \$375,000 with an average cost of \$1.63 per acre, which is about 64 % of staff time and costs related to MSCP efforts. Estimated costs for MSCP Implementation for FY17-18 are approximately \$458,000 or \$1.99 per acre.

- **Combined estimated costs for Pima County to manage open space and implement the MSCP in FY17-18 is \$1,078,000 or \$4.68 per acre.**

It is instructive to understand the level of effort and costs associated with Pima County’s commitments relative to other Habitat Conservation Plan (HCP) permittees. Table 2 shows a number of large-scale HCPs—primarily located in the western United States— to compare the scope of their management and monitoring commitments and associated costs.

**Table 2. Comparative MSCP Implementation and Open Space Management Costs of other multi-species conservation plans, including estimated costs for Pima County in FY 2017-18 (in red).**

| Program                                      | Open Space Acres Under Management | MSCP Implementation Cost |                   | Open Space Management Cost |                    |
|--|-----------------------------------|--------------------------|-------------------|----------------------------|--------------------|
|  |                                   | Per Year                 | Per acre/year     | Per Year                   | Per acre/year      |
| Balcones Canyonlands (TX) MSCP               | 30,000                            | \$1,100,000              | \$37.00/ac        | \$1,100,000                | \$37.00/ac         |
| City of San Diego (CA) Open Space Management | 24,000                            | NA                       | NA                | \$9,600,000                | \$400.00/ac        |
| Clark County (NV) MSHCP                      | NA                                | UNK                      | UNK               | UNK                        | UNK                |
| Coachella Valley (CA) MSHCP                  | 60,000                            | \$1,000,000              | \$17.00/ac        | \$650,000                  | \$11.00/ac         |
| East Contra Costa County (CA) HCP            | 25,000                            | \$700,000                | \$28.00/ac        | \$1,900,000                | \$76.00/ac         |
| Lower Colorado River (AZ, CA, NV) MSCP       | 8,100                             | \$5,000,000              | NA                | \$500,000                  | \$62.00/ac         |
| Orange County (CA)                           | 18,000                            | \$380,000                | \$21.00/ac        | \$626,000                  | \$35.00/ac         |
| <b>Pima County</b>                           | <b>230,000</b>                    | <b>\$458,000</b>         | <b>\$1.99/ac</b>  | <b>\$620,000</b>           | <b>\$2.69/ac</b>   |
| San Diego County (CA)                        | 18,000                            | \$1,000,000              | \$56.00/ac        | \$3,700,000                | \$206.00/ac        |
| Santa Clara County (CA)                      | 46,000                            | \$600,000                | \$13.00/ac        | \$1,900,000                | \$41.00/ac         |
| Western Riverside (CA)                       | 27,000                            | \$1,200,000              | \$44.00/ac        | \$878,000                  | \$33.00/ac         |
| <b>Average Costs (excluding Pima County)</b> | <b>28,456</b>                     | <b>\$1,372,000</b>       | <b>\$31.00/ac</b> | <b>\$2,317,000</b>         | <b>\$100.00/ac</b> |

Of all of the HCPs reviewed, Pima County has the largest conservation land program. Average annual monitoring costs vary widely among HCPs, from a low of \$380,000 per year (Orange County) to a high of almost \$5,000,000 per year (Lower Colorado River). Pima County’s average monitoring costs for the first 5 years year of operation are scheduled to be approximately \$458,000. When these cost figures are compared against a common currency—in this case acres—the picture changes considerably. Here, Pima County’s monitoring commitment will have the lowest annual cost per acre (\$1.99) while the highest is San Diego County (\$56). The average annual, per acre cost for monitoring (\$31) is over 15 times what Pima County has pledged.

Annual management costs range from \$500,000 (Lower Colorado River) to \$9,600,000 (San Diego Open Space Management Program). When factoring in the number of acres, the average annual cost per acre ranges from \$2.69 (Pima County) to \$400 (San Diego Open Space Management Program), and averages \$100 per acre among programs. The median annual cost (i.e., the middle observation, which does not take into account the highest and lowest figures) is \$41 per acre.