HAYMEADOW IRRIGATION WATER SOURCE AND SYSTEM ASSESSMENT

August 15, 2013

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Introduction:

The purpose of this report is to provide information and analysis of developing a non-potable irrigation water source for the Haymeadow Development. In addition, water transfer & storage options, landscape irrigation water requirements, and primary infrastructure equipment requirements will be presented for review.

Background:

The project area is comprised of approximately 660-acres located south west of Eagle, Colorado on Brush Creek Road. Currently the project site is operated as a hay farming operation and is provided with ample water supply via three primary irrigation ditches; the Matthews, the Wilkinson, & Love & White. Although water is available in each of the ditches, the Matthews is believed to provide the most consistent delivery source throughout the irrigation season.

The project is planned for a minimum of five (5) distinct phases: Neighborhood A – Area A1 & A2, Neighborhood B, Neighborhood C, & Neighborhood D. Expansive open space area designed around the existing willow corridors will be maintained and enhanced as a part of this project. The project will also include a regional park, community gardens, fire station, & ample open space adjacent to the entry drive & existing wetlands.

Two (2) ponds, which will provide a community amenity & non-potable irrigation water storage, are currently proposed for this project. The Civil Engineer in coordination with the design team will provide delivery of non-potable water delivery to pond sites utilizing existing ditches, ditches converted to piped transfer, & overland stream features.

Specific site information regarding building lot locations, landscape area designations, preliminary plant type estimates, & open space area calculations have been provided for Neighborhood A1 & A2, with general landscape type & quantitative area estimates

provided for Neighborhoods B, C, & D. Please refer to the project landscape master plan prepared by DHM for conceptual site landscape information

Irrigation Water Requirements:

Utilizing site plan information & anticipated landscape information provided by the project Civil Engineer & the Landscape Architect, Hines has generated a comprehensive site irrigation water balance to provide estimated irrigation water requirements for each phase of project development. A brief summary has been provided below; please refer to the attachments below for more detailed site water use by area & specific plant type.

The plant water use requirements utilized for this site have been developed by analyzing 20 years of historic evapo-transpiration & weather station records at the project site. This data is further tailored to specific project requirements, estimated plant types & quantities, & various other project data points.

It is assumed that the entire 650-acre project site contains approximately 158-acres of irrigated landscape. The site is divided into multiple areas & phases & the comprehensive site water analysis is organized to provide water use requirements for each area.

Neighborhood A - Area A1-A6

- 33-acres of irrigated turf, shrub bed areas, & native grasses.
- Annual Water Use: 16,550,000 gallons

Trailhead Park

- 9-acres of turf & shrub bed areas
- 2-acres of Community Garden Space
- Annual Water Use: 10,600,000 gallons

Firestation

- 1.5-acres of irrigation turf & shrub bed areas
- Annual Water Use: 1,700,000 gallons

Neighborhood A2:

- 18-acres of irrigated turf, shrub bed areas, & native grasses.
- Annual Water Use: 14,000,000 gallons

Neighborhood B:

- 24-acres of irrigated turf, shrub bed areas, & native grasses.
- Annual Water Use: 18,200,000 gallons

Neighborhood C:

- 20-acres of irrigated turf, shrub bed areas, & native grasses.
- Annual Water Use: 15,200,000 gallons

Neighborhood D:

- 25-acres of irrigated turf, shrub bed areas, & native grasses.
- Annual Water Use: 20,000,000 gallons

Willow Corridor A2-B:

- 7.5-acres of irrigated native grasses.
- Annual Water Use: 2,700,000 gallons

Willow Corridor B-D:

- 14-acres of irrigated native grasses.
- Annual Water Use: 5,000,000 gallons

The total preliminary annual estimate irrigation water use requirement for the entire project is 103,000,000 gallons (316 AC/FT) at final build out. It should be noted however, that after the establishment of irrigated native grasses, irrigation may be significantly reduced to these areas which may result in a decreased water use of approximately 12 million gallons (36 AC/FT).

Pond Storage:

Two (2) ponds are currently proposed for the project. Currently the exact size & depth are undetermined and recommendations for team review will be provided. Based on project size and configuration one large pond may be utilized to serve the entire site & two ponds provide acceptable flexibility and allow for phased implementation of irrigation infrastructure while meeting the aesthetic & landscape goals for the project. We would not recommend utilizing three (3) ponds for the site as it would not benefit the development of the irrigation system & would increase overall irrigation infrastructure costs.

In Colorado, it is recommended that an irrigation storage pond be constructed to a minimum 10-foot depth. This creates conditions suitable for the natural maintenance of pond water quality and can significantly reduce or eliminate the need for mechanical systems required to maintain pond water quality. If this pond depth cannot be achieved, it is likely that an aeration & bacterial injection system will be recommended. This mechanical system can be incorporated into the irrigation pump mechanical system. A water quality test & specific pond information will be required to specify & price the required water quality systems.

Pond 1 has been located south of Brush Creek Road and would be constructed as a part of Neighborhood A1 improvements. Based on project phasing, we have recommended that Pond 1 provide storage for Neighborhood A1, A2, Trailhead Park, the Firestation, the Willow Corridor between A1 & A2, and open space located adjacent to Brush Creek Road. It is recommended that when a pond has aesthetic value for the project site, that maximum pond drawdown be limited to 12-inches to avoid unsightly views of the pond edges. While current pond size has not been finalized, the following provides minimum surface area requirements to store the daily irrigation requirement noted below.

Pond 1 Storage & Sizing Analysis

Total Pond Surface Area: 1-acre

- Daily Peak Irrigation Volume: 366,200 gallons, 48,955 CF.
- Total Pond Drawdown per 1 Day: 13.5-inches
- Total Pond Drawdown per 3 Days: 40.5-inches

Total Pond Surface Area: 2-acres

- Daily Peak Irrigation Volume: 366,200 gallons, 48,955 CF.
- Total Pond Drawdown per 1 Day: 6.7-inches
- Total Pond Drawdown per 3 Days: 20-inches

Total Pond Surface Area: 3.5-acres

- Daily Peak Irrigation Volume: 366,200 gallons, 48,955 CF.
- Total Pond Drawdown per 1 Day: 4-inches
- Total Pond Drawdown per 3 Days: 12-inches

Pond 2 has been located south of Brush Creek Road below Neighborhood C and would be constructed as a part of Neighborhood B improvements. Based on project phasing, we have recommended that Pond 2 provide storage for Neighborhood B, C, D, and the Willow Corridors between A2 & B and B & D, and open space located adjacent to Brush Creek Road. It is recommended that when a pond has aesthetic value for the project site, that maximum pond drawdown be limited to 12-inches to avoid unsightly views of the pond edges. While current pond size has not been finalized, the following provides minimum surface area requirements to store the daily irrigation requirement noted below.

Pond 2 Storage & Sizing Analysis

Total Pond Surface Area: 2-acres

- Daily Peak Irrigation Volume: 520,000 gallons, 69,500 CF.
- Total Pond Drawdown per 1 Day: 9.6-inches
- Total Pond Drawdown per 3 Days: 29-inches

Total Pond Surface Area: 3.5-acres

- Daily Peak Irrigation Volume: 520,000 gallons, 69,500 CF.
- Total Pond Drawdown per 1 Day: 5.5-inches
- Total Pond Drawdown per 3 Days: 17-inches

Total Pond Surface Area: 5-acres

- Daily Peak Irrigation Volume: 520,000 gallons, 69,500 CF.
- Total Pond Drawdown per 1 Day: 4-inches
- Total Pond Drawdown per 3 Days: 12-inches

Pump Infrastructure Requirements:

Assuming a two –pond storage system, an irrigation pump will be required at each location. The pump station will consist of a pre-fabricated pump skid utilizing multiple vertical turbine pumps & an integrated VFD control system for each pump. The skid will be factory constructed, tested & UL listed as a complete package prior to arriving at the project site. All pipe on the skid will be epoxy coated Schedule 40 steel with welded fittings, Victaulic couplings, & isolation butterfly valves. Controls shall be housed in a Nema rated enclosure on the skid with Kooltronic climate controls. Additionally, the pump skid will include a suction scanner type, automatic flush, filtration unit with a 200-micron screen.

It is assumed that the pump skid will be located in a 20’ x 25’ x 8’H precast concrete building with heating & ventilation. An intake pipe from the pond to a 8-foot diameter x

15-foot deep concrete wet well will provide an equalized water source for the pump station.

It is estimated that at Pond 1 a 100-Horsepower pump comprised of two (2) 50-Horsepower pumps would be required to serve landscape from the Pond 1 irrigation system. The pump station will deliver an estimated 900GPM at a discharge pressure of 120PSI. Estimated budgetary costs for major pieces of infrastructure are as follows:

- Pump Skid with filter & controls: $135,000
- Prefabricated concrete building: $35,000
- Concrete Wet Well: $8,500
- 16-inch Class 200 PVC Pump Intake Pipe: $5,000

It is estimated that at Pond 2 a 150-Horsepower pump comprised of three (3) 50-Horsepower pumps would be required to serve landscape from the Pond 2 irrigation system. The pump station will deliver an estimated 1,250GPM at a discharge pressure of 120PSI. Estimated budgetary costs for major pieces of infrastructure are as follows:

- Pump Skid with filter & controls: $185,000
- Prefabricated concrete building: $35,000
- Concrete Wet Well: $8,500
- 18-inch Class 200 PVC Pump Intake Pipe: $6,800

Non-Potable Irrigation Distribution System:

The irrigation pumping system will deliver water to an on-site distribution piping network routed to major planting areas. It is assumed that distribution piping will be Class 200 PVC utilizing ductile iron fittings with mechanical restraints for all pipe 3-inch size and greater & solvent weld fittings for piping 2.5-inches and smaller.

A non-potable point of connection will be located at major planting areas and will consist of a gate valve and stub-out for future connection to the irrigation system. Air relief

valves, isolation gate valves, & manual drains will be located on the distribution pipe as necessary for the proper operation & maintenance of the system.

Distribution piping will be installed at a minimum 36-inch depth. Each non-potable point of connection will be sized for the flow & pressure required per the peak irrigation water requirements of the landscape area.

Irrigation Central Control System:

A Central Control System will be provided to operate the irrigation distribution system from each pump station and operate specific irrigation systems located throughout the community. The control system will utilize an automated flow rate control to ensure that the pump system operates at a continuous flow rate across the project site & operates specific irrigation systems within the appropriate watering window.

The Central Control shall monitor all operations across the site including system flow rates, specific area flow rates, dynamic water pressure, & other variables within the system. These records may be used to provide water usage, billing records, & also will provide various system alarms to site maintenance personnel.

A series of on-site weather stations will provide real-time weather data which the control system will use to update daily watering schedules thus providing a valuable water conserving function for the system.

Specific Irrigation System:

The irrigation system anticipated will be a combination sprinkler & point-source drip system using pop-up rotor or pop-up spray sprinklers on turf & native grasses, pop-up spray sprinklers on perennial beds, and point source drip emitters on non-turf plant materials located outside of turf areas. The primary plant material types (turf, trees, shrubs, perennials, vines, and native grass) will be irrigated on separate control valves.

The water source will be non-potable water from the point-of-connection (POC) that is located at specific landscape areas. A manual main system shut off valve will be provided for maintenance. A solenoid operated master valve will provide for additional protection in the event of a mainline break.

Control of the landscape irrigation system will be facilitated by a Central Control Enables System located at the POC. The controller will be pedestal mounted in a stainless steel enclosure. Low voltage (24 VAC) wiring from the controller to solenoid valves will be single strand wire suitable for direct burial. It is recommended that controller be located at or near the POC location where 110 VAC power (low amperage) will be required.

Instrumentation will be provided with the control system to include a rain sensor for automatic system shut-down during periods of natural precipitation and a Data Industrial flow sensor for flow measurement.

The mainline & sprinkler lateral pipe will be Class 200 PVC pipe and drip lateral pipe will be UV resistant polyethylene pipe. Specified pipe burial depths will be 24 inches for mainline pipe and 18 inches for lateral pipe. Control wiring will be adjacent to or below mainline burial depths. Where irrigation mainline and control wire must cross under hard surface, pipe and wire will be routed through separate PVC Class 200 sleeves.

The irrigation system will be designed to be winterized using compressed air injected at a connection point indicated at the POC. Gate valves will provide localized isolation of sections of the mainline to assist in system winterization and maintenance. Additionally, manual drains will be provided at low points in the mainline.

Plastic solenoid valves will be rated at 200 PSI, having a flow control and pressure regulation capability. Sprinkler laterals will be designed for 90 GPM + and will utilize 2-

inch solenoid valves whenever possible. Multiple laterals will operate simultaneously as programmed from the controller. Each manual and solenoid valve will be housed in a single valve box for valve access.

Quick coupling valves will be located on approximately 200 foot centers for incidental water needs.

Sprinklers will be spaced so as to not exceed the manufacturer's recommended maximum spacing and to minimize over-spray onto hard surfaces or non-irrigated areas. Bubblers will be of the pressure compensating type installed on a riser with the bubbler placed 2 or 3 inches above grade. All sprinklers and bubblers will be specified to be installed on swing joints.

Drip emitters will be of the pressure compensating type installed on UV radiation resistant polyethylene hose at each tree and shrub location.

Remaining Considerations:

The Civil Engineer has indicated that due to high water table at the Pond 1 location, pond depth may be limited to 5-feet. Additionally Pond 1 may be limited in surface area which may lead to excessive pond drawdown if the non-potable water source is unavailable during peak irrigation requirements.

An additional consideration may be to build Pond 1 solely as an aesthetic amenity and not use it as an irrigation water storage facility. *Pond 2 could be expanded to 8.5-acres to provide irrigation for the entire project.* Water Quality systems would still be required for Pond 1, but irrigation pumping & filtration would be concentrated at Pond 2.

It is estimated that for a single irrigation storage pond a 200-Horsepower pump comprised of four (4) 50-Horsepower pumps would be required to serve site landscape. The pump station will deliver an estimated 2,150GPM at a discharge pressure of 120PSI. Estimated budgetary costs for major pieces of infrastructure are as follows:

- Pump Skid with filter & controls: $235,000*
- Prefabricated concrete building: $45,000
- Concrete Wet Well: $12,500
- 24-inch Class 200 PVC Pump Intake Pipe: $8,900
- Phase II Pump installation cost: $30,000
- *This is the price at full build out, as noted above, Phase I pump station skid cost would be approximately $175,000.

Project Name: Haymeadow Pond 1
Date: 8/15/2013
Prepared by: jnh

Parcel	Parcel Name	Drip Bed Area (AC)*	Adjusted Drip Bed Area 100% (AC)	Turf Area (AC)* Sprays	Turf Area (AC)* Rotors	Native (AC)*	Flow Rate Req'd for Drip Irrigation (GPM)	Flow Rate Req'd for All Turf Irrigation (GPM)	Flow Rate Req'd for Native Irrigation (GPM)	Total Flow Rate Req'd (GPM)	Instantaneous Peak GPM
P1	A1	0.38	0.38	0.38	0.00	3.05	2.48	7.24	15.06	24.78	30.97
P2	A2	2.50	2.50	2.50	2.50	0.83	16.25	88.65	4.12	109.01	136.26
P3	A3	0.29	0.29	0.29	0.29	0.10	1.89	10.32	0.48	12.69	15.87
P4	A4	0.21	0.21	0.21	0.21	0.07	1.35	7.34	0.34	9.03	11.29
P5	A5	0.00	0.00	0.00	0.00	4.60	0.00	0.00	22.73	22.73	28.41
P6	A6	0.00	0.00	0.00	0.00	14.60	0.00	0.00	72.14	72.14	90.17
P7	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P8	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P9	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P10	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P11	Trailhead Park	1.74	1.74	1.74	5.22	0.00	11.31	119.04	0.00	130.35	162.94
P12	Community Garden	2.11	1.06	0.00	0.00	0.00	16.48	0.00	0.00	16.48	20.60
P13	Firestation	0.20	0.20	0.75	0.75	0.00	1.30	26.60	0.00	27.91	34.88
P14	Dog Park	0.00	0.00	0.00	0.00	4.40	0.00	0.00	21.74	21.74	27.17
P15	Neighborhood A2	3.61	3.61	5.41	5.41	3.61	23.44	191.83	17.81	233.08	291.34
P16	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P17	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P18	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P19	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P20	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Totals	**11.0**	**10.0**	**11.3**	**14.4**	**31.3**	**74.5**	**451.0**	**154.4**	**679.9**	**849.9**

Instructions for entering Data: Enter values in green colored cells only!

Watering Windows (Hrs) (If a mix of potable and non-potable is present on site, enter into each WB manually)

Equip. for each plant type	Operating Period-Hrs./Day	Days/Week	Days Per Month
Rotors	8.0	6	26
Sprays	8.0	6	26
Shrubs	10.0	6	26
Native	10.0	6	26

Project Name: Haymeadow Pond 1

Date: 8/15/2013

Prepared by: jnh

Estimated Irrigation Water Use

Landscape Treatment	*Water Needs*	*Plant Coefficient Used in Calculation*	*Approximate Area (SF)*	*Approximate Area (AC)*	*Peak Month Tap Flow Req'mt (GPM)*	*Peak Month Water Requirement (Gal)*	*Peak Month Daily Water (Gal)*	*Peak Month Daily Water (CF)*	*Annual Water Requirement (Gal)*
Manicured Turf	Moderate	0.80	1,117,326	25.65	564	5,601,176	180,683	24,155	26,191,414
Drought Tolerant/Native Grass	Low	0.30	1,361,341	31.25	193	2,397,049	77,324	10,337	11,208,738
Shrub Beds	Low	0.50	434,690	9.98	81	1,007,108	32,487	4,343	4,709,293
Totals			***2,913,357***	***66.88***	***838***	***9,005,333***	***290,495***	***38,836***	***42,109,445***

Site Water Balance

Water Source	*Peak Month Totals*
Gray Water	0
Condensate	0
Blowdown	0
Potable	9,005,332
Total	***9,005,333***

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1				Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	14.37	APRIL	1.8	0.8	0.44	745,380
TURF		MAY	5.2	0.8	1.28	2,153,320
(ROTORS)		JUNE	6.6	0.8	1.62	2,733,060
		JULY	7.1	0.8	1.75	**2,940,110**
		AUGUST	6.2	0.8	1.53	2,567,420
		SEPTEMBER	4.5	0.8	1.11	1,863,450
		OCTOBER	1.8	0.8	0.44	745,380
OPERATING PERIOD-HRS./DAY	8				TOTAL	13,748,119
DAYS/WEEK	6				ACRE FEET/YR.	42.2
DAYS/MONTH	26				PEAK SEASON GPM	237
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	11.28	APRIL	1.8	0.8	0.51	674,636
TURF		MAY	5.2	0.8	1.48	1,948,950
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	2,473,667
		JULY	7.1	0.8	2.02	**2,661,066**
		AUGUST	6.2	0.8	1.76	2,323,748
		SEPTEMBER	4.5	0.8	1.28	1,686,591
		OCTOBER	1.8	0.8	0.51	674,636
OPERATING PERIOD-HRS./DAY	8				TOTAL	12,443,295
DAYS/WEEK	6				ACRE FEET/YR.	38.2
DAYS/MONTH	26				PEAK SEASON GPM	214
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	9.98	APRIL	1.8	0.5	0.22	255,323
SHRUBS		MAY	5.2	0.5	0.63	737,600
(Moderate Usage)		JUNE	6.6	0.5	0.80	936,185
		JULY	7.1	0.5	0.86	**1,007,108**
		AUGUST	6.2	0.5	0.75	879,446
		SEPTEMBER	4.5	0.5	0.55	638,308
		OCTOBER	1.8	0.5	0.22	255,323
OPERATING PERIOD-HRS./DAY	10				TOTAL	4,709,293
DAYS/WEEK	6				ACRE FEET/YR.	14.5
DAYS/MONTH	26				PEAK SEASON GPM	65
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	31.25	APRIL	1.8	0.3	0.17	607,703
NATIVE GRASS (SEED AREAS)		MAY	5.2	0.3	0.48	1,755,586
(Low Usage)		JUNE	6.6	0.3	0.61	2,228,243
		JULY	7.1	0.3	0.66	**2,397,049**
		AUGUST	6.2	0.3	0.57	2,093,198
		SEPTEMBER	4.5	0.3	0.42	1,519,257
		OCTOBER	1.8	0.3	0.17	607,703
OPERATING PERIOD-HRS./DAY	10				TOTAL	11,208,738
DAYS/WEEK	6				ACRE FEET/YR.	34.4
DAYS/MONTH	26				PEAK SEASON GPM	154

COLORADO WATER BUDGET	
REVIEWED BY:	jrh
DATE:	jrh

PROJECT TOTALS

IRRIGATED ACRES	66.9
GALLONS/YEAR	42,109,445
ACRE FEET/YEAR	129.2
PEAK SEASON GPM	670
INSTANTANEOUS PEAK GPM REQUIREMENT	**838**

NOTE:

Plant water requirements are determined utilizing 100% system efficiencies.
Actual system efficiencies are specific to each systems design.
Approximate values:
Drip irrigation - 95%
Rotor irrigation - 75%
Spray head irrigation: 65%

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			A1	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.38	APRIL	1.8	0.8	0.51	22,796
TURF		MAY	5.2	0.8	1.48	65,854
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	83,584
		JULY	7.1	0.8	2.02	**89,917**
		AUGUST	6.2	0.8	1.76	78,519
		SEPTEMBER	4.5	0.8	1.28	56,989
		OCTOBER	1.8	0.8	0.51	22,796
OPERATING PERIOD-HRS./DAY	8				TOTAL	420,455
DAYS/WEEK	6				ACRE FEET/YR.	1.3
DAYS/MONTH	26				PEAK SEASON GPM	7
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.38	APRIL	1.8	0.5	0.22	9,748
SHRUBS		MAY	5.2	0.5	0.63	28,161
(Moderate Usage)		JUNE	6.6	0.5	0.80	35,743
		JULY	7.1	0.5	0.86	**38,451**
		AUGUST	6.2	0.5	0.75	33,577
		SEPTEMBER	4.5	0.5	0.55	24,370
		OCTOBER	1.8	0.5	0.22	9,748
OPERATING PERIOD-HRS./DAY	10				TOTAL	179,800
DAYS/WEEK	6				ACRE FEET/YR.	0.6
DAYS/MONTH	26				PEAK SEASON GPM	2
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	3.05	APRIL	1.8	0.3	0.17	59,269
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	171,221
(Low Usage)		JUNE	6.6	0.3	0.61	217,319
		JULY	7.1	0.3	0.66	**233,783**
		AUGUST	6.2	0.3	0.57	204,149
		SEPTEMBER	4.5	0.3	0.42	148,172
		OCTOBER	1.8	0.3	0.17	59,269
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,093,182
DAYS/WEEK	6				ACRE FEET/YR.	3.4
DAYS/MONTH	26				PEAK SEASON GPM	15

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	3.81
GALLONS/YEAR	1,693,437
ACRE FEET/YEAR	5.2
PEAK SEASON GPM	25
INSTANTANEOUS PEAK GPM REQUIREMENT	**31**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			A2	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	2.50	APRIL	1.8	0.8	0.44	129,583
TURF		MAY	5.2	0.8	1.28	374,350
(ROTORS)		JUNE	6.6	0.8	1.62	475,137
		JULY	7.1	0.8	1.75	**511,132**
		AUGUST	6.2	0.8	1.53	446,340
		SEPTEMBER	4.5	0.8	1.11	323,957
		OCTOBER	1.8	0.8	0.44	129,583
OPERATING PERIOD-HRS./DAY	8				TOTAL	2,390,081
DAYS/WEEK	6				ACRE FEET/YR.	7.3
DAYS/MONTH	26				PEAK SEASON GPM	41
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	2.50	APRIL	1.8	0.8	0.51	149,519
TURF		MAY	5.2	0.8	1.48	431,942
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	548,235
		JULY	7.1	0.8	2.02	**589,767**
		AUGUST	6.2	0.8	1.76	515,008
		SEPTEMBER	4.5	0.8	1.28	373,796
		OCTOBER	1.8	0.8	0.51	149,519
OPERATING PERIOD-HRS./DAY	8				TOTAL	2,757,786
DAYS/WEEK	6				ACRE FEET/YR.	8.5
DAYS/MONTH	26				PEAK SEASON GPM	47
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	2.50	APRIL	1.8	0.5	0.22	63,939
SHRUBS		MAY	5.2	0.5	0.63	184,712
(Moderate Usage)		JUNE	6.6	0.5	0.80	234,442
		JULY	7.1	0.5	0.86	**252,203**
		AUGUST	6.2	0.5	0.75	220,234
		SEPTEMBER	4.5	0.5	0.55	159,847
		OCTOBER	1.8	0.5	0.22	63,939
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,179,316
DAYS/WEEK	6				ACRE FEET/YR.	3.6
DAYS/MONTH	26				PEAK SEASON GPM	16
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.83	APRIL	1.8	0.3	0.17	16,198
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	46,794
(Low Usage)		JUNE	6.6	0.3	0.61	59,392
		JULY	7.1	0.3	0.66	**63,891**
		AUGUST	6.2	0.3	0.57	55,793
		SEPTEMBER	4.5	0.3	0.42	40,495
		OCTOBER	1.8	0.3	0.17	16,198
OPERATING PERIOD-HRS./DAY	10				TOTAL	298,760
DAYS/WEEK	6				ACRE FEET/YR.	0.9
DAYS/MONTH	26				PEAK SEASON GPM	4

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	8.33
GALLONS/YEAR	6,625,943
ACRE FEET/YEAR	20.3
PEAK SEASON GPM	109
INSTANTANEOUS PEAK GPM REQUIREMENT	**136**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			A3	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.29	APRIL	1.8	0.8	0.44	15,089
TURF		MAY	5.2	0.8	1.28	43,592
(ROTORS)		JUNE	6.6	0.8	1.62	55,328
		JULY	7.1	0.8	1.75	**59,520**
		AUGUST	6.2	0.8	1.53	51,975
		SEPTEMBER	4.5	0.8	1.11	37,724
		OCTOBER	1.8	0.8	0.44	15,089
OPERATING PERIOD-HRS./DAY	8				TOTAL	278,317
DAYS/WEEK	6				ACRE FEET/YR.	0.9
DAYS/MONTH	26				PEAK SEASON GPM	5
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.29	APRIL	1.8	0.8	0.51	17,411
TURF		MAY	5.2	0.8	1.48	50,298
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	63,840
		JULY	7.1	0.8	2.02	**68,676**
		AUGUST	6.2	0.8	1.76	59,971
		SEPTEMBER	4.5	0.8	1.28	43,527
		OCTOBER	1.8	0.8	0.51	17,411
OPERATING PERIOD-HRS./DAY	8				TOTAL	321,135
DAYS/WEEK	6				ACRE FEET/YR.	1.0
DAYS/MONTH	26				PEAK SEASON GPM	6
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.29	APRIL	1.8	0.5	0.22	7,445
SHRUBS		MAY	5.2	0.5	0.63	21,509
(Moderate Usage)		JUNE	6.6	0.5	0.80	27,300
		JULY	7.1	0.5	0.86	**29,368**
		AUGUST	6.2	0.5	0.75	25,645
		SEPTEMBER	4.5	0.5	0.55	18,614
		OCTOBER	1.8	0.5	0.22	7,445
OPERATING PERIOD-HRS./DAY	10				TOTAL	137,327
DAYS/WEEK	6				ACRE FEET/YR.	0.4
DAYS/MONTH	26				PEAK SEASON GPM	2
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.10	APRIL	1.8	0.3	0.17	1,886
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	5,449
(Low Usage)		JUNE	6.6	0.3	0.61	6,916
		JULY	7.1	0.3	0.66	**7,440**
		AUGUST	6.2	0.3	0.57	6,497
		SEPTEMBER	4.5	0.3	0.42	4,715
		OCTOBER	1.8	0.3	0.17	1,886
OPERATING PERIOD-HRS./DAY	10				TOTAL	34,790
DAYS/WEEK	6				ACRE FEET/YR.	0.1
DAYS/MONTH	26				PEAK SEASON GPM	0

PROJECT TOTALS

IRRIGATED ACRES	0.97
GALLONS/YEAR	771,568
ACRE FEET/YEAR	2.4
PEAK SEASON GPM	13
INSTANTANEOUS PEAK GPM REQUIREMENT	**16**

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			A4	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.21	APRIL	1.8	0.8	0.44	10,734
TURF		MAY	5.2	0.8	1.28	31,009
(ROTORS)		JUNE	6.6	0.8	1.62	39,357
		JULY	7.1	0.8	1.75	**42,339**
		AUGUST	6.2	0.8	1.53	36,972
		SEPTEMBER	4.5	0.8	1.11	26,834
		OCTOBER	1.8	0.8	0.44	10,734
OPERATING PERIOD-HRS./DAY	8				TOTAL	197,978
DAYS/WEEK	6				ACRE FEET/YR.	0.6
DAYS/MONTH	26				PEAK SEASON GPM	3
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.21	APRIL	1.8	0.8	0.51	12,385
TURF		MAY	5.2	0.8	1.48	35,779
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	45,412
		JULY	7.1	0.8	2.02	**48,852**
		AUGUST	6.2	0.8	1.76	42,660
		SEPTEMBER	4.5	0.8	1.28	30,963
		OCTOBER	1.8	0.8	0.51	12,385
OPERATING PERIOD-HRS./DAY	8				TOTAL	228,436
DAYS/WEEK	6				ACRE FEET/YR.	0.7
DAYS/MONTH	26				PEAK SEASON GPM	4
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.21	APRIL	1.8	0.5	0.22	5,296
SHRUBS		MAY	5.2	0.5	0.63	15,300
(Moderate Usage)		JUNE	6.6	0.5	0.80	19,420
		JULY	7.1	0.5	0.86	**20,891**
		AUGUST	6.2	0.5	0.75	18,243
		SEPTEMBER	4.5	0.5	0.55	13,241
		OCTOBER	1.8	0.5	0.22	5,296
OPERATING PERIOD-HRS./DAY	10				TOTAL	97,686
DAYS/WEEK	6				ACRE FEET/YR.	0.3
DAYS/MONTH	26				PEAK SEASON GPM	1
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.07	APRIL	1.8	0.3	0.17	1,342
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	3,876
(Low Usage)		JUNE	6.6	0.3	0.61	4,920
		JULY	7.1	0.3	0.66	**5,292**
		AUGUST	6.2	0.3	0.57	4,621
		SEPTEMBER	4.5	0.3	0.42	3,354
		OCTOBER	1.8	0.3	0.17	1,342
OPERATING PERIOD-HRS./DAY	10				TOTAL	24,747
DAYS/WEEK	6				ACRE FEET/YR.	0.1
DAYS/MONTH	26				PEAK SEASON GPM	0

PROJECT TOTALS

IRRIGATED ACRES	0.69
GALLONS/YEAR	548,848
ACRE FEET/YEAR	1.7
PEAK SEASON GPM	9
INSTANTANEOUS PEAK GPM REQUIREMENT	**11**

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

NOTE:

Plant water requirements are determined utilizing 100% system efficiencies.
Actual system efficiencies are specific to each systems design.
Approximate values:
Drip irrigation - 95%
Rotor irrigation - 75%
Spray head irrigation: 65%

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			A5	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.51	-
TURF		MAY	5.2	0.8	1.48	-
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	-
		JULY	7.1	0.8	2.02	-
		AUGUST	6.2	0.8	1.76	-
		SEPTEMBER	4.5	0.8	1.28	-
		OCTOBER	1.8	0.8	0.51	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.5	0.22	-
SHRUBS		MAY	5.2	0.5	0.63	-
(Moderate Usage)		JUNE	6.6	0.5	0.80	-
		JULY	7.1	0.5	0.86	-
		AUGUST	6.2	0.5	0.75	-
		SEPTEMBER	4.5	0.5	0.55	-
		OCTOBER	1.8	0.5	0.22	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	4.60	APRIL	1.8	0.3	0.17	89,448
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	258,405
(Low Usage)		JUNE	6.6	0.3	0.61	327,975
		JULY	7.1	0.3	0.66	**352,822**
		AUGUST	6.2	0.3	0.57	308,098
		SEPTEMBER	4.5	0.3	0.42	223,620
		OCTOBER	1.8	0.3	0.17	89,448
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,649,816
DAYS/WEEK	6				ACRE FEET/YR.	5.1
DAYS/MONTH	26				PEAK SEASON GPM	23

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	4.60
GALLONS/YEAR	1,649,816
ACRE FEET/YEAR	5.1
PEAK SEASON GPM	23
INSTANTANEOUS PEAK GPM REQUIREMENT	**28**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			A6	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.51	-
TURF		MAY	5.2	0.8	1.48	-
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	-
		JULY	7.1	0.8	2.02	-
		AUGUST	6.2	0.8	1.76	-
		SEPTEMBER	4.5	0.8	1.28	-
		OCTOBER	1.8	0.8	0.51	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.5	0.22	-
SHRUBS		MAY	5.2	0.5	0.63	-
(Moderate Usage)		JUNE	6.6	0.5	0.80	-
		JULY	7.1	0.5	0.86	-
		AUGUST	6.2	0.5	0.75	-
		SEPTEMBER	4.5	0.5	0.55	-
		OCTOBER	1.8	0.5	0.22	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	14.60	APRIL	1.8	0.3	0.17	283,900
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	820,155
(Low Usage)		JUNE	6.6	0.3	0.61	1,040,966
		JULY	7.1	0.3	0.66	**1,119,827**
		AUGUST	6.2	0.3	0.57	977,877
		SEPTEMBER	4.5	0.3	0.42	709,749
		OCTOBER	1.8	0.3	0.17	283,900
OPERATING PERIOD-HRS./DAY	10				TOTAL	5,236,372
DAYS/WEEK	6				ACRE FEET/YR.	16.1
DAYS/MONTH	26				PEAK SEASON GPM	72

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	14.60
GALLONS/YEAR	5,236,372
ACRE FEET/YEAR	16.1
PEAK SEASON GPM	72
INSTANTANEOUS PEAK GPM REQUIREMENT	**90**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			Trailhead Park	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	5.22	APRIL	1.8	0.8	0.44	270,677
TURF		MAY	5.2	0.8	1.28	781,956
(ROTORS)		JUNE	6.6	0.8	1.62	992,482
		JULY	7.1	0.8	1.75	**1,067,670**
		AUGUST	6.2	0.8	1.53	932,332
		SEPTEMBER	4.5	0.8	1.11	676,692
		OCTOBER	1.8	0.8	0.44	270,677
OPERATING PERIOD-HRS./DAY	8				TOTAL	4,992,486
DAYS/WEEK	6				ACRE FEET/YR.	15.3
DAYS/MONTH	26				PEAK SEASON GPM	86
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	1.74	APRIL	1.8	0.8	0.51	104,107
TURF		MAY	5.2	0.8	1.48	300,752
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	381,724
		JULY	7.1	0.8	2.02	**410,642**
		AUGUST	6.2	0.8	1.76	358,589
		SEPTEMBER	4.5	0.8	1.28	260,266
		OCTOBER	1.8	0.8	0.51	104,107
OPERATING PERIOD-HRS./DAY	8				TOTAL	1,920,187
DAYS/WEEK	6				ACRE FEET/YR.	5.9
DAYS/MONTH	26				PEAK SEASON GPM	33
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	1.74	APRIL	1.8	0.5	0.22	44,519
SHRUBS		MAY	5.2	0.5	0.63	128,611
(Moderate Usage)		JUNE	6.6	0.5	0.80	163,237
		JULY	7.1	0.5	0.86	**175,604**
		AUGUST	6.2	0.5	0.75	153,344
		SEPTEMBER	4.5	0.5	0.55	111,298
		OCTOBER	1.8	0.5	0.22	44,519
OPERATING PERIOD-HRS./DAY	10				TOTAL	821,133
DAYS/WEEK	6				ACRE FEET/YR.	2.5
DAYS/MONTH	26				PEAK SEASON GPM	11
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.3	0.17	-
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	-
(Low Usage)		JUNE	6.6	0.3	0.61	-
		JULY	7.1	0.3	0.66	**-**
		AUGUST	6.2	0.3	0.57	-
		SEPTEMBER	4.5	0.3	0.42	-
		OCTOBER	1.8	0.3	0.17	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	0.0
DAYS/MONTH	26				PEAK SEASON GPM	0

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	8.70
GALLONS/YEAR	7,733,806
ACRE FEET/YEAR	23.7
PEAK SEASON GPM	130
INSTANTANEOUS PEAK GPM REQUIREMENT	**163**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			Community Garden	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.51	-
TURF		MAY	5.2	0.8	1.48	-
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	-
		JULY	7.1	0.8	2.02	-
		AUGUST	6.2	0.8	1.76	-
		SEPTEMBER	4.5	0.8	1.28	-
		OCTOBER	1.8	0.8	0.51	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	1.06	APRIL	1.8	1.2	0.52	64,845
SHRUBS		MAY	5.2	1.2	1.52	187,331
(Moderate Usage)		JUNE	6.6	1.2	1.92	237,767
		JULY	7.1	1.2	2.07	**255,779**
		AUGUST	6.2	1.2	1.81	223,357
		SEPTEMBER	4.5	1.2	1.31	162,114
		OCTOBER	1.8	1.2	0.52	64,845
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,196,039
DAYS/WEEK	6				ACRE FEET/YR.	3.7
DAYS/MONTH	26				PEAK SEASON GPM	16
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.3	0.17	-
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	-
(Low Usage)		JUNE	6.6	0.3	0.61	-
		JULY	7.1	0.3	0.66	-
		AUGUST	6.2	0.3	0.57	-
		SEPTEMBER	4.5	0.3	0.42	-
		OCTOBER	1.8	0.3	0.17	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	0.0
DAYS/MONTH	26				PEAK SEASON GPM	0

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	1.06
GALLONS/YEAR	1,196,039
ACRE FEET/YEAR	3.7
PEAK SEASON GPM	16
INSTANTANEOUS PEAK GPM REQUIREMENT	**21**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			Firestation	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.75	APRIL	1.8	0.8	0.44	38,890
TURF		MAY	5.2	0.8	1.28	112,350
(ROTORS)		JUNE	6.6	0.8	1.62	142,598
		JULY	7.1	0.8	1.75	**153,401**
		AUGUST	6.2	0.8	1.53	133,956
		SEPTEMBER	4.5	0.8	1.11	97,226
		OCTOBER	1.8	0.8	0.44	38,890
OPERATING PERIOD-HRS./DAY	8				TOTAL	717,311
DAYS/WEEK	6				ACRE FEET/YR.	2.2
DAYS/MONTH	26				PEAK SEASON GPM	12
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.75	APRIL	1.8	0.8	0.51	44,874
TURF		MAY	5.2	0.8	1.48	129,635
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	164,536
		JULY	7.1	0.8	2.02	**177,001**
		AUGUST	6.2	0.8	1.76	154,564
		SEPTEMBER	4.5	0.8	1.28	112,184
		OCTOBER	1.8	0.8	0.51	44,874
OPERATING PERIOD-HRS./DAY	8				TOTAL	827,667
DAYS/WEEK	6				ACRE FEET/YR.	2.5
DAYS/MONTH	26				PEAK SEASON GPM	14
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.20	APRIL	1.8	0.5	0.22	5,117
SHRUBS		MAY	5.2	0.5	0.63	14,783
(Moderate Usage)		JUNE	6.6	0.5	0.80	18,763
		JULY	7.1	0.5	0.86	**20,184**
		AUGUST	6.2	0.5	0.75	17,626
		SEPTEMBER	4.5	0.5	0.55	12,793
		OCTOBER	1.8	0.5	0.22	5,117
OPERATING PERIOD-HRS./DAY	10				TOTAL	94,383
DAYS/WEEK	6				ACRE FEET/YR.	0.3
DAYS/MONTH	26				PEAK SEASON GPM	1
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.3	0.17	-
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	-
(Low Usage)		JUNE	6.6	0.3	0.61	-
		JULY	7.1	0.3	0.66	**-**
		AUGUST	6.2	0.3	0.57	-
		SEPTEMBER	4.5	0.3	0.42	-
		OCTOBER	1.8	0.3	0.17	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	0.0
DAYS/MONTH	26				PEAK SEASON GPM	0

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	1.70
GALLONS/YEAR	1,639,361
ACRE FEET/YEAR	5.0
PEAK SEASON GPM	28
INSTANTANEOUS PEAK GPM REQUIREMENT	**35**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			Dog Park	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.51	-
TURF		MAY	5.2	0.8	1.48	-
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	-
		JULY	7.1	0.8	2.02	-
		AUGUST	6.2	0.8	1.76	-
		SEPTEMBER	4.5	0.8	1.28	-
		OCTOBER	1.8	0.8	0.51	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.5	0.22	-
SHRUBS		MAY	5.2	0.5	0.63	-
(Moderate Usage)		JUNE	6.6	0.5	0.80	-
		JULY	7.1	0.5	0.86	-
		AUGUST	6.2	0.5	0.75	-
		SEPTEMBER	4.5	0.5	0.55	-
		OCTOBER	1.8	0.5	0.22	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	4.40	APRIL	1.8	0.3	0.17	85,559
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	247,170
(Low Usage)		JUNE	6.6	0.3	0.61	313,716
		JULY	7.1	0.3	0.66	**337,482**
		AUGUST	6.2	0.3	0.57	294,703
		SEPTEMBER	4.5	0.3	0.42	213,897
		OCTOBER	1.8	0.3	0.17	85,559
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,578,085
DAYS/WEEK	6				ACRE FEET/YR.	4.8
DAYS/MONTH	26				PEAK SEASON GPM	22

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	4.40
GALLONS/YEAR	1,578,085
ACRE FEET/YEAR	4.8
PEAK SEASON GPM	22
INSTANTANEOUS PEAK GPM REQUIREMENT	**27**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 1			Neighborhood A2	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	5.41	APRIL	1.8	0.8	0.44	280,407
TURF		MAY	5.2	0.8	1.28	810,064
(ROTORS)		JUNE	6.6	0.8	1.62	1,028,158
		JULY	7.1	0.8	1.75	**1,106,049**
		AUGUST	6.2	0.8	1.53	965,845
		SEPTEMBER	4.5	0.8	1.11	701,017
		OCTOBER	1.8	0.8	0.44	280,407
OPERATING PERIOD-HRS./DAY	8				TOTAL	5,171,946
DAYS/WEEK	6				ACRE FEET/YR.	15.9
DAYS/MONTH	26				PEAK SEASON GPM	89
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	5.41	APRIL	1.8	0.8	0.51	323,546
TURF		MAY	5.2	0.8	1.48	934,689
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	1,186,336
		JULY	7.1	0.8	2.02	**1,276,210**
		AUGUST	6.2	0.8	1.76	1,114,437
		SEPTEMBER	4.5	0.8	1.28	808,865
		OCTOBER	1.8	0.8	0.51	323,546
OPERATING PERIOD-HRS./DAY	8				TOTAL	5,967,630
DAYS/WEEK	6				ACRE FEET/YR.	18.3
DAYS/MONTH	26				PEAK SEASON GPM	103
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	3.61	APRIL	1.8	0.5	0.22	92,239
SHRUBS		MAY	5.2	0.5	0.63	266,468
(Moderate Usage)		JUNE	6.6	0.5	0.80	338,210
		JULY	7.1	0.5	0.86	**363,832**
		AUGUST	6.2	0.5	0.75	317,712
		SEPTEMBER	4.5	0.5	0.55	230,598
		OCTOBER	1.8	0.5	0.22	92,239
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,701,298
DAYS/WEEK	6				ACRE FEET/YR.	5.2
DAYS/MONTH	26				PEAK SEASON GPM	23
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	3.61	APRIL	1.8	0.3	0.17	70,102
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	202,516
(Low Usage)		JUNE	6.6	0.3	0.61	257,039
		JULY	7.1	0.3	0.66	**276,512**
		AUGUST	6.2	0.3	0.57	241,461
		SEPTEMBER	4.5	0.3	0.42	175,254
		OCTOBER	1.8	0.3	0.17	70,102
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,292,986
DAYS/WEEK	6				ACRE FEET/YR.	4.0
DAYS/MONTH	26				PEAK SEASON GPM	18

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	18.03
GALLONS/YEAR	14,133,860
ACRE FEET/YEAR	43.4
PEAK SEASON GPM	233
INSTANTANEOUS PEAK GPM REQUIREMENT	**291**

NOTE:

Project Name: Haymeadow Pond 2
Date: 8/15/2013
Prepared by: jnh

Parcel	Parcel Name	Drip Bed Area (AC)*	Adjusted Drip Bed Area 100% (AC)	Turf Area (AC)* Sprays	Turf Area (AC)* Rotors	Native (AC)*	Flow Rate Req'd for Drip Irrigation (GPM)	Flow Rate Req'd for All Turf Irrigation (GPM)	Flow Rate Req'd for Native Irrigation (GPM)	Total Flow Rate Req'd (GPM)	Instantaneous Peak GPM
P1	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P2	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P3	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P4	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P5	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P6	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P7	Neighborhood B	4.64	4.64	6.97	6.97	4.64	30.19	247.11	22.95	300.24	375.30
P8	Neighborhood C	3.87	3.87	5.81	5.81	3.87	25.16	205.92	19.12	250.20	312.75
P9	Neighborhood D	5.07	5.07	7.61	7.61	5.07	32.99	269.99	25.07	328.04	410.05
P10	Willow Corridor A2-B	0.00	0.00	0.00	0.00	7.33	0.00	0.00	36.20	36.20	45.26
P11	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P12	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P13	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P14	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P15	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P16	Willow Corridor B & D & Open Space South of C	0.00	0.00	0.00	0.00	13.65	0.00	0.00	67.42	67.42	84.28
P17	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P18	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P19	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P20	xx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Totals	**13.6**	**13.6**	**20.4**	**20.4**	**34.6**	**88.3**	**723.0**	**170.8**	**982.1**	**1227.6**

Instructions for entering Data: Enter values in green colored cells only!

Watering Windows (Hrs) (If a mix of potable and non-potable is present on site, enter into each WB manually)

Equip. for each plant type	Operating Period-Hrs./Day	Days/Week	Days Per Month
Rotors	8.0	6	26
Sprays	8.0	6	26
Shrubs	10.0	6	26
Native	10.0	6	26

Project Name: Haymeadow Pond 2

Date: 8/15/2013

Prepared by: jnh

Estimated Irrigation Water Use

Landscape Treatment	*Water Needs*	*Plant Coefficient Used in Calculation*	*Approximate Area (SF)*	*Approximate Area (AC)*	*Peak Month Tap Flow Req'mt (GPM)*	*Peak Month Water Requirement (Gal)*	*Peak Month Daily Water (Gal)*	*Peak Month Daily Water (CF)*	*Annual Water Requirement (Gal)*
Manicured Turf	Moderate	0.80	1,775,680	40.76	904	8,979,003	289,645	38,723	41,986,323
Drought Tolerant/Native Grass	Low	0.30	1,505,477	34.56	213	2,650,844	85,511	11,432	12,395,498
Shrub Beds	Low	0.50	591,893	13.59	110	1,371,323	44,236	5,914	6,412,385
Totals			***3,873,050***	***88.91***	***1,228***	***13,001,171***	***419,393***	***56,069***	***60,794,206***

Site Water Balance

Water Source	*Peak Month Totals*
Gray Water	0
Condensate	0
Blowdown	0
Potable	13,001,170
Total	***13,001,171***

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 2				Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	20.38	APRIL	1.8	0.8	0.44	1,056,885
TURF		MAY	5.2	0.8	1.28	3,053,222
(ROTORS)		JUNE	6.6	0.8	1.62	3,875,244
		JULY	7.1	0.8	1.75	**4,168,823**
		AUGUST	6.2	0.8	1.53	3,640,380
		SEPTEMBER	4.5	0.8	1.11	2,642,212
		OCTOBER	1.8	0.8	0.44	1,056,885
OPERATING PERIOD-HRS./DAY	8				TOTAL	19,493,650
DAYS/WEEK	6				ACRE FEET/YR.	59.8
DAYS/MONTH	26				PEAK SEASON GPM	336
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	20.38	APRIL	1.8	0.8	0.51	1,219,482
TURF		MAY	5.2	0.8	1.48	3,522,949
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	4,471,435
		JULY	7.1	0.8	2.02	**4,810,180**
		AUGUST	6.2	0.8	1.76	4,200,439
		SEPTEMBER	4.5	0.8	1.28	3,048,706
		OCTOBER	1.8	0.8	0.51	1,219,482
OPERATING PERIOD-HRS./DAY	8				TOTAL	22,492,673
DAYS/WEEK	6				ACRE FEET/YR.	69.0
DAYS/MONTH	26				PEAK SEASON GPM	387
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	13.59	APRIL	1.8	0.5	0.22	347,659
SHRUBS		MAY	5.2	0.5	0.63	1,004,349
(Moderate Usage)		JUNE	6.6	0.5	0.80	1,274,751
		JULY	7.1	0.5	0.86	**1,371,323**
		AUGUST	6.2	0.5	0.75	1,197,494
		SEPTEMBER	4.5	0.5	0.55	869,149
		OCTOBER	1.8	0.5	0.22	347,659
OPERATING PERIOD-HRS./DAY	10				TOTAL	6,412,385
DAYS/WEEK	6				ACRE FEET/YR.	19.7
DAYS/MONTH	26				PEAK SEASON GPM	88
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	34.56	APRIL	1.8	0.3	0.17	672,045
NATIVE GRASS (SEED AREAS)		MAY	5.2	0.3	0.48	1,941,464
(Low Usage)		JUNE	6.6	0.3	0.61	2,464,165
		JULY	7.1	0.3	0.66	**2,650,844**
		AUGUST	6.2	0.3	0.57	2,314,822
		SEPTEMBER	4.5	0.3	0.42	1,680,113
		OCTOBER	1.8	0.3	0.17	672,045
OPERATING PERIOD-HRS./DAY	10				TOTAL	12,395,498
DAYS/WEEK	6				ACRE FEET/YR.	38.0
DAYS/MONTH	26				PEAK SEASON GPM	171

COLORADO WATER BUDGET	
REVIEWED BY:	jrh
DATE:	jrh

PROJECT TOTALS

IRRIGATED ACRES	88.9
GALLONS/YEAR	60,794,206
ACRE FEET/YEAR	186.6
PEAK SEASON GPM	982
INSTANTANEOUS PEAK GPM REQUIREMENT	**1,228**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 2			Neighborhood B	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	6.97	APRIL	1.8	0.8	0.44	361,214
TURF		MAY	5.2	0.8	1.28	1,043,506
(ROTORS)		JUNE	6.6	0.8	1.62	1,324,450
		JULY	7.1	0.8	1.75	**1,424,788**
		AUGUST	6.2	0.8	1.53	1,244,181
		SEPTEMBER	4.5	0.8	1.11	903,034
		OCTOBER	1.8	0.8	0.44	361,214
OPERATING PERIOD-HRS./DAY	8				TOTAL	6,662,387
DAYS/WEEK	6				ACRE FEET/YR.	20.4
DAYS/MONTH	26				PEAK SEASON GPM	115
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	6.97	APRIL	1.8	0.8	0.51	416,785
TURF		MAY	5.2	0.8	1.48	1,204,046
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	1,528,212
		JULY	7.1	0.8	2.02	**1,643,986**
		AUGUST	6.2	0.8	1.76	1,435,593
		SEPTEMBER	4.5	0.8	1.28	1,041,963
		OCTOBER	1.8	0.8	0.51	416,785
OPERATING PERIOD-HRS./DAY	8				TOTAL	7,687,369
DAYS/WEEK	6				ACRE FEET/YR.	23.6
DAYS/MONTH	26				PEAK SEASON GPM	132
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	4.64	APRIL	1.8	0.5	0.22	118,820
SHRUBS		MAY	5.2	0.5	0.63	343,259
(Moderate Usage)		JUNE	6.6	0.5	0.80	435,674
		JULY	7.1	0.5	0.86	**468,680**
		AUGUST	6.2	0.5	0.75	409,270
		SEPTEMBER	4.5	0.5	0.55	297,051
		OCTOBER	1.8	0.5	0.22	118,820
OPERATING PERIOD-HRS./DAY	10				TOTAL	2,191,575
DAYS/WEEK	6				ACRE FEET/YR.	6.7
DAYS/MONTH	26				PEAK SEASON GPM	30
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	4.64	APRIL	1.8	0.3	0.17	90,303
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	260,877
(Low Usage)		JUNE	6.6	0.3	0.61	331,113
		JULY	7.1	0.3	0.66	**356,197**
		AUGUST	6.2	0.3	0.57	311,045
		SEPTEMBER	4.5	0.3	0.42	225,759
		OCTOBER	1.8	0.3	0.17	90,303
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,665,597
DAYS/WEEK	6				ACRE FEET/YR.	5.1
DAYS/MONTH	26				PEAK SEASON GPM	23

PROJECT TOTALS

IRRIGATED ACRES	23.22
GALLONS/YEAR	18,206,927
ACRE FEET/YEAR	55.9
PEAK SEASON GPM	300
INSTANTANEOUS PEAK GPM REQUIREMENT	**375**

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 2			Neighborhood C	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	5.81	APRIL	1.8	0.8	0.44	301,011
TURF		MAY	5.2	0.8	1.28	869,589
(ROTORS)		JUNE	6.6	0.8	1.62	1,103,709
		JULY	7.1	0.8	1.75	**1,187,323**
		AUGUST	6.2	0.8	1.53	1,036,817
		SEPTEMBER	4.5	0.8	1.11	752,529
		OCTOBER	1.8	0.8	0.44	301,011
OPERATING PERIOD-HRS./DAY	8				TOTAL	5,551,989
DAYS/WEEK	6				ACRE FEET/YR.	17.0
DAYS/MONTH	26				PEAK SEASON GPM	96
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	5.81	APRIL	1.8	0.8	0.51	347,321
TURF		MAY	5.2	0.8	1.48	1,003,371
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	1,273,510
		JULY	7.1	0.8	2.02	**1,369,988**
		AUGUST	6.2	0.8	1.76	1,196,328
		SEPTEMBER	4.5	0.8	1.28	868,302
		OCTOBER	1.8	0.8	0.51	347,321
OPERATING PERIOD-HRS./DAY	8				TOTAL	6,406,141
DAYS/WEEK	6				ACRE FEET/YR.	19.7
DAYS/MONTH	26				PEAK SEASON GPM	110
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	3.87	APRIL	1.8	0.5	0.22	99,017
SHRUBS		MAY	5.2	0.5	0.63	286,049
(Moderate Usage)		JUNE	6.6	0.5	0.80	363,062
		JULY	7.1	0.5	0.86	**390,567**
		AUGUST	6.2	0.5	0.75	341,058
		SEPTEMBER	4.5	0.5	0.55	247,542
		OCTOBER	1.8	0.5	0.22	99,017
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,826,312
DAYS/WEEK	6				ACRE FEET/YR.	5.6
DAYS/MONTH	26				PEAK SEASON GPM	25
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	3.87	APRIL	1.8	0.3	0.17	75,253
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	217,397
(Low Usage)		JUNE	6.6	0.3	0.61	275,927
		JULY	7.1	0.3	0.66	**296,831**
		AUGUST	6.2	0.3	0.57	259,204
		SEPTEMBER	4.5	0.3	0.42	188,132
		OCTOBER	1.8	0.3	0.17	75,253
OPERATING PERIOD-HRS./DAY	10				TOTAL	1,387,997
DAYS/WEEK	6				ACRE FEET/YR.	4.3
DAYS/MONTH	26				PEAK SEASON GPM	19

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	19.35
GALLONS/YEAR	15,172,439
ACRE FEET/YEAR	46.6
PEAK SEASON GPM	250
INSTANTANEOUS PEAK GPM REQUIREMENT	**313**

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 2			Willow Corridor A2-B	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.51	-
TURF		MAY	5.2	0.8	1.48	-
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	-
		JULY	7.1	0.8	2.02	-
		AUGUST	6.2	0.8	1.76	-
		SEPTEMBER	4.5	0.8	1.28	-
		OCTOBER	1.8	0.8	0.51	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.5	0.22	-
SHRUBS		MAY	5.2	0.5	0.63	-
(Moderate Usage)		JUNE	6.6	0.5	0.80	-
		JULY	7.1	0.5	0.86	-
		AUGUST	6.2	0.5	0.75	-
		SEPTEMBER	4.5	0.5	0.55	-
		OCTOBER	1.8	0.5	0.22	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	7.33	APRIL	1.8	0.3	0.17	142,485
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	411,623
(Low Usage)		JUNE	6.6	0.3	0.61	522,445
		JULY	7.1	0.3	0.66	**562,024**
		AUGUST	6.2	0.3	0.57	490,782
		SEPTEMBER	4.5	0.3	0.42	356,212
		OCTOBER	1.8	0.3	0.17	142,485
OPERATING PERIOD-HRS./DAY	10				TOTAL	2,628,056
DAYS/WEEK	6				ACRE FEET/YR.	8.1
DAYS/MONTH	26				PEAK SEASON GPM	36

PROJECT TOTALS	
IRRIGATED ACRES	7.33
GALLONS/YEAR	2,628,056
ACRE FEET/YEAR	8.1
PEAK SEASON GPM	36
INSTANTANEOUS PEAK GPM REQUIREMENT	**45**

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

NOTE:

COLORADO WATER BUDGET

Project Name:	Haymeadow Pond 2			Willow Corridor B & D & Open Space South of C	Date:	8/15/2013
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.44	-
TURF		MAY	5.2	0.8	1.28	-
(ROTORS)		JUNE	6.6	0.8	1.62	-
		JULY	7.1	0.8	1.75	-
		AUGUST	6.2	0.8	1.53	-
		SEPTEMBER	4.5	0.8	1.11	-
		OCTOBER	1.8	0.8	0.44	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.8	0.51	-
TURF		MAY	5.2	0.8	1.48	-
(SPRAY SPRINKLERS)		JUNE	6.6	0.8	1.87	-
		JULY	7.1	0.8	2.02	-
		AUGUST	6.2	0.8	1.76	-
		SEPTEMBER	4.5	0.8	1.28	-
		OCTOBER	1.8	0.8	0.51	-
OPERATING PERIOD-HRS./DAY	8				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	0.00	APRIL	1.8	0.5	0.22	-
SHRUBS		MAY	5.2	0.5	0.63	-
(Moderate Usage)		JUNE	6.6	0.5	0.80	-
		JULY	7.1	0.5	0.86	-
		AUGUST	6.2	0.5	0.75	-
		SEPTEMBER	4.5	0.5	0.55	-
		OCTOBER	1.8	0.5	0.22	-
OPERATING PERIOD-HRS./DAY	10				TOTAL	-
DAYS/WEEK	6				ACRE FEET/YR.	-
DAYS/MONTH	26				PEAK SEASON GPM	-
DESCRIPTION	IRRIGATED ACRES	MONTH	HISTORICAL ET	PLANT COEFF	WEEKLY WATER REQ'MT (IN.)	MONTHLY WTR REQ'MT (GAL.)
PLANT TYPE:	13.65	APRIL	1.8	0.3	0.17	265,339
NATIVE PLANT MATERIAL		MAY	5.2	0.3	0.48	766,535
(Low Usage)		JUNE	6.6	0.3	0.61	972,909
		JULY	7.1	0.3	0.66	**1,046,615**
		AUGUST	6.2	0.3	0.57	913,945
		SEPTEMBER	4.5	0.3	0.42	663,347
		OCTOBER	1.8	0.3	0.17	265,339
OPERATING PERIOD-HRS./DAY	10				TOTAL	4,894,029
DAYS/WEEK	6				ACRE FEET/YR.	15.0
DAYS/MONTH	26				PEAK SEASON GPM	67

COLORADO WATER BUDGET	
REVIEWED BY:	
DATE:	

PROJECT TOTALS

IRRIGATED ACRES	13.65
GALLONS/YEAR	4,894,029
ACRE FEET/YEAR	15.0
PEAK SEASON GPM	67
INSTANTANEOUS PEAK GPM REQUIREMENT	**84**

NOTE: