

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12311
(formerly 63-12595, see 6/25/09 memo)

Exam Date: August 6, 2008
and June 10, 2009 (for measurement)

1. Current Owner: CITY OF BOISE
PARKS & RECREATION DEPT
1104 ROYAL BLVD
BOISE ID 83706-2898
(208)384-4240

2. Accompanied by: Kelly McDaid
Phone No: 208/859-9897
Relationship to Permit Holder: Employee

3. SOURCE
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Settlers Irrigation Dist. Rights:

63-230M, 63-3060, and 63-230L (63-230M is the only right that the city uses for irrigation purposes at this park).

63-161V (from the Boise River, held by private owners) this right overlaps the irrigated place of use by 20 acres however the city does not use water from this right to irrigate the park, they only use right 63-230M.

2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 29, Twp 04N, Rge 01E, B.M. ADA County

Method of Determination: GPS

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N	01E	29																	30.0
																		30.0	

Total Acres: 30

PLACE OF USE: AESTHETIC STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
04N	01E	29																	X

DIVERSION TO STORAGE same as AESTHETIC STORAGE

Method of Determination: Site Visit and Imagery

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
D0019432	Franklin	7.5		Grundfos 150S	submersed

D. FLOW MEASUREMENTS

A measurement was taken at 3' well outlet on 6/10/2009.

Water is pumped from well that discharges into a PVC pipe that goes into an underground pipe that discharges into the pond. The discharge point is beneath the pond's water level.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Polysonic Tyme-Flyte (calibrated 3/26/2009) I attached sensors to the pipe that discharges into a PVC pipe which then goes beneath the ground into the pond. Tape read-out taken at the time of measurements indicates a capacity of 128.75 gpm or 0.29 cfs (see tape).

For informational purposes I've included the Well Summary report provided by the City of Boise, performance curves for the pump, and the well log. The performance curve for the pump estimates 150 gpm at with the head equal to 150'.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: Mitigation for permit 63-12595 and now this permit is provided by transfer #68496 that reduced right 63-10014B by 16.5 af to cover the consumptive use under this permit.

2. Volume Calculations for Other Uses: Aesthetic Storage

The pond found at the place of use is authorized for 5 af of storage under right 63-230M (aesthetic storage) and 5 af of storage under this right. The two rights are not additive; instead the two rights are covering the same 5 af of water, so there will be a combined limit condition to address this.

The volume of the pond was quantified in application for transfer #68496. The transfer application documents the pond as being 1 acre in surface area with a 5 af capacity. From these figures I was able to calculate the average pond depth:

$$1 \text{ acre} \times \text{avg depth} = 5 \text{ acre feet} \rightarrow \text{avg depth} = \frac{5 \text{ af}}{1 \text{ acres}} = 5 \text{ ft}$$

As of the date of the field exam, the pond was clay lined with fabric. I assume that the pond depth has not changed since 2000 being that it is lined however it appears that the surface area is now at around 1.23 acres. This is based on an aerial imagery measurement.

This means that the capacity of the pond is: 1.23 acres x 5 ft = 6.15 af

It should be noted that the average depth and the surface area of the pond are estimates and 6.15 af is within 81% of where the pond volume should be, 5af. A 19% margin of error on measurements that could not be taken physically is within reason.

G. NARRATIVE/REMARKS/COMMENTS

Application for permit 63-12595 was approved because transfer #68496 was approved which provided mitigation for the permit. The transfer took 16.5 afa from right 63-10014B by changing 7 acres of primary irrigation to 5 acres of supplemental irrigation and taking 2 acres off of irrigation completely.

63-10014B initially had 31.5 af (7 acres x 4.5 af) Two acres were dried up in transfer #68496 and converted into a playground area, sidewalks, and fishing pond while the remaining 5 acres were reduced to supplemental groundwater irrigation from 4.5 afa to 1 afa. 63-10014B now has 5 af for irrigation (5 acres x 1 af) and 10 af for the 5 af pond = 15 af. This left the 16.5 af for the consumptive uses under this permit.

Diversion Works:

The pond is designed to stay at the same water level as the irrigation ditch. The surface water from the irrigation ditch feeds into a pipe where it Ts and then discharges into the pond. There is a PVC standpipe located at the T where well water can feed into the pond when surface water is not available.

Irrigation water is taken from the pond with the system as seen in photo #3.

This permit, 63-12311, is meant to replace permit 63-12595. The city inadvertently filed two applications for the same purposes and the later in priority right is the one that ended up getting permitted. The city would like to retain the earlier priority date of 63-12311 so they relinquished permit 63-12595 and the department approved permit 63-12311.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.290 CFS	
AESTHETIC STORAGE	01/01 to 12/31		5.00 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.290 CFS	
<u>Totals:</u>		0.290 CFS	

2. Recommended Amendments: NONE

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

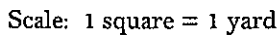
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Cherie Padilla Date 7/31/09

Reviewer _____ Date _____

and 63-12311



	POND
	INLET TO POND
	Well ID D0019432
	SHED
	WELL OUTLET
	SURFACE WATER
	FENCE
	BURIED PIPE TO POND CARRIES SW OR GW
	IRRIGATION POU (in part)
	IRRIGATION PUMP FROM POND

JUL 23 2009



Photo 1 Place of use, McDevitt Park looking westerly. The well is located to the left of this picture.



pipe is underground

Photo 2 Pipe coming from well and discharging into pvc pipe. The pvc pipe run underground and into the pond. The pump house is immediately to the left of the pipe and the pond is at my back. Surface water comes from ditch into pipe.



Photo 3 taken facing west--pump system that draws water from pond and distributes the water for irrigation

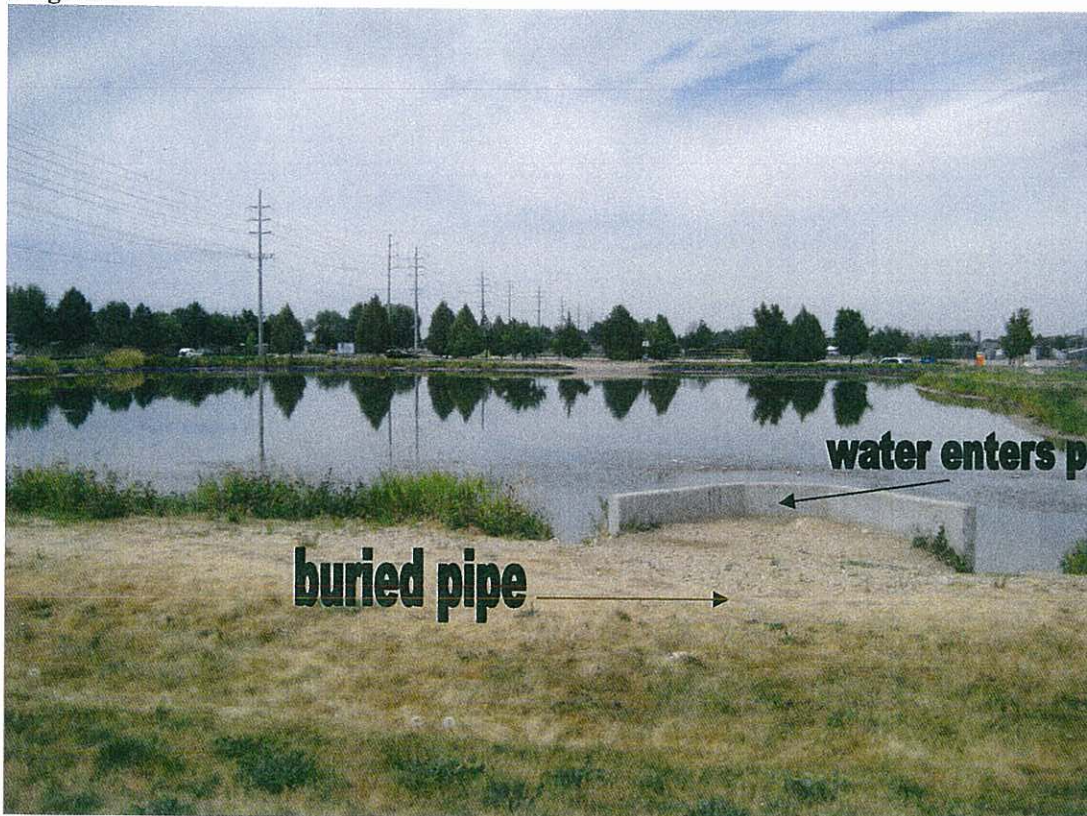


Photo 4 taken facing west—McDevitt Park pond which is used for recreation (fishing) and aesthetic purposes. Water from right 63-230M goes into this pond, when that water is not available groundwater is used to maintain the pond level.



Photo 5 shows pond and the point where buried pipe discharges into pond



Photo 6 shows the place of use for irrigation purposes taken facing the north



Photo 7 is facing west and shows the irrigation place of use



Photo 8 is taken at Redwood Park and illustrates the acreage that has been converted from irrigation to mitigation



Photo 9 taken at Redwood Park showing land that has been converted from irrigation to mitigation use

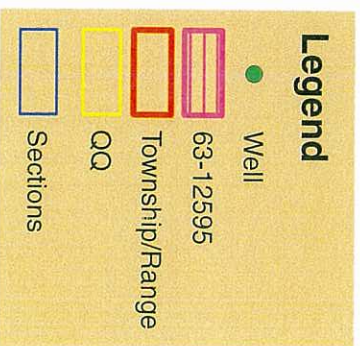
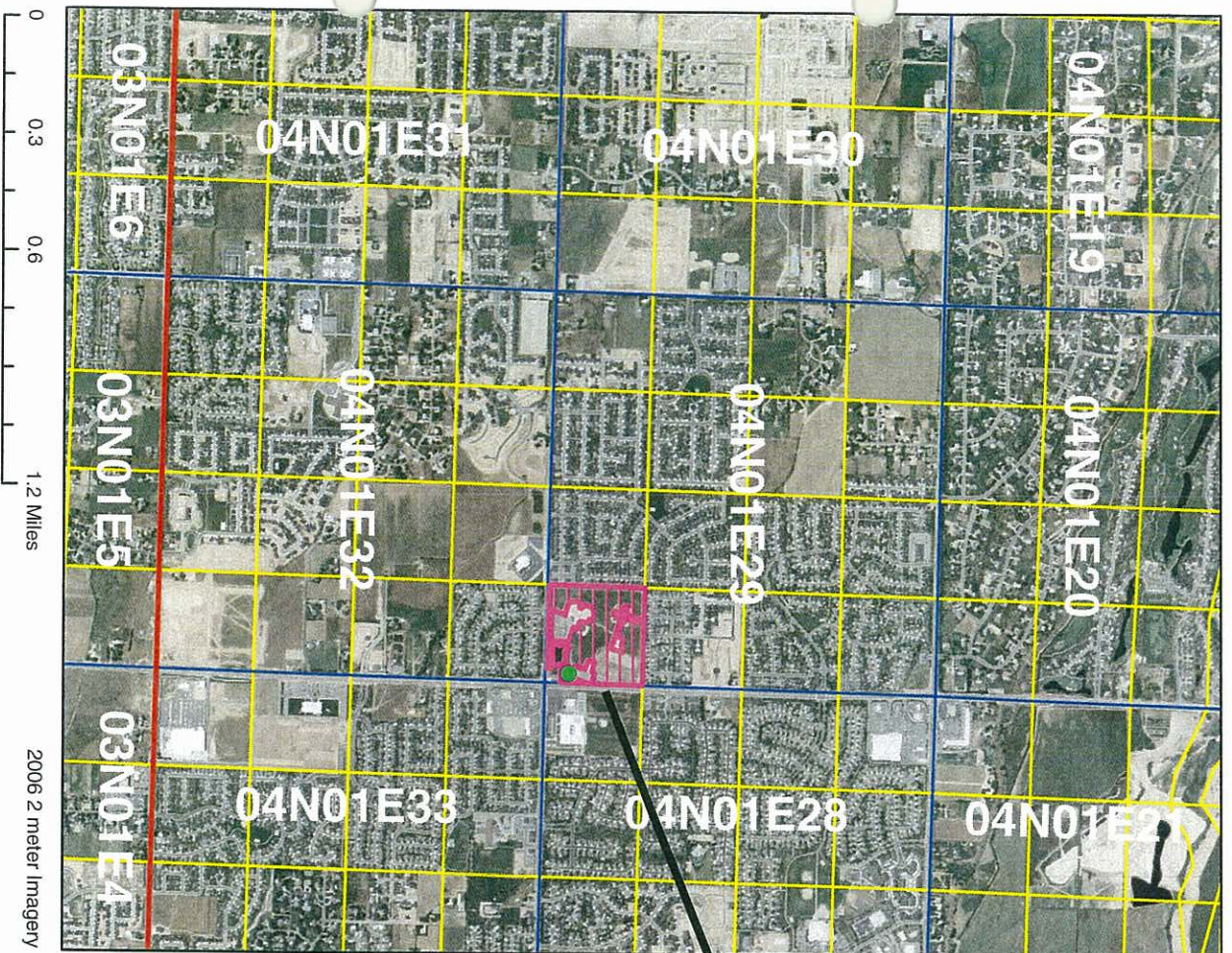


Photo 10 Redwood Park

POU and PD for 63-12595

and 63-12311

SCANNED
11 7 3 2009



RIGHT 63-12595 PLACE OF USE

63-12311



0 175 350 700 Feet

2006 2 meter Imagery



Map created June 26, 2009

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Legend

- Right POD
- Sections
- QQ

Redwood Park-Right 63-10014B



0 105 210 420 Feet

2006 2 meter Imagery



Map created June 26, 2009

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Legend

-  Mitigation Acres
-  QQ

OUTER DIAMETER
3.5500 IN
PIPE MATERIAL
CS,SS

WALL THICKNESS
.21500 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
2.138 IN U

MM-DD HH:MM
06-11 10:45

MODE SELECT
DATA SET

DATA SET MODE
? PRINTER

06-11 10:4600 *R
+002.90 % AI2

0118.4 MMSEC
101.57 % T0

10:53+ 1.297E 26PM 00R
+00000 *10 G 00R
-00000 *10 G 00R

10:54+ 1.306E 26PM 00R
+00012 *10 G 00R
-00000 *10 G 00R

10:55+ 1.291E 26PM 00R
+00025 *10 G 00R
-00000 *10 G 00R

10:56+ 1.314E 26PM 00R
+00038 *10 G 00R
-00000 *10 G 00R

10:57+ 1.296E 26PM 00R
+00051 *10 G 00R
-00000 *10 G 00R

10:58+ 1.314E 26PM 00R
+00064 *10 G 00R
-00000 *10 G 00R

11:00+ 1.282E 26PM 00R
+00090 *10 G 00R
-00000 *10 G 00R

11:01+ 1.264E 26PM 00R
+00103 *10 G 00R
-00000 *10 G 00R

11:02+ 1.283E 26PM 00R
+00116 *10 G 00R
-00000 *10 G 00R

11:03+ 1.264E 26PM 00R
+00128 *10 G 00R
-00000 *10 G 00R

11:04+ 1.251E 26PM 00R
+00141 *10 G 00R
-00000 *10 G 00R

SCANNED

11 7 3 2009

128.75 GPM 0"
0.29 cfs

WATER RIGHT NUMBER: 63-10014B V1

Owner Type Name and Address
Current Owner CITY OF BOISE
 PARKS & RECREATION DEPT
 1104 ROYAL BLVD
 BOISE, ID 83706-2898

Priority Date: 04/07/1983

Basis: License

Status: Active

Source

GROUND WATER

<u>Beneficial Use</u>	<u>From</u> <u>To</u>	<u>Diversion Rate</u>	<u>Annual Volume</u>
DIVERSION TO STORAGE	01/01 to 12/31	0.140 CFS	
RECREATION STORAGE	01/01 to 12/31		10.00 AF
IRRIGATION	04/01 to 10/15	0.100 CFS	5.00 AF
	<u>Total Diversion:</u>	0.140 CFS	15.00 AF

Location of Point(s) of Diversion

GROUND WATER NE1/4SE1/4NW1/4 Sec. 3, Twp 03N, Rge 01E, B.M. ADA County

Place of Use

IRRIGATION

Twp	Rge	Sec	NE	NW	SW	SE	Totals
03N	01E	3	5.0				5.0

Total Acres: 5

RECREATION STORAGE SAME AS IRRIGATION

Conditions of Approval:

1. 046 Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code.
2. T08 Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.
3. S39 The use of water for irrigation under this right may begin as early as March 1 and may continue to as late as November 15, provided other elements of the right are not exceeded. The use of water before April 1 and after October 15 under this remark is subordinate to all water rights having no subordinated early or late irrigation use and a priority date earlier than the date a partial decree is entered for this right.
4. R19 The right holder shall maintain a totalizing measuring device of a type approved by the Department as a part of the diverting works.
5. R65 This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.5 afa per acre at the field headgate for irrigation of the lands above.
6. 01Q After specific notification by the Department, the right holder shall measure the diversion or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.
7. 105 If the surface water right(s) appurtenant to the place of use is sold, transferred, leased or used on any other place of use, this right to divert ground water shall not be used for irrigation purposes without an approved transfer pursuant to Section 42-222, Idaho Code, or approval of the Department if a transfer is not required.
8. 100 The right holder shall use the full allotment of appurtenant surface water rights in conjunction with ground water diverted for irrigation purposes under this right and shall only divert ground water under this right for irrigation purposes when water from the appurtenant surface water rights cannot be delivered to the right holder.
9. C18 This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
10. T09 Approval of this transfer does not preclude the opportunity for review of the validity of the water right(s) in the ongoing Snake River Basin Adjudication.
11. The right holder shall cease diversion of 16.5 af of water for irrigation use previously authorized under this right to provide mitigation for Right 63-12595.

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IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 63-230M

WATER RIGHT NUMBER: 63-230M

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	SETTLERS IRRIGATION DISTRICT PO BOX 7571 BOISE, ID 83707 (208)344-2471

Priority Date: 10/17/1884

Basis: Decreed

Status: Active

<u>Source</u>	<u>Tributary</u>
BOISE RIVER	SNAKE RIVER

<u>Beneficial Use</u>	<u>From</u> <u>To</u>	<u>Diversion Rate</u>	<u>Annual Volume</u>
AESTHETIC STORAGE	1/01 to 12/31		5.00 AF
IRRIGATION STORAGE	1/01 to 12/31		5.00 AF
IRRIGATION	3/15 to 11/15	0.600 CFS	135.00 AF
IRRIGATION FROM STORAGE	3/15 to 11/15		5.00 AF
AESTHETIC	3/15 to 11/15	0.180 CFS	35.50 AF
DIVERSION TO STORAGE	3/15 to 11/15	0.780 CFS	
	<u>Total Diversion:</u>	0.780 CFS	175.50 AF

Location of Point(s) of Diversion

BOISE RIVER	L7 (SW1/4NE1/4)	Sec. 9, Twp 03N, Rge 02E, B.M.
ADA County		

Place of Use

IRRIGATION

Twp Rge Sec	NE	NW	SW	SE	
04N 01E 29	NE NW SW SE	NE NW SW SE	NE NW SW SE	NE NW SW SE	Totals
				30.0	30.0

Total Acres: 30

IRRIGATION FROM STORAGE same as IRRIGATIONAESTHETIC same as IRRIGATIONConditions of Approval:

1. R04 Use of water under this water right will be regulated by the watermaster of State Water District No. &DISTRICT.
2. T08 Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.
3. R32 This right when combined with all other rights shall provide no more than .02 cfs per acre nor more than 4.5 afa per acre for irrigation of the lands above.
4. R43 The right holder shall maintain a measuring device and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion.
5. T09 Approval of this transfer does not preclude the opportunity for review of the validity of the water right(s) in the ongoing Snake River Basin Adjudication.
6. T07 The right holder shall accomplish the change authorized by this transfer within one (1) year of the date of this approval.
7. 028 After specific notification by the department, the right holder shall annually report the amount of water diverted to the department.

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JUN 23 2009

JUL 23 2009

PERFORMANCE CURVES

150 GPM

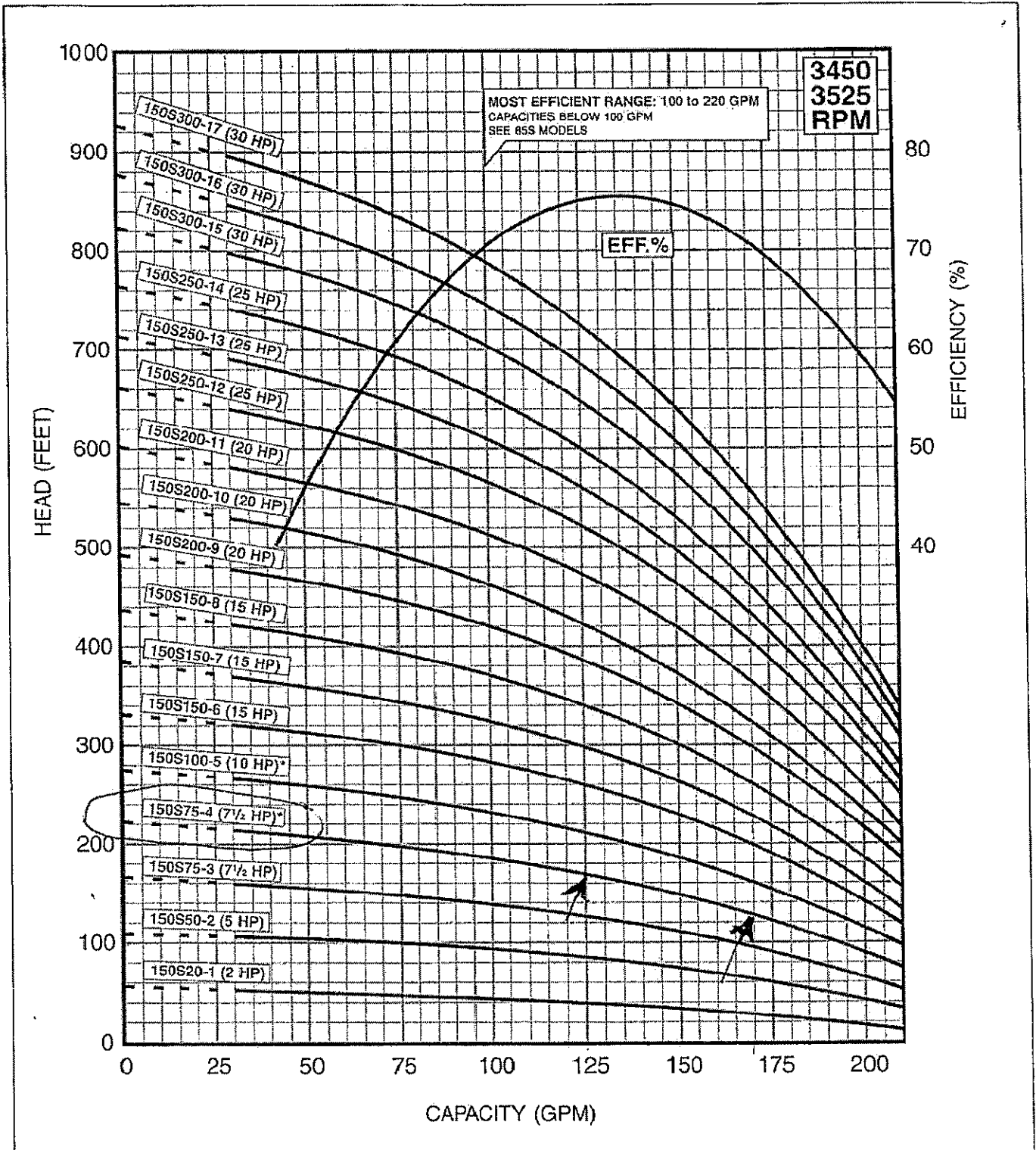
McDott Park

MODEL 150S

FLOW RANGE: 30 -220 GPM

OUTLET SIZE: 3" NPT

NOMINAL DIA. 6"



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
 4" MOTOR STANDARD, 2-10 HP/3450 RPM
 6" MOTOR STANDARD, 7.5-60 HP/3450 RPM.
 8" MOTOR STANDARD, 75 HP/3525 RPM.
 * Alternate motor sizes available.

Performance conforms to ISO 9906 Annex A
 @ 5 ft. min. submergence.

SCANNED
 JUL 23 2009

