



CITY COUNCIL STAFF REPORT

DATE: SEPTEMBER 16, 2015 UNFINISHED BUSINESS

SUBJECT: DEFERRAL OF ANNUAL TURF OVER-SEEDING AND
CONSIDERATION OF A DROUGHT RESPONSE PLAN AT CITY PARKS

FROM: David H. Ready, City Manager

BY: Marcus L. Fuller, Assistant City Manager/City Engineer

SUMMARY

On May 20, 2015, the City Council received a report on the Stage 2 Water Shortage Alert issued by Desert Water Agency (DWA), and steps to be taken by staff to comply with the Stage 2 Alert. Accordingly, irrigation of turf within street medians and parkways has been suspended, and irrigation at City parks and facilities has been reduced from 7 days per week to 3 days per week. As a result, landscaped areas are suffering due to the summer heat. Annually, the City has historically initiated turf "over-seeding" with rye grass in late September when the underlying Bermuda grass goes dormant for the winter; however, over-seeding requires constant irrigation for a 7 day period for germination of the rye seed – inconsistent with the Stage 2 Alert regulations adopted by DWA. Staff requests City Council direction on the deferral of annual turf over-seeding during the on-going drought, and regarding conceptual plans for future desert landscape conversions at various City parks.

RECOMMENDATION:

1. Authorize the deferral of rye-grass over-seeding at: Airport, Baristo Park, City Hall/Civic Center Campus, Dog Park, Francis Stevens Park, Desert Highland Park, Ruth Hardy Park, Sunrise Park (with the exception of Palm Springs Stadium baseball field), and Victoria Park; and
2. Authorize rye-grass over-seeding at: Demuth Park (irrigated with reclaimed water), the Palm Springs Stadium baseball field at Sunrise Park, and Village Green; and
3. Approve the conceptual plans for future desert landscape conversions at various City parks.

BACKGROUND:

The state of California continues to suffer an historic water crisis. While most communities suffering from severe water shortages are located in central or northern California, southern California relies in large part on State Water Project delivered through the California aqueduct from northern California, or from the Colorado River. More than 50% of California's daily water use (and as much as 80% or more) is used outdoors for lawns and outdoor landscaping.

In response, local agencies including the City and DWA have adopted water conservation regulations that have helped reduce outdoor use of the domestic water supply.

On September 3, 2014, the City Council adopted Ordinance No. 1858 enacting Chapter 11.06 "Water Conservation and Water Waste Prevention" of the Palm Springs Municipal Code (PSMC). Section 11.06.050 "Water Conservation Requirements" includes restrictions on outdoor watering of lawns and landscaped areas, and identifies certain actions that are not applicable to the water conservation regulations, and states:

- (a) *Watering hours and duration. No lawn or landscaped area shall be irrigated or watered by any means between the hours of 7:00 a.m. and 7:00 p.m. on any day. Above-ground spray irrigation or watering shall not exceed fifteen (15) minutes per irrigation station or area. This subsection shall not apply to:*
1. *Drip irrigation systems.*
 2. *Use of a hand-held bucket or similar container.*
 3. *Use of a hand-held hose equipped with a positive action quick-release shutoff valve or nozzle.*
 4. *Irrigation necessary to establish newly planted low water usage plants.*
 5. *Water expended for limited periods of time necessary for irrigation system maintenance or leak repair.*
 6. ***Irrigation necessary to establish annual reseeding of seasonal grass and planting seasonal color for a maximum period of fourteen (14) days after the reseeding or the newly planted seasonal color.***

The exclusion to water conservation regulations noted in item 6 was intended to allow for the annual maintenance of lawns through over-seeding. However, Section 11.06.070 "Drought Alert Requirements" includes reference to the fact that the City's local regulations are subject to other regulations that may be adopted, and states:

- (a) *The requirements of this Chapter are in addition to, and not in lieu of, the Desert Water Agency Water Supply Plan for Emergency Supply Shortage, adopted by Ordinance No. 45 of the Board of Directors of the Desert Water Agency, as may be amended.*
- (b) *The requirements of this Chapter are in addition to, and not in lieu of, any Federal or state Water Supply Plan or Regulation for Emergency Supply Shortage.*

On April 21, 2015, DWA held a public hearing and adopted Resolution No. 1108 revising mandatory conservation measures identified for its Stage 2 Water Shortage Alert pursuant to DWA's Water Shortage Contingency Plan. A copy of DWA's Resolution No. 1108 is included as **Attachment 1**; among the new or revised water use restrictions imposed by DWA on all of its urban water customers are:

- Outdoor irrigation of commercial, industrial and institutional facilities shall be restricted to alternate days after 7:00 PM and before 7:00 AM according to a schedule determined by DWA; (alternatively, DWA may approve an alternative water use reduction plan that achieves reduction in water use equivalent to those expected from the standard restrictions)
- Outdoor residential irrigation shall be restricted to Mondays, Wednesdays, and Fridays, after 7:00 PM and before 7:00 AM
- The use of fountains or other decorative water features shall be prohibited unless necessary as habitat for aquatic pets (***this restriction was later rescinded by DWA***)
- The application of water to outdoor landscapes during and up to 48 hours after measurable rainfall shall be prohibited
- The use of potable water to irrigate turf within street medians, and turf within the dedicated right-of-way on either side of a public street, shall be prohibited

Therefore, DWA Resolution No. 1108 enacted water conservation regulations that are more restrictive than Chapter 11.06 of the PSMC, in that there is no exemption for daily irrigation of outdoor lawn for annual reseeding of seasonal grass.

STAFF ANALYSIS:

The City's water conservation efforts have resulted in a significant reduction of its water consumption. In June 2015, the City consumed 48,848 hundred cubic feet (hcf)¹, or 36.5 Million gallons of water as reported by the several hundred domestic water meters providing irrigation at City parks and landscaped medians and parkways, and providing water supply at all City facilities. The June 2015 consumption compares to a consumption of 85,220 hcf, or 63.7 Million gallons of water – equivalent to a year-to-year reduction of 43%! The City's water conservation efforts surpassed the state-mandated reduction of 36% imposed on DWA. A copy of the City's water consumption records for June 2012 – June 2015 is included as **Attachment 2**.

On the basis that the City has reduced its water consumption more than the 36% reduction imposed by the state on DWA and its customers, the City could argue an ability to increase irrigation to accommodate annual reseeding of seasonal grass; however, staff recommends that the City defer annual reseeding given the public perception of wasted water associated with the constant irrigation required during the reseeding operation. Deferral of reseeding is recommended at:

¹ DWA reports water consumption in units of 100 cubic feet (hcf); there are 748 gallons of water in 100 cubic feet.

- Airport
- Baristo Park
- City Hall/Civic Center Campus
- Dog Park
- Francis Stevens Park
- Desert Highland Park
- Ruth Hardy Park
- Sunrise Park (with the exception of Palm Springs Stadium baseball field)
- Victoria Park

However, staff recommends that reseeded occur at Demuth Park given that Demuth Park is irrigated with reclaimed water and is exempt from the water conservation regulations applicable to potable water.

Additionally, given the recreational use of the Palm Springs Stadium baseball field, and the need for appropriately maintained turf for baseball play, staff recommends that reseeded occur at the Stadium baseball field only, but be deferred elsewhere at Sunrise Park.

Finally, given the limited turf area within the Village Green, and its high use by the public, staff recommends that reseeded occur at Village Green.

Future Desert Landscape Conversion of City Parks

There are eight parks and several City facilities with large turf areas that can be considered for future desert landscape conversion. Limiting outdoor irrigation at these parks and facilities to 3-days per week has caused landscaping to suffer, with turf areas browning and adjacent trees now evidencing shock due to loss of water. It is important to note that most of the City's parks and landscaped areas are irrigated with turf over-spray sprinkler systems, and there are no dedicated separate tree irrigation systems. Thus – by reducing the irrigation to the turf over-spray sprinkler system, the trees within the City's parks are receiving much less irrigation than they require.

A Plan of Action to preserve the City's prior investment in outdoor landscaping is required. Accordingly, staff prepared conceptual exhibits of each City park identifying an area of 36% that may be set aside for future desert landscape conversion – corresponding to the state-mandated reduction of 36% imposed on DWA. In theory, by setting aside these areas, the City's water consumption will decrease by a similar amount – and on that basis the City can request DWA approval of an alternative water use reduction plan authorized by its Resolution No. 1108.

Implementation of the desert landscape conversion at City parks would occur in phases, as follows:

- Phase 1 – Irrigation retrofit and turf browning
- Phase 2 – Desert landscape design approval
- Phase 3 – Desert landscape conversion

Staff recommends that the City initiate Phase 1 immediately, and implement modifications to the existing irrigation systems to allow for the areas set-aside in the City's parks to stop receiving turf irrigation. Consequently, staff would request approval from DWA to implement an alternative water use reduction plan allowing for daily outdoor irrigation at the City's parks and facilities where at least 36% of the landscaped and turf areas are set-aside and allowed to brown and go bare.

The conceptual exhibits of the City parks are included as **Attachment 3**.

Funding to proceed with Phases 2 and 3 has not been identified. The conceptual exhibits for Baristo Park, Desert Highland Park, Frances Stevens Park, Ruth Hardy Park, Sunrise Park and Victoria Park identify over 750,000 square feet of landscaped turf areas to be set-aside representing 36% of the area. Costs to implement desert landscape conversions vary – depending upon the type of drip irrigation system and plantings, but may cost from \$4 to \$6 per square foot. Thus, implementing this Plan of Action for water conservation at City Parks may require \$3 Million to \$4.5 Million.

At the June 16, 2015, Parks and Recreation Commission meeting, the Commission reviewed the conceptual exhibits for implementing turf reductions at the various City parks, and recommended approval.

At the July 21, 2015, Sustainability Commission meeting, the Commission reviewed the conceptual exhibits for implementing turf reductions at the various City parks, and recommended approval.

Baristo Park

Baristo Park, located at Calle El Segundo is approximately 2 acres with 27,021 square feet (0.62 acres) of turf. Over-seeding is not advised for Baristo Park. To comply with the state-mandated reduction of 36% imposed on DWA, staff recommends that 9,796 square feet of the turf area in Baristo Park be allowed to go fallow and considered for conversion to desert landscape as funding is made available. The area to be considered for conversion is indicated with cross hatching in Figure 1.

Figure 1 – Baristo Park



City Hall

There is over 58,000 square feet (1.33 acres) of turf areas at the City Hall/Civic Center Campus. Staff recommends that these turf areas at the City Hall/Civic Center Campus not be over-seeded. Staff has coordinated preparation of a conceptual landscape plan for the desert-landscape conversion at City Hall, which has been reviewed by the City Council Sub-Committee (Lewin/Mills), and will be presented to the City Council for consideration at a future meeting.

Figure 2 – City Hall



Demuth Park

Demuth Park shown in Figure 3 has over 61 acres of outdoor landscape and recreational areas, and includes ball fields, 4 public tennis courts, soccer fields and tot lot. Demuth park is open until 10 pm and is heavily utilized for team sports until late evening hours.

Demuth Park is irrigated with reclaimed water (not potable water) which is exempt from the water conservation regulations applicable to potable water. Staff recommends that over-seeding occur at Demuth Park to ensure the recreational areas and sports fields have appropriately maintained turf areas for athletic play.

Figure 3 – Demuth Park



Dog Park

The Dog Park, shown in Figure 4, is located between El Cielo Road and Civic Drive on the north side of City Hall, the Dog Park has not been over-seeded for the last three years. Staff recommends that we continue to defer over-seeding at the Dog Park.

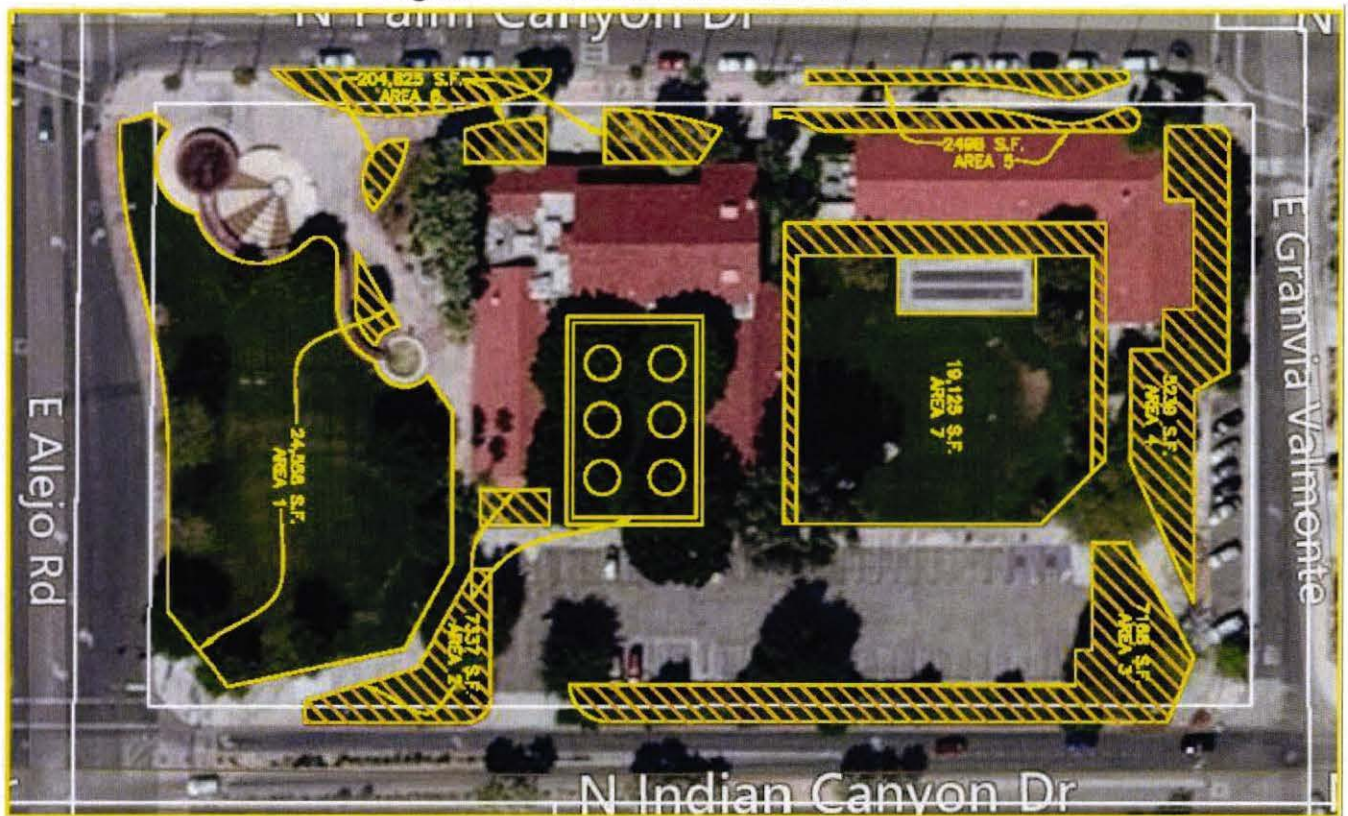
Figure 4 – Dog Park



Francis Stevens Park

Francis Stevens Park, located on Alejo Road between Palm Canyon Drive and Indian Canyon Drive is 4 acres with approximately 1.6 acres of turf. Over-seeding is not advised for Francis Stevens Park given the high traffic use anticipated in October/November which has historically caused damaged to the newly over-seeded rye grass. To comply with the state-mandated reduction of 36% imposed on DWA, staff recommends that 26,478 square feet of the turf area in Francis Stevens Park be allowed to go fallow and considered for conversion to desert landscape as funding is made available. The area to be considered for conversion is indicated with cross hatching in Figure 5.

Figure 5 – Francis Stevens Park



Desert Highland Park

Desert Highland Park, located on Tramview Road is approximately 10 acres with 7.6 acres of turf. Over-seeding is not advised for Desert Highland Park. To comply with the state-mandated reduction of 36% imposed on DWA, staff recommends that 2.8 acres of the turf area in Desert Highland Park be allowed to go fallow and considered for conversion to desert landscape as funding is made available. The area to be considered for conversion is indicated with cross hatching in Figure 6.

Figure 6 – Desert Highland Park



Ruth Hardy Park

Ruth Hardy Park, located on Tamarisk Road is approximately 22 acres with play structures, 8 public tennis courts, 3 sand volleyball courts, picnic tables, basketball court, and tot lot, and 14.6 acres of turf. Over-seeding is not advised for Ruth Hardy Park. To comply with the state-mandated reduction of 36% imposed on DWA, staff recommends that 5.3 acres of the turf area in Ruth Hardy Park be allowed to go fallow and considered for conversion to desert landscape as funding is made available. The area to be considered for conversion is indicated with cross hatching in Figure 7.

Figure 7 – Ruth Hardy Park



Sunrise Park

Sunrise Park, located on Sunrise Way is approximately 38 acres with basketball courts, baseball fields, and play structures, and 14.4 acres of turf. Over-seeding is not advised for Sunrise Park with the exception of the Palm Springs Stadium baseball field. To comply with the state-mandated reduction of 36% imposed on DWA, staff recommends that 5.2 acres of the turf area in Sunrise Park be allowed to go fallow and considered for conversion to desert landscape as funding is made available. The area to be considered for conversion is indicated with cross hatching in Figure 8.

Figure 8 – Sunrise Park



Victoria Park

Victoria Park, located on Via Miraleste is approximately 10 acres 8.7 acres of turf. Overseeding is not advised for Sunrise Park. To comply with the state-mandated reduction of 36% imposed on DWA, staff recommends that 3.1 acres of the turf area in Victoria Park be allowed to go fallow and considered for conversion to desert landscape as funding is made available. The area to be considered for conversion is indicated with cross hatching in Figure 9.

Figure 9 – Victoria Park

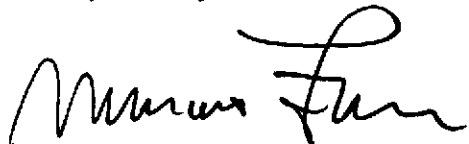


FISCAL IMPACT:

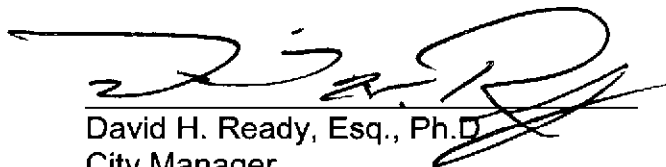
There is no budget allocated for desert landscape conversion of the City's parks at this time, which are estimated to cost from \$3 Million to \$4.5 Million to implement. Initially, staff can pursue retrofit of the irrigation systems by its landscape maintenance contractor, for a nominal cost to be funded from existing budget. However, implementing this initial retrofit will allow the areas set-aside in the parks to go fallow until such time as funding is appropriated to implement the desert landscape conversion of those areas.

SUBMITTED:

Prepared by:



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Assistant City Manager/City Engineer



David H. Ready, Esq., Ph.D.
City Manager

Attachments:

1. DWA Resolution No. 1108
2. June Water Consumption Data Comparison
3. Conceptual Park Exhibits

ATTACHMENT 1

RESOLUTION NO. 1108

**RESOLUTION OF THE BOARD OF DIRECTORS OF
DESERT WATER AGENCY REVISING THE
MANDATORY CONSERVATION MEASURES
PRESCRIBED FOR A STAGE 2 WATER SHORTAGE
ALERT PURSUANT TO THE AGENCY'S WATER
SHORTAGE CONTINGENCY PLAN**

WHEREAS, the State of California is experiencing a severe drought and all water purveyors in California, including Desert Water Agency, are required by law to implement measures to alleviate drought impacts; and

WHEREAS, by Ordinance No. 45 the Board of Directors of Desert Water Agency has adopted a Water Shortage Contingency Plan which provides for certain measures to be implemented upon the declaration of levels of water shortage as set forth in the ordinance; and

WHEREAS, Ordinance No. 45 includes a Stage 2 Water Shortage Alert with mandatory restrictions on outdoor irrigation; and

WHEREAS, this Board of Directors has declared a Stage 2 Water Shortage Alert; and

WHEREAS, Section 4 of Ordinance No. 45 allows this Board to revise the mandatory conservation measures prescribed for a State 2 Water Shortage Alert upon a showing of need for such modification or amendment; and

WHEREAS, the California State Water Resources Control Board adopted revised emergency water use regulations on March 17, 2015, which include certain mandatory water conservation measures applicable to Desert Water Agency that are not currently addressed in Ordinance No. 45 for a Stage 2 Water Shortage Alert; and

WHEREAS, the action taken by the State Water Resources Control Board has created a need for Desert Water Agency to revise the water conservation measures prescribed for a Stage 2 Water Shortage Alert in order to remain compliant with the new regulations; and

WHEREAS, the Governor of the State of California issued an Executive Order on April 1, 2015 mandating a statewide 25% water use reduction and Desert Water Agency will revise Ordinance 45 following the adoption of the State Water Resources Control Board's implementation plan to comply with the mandate; and

WHEREAS, this Board of Directors conducted a public hearing on April 21, 2015, with notice of such hearing published in a newspaper of general circulation within the Agency and also posted on the Agency's website, to consider revisions to the mandatory water conservation measures prescribed for a Stage 2 Water Shortage Alert in light of the mandatory actions required by the emergency drought regulations adopted by the State Water Resources Control Board, and has considered the comments provided at the public hearing;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Desert Water Agency does hereby revise the mandatory water conservation measures prescribed in Section 3.2 of Ordinance No. 45 for a Stage 2 Water Shortage Alert to replace those listed therein with the following:

- (1) Washing of hardscape, such as driveways, parking lots and walkways, shall be prohibited.
- (2) The use of running water to wash vehicles shall be prohibited. The use of buckets and stop nozzles on hoses, for rinsing only, shall be permitted.
- (3) Restaurants may provide water to customers only upon request.
- (4) Outdoor irrigation of commercial, industrial and institutional facilities shall be restricted to alternate days after 7:00 p.m. and before 7:00 a.m., according to a schedule determined by Agency staff following consultation with the affected customer. A commercial, industrial or institutional customer may implement an alternative water use reduction plan that achieves reductions in water use equivalent to those expected from the restrictions prescribed herein, if approved in advance by the General Manager.
- (5) Outdoor residential irrigation shall be restricted to Mondays, Wednesdays and Fridays, after 7:00 p.m. and before 7:00 a.m.
- (6) The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures shall be prohibited.
- (7) The use of fountains or other decorative water features shall be prohibited unless necessary as habitat for aquatic pets, in which case recirculating water shall be permitted.
- (8) The application of water to outdoor landscapes during and up to 48 hours after measurable rainfall shall be prohibited.
- (9) Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. Each hotel or motel shall prominently display notice of this option in each bathroom, using clear and easily understood language.
- (10) The use of potable water outside of newly constructed homes and buildings that is not delivered by drip or micro-spray systems shall be prohibited.
- (11) The use of potable water to irrigate turf within street medians, and turf within the dedicated right of way on either side of a public street, shall be prohibited.
- (12) Agency customers are encouraged not to empty and refill swimming pools from June 1 through October 31 unless necessary to address a health or safety emergency.
- (13) Agency customers shall be notified by Desert Water Agency in the event that the customer has a leak that is within the customer's control.

BE IT FURTHER RESOLVED that this Board will take further subsequent action to amend or replace Ordinance No. 45 as appropriate to implement such further water conservation measures as may be required by the State Water Resources Control Board in response to current drought conditions statewide.

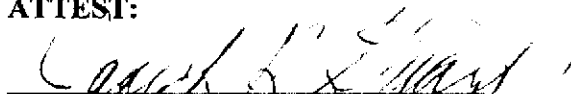
BE IT FURTHER RESOLVED that this resolution shall become effective immediately upon adoption.

ADOPTED this 21st day of April, 2015.



James Cioffi, Vice President
Board of Directors

ATTEST:


Joseph K. Stuart, Secretary-Treasurer
Board of Directors

ATTACHMENT 2

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3000	EL CIELO RD N CITYHALL	44134880	2,247	1,434	1,238	534
3001	SUNRISE WAY S - LIB & STA (COGEN) (Sunrise Park)	44131080	0	0	0	0
3002	EL CIELO RD S	45180924	48	207	300	220
3003	CIVIC DR S	44132620	419	288	414	206
3004	1595 N Palm Cyn/W Vista Chino - median irrigation	47163795	0	0	0	3
3005	4810 CAMINO PAROCELA	45193130	0	2	49	17
3007	Sunrise (Coyote Run)	34350805	0	0	0	0
3008	RAMON RD E	44131032	312	286	359	154
3009	VIA MIRALESTE (Victoria Park)	44026416	39	34	44	37
3010	LA VERNE WAY	44266500	58	54	41	41
3011	538 N PALM CANYON DR - PS THEATER - FIRE SVC (Francis Stevens Park)	44100291	0	0	0	0
3012	1911 E BARISTO RD (FREY BLDNG)	44131140	17	23	50	47
3016	538 PALM CANYON DR N - PS THEATER (Francis Stevens Park)	44100292	215	240	218	98
3018	3120 CIVIC DR S	44132600	53	35	30	36
3019	1901 PALM CANYON DR E	44254762	46	0	0	0
3021	EL CIELO RD S	44241119	0	0	0	0
3023	3698 VISTA DUNES	34333399	33	64	1,187	425
3027	GATEWAY DR	34340700	0	0	0	0
3029	TRAMVIEW RD IRRRI (Desert Highland Park)	34341548	1,883	1,875	1,687	905
3030	TRAMVIEW RD IRRRI (Desert Highland Park)	34341549	1,966	1,964	1,184	874
3031	TRAMVIEW RD (Desert Highland Park)	34341550	1,851	1,836	1,851	884
3038	VIA MIRALESTE (Victoria Park)	44026420	1,458	1,484	1,485	872
3039	VIA MIRALESTE (Victoria Park)	44026430	2,566	2,484	2,747	994
3040	PALM CANYON DR N	44035325	8	0	2	3
3041	PALM CANYON DR N	44035410	5	2	1	1
3042	PALM CANYON DR N	44035515	5	1	2	0
3043	PALM CANYON DR N IRRRI	44036030	5	2	1	2
3044	PALM CANYON DR N E SIDE	44036419	7	1	4	2
3045	PALM CANYON DR N	44036523	3	0	1	2
3046	PALM CANYON DR N IRRRI	44037000	173	171	150	34
3047	TRAMWAY RD	44037003	13	0	1	0
3049	FRANCIS ST PARK IRRIGATION (Francis Stevens Park)	44100294	364	318	412	243

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3050	FRANCIS ST PARK IRRIGATION (Francis Stevens Park)	44100295	370	313	407	229
3052	700 PALM CANYON DR N	44100313	19	11	21	7
3053	1547 PALM CANYON DR N	44100447	14	32	18	5
3054	PALM CANYON DR N	44103523	17	15	26	9
3055	PALM CANYON DR N	44103880	8	0	1	18
3056	PALM CANYON DR N	44104064	36	32	23	62
3057	773 PALM CANYON DR N	44104239	0	14	18	14
3058	641 PALM CANYON DR N	44104378	5	2	1	6
3059	575 PALM CANYON DR N	44104395	57	1	1	0
3060	507 PALM CANYON DR N	44104499	0	0	0	0
3061	AVE CABALLEROS N IRRIG (Ruth Hardy Park)	44111502	1,692	1,654	1,744	494
3062	AVE CABALLEROS N (Ruth Hardy Park)	44111550	1,665	1,875	1,746	629
3063	TAMARISK RD (Ruth Hardy Park)	44111640	1,127	1,397	1,350	489
3064	TAMARISK RD (Ruth Hardy Park)	44111660	969	1,234	1,190	491
3065	157 ALEJO RD IRRIGATION	44151005	22	59	56	60
3066	2990 RAMON RD E	44130160	63	62	112	0
3067	BARISTO RD E BALLFIELD (Sunrise Park)	44131144	1,188	1,441	1,266	789
3068	RAMON RD E	44131022	671	692	618	599
3069	RAMON RD E	44131024	631	715	629	690
3070	RAMON RD E	44131026	915	873	807	776
3071	RAMON RD E	44131028	0	0	0	0
3072	RAMON RD E	44131034	1,003	959	964	425
3073	RAMON RD E	44131036	459	484	488	231
3074	RAMON RD E	44131038	823	886	909	434
3075	SUNRISE WAY S	44131078	0	0	0	0
3076	TAHQUITZ CYN E	44131614	213	139	103	69
3077	TAHQUITZ CYN E	44131626	211	160	128	0
3078	TAHQUITZ CYN E IRRIGATION ISLAND (CITY HALL)	44131642	225	148	132	0
3079	TAHQUITZ CYN E	44133310	235	162	145	124
3080	TAHQUITZ CYN E	44133340	334	200	227	0
3081	TAHQUITZ CYN E	44133366	276	218	189	55
3082	JUANITA DR	44134200	101	157	93	126

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3083	JUANITA DR	44134220	51	47	19	11
3084	ALEJO RD E	44134820	109	139	68	35
3085	CIVIC DR N	44134825	358	322	410	434
3086	CIVIC DR N	44134840	0	0	0	0
3087	CIVIC DR N	44134866	0	0	47	47
3088	CIVIC DR N	44134868	53	241	14	14
3090	EL CIELO RD N/E TAHQUITZ CYN MEDIAN	44134892	228	99	107	126
3092	TAHQUITZ CYN E	44146150	176	122	9	10
3093	TAHQUITZ CYN E	44146180	239	173	41	40
3094	TAHQUITZ CYN E S SIDE	44146310	371	310	0	0
3095	TAHQUITZ W/O SUNRISE IRRIGATION	44146850	375	303	174	179
3096	TAHQUITZ CYN E	44147110	286	131	38	31
3097	464 PALM CANYON DR N	44151036	27	37	22	5
3098	342 PALM CANYON DR N	44151074	0	0	0	0
3099	PALM CANYON DR N	44151135	14	27	11	5
3100	PALM CANYON DR N	44151178	0	0	0	0
3101	PALM CANYON DR S	44151212	5	12	7	2
3102	PALM CANYON DR S TREES	44151220	0	0	0	0
3103	PALM CANYON DR S TREES	44151242	9	18	8	3
3104	PALM CANYON DR S	44151280	35	20	17	8
3105	PALM CANYON DR S	44151300	31	17	11	28
3106	215 INDIAN CYN S	44151410	30	32	15	12
3107	241 INDIAN CYN N	44151515	27	15	18	43
3108	PALM CANYON DR N	44151614	36	39	30	6
3109	PALM CANYON DR N TREES	44151643	0	0	0	0
3114	PALM CANYON DR S	44153950	7	15	15	3
3115	PALM CANYON DR S	44153980	0	0	0	0
3116	211 PALM CANYON DR S	44154327	59	18	11	9
3117	PALM CANYON DR S (PARKS)	44154329	55	73	82	44
3119	PALM CANYON DR S	44154340	5	4	4	2
3120	PALM CANYON DR S	44154870	20	13	8	7
3121	PALM CANYON DR S TREES	44154905	39	27	22	0

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3122	INDIAN CYN S	44223021	0	0	0	0
3123	PALM CANYON DR S	44223048	0	0	0	0
3124	PALM CANYON DR S	44228018	11	16	56	10
3126	BELARDO RD S	44228051	0	0	0	0
3129	PALM CANYON DR E	44233007	1	2	0	1
3130	PALM CANYON DR E	44233170	65	8	87	1
3131	PALM CANYON DR E	44233220	2	5	2	1
3132	1450 PALM CANYON DR S	44233368	2	4	2	8
3133	PALM CANYON DR S	44233490	1	2	2	1
3134	RIVERSIDE DR S	44233892	3	11	3	1
3135	RIVERSIDE DR S	44233901	174	6	3	1
3136	RIVERSIDE DR S	44233911	5	49	5	5
3137	RIVERSIDE DR S	44233919	6	3	5	1
3138	RIVERSIDE DR S	44233925	37	4	5	2
3139	RIVERSIDE DR S	44233933	11	3	8	2
3140	RIVERSIDE DR S	44233941	4	31	3	2
3141	RIVERSIDE DR S	44233949	12	7	6	3
3142	RIVERSIDE DR S	44233957	40	24	12	12
3143	RIVERSIDE DR S	44233965	42	2	6	3
3145	PALM CANYON DR S	44234132	1	2	1	0
3147	WARM SANDS PL	44235648	5	6	24	17
3148	CAMINO PAROCELA	44235835	20	22	86	56
3149	INDIAN TR	44235852	26	10	110	87
3150	CAMINO PAROCELA	44236110	16	12	14	30
3151	PALM CANYON DR S	44236430	5	5	8	2
3153	PALM CANYON DR S	44236900	1	4	1	1
3154	PALM CANYON DR E	44246622	135	172	185	0
3155	PALM CANYON DR E	44246626	382	459	478	0
3156	1800 PALM CANYON DR E	44247648	45	59	107	0
3157	SUNRISE WAY S	44247652	44	64	55	0
3158	SUNRISE WAY S	44249460	128	112	93	0
3159	RAMON RD E	44249470	113	127	140	0

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3160	RAMON RD E	44249480	134	118	99	0
3167	EL CIELO RD S	45180926	0	0	0	0
3168	SAN MARTIN CIR	45192080	215	212	257	92
3169	MESQUITE AVE E	45196814	0	2,601	1,311	52
3171	BRENTWOOD DR	45291200	2	2	1	4
3180	GOLF CLUB DR	45296500	3	5	3	12
3184	PALM CANYON DR E	45300420	0	0	0	0
3187	PALM CANYON DR E IRRIG	45306384	321	304	376	30
3189	BIRDIE WAY	45308595	0	0	0	0
3195	TAHQUITZ CYN E	44146099	109	50	8	15
3197	265 PALM CANYON DR S IRRIGATION	44154365	213	64	38	46
3199	CALLE EL SEGUNDO S (Baristo Park)	44144368	234	260	413	195
3200	SATURNINO RD (Baristo Park)	44144372	107	55	99	48
3202	CHIA RD	45071310	4	147	111	0
3207	5800 BOLERO RD PSFD	45294000	8	1	1	1
3208	PAR DR/GENE AUTRY (pocket park per R.Minjares)	45308628	14	35	27	10
3209	AVIATION WAY	44134950	137	37	40	0
3215	RIVERSIDE DR N	44234423	122	142	398	216
3219	EL CIELO RD N	44134882	0	0	0	0
3226	CIVIC DR S	44132590	1	0	0	0
3227	SUNRISE WAY S LIBRARY (COGEN) (Sunrise Park)	44131081	2,614	2,358	2,206	2,047
3228	SUNRISE WAY S LIBRARY (COGEN) (Sunrise Park)	44131082	2,332	1,832	1,985	1,750
3229	EL CIELO RD N	44134879	1,318	1,248	1,156	103
3231	200 CIVIC DR S	44132592	0	0	184	77
3232	200 CIVIC DR S	44132594	561	624	613	408
3235	ALEJO RD E	44120500	21	7	10	5
3236	ALEJO RD E	44120501	23	0	0	4
3237	ALEJO RD E	44120502	21	5	8	4
3238	ALEJO RD E	44120503	25	8	11	6
3239	ALEJO RD E	44120504	16	4	7	4
3240	ALEJO RD E	44120505	20	6	8	7
3241	ALEJO RD E	44120506	28	9	13	7

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Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3242	ALEJO RD E	44120507	12	5	8	4
3243	100 EL CIELO RD S	45180910	1,972	1,240	1,471	1,183
3244	INDIAN CYN/ANDREAS IRRI	44147256	51	84	23	16
3245	CAHUILLA & CHINO IRRIGATION	44104496	35	66	31	21
3246	VINE AVE & CHINO IRRIGATION	44104470	20	58	48	44
3247	MESQUITE AVE S SIDE	45195150	0	0	0	0
3248	CIVIC DR N IRRI	44135610	69	32	0	0
3253	EL CIELO RD S	45180918	72	415	592	276
3254	EL CIELO RD S	45180920	966	367	505	250
3256	INDIAN CYN/AMADO IRRIGATION	44147990	0	0	0	0
3257	INDIAN CYN N IRRIGATION	44151552	0	0	0	0
3258	WASTEWATER TREATMENT PLANT - DEMUTH PARK	22226830	22,742	22,390	24,104	16,014
3259	INDIAN CYN/TAHQUITZ CYN IRRIGATION	44151475	81	66	29	7
3260	INDIAN N/O SATURNIN IRRI	44145880	15	12	11	10
3261	INDIAN CYN SW/TAHQUITZ CYN IRRIGATION	44151436	0	0	0	0
3262	INDIAN CYN COROZON IRRIGATION	34341593	24	27	160	18
3264	CITY IRRIGATION & FOUNTAIN	44151491	28	230	30	38
3265	TWIN STAR-SUNRISE NORTE	34350830	489	399	416	226
3266	SUNRISE NORTE-DWA WELL	34350998	282	303	248	111
3267	PLAZA THEATRE FS34 - FIRE SVC	44151438	0	0	0	0
3275	225 EL CIELO RD S	44132700	5	6	17	6
3276	MESQUITE AVE CONCESSION	45195148	12	17	9	6
3279	2800 RAMON RD E	44130546	72	71	82	3
3285	480 TRAMVIEW RD FS37 - FIRE SVC	34341547	0	0	0	0
3296	HANGAR-AIRPORT	44135620	14	45	0	4
3299	AVENIDA CABALLEROS IRRIGATION	34351628	111	63	50	97
3302	AVENIDA CABALLEROS IRRIGATION	34351760	38	39	43	283
3303	128 PALM CANYON DR S	44151434	110	77	102	62
3304	6001 STATION RD	34220001	115	72	95	41
3305	SEC EL CIELO & BARISTO (Aviation Admin)	45180350	609	503	483	237
3306	3400 E TAHQUITZ CANYON WY IRRIGATION	45180620	362	269	127	90
3307	IRRIGATIONG LIVMOR & CIVIC	44135400	0	473	377	229

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Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3308	RAMON RD IRRIGATION	45180600	1,447	1,568	1,191	502
3312	410 N BELARDO RD IRRIGATION	44151678	73	44	88	74
3313	IRRIGATION-E/S FARRELL S/O VISTA	44121600	1,075	2,637	3,186	340
3314	MID-VALLEY PKWY MESQUITE IRRIGATION	22220015	263	373	367	151
3316	369 1/2 N PALM CANYON DR	44151665	17	17	34	22
3317	HERITAGE TRAIL IRRIGATION	44154125	15	14	11	17
3320	TACHEVAH DR - DESERT HEALTHCARE PARK (Wellness Park)	44112700	482	132	143	142
3321	N INDIAN CANYON - FIRE STATION #1	44151523	19	26	19	18
3322	3131 N INDIAN CANYON	44029428	0	0	0	0
3323	3131 N INDIAN CANYON	44029430	0	0	0	0
3325	3131 N INDIAN CANYON	44029470	0	0	0	0
3326	3131 N INDIAN CANYON	44029474	0	0	0	0
3327	3131 N INDIAN CANYON FS42 - FIRE SERVICE	44029476	0	0	0	0
3329	ARENAS RD N IRRIGATION	44145168	32	36	17	20
3330	300 N EL CIELO RD	45181602	0	0	0	0
3332	IRRIGATION C/RACQUET CLUB & SUNRISE	44025169	262	148	159	151
3333	BARISTO & INDIAN - CPS PARKING GARAGE - FIRE SVC	44151383	0	0	0	0
3334	FRANCIS STEVENS PARK - FOUNTAIN (Francis Stevens Park)	44100293	83	161	38	0
3335	INDIAN CYN S/O GRANVIA VAL	44100296	35	16	38	57
3336	BARISTO & INDIAN - CPS PARKING GARAGE	44151384	31	30	31	18
3337	2901 PALM CANYON DR N	44037001	12	9	7	7
3338	ST MEDIAN AT VIA LAS PALMAS	44103671	29	48	29	4
3339	EL CIELO RD S	45180906	2,620	3,161	3,081	1,938
3340	EL CIELO RD S	45180900	1,721	486	697	401
3341	EL CIELO RD S	45180902	1,163	435	451	202
3342	EL CIELO RD S	45180908	1,178	5,282	2,468	1,290
3343	IRRIGATION N/S TAHQUITZ W/O PALM CANYON	44152999	0	97	13	0
3344	RAMON RD ST MEDIAN IRRIGATION	45193189	0	24	38	35
3345	RAMON RD ST MEDIAN IRRIGATION	45201232	0	0	0	0
3346	RAMON RD ST MEDIAN IRRIGATION	45201215	6	5	7	5
3347	GENE AUTRY ST MEDIAN IRRIGATION	45071321	222	161	348	463
3348	TACHEVAH DR - DESERT HEALTHCARE PARK (Wellness Park)	44112702	644	868	890	731

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3349	GENE AUTRY ST MEDIAN IRRIGATION	45180506	230	293	334	338
3350	GENE AUTRY ST MEDIAN IRRIGATION	45071810	58	118	99	196
3351	GENE AUTRY ST MEDIAN IRRIGATION	45201114	53	52	38	34
3353	601 ANDREAS RD E	44147350	87	79	102	60
3357	S PALM CANYON S/O SUNNY DUNES	44234154	6	6	7	9
3359	VIA LAS PALMAS E/O CAMINO	44103727	29	41	32	10
3360	MOUNTAIN VIEW LANDSCAPE ISLAND	44104087	46	38	28	51
3361	N/S SUNNY DUNES W/O S PALM CYN	44236720	1	2	1	0
3365	MEDIAN ISLAND CABALLEROS	44148432	0	0	0	0
3368	TRAMVIEW RD IRRIGATION	34341552	0	0	204	63
3370	N/END EL CIELO E/S FIRE STATION (RUNWAY)	99015701	4	3	6	0
3372	425 N Civic Dr W/S S/O Alejo	99015718	8	2	0	12
3375	TEMP- S/S Murray Canyon @ Sierra Ma	99015721	0	0	0	0
3376	TEMP- Golf Club Dr. @ Golf Course	99015722	0	0	0	0
3377	VIDEO ROAD IRRIGATION	34342032	2	1	2	18
3378	3500 MOUNTAIN GATE IRRIGATION	34342500	354	470	308	194
3379	LAWRENCE CIRCLE IRRIGATION	34342014	4	2	43	8
3380	HOWARD CIRCLE IRRIGATION	34341994	1	8	18	12
3381	ALBERTO CIRCLE IRRIGATION	34341974	2	3	32	18
3382	3725 EASTGATE RD IRRIGATION	34341929	13	16	9	7
3383	4046 ALTERRA RD IRRIGATION	34342550	361	270	412	119
3384	520 1/2 WARM SANDS DR.	44235591	1	0	1	4
3385	SUNRISE IRRIGATION MTR (Enclave median)	44016319	12	15	30	4
3386	CROSSLEY RD (formerly-US Filter-Wastewater)	45295604	1	2	4	9
3387	PALM CANYON DR S (VILLAGEFEST)	44151200	12	9	2	2
3388	VIA ESCUELA CITY LANDSCAPE	45062069	288	249	220	218
3500	E/S INDIAN/SAN RAFAEL	34353038	67	52	50	13
3501	3601 MESQUITE AVE E (YMCA)	45195100	282	265	228	191
3502	AVENIDA FEY NORTE	45073578	196	280	508	497
3503	ALEJO RD E	44123626	581	390	452	160
3504	4575 E MESQUITE AVE - ANIMAL SHELTER	45196862	57	112	124	109
3505	4575 E MESQUITE AVE - ANIMAL SHELTER-FIRE SERV	45196860	0	0	0	0

Desert Water Usage June Comparison

CITY OF PALM SPRINGS WATER ACCOUNTS COSUMPTION IN 100 CF			June			
			2012	2013	2014	2015
PS Meter	Service Address	Account Nu	2012-06	2013-06	2014-06	2015-06
3506	210 N EL CIELO RD- LEGEND AIRE/SIGNATURE HGR 1	45181000	14	27	13	11
3507	210 N EL CIELO RD-#FS44 LGEND AIRE/SGNTURE HGR	45181004	0	0	0	0
3509	101 S SUNRISE	44149656	56	75	139	29
3510	ALEJO RD E (Airport Fire Service)	44135900	0	0	0	0
3512	FOUR SEASONS BLVD-SUNRISE	34360098	263	215	170	136
3514	333 Aviation Way (Paid by Signature Support)	44134952	0	0	0	0
3515	333 Aviation Way FS248 (Paid by Signature Support)	44134954	0	0	0	0
3516	S/S Tramview Rd N/O Indian - Desert Highland	99016093			0	0
3517	Welwood Murray Memorial Library: 100 S Palm Cyn - FIRE SVC	44151201				0
3011A	TOWER RD FIRE STATION	45181604	274	283	221	128
3388A	1100 VELLA RD-HAZARDOUS WASTE DISPOSAL	45196859	1	1	0	1
Total Consumption by Month			82,830	86,850	85,220	48,484

*Accounts with Opterra's irrigation controllers; these need to be monitored for guaranteed savings.

ATTACHMENT 3



BARISTO PARK

AREA #	Turf Area (S.F.)	Turf Area (AC.)	36% Area (SF)	Desert Conv.(S.F.)
1	8,751	0.20	3,150	
2	7,240	0.17	2,606	2,554
3	4,581	0.11	1,649	793
4	4,920	0.11	1,771	4,920
5	1,529	0.04	550	1,529
	27,021	0.62	9,728	9,796

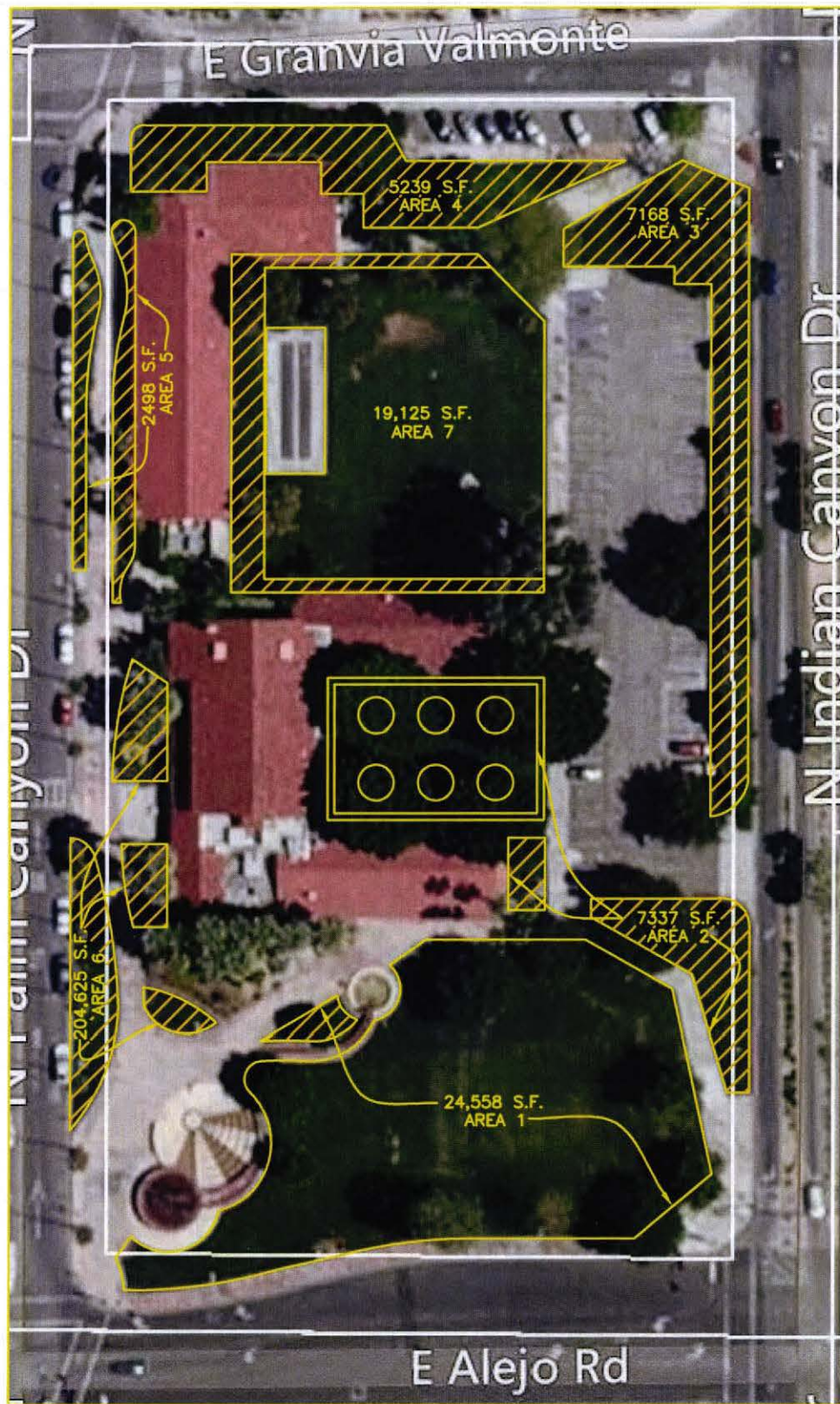

 TURF TO DESERT
 CONVERSION AREA



DESERT HIGHLAND PARK

Section #	Turf Area (S.F.)	Turf Area (AC.)	36% Area (SF)	Desert Conv. (S.F.)
1	91,314	2.10	32,873	49,629
2	90,293	2.07	32,505	31,687
3	123,981	2.85	44,633	27,156
4	25,336	0.58	9,121	12,100
5	1,044	0.02	376	1,044
	331,968	7.62	119,508	121,616

 TURF TO DESERT CONVERSION AREA



FRANCIS STEVENS PARK

AREA #	Turf Area (S.F.)	Turf Area (AC.)	36% Area (SF)	Desert Conv./Artificial Turf (S.F.)
1	24,558	0.56	8,841	405
2	7,337	0.17	2,641	3,291
3	7,168	0.16	2,580	7,168
4	5,239	0.12	1,886	5,239
5	2,498	0.06	899	2,498
6	4,261	0.10	1,534	4,261
7	19,125	0.44	6,885	3,616
	70,186	1.61	25,267	26,478

 TURF TO DESERT CONVERSION AREA



RUTH HARDY PARK

Section #	Turf Area (S.F.)	Turf Area (AC)	36% Area (SF)	Desert Conv. (S.F.)
1	2,648	0.06	953	2,648
2	2,853	0.07	1,027	2,853
3	10,313	0.24	3,713	10,313
4	2,493	0.06	897	2,493
5	24,825	0.57	8,933	24,815
6	9,512	0.22	3,424	9,512
7	13,762	0.32	4,964	13,762
8	9,358	0.21	3,369	9,368
9	20,202	0.46	7,273	20,202
10	8,367	0.19	3,012	8,367
11	703	0.02	253	703
12	2,778	0.06	1,000	2,778
13	7,074	0.16	2,547	
14	59,516	1.37	21,426	2,897
15	189,443	4.35	68,199	41,728
16	4,977	0.11	1,792	4,977
17	266,948	6.13	96,101	70,546
18	1,556	0.04	560	1,556
	697,518	14.63	229,434	229,528

 TURF TO DESERT CONVERSION AREA



SUNRISE PARK

AREA #	Turf Area (S.F.)	Turf Area (A.C.)	80% Area (SF)	Desert Conv. (S.F.)
1	180,000	4.25	88,622	
2	18,722	0.43	6,740	18,722
3	14,668	0.32	5,060	14,668
4	11,457	0.27	4,045	11,457
5	6,420	0.14	2,017	6,420
6	6,135	0.13	1,896	4,135
7	12,448	0.28	4,449	13,348
8	4,268	0.10	1,332	4,268
9	2,740	0.06	770	2,740
10	12,578	0.29	4,531	12,578
11	25,875	0.60	10,190	28,975
12	15,961	0.36	5,146	18,961
13	22,719	0.54	8,393	26,114
14	11,553	0.27	4,194	11,611
15	12,024	0.28	4,244	
16	8,002	0.20	3,040	5,517
17	34,289	1.05	10,544	45,177
18	89,253	2.02	30,000	
19	34,427	0.87	11,996	45,114
20	62,414	0.70	20,756	48,669
21	10,839	0.26	2,491	
22	8,308	0.21	2,828	
23	6,118	0.14	2,225	6,118
	618,818	14.84	226,131	521,786

 TURF TO DESERT CONVERSION AREA



VICTORIA PARK

Section #	Turf Area (S.F.)	Turf Area (A.C.)	36% Area (Sf)	Desert Conv. (S.F.)
1	204,625	4.70	73,665	91,541
2	112,406	2.58	40,466	25,382
3	62,030	1.42	22,311	20,663
	379,061	8.70	136,462	137,596



TURF TO DESERT
CONVERSION AREA