## STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

Ident. No. <u>63 - 3483</u>

## DEC 16 2019

WATER RESOURCES

APPLICATION FOR PERMIT

WATER RESOURCES

To appropriate the public waters of the State of Idaho
WESTERN REGION

1.	Name	of applic	ant(s)	TPC E	Brookly	n Park	k Invest	ors, LLC		Phone 20	8-461-0022		
	Mailing	addres	s 430 I	Nan State	ne connece Stree	ctor (che t, Ste.	ck one): 100	and or		City Eagle	Э		
	_							Email	john@rennisoncor				
2.	Name	of repres	sentati	ve, if a	ny SPI	F Wate	er Engii	neering		Phone 20	8-383-4140		
	Mailing	addres	s 300 I	E. Mall	ard Dr	., Ste.	350			City Boise			
									lgraves@spfwater				
	a. 🗆 S	Send all	corresp	onder	ice for	this ap	plicatio	n to the representa	ative and not to the the representative.		DR		
	☐ T	he repre	esenta	tive is a	authori	zed to	sign for	the applicant. Atta	out is not authorized ach a Power of Atto	rney or oth	er documentation.		
3.						ater		whic	ch is a tributary of E	Joise River			
4.	Locatio	n of poi	nt(s) of		sion:								
	Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source		Local name or tag #		
	4N	1E	15			SE	SW	Ada	Ground W	ater	Pond Centroid		
			l										
5.	Water												
	Amoun	(cfs or ac	re-feet pe	fc r vear)	r	Aes	tnetic S	storage pur	poses from1/1	_ to12/3	31 (both dates inclusive)		
	Amoun	t		fo	r			pur	poses from	_ to	(both dates inclusive)		
	Amoun	(cfs or act	-		r			pur	poses from	to	(both dates inclusive)		
		(cfs or ac	re-feet pe	r year)									
	Amoun	(cfs or ac	re-feet pe	r year)	r			pur	poses from	_ to	(both dates inclusive)		
6.	Total qu	uantity to	o be ap	propri	ated is	(a)		cubic feet per se	cond (cfs) and/or (l	o) <u>288</u>	_ acre-feet per year (af).		
7.		ed diver	ting wo	orks:									
	a. Des	cribe typ	e and	size o	f devic	es use	d to div	ert water from the	source. 25.5-ac p	ond with a	max depth of 45 ft on		
	the s	southerr	1 65%	and a	max de	epth of	18 ft o	n the northern 35	% portion; 0.4 aver	age depth	correction factor used.		
	b. Heig 230	ht of sto	_								t; total reservoir capacity		
		n 10 for									refill plan in item 12. For		
							-	este or man and	or 50 acre-reet or m plication required?		it a separate Application		
									epth of well is				
									sought?  Yes				
					-		_	_	•				
											o,		
_						_							
_	_1, 19655		ch			<b>.</b>		or Department Use	5079774 - (GE - 740524-752-052-05)				
Rec Fee	eived by	09	Ren	eipted	by	Date	12/	Tim  Receipt No		iminary che	eck by ate		
				Jiprod	~,	~		cocipi ivo					

b. Sto			,,,,	ai ree	et of he	ead ar	nd pro	pose	d capad	city ir	ı kW.								
	ckwate	ring; li	st nur	nber	and k	ind of	livest	ock											
c. Mu	nicipal;	must	comp	lete a	and att	tach th	ne <u>Mu</u>	nicipa	al Wate	r Rig	ht Ap	plicati	on Ch	ecklis	st.				
d. Dor	nestic;	show	numb	er of	house	eholds	s												
e. Oth	er; des	cribe f	ully. A	Aesth	etic us	se for	lake r	esulti	ng fron	n gra	vel m	ining							
_																			
Descri	ption o	f place	of us	se:															
		1			cate a	cread	e in e	ach s	ubdivis	ion i	n the 1	ahula	ition h	elow					
															stic) i	in the	corre	spond	ling place
of u	se belo	ow. Se	e inst	ructio	ons for	stand	dard s	ýmbo	ls. A	S = 1	Aesth	etic S	torage	€	,				
					NE		1		lW		r —		w		Υ				i
TWP	RGE	SEC	NE	NW	sw	SE	NE	NW	Sw T	SE	NE	I NW	sw	SE	NE	I NW	SE	SE	TOTALS
4N	1E	15			-		1		-		AS	1000	0	AS	<u>'''</u>	N.V.	311	- GL	$\vdash$
						<del> </del>	i				L3			L3			_		
1						1			$\vdash$		LJ			LJ					-
					-	-			-								_		
									-										
					gate y	Jui la	wn, ga	arden,	and/or	r land	dscap	ing? _	New C	Jnion	Ditch	Co. s	urface	e wate	er
a. Who	o owns o owns e prope filling: _ oe your	the propossary.	opert nd to owned sal in Wat	y at the be irred by a harrager be	he poi rigated perso ative for	nt of o	diversiace of the diversion of the diver	ion? <u>f</u> f use? the a ovide appro	Applicano Applic	nt cant nt, de nal e l is fr	escrib xplan om 0	e the a	arrang for ang	gemer y of th As pro	nt ena e item	bling t	he apove. A	pplicar ttach a	nt to mak additiona panying
a. Who	o owns o owns e prope filing: pe your if nece	the propossary.	ropert nd to owned sal in Wat surfa	y at the bearing and the beari	he poingated personative for arting atter shape atter	nt of or pilon other	diversiace of the control of the con	ion? <u>f</u> use? If use? If the a ovide appro	Applicant Applic	nt cant nt, de nal e l is fr	escrib xplan om 0 Co. w	e the a ation to to 45 vill be	arrang for ang feet. used	gemer y of th As pro to mit	e item opose igate	bling to a book	he apove. A	oplicar ttach a ccomp	nt to mak additiona panying ive
a. Who	o owns o owns e prope filing: pe your if nece	the propossary.	ropert nd to owned sal in Wat surfa	y at the bearing and the beari	he poingated personative for arting atter shape atter	nt of or pilon other	diversiace of the control of the con	ion? <u>f</u> use? If use? If the a ovide appro	Applicant Applic	nt cant nt, de nal e l is fr	escrib xplan om 0 Co. w	e the a ation to to 45 vill be	arrang for ang feet. used	gemer y of th As pro to mit	e item opose igate	bling to a book	he apove. A	oplicar ttach a ccomp	nt to mak additiona panying ive
a. Who	o owns o owns e prope filing: pe your if nece	the propossary.	ropert nd to owned sal in Wat surfa	y at the bearing and the beari	he poingated personative for arting atter shape atter	nt of or pilon other	diversiace of the control of the con	ion? <u>f</u> use? If use? If the a ovide appro	Applicant Applic	nt cant nt, de nal e l is fr	escrib xplan om 0 Co. w	e the a ation to to 45 vill be	arrang for ang feet. used	gemer y of th As pro to mit	e item opose igate	bling to a book	he apove. A	oplicar ttach a ccomp	nt to mak additiona panying ive
a. Who b. Who c. If the this Describ pages transfe losses	o owns o owns e prope filing: _ oe your if nece r applic	the protection that the laterty is compared to the proposes ary. Coation, and from	ropert nd to owned sal in Wat surfa	y at the bear of t	he poi rigated perso ative for aring : ater sh	nt of or plon other	diversiace of that and protection be from 1:1 ra	ion? / f use? ovide appro New t	Applicant Application Application Englishment Englishm	nt cant nt, de nal e l is fr Ditch	xplan om 0 Co. w	e the a ation to 45 vill be	arrang for any feet. used provid	gemer y of th As pro to mit	e item opose igate the at	bling the state of the the the state of the	he ap the ac e eva d nar	oplicar ttach a ccomp porati	at to mak additiona panying ive
a. Who	o owns o owns e prope filing: _ oe your if nece r applic resultir	the proposes the form	ropert nd to owned sal in Wate surfa n the	y at the bear of t	he poi rigated perso ative for aring a ater sh based	nt of od or pion other orm, a zone of the on a	diversion ace of the tobe of tobe of the tobe of tobe of the tobe	f use?  ovide appro  New tatio.	Applicant Application Application End Addition End Addition of water application of water application	nt cant nt, de nal e l is fr	escrib xplan om 0 Co. w	e the ation to 45 vill be ation posed	arrang for any feet. used provid	gemen y of th As pro to mit led in	e item opose igate the at	bling to a book	he apove. A the ac e eva d nar	oplicar ttach a ccomp porati rative	additional panying ive
a. Who b. Who c. If the this Describ pages transfe losses	o owns o owns e prope filing: _ oe your if nece r applic resultir	the propossary.	ropert nd to owned sal in Wate surfa n the	y at the bearing of t	he pointing attive for aring atternships based of work	nt of or pion other	diversion ace of the state of t	ion? // f use? ovide appro New t atio.	Applicate Applicate Applicate Addition Endotries Addition of wath an 81/2 and 81/2 a	nt cant nt, de nal e l is fr	escrib  xplan om 0  Co. w	e the a ation to 45 vill be ation posed	for any feet. used	gemer y of th As pro to mit led in icial u	e itemopose igate the at	bling to the the that tache	he apove. Athe acted and nar	eplicar eccomp porative minimi	addition panying ive
a. Who b. Who c. If the this Describ pages transfe losses Time re MAP O diversion mile.	o owns o owns o owns o owns o prope filing: ope your if nece or applic resultir equired on, place	the protection of the property is contains ma	ropert nd to owned sal in Wate surfa n the omplet D PR se, se	y at the bearing and a service was ponderection of the column and	he pointing attention of work town town the pointing attention of the	nt of or plon other orm, a zone hares don a	diversion is	f use?  f use?  ovide appro New tatio.  cation Attachage. T	Applicate Applicate Applicate Addition Endowment of warman 8½ The magesto the	nt cant nt, de nal el is fr Ditch nal ir ter to 2" x 1 p sca	escrib  xplan om 0  Co. w  forma prop 1" ma ale sha st of on of	e the a ation of to 45 vill be ation of osed p or mall not my ke	for any feet. used provid benefinaps of be les	gemer y of th As protein to mit led in icial u clearly ss tha	e itemopose igate the at ident n two	bling to the stached bling the stacked bling the	the ap	eplicar ttach a ccomp aporati rative minimi ropose equal	nt to mak additiona panying ive
a. Who b. Who c. If the this Describ pages transfe losses Time re MAP O diversion mile.	o owns o owns o owns o owns o prope filing: ope your if nece or applic resultir equired on, place	the protection of the property is contains ma	ropert nd to owned sal in Wate surfa n the omplet D PR se, se	y at the bearing and a service was ponderection of the column and	he pointing attention of work town town the pointing attention of the	nt of or plon other orm, a zone hares don a	diversion is	f use?  f use?  ovide appro New tatio.  cation Attachage. T	Applicate Applicate Applicate Addition Endowment of warman 8½ The magesto the	nt cant nt, de nal el is fr Ditch nal ir ter to 2" x 1 p sca	escrib  xplan om 0  Co. w  forma prop 1" ma ale sha st of on of	e the a ation of to 45 vill be ation of osed p or mall not my ke	for any feet. used provide benefinaps of be less	gemer y of th As protein to mit led in icial u clearly ss tha	e itemopose igate the at ident n two	bling to the stached bling the stacked bling the	the ap	eplicar ttach a ccomp aporati rative minimi ropose equal	additional panying ive

### **APPLICATION NARRATIVE & PROPOSED MITIGATION**

A 25.5-acre pond is proposed for the Eagle Lakes development site. The source of the water will be shallow ground water assumed to be in hydraulic connection with the adjacent Boise River. Mitigation to Boise River flows is required to offset consumptive use resulting from the evaporation from the surface of the proposed pond and will be accomplished by changing the nature of use from irrigation to aesthetic storage for 25.5 shares/acres of New Union Ditch Co. (NUDC) water right 63-146. Water-bearing zone to be appropriated is from 0 to 45 feet.

Consumptive Use Data & Proposed Mitigation. The consumptive requirement and subsequent depletion rate to river flows required for shallow ponds and grass pasture, which is the typical crop grown within the NUDC service area, can be calculated based on the ET Idaho (<a href="http://data.kimberly.uidaho.edu/ETIdaho/">http://data.kimberly.uidaho.edu/ETIdaho/</a>) precipitation deficit tables for the Boise Airport climate station. The amount proposed for mitigation is based on a one to one ratio; 1 acre of irrigation for 1 acre of pond surface area. The calculations demonstrate that 25.5 acres of pond surface area will annually evaporate 57.8 acre-feet, equivalent to the consumptive use associated with 18.7 acres of grass pasture. As shown on the attached Water Balance data sheet, during the 60% Stewart Decree cut, 18.7 acres of grass pasture can sufficiently satisfy the pond's anticipated peak daily consumptive use requirement of 4.68 mm/day. As a result, 25.5 acres of NUDC water converted from irrigation to aesthetic use will more than adequately offset the consumptive use resulting development of the pond; enlargement is not a concern.

Also included are the Department's pond loss calculation spreadsheets for pond seepage, evaporation and storage capacity that support the proposed total annual pond volume.

## WATER BALANCE AND CHANGES TO 63-146

ET<sub>Idaho</sub> 2017, Bolse WSFO Airport (NWS--USC00101022) Precipitation Deficit Requirements

					G	rass Pa	sture -	high m	anagem	ent					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season*	Non Growing Season <sup>b</sup>	Annual
Mean	mm/day mm														
Monthly	-0.13	0.06	0.84	3.48	4.59	6.15	6.6	4.96	2.83	1.3	-0.31	-0.35	943	-24	919

				(	pen W	ater - s	hallow	systems	(pond	s/strea	ms)				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season®	Non Growing Season <sup>b</sup>	Annual
Mean						mm	/day							mm	
Monthly	-0.62	0.11	0.83	2.07	2.76	4,12	4.68	3.95	2.65	1.41	-0.21	-0.78	642	0	642
days / month	31	28	31	30	31	30	31	31	30	31	30	31			365
mm / month		3.1	25.7	62.1	85.6	123.6	145.1	122.5	79.5	43.7					691

- # 691 mm/yr, Net annual positive-month precipitation-deficit lake consumptive use (from above, open water, annual use)
- b 2.27 ft/yr, Net annual precipitation-deficit pond consumptive use (b = a / 304.8)
- 25.5 acres, lake surface area (from lake permit application)
- 57.8 af/yr, total annual pond consumptive use (d = b x c) and changed to aesthetic storage by transfer
- e 943 mm/yr, net annual precipitation-deficit grass pasture consumptive use (from above, grass pasture, growing season)
- 3.09 ft/yr, Net annual precipitation-deficit grass pasture consumptive use (f = e / 304.8)
- 18.7 acres of grass pasture consumptive use required to offset lake consumptive use (g = d / f)
- 0.02 cfs/acre, the duty of water for water right 63-146
  - 0.37 cfs, quantity of New Union irrigation component dedicated to diversion to storage (i = g x h)
- 4.68 mm/day, peak daily pond Pdef (July)
- 0.20 cfs, required to meet peak daily pond Pdef at 60% Stewart Decree flow reduction (I = k / 304.8 \* c / 1.9835)
- m 0.33 cfs, available when 100% flow delivered (m = I / 0.60)
- 16.4 acres of transfer water right associated with above 100% flow (n = m / h)
- 18.7 acres, greater of n & g, required to offset pond evaporation.
  - 25.50 acres, actual amount provided per transfer application

Changes to 63-146										
	Pre-Tranfer	Changed by Tranfer	Post- Transfer							
Irrigation, cfs	12.46	0.51	11.95							
Aesthetic Storage, afa	140.2	78.9	219.1							
Diversion to Storage, cfs	0.76	0.51	1,27							
Mitigation by non-use	0.54	0.00	0.54							
Aesthetic Storage, afa (new)	0.00	78.9	78.9							
Diversion to Storage, cfs (new)	0.00	0.51	0.51							
Total, cfs	13.76		13.76							
Acres, combined limit	622.8	25.5	597.3							
Duty, combined limit, cfs/acre	0.02	0.02	0.02							

## **Seepage Loss Calculations**

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total annual seepage losses from a pond.

FILE NUMBER	63-
REVIEWER	Scott King
DATE	10/14/2019

User Input	
Calculated value	
Formula Explanations	

#### **INPUTS**

Pond Surface Area (AC.)	25.5	AC.	
-------------------------	------	-----	--

Pond Surface Area (SQ. FT.) 1110780 SQ. FT.	Pond Surface Area (SQ. FT.)	1110780	SQ. FT.
---	-----------------------------	---------	---------

I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey				
My Soil Classification is	GrndWtr				
Suggested Seepage Rate (FT./DAY)	0.0000	FT./DAY			

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss

Convert to GPD	0	GPD
Total Seepage Loss (AFA)	0.0	AFA

Though sand and gravel seepage rates may actually be higher, the maximum allowable rate is 0.2 ft/day, pursuant to Administrative Memo "Seepage Loss Standards for Ponds and Reservoirs."

## **Suggested Seepage Rates for Different Soil Types:**

GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) = 0.2 ft per day

OL and ML (inorganic silts - very fine sands, silty, or clayey fine sands) = 0.02 ft per day

SC (clayey sands, sand clay mixtures) = 0.007 ft per day

CL (Low to medium plasticity clays) = 0.003 ft per day

MH, OH, PT and CH (high plasticity clays) = 0.0003 ft per day

LINED PONDS (liners can be chemical, fabric, or bentonite) = 0 ft per day

Ponds Intercepting Groundwater (excavated ponds filled by ground water) = 0 ft per day

PLEASE NOTE: The initial basis for the Suggested Seepage Rates in the table above is found on Page 16 of Seepage from Fish Ponds, Bulletin 599, August 1989 Alabama Agricultural experiment Station, Auburn University, Auburn University Alabama. If you don't know the soil type, please refer to the map provided at the NRCS Web Soil Survey (Tab #1), an ArcMap Soil Classification Map (Tab #1.1), or published NRCS Soil Survey (Tab #1.2). Use "0" if the pond fill relies on the water table.

## **Evaporation Loss Calculations**

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

FILE NUMBE REVIEWER Scott King DATE 10/14/2019

> **User Input** Calculated value Formula Explanations

The acronyms used on the Kimberly Research Center website are defined below:

P = Precipitation

ET= Evapotranspiration

P<sub>d</sub> = Precipitation deficit

Pd =ET-P

#### **USING THIS SPREADSHEET**

Use the link below to access the Kimberly Research Center website. This website provides the Precipitation Deficit for a station most representative of the pond under examination. The Precipitation Deficit is the total amount of free water surface evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used throughout the state. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at X:/Spatial/Climate/ETIdahostations.shp.

#### Instructions:

- 1. Use the link below to navigate to ET Idaho 2012.
- 2. Select the station which is most representative to your pond location.
- 3. Click Submit Query.
- 4. Under "Land Covers with Evapotranspiration Estimates," select "Open Water Shallow Systems (ponds, streams)" or "Open Water - small stock ponds" depending on the pond size.
- 5. Click the link to "Precipitation Deficit."
- 6. Reference and copy (ctrl + C) the first subheading "Mean" values.
- 7. Click the "Paste Values from ET Idaho" button. The table will automatically enter a zero (0) for any negative precipitation deficit values.

Found at: http://data.kimberly.uidaho.edu/ETIdaho/

Precipitation Deficit
Rouse AIRPORT
Twin Falls 3 NNE (NWS-1

Month	mm/day¹	Days per month	mm/Month
Jan	-0.62	31	0.00
Feb	0.11	28	3.08
March	0.83	31	25.73
April	2.07	30	62.10
May	2.76	31	85.56
June	4.12	30	123.60
July	4.68	31	145.08
August	3.95	31	122.45
September	2.65	30	79.50
October	1.41	31	43.71
November	-0.21	30	0.00
December	-0.78	31	0.00

PLEASE NOTE: The seasonal average for precipitation deficit should not be used for calculations because precipitation often exceeds evaporation during wetter months of the year. If the pond is kept full, excess precipitation during wetter months does not serve to refill the pond during drier months.

For example, see Sandpoint KSPT (NWS - 108137), the annual precipitation deficit is -106 mm. However, April through September have positive precipitation deficit values. To properly estimate the annual volume of water necessary to refill a pond due to evaporation losses, the table will automatically enter a zero (0) for each month that the precipitation value is reported as a negative value.

As described above, precipitation offsets evaporation in winter months, so the net effect is that wintertime precipitation deficit is usually zero.

Total mm/year = 690.81

[(mm/yr) ÷ (convert to feet) ] X (Surface area of pond, in acres) = Evaporation Loss in Acre Feet

690.81

304.8

25.50

57.8 AFA

## **Total Storage Calculations**

FILE NUMBER	63-
REVIEWER	Scott King
DATE	10/14/2019

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input		
Calculated value		
Formula Explanations		

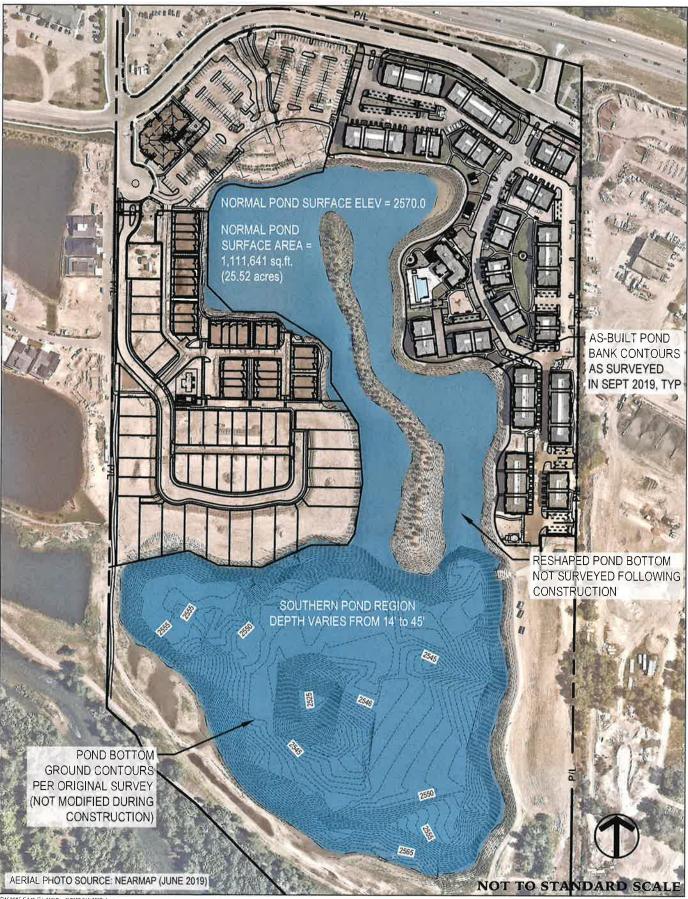
Surface Area (AC.)	25.5	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	9.0	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.
Pond Capacity (AF)	230	Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above.  Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed).  Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	57.8	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	287.8	The "Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.

Flow Rate into Pond (CFS)	1.00	The "Flow Rate into Pond" depicts the actual flow, either measured or estimated, into the pond. For offstream facilities, this will be equivalent to "diversion to storage" rate.
Highest Daily Evaporation Rate From Evaporation Tab. (mm/Day)	4.68	This number is carried over from the "Evaporation Loss" sheet. It is the highest recorded number in the "Precipitation Deficit Table".
Required Daily Maintenance Volume (AF/Day)	0.39	"Required Daily Maintenance Volume" is the maximum volume of water needed on any given day during the year to maintain pond volume. It is calculated by adding the highest daily evaporation loss to the average daily seepage loss in acre feet. The average daily seepage loss is calculated by dividing the "Estimated Seepage Loss" by 365 days. This is acceptable, since the seepage rate shouldn't vary throughout the season unless the pond completely freezes over during the winter months. The highest daily evaporation loss is calculated by dividing the Highest Daily Evaporation Rate by the 304.8 conversion factor and multiplying this number by the pond surface area to attain a combined daily acre feet requirement.
Minimum Maintenance Flow (CFS)	0.20	The "Minimum Maintenance Flow" is the minimum amount of flow required to maintain the level of the pond. This number is determined by dividing the "Maximum Required Daily Maintenance Volume" by 1.9835. This flow can be used to determine if the flow rate into the pond is adequate to maintain the pond level.
Days Required to Fill the Pond	144	The "Days Required to Fill the Pond" is calculated by dividing the "Pond Capacity" by the "Flow Rate" minus "Minimum Maintenance Flow" multiplied by 1.9835. This section will assist you in determining if the flow rate being diverted to the pond is adequate to fill the pond while maintaining the pond level. The length of time to fill the pond will help determine if the flow rate is adequate for the size of pond being proposed. If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond.
Days Required to Fill the Pond at 13,000 Gallons per Day	-654	Some water users may want to fill a pond under the 13,000 gallons per day domestic exemption. The "Days Required to Fill the Pond at 13,000 Gallons per Day" is calculated by converting the "Pond Capacity" and the "Required Daily Maintenance Volume" to gallons. The "Pond Capacity" is then divided by 13,000 gallons minus the "Required Daily Maintenance Volume" in gallons to determine the number of days to fill pond. If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond.  Negative values indicate that the supply of 13,000 gallons per day is not enough volume to overcome the required daily maintenance volume; the pond will never fill.



PARO IECTSIS that 7 Designated Designation Designation Designation of the second state of the second second

## **EAGLE LAKES**



R160605 EAGLE LAKES - POND EXHIBIT dwg



# State of Idaho DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W AIRPORT WAY • BOISE, ID 83705-5082

Phone: (208)334-2190 • Fax: (208)334-2348 • Website: www.idwr.idaho.gov

Gary Spackman Director

January 8, 2020

TPC BROOKLYN PARK INVESTORS LLC 430 E STATE ST STE 100 EAGLE, ID 83616-5901

## Application For Permit No. 63-34831

Dear Applicants:

The Department of Water Resources has received your water right application. Please refer to the number referenced above in all future correspondence regarding this application.

A legal notice of the application has been prepared and is scheduled for publication in the IDAHO STATESMAN on 1/16/2020 and 1/23/2020. Protests to this application may be submitted for a period ending ten (10) days after the second publication.

If the application is protested, you will be sent a copy of each protest. All protests must be resolved before the application can be considered for approval. If the protest(s) cannot be resolved voluntarily, the Department will conduct a conference and/or hearing on the matter.

If the application is not protested, the Department will process your application and notify you of any action taken on the application. If your application is approved, the Department will send you a copy of the permit.

Please contact this office if you have any questions regarding the application.

Sincerely,

Kensie Thorneycroft Administrative Assistant

CC:

SPF WATER ENGINEERING LLC



## State of Idaho DEPARTMENT OF WATER RESOURCES

Western Region • 2735 Airport Way • Boise, Idaho 83705-5082 Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: www.idwr.idaho.gov

GARY SPACKMAN
Director

January 8, 2020

NEW UNION DITCH CO PO BOX 31 EAGLE ID 83616

Re: Application for Permit No. 63-34831

**Dear Interested Party:** 

The above referenced application may be of interest to you. I would like to inform you that the application has been submitted to the Ada County *ID Statesman* for advertising. I enclosed a copy of the application for your convenience. This information is also available on our website <a href="https://www.idwr.idaho.gov">www.idwr.idaho.gov</a>.

If you wish to formally protest the approval of the application, you must submit a protest with the \$25.00 protest fee to this office by **5:00 p.m., February 03, 2020**. You must also send a copy of your protest to the applicant.

If you have any questions regarding the application, please contact this office at 208-334-2190.

Sincerely,

Kensie Thorneycroft Administrative Assistant Western Regional Office

**Enclosures** 

## Thorneycroft, Kensie

From:

Thorneycroft, Kensie

Sent:

Wednesday, January 08, 2020 1:10 PM

To:

'Waterdistrict63@qwestoffice.net'

Subject: Attachments:

Application for Transfer No. 83799 and Permit Application 63-34831 Permit Application 63-34831.pdf; Transfer Application 83799.pdf; Watermaster

Recommendation Form.docx

January 8, 2020

REX BARRIE WATER DISTRICT #63 PO BOX 767 10769 W STATE ST STAR ID 83669-0767

RE: Application for Transfer No. 83799 & Permit Application No 63-34831

Dear Watermaster:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendations from you regarding the above referenced water right applications. Copies of the application are enclosed with this email for your reference. Please review the applications, complete a recommendation form, and submit your reply, if any, to this office by **February 03, 2020.** 

IDWR will assume you do not object to these applications if a timely response is not received. Please contact me if you have any questions in this matter. Thank you for your help.

Sincerely,

Kensie Thorneycroft Administrative Assistant 1 Idaho Dept. of Water Resources 208-334-2190

## Thorneycroft, Kensie

From:

Thorneycroft, Kensie

Sent:

Wednesday, January 08, 2020 11:39 AM

To:

'BOI Legals'

Subject:

Ada Legal Notice

Attachments:

Legal Notice.docx; Cover Letter.docx

Follow Up Flag:

Follow up

Flag Status:

Flagged

Good Morning Legal Clerk,

I am sending you the new legal notices, please send confirmation to my email.

Please see the attached ad for publication on 01/16/2020 & 01/23/2020.

Please confirm these are okay to publish as shown.

Kensie Thorneycroft Administrative Assistant 1 Idaho Dept. of Water Resources 208-334-2190 January 8, 2020

## LEGAL NOTICE DEPARTMENT

IDAHO STATESMAN PO BOX 40 BOISE, ID 83707

RE: Application For Permit No.(s): 63-34700, 63-34701, 63-34831

RE: Transfer No. 83799,

Water Right No(s): 63-146

Dear Legal Notice Department:

Please publish the enclosed legal notice on the dates indicated (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Please send the affidavit and bill to this office before 2/3/2020. Your cooperation is appreciated.

Sincerely,

Kensie Thorneycroft Administrative Assistant

Enclosure(s)

The following applications have been filed to appropriate the public waters of the State of Idaho:

#### 63-34700

ISLAND WOODS HOMEOWNERS ASSOCIATION INC

PO BOX 193

EAGLE, ID 83616-6342

Point of Diversion L6(SESW) S16 T04N R01E ADA County Source GROUND WATER Point of Diversion L5(NWSW) S16 T04N R01E ADA County Source GROUND WATER Point of Diversion SWSW S16 T04N R01E ADA County Source GROUND WATER

Use: IRRIGATION 03/01 to 11/15 0.36 CFS

Total Diversion: 0.36 CFS Date Filed: 4/4/2019 Place Of Use: IRRIGATION

T04N R01E S16 L5(SWNW) L6(NESW) L5(NWSW) SWSW L6(SESW) L7(SWSE)

T04N R01E S21 L4(NWNW)

Total Acres: 24

Water bearing zone to be appropriated is 0 to 20 feet.

Mitigation is proposed for consumptive use.

#### 63-34701

ISLAND WOODS HOMEOWNERS ASSOCIATION INC

PO BOX 193

EAGLE, ID 83616-6342

(3) Point of Diversion L5(NWSW) S16 T04N R01E ADA County Source GROUND WATER

(3) Point of Diversion SWSW S16 T04N R01E ADA County Source GROUND WATER

(6) Point of Diversion L6(SESW) S16 T04N R01E ADA County Source GROUND WATER Point of Diversion L6(NESW) S16 T04N R01E ADA County Source GROUND WATER

Use: AESTHETIC 01/01 to 12/31 315.5 AF

Use: RECREATION STORAGE 01/01 to 12/31 315.5 AF

Total Diversion: 315.5 AF

Date Filed: 4/4/2019

Place Of Use: AESTHETIC, RECREATION STORAGE T04N R01E S16 L6(NESW) L5(NWSW) SWSW L6(SESW) Water bearing zone to be appropriated is from 0 to 20 feet.

Mitigation is proposed for consumptive use.

#### 63-34831

TPC BROOKLYN PARK INVESTORS LLC

430 E STATE ST STE 100 EAGLE, ID 83616-5901

Point of Diversion SESW S15 T04N R01E ADA County Source GROUND WATER Tributary BOISE RIVER

Use: AESTHETIC STORAGE 01/01 to 12/31 288 AF

Total Diversion: 288 AF Date Filed: 12/16/2019

Place Of Use: AESTHETIC STORAGE T04N R01E S15 L3(NESW) L3(SESW)

Water bearing zone to be appropriated is from 0 to 45 feet. Mitigation by transfer 83799 is proposed for consumptive use.

#### NOTICE OF PROPOSED CHANGE OF WATER RIGHT TRANSFER NO. 83799

NEW UNION DITCH CO LTD, PO BOX 31, EAGLE, ID 83616; has filed Application No. 83799 for changes to the following water rights within ADA County(s): Right No(s). 63-146; to see a full description of these rights and the proposed transfer, please see www.idwr.idaho.gov/apps/wr/QueryNewTransfers/QueryNewTransfers.aspx. The purpose of the transfer is to change a portion of the above rights as follows: The purpose of this transfer is to convert 0.51 cfs and 78.9 af of water from irrigation uses to diversion to storage and aesthetic storage uses for the purpose of replacing evaporation losses from one (1) 25.5-acre pond associated with Water Right 63-34831. Water will be used within the current place of use near Eagle, 0.3 miles west of the intersection of Hwy 44 and Edgewood Ln., just south of State Hwy 44, and just north of the Boise River.

Permits will be subject to all prior water rights. For additional information concerning the property location, contact Western Region office at 208-334-2190; or for a full description of the right(s) or proposed transfer (s) please see <a href="https://www.idwr.idaho.gov">www.idwr.idaho.gov</a>. Protests may be submitted based on the criteria of Idaho Code §§ 42-203A and 42-222. Any protest against the approval of the application(s) must be filed with the Director, Dept. of Water Resources, Western Region, 2735 Airport Way, Boise, ID 83705 together with a protest fee of \$25,00 for each application on or before 02/03/2020. The protestant must also send a copy of the protest to the applicant.

GARY SPACKMAN, Director

Published on 1/16/2020 and 1/23/2020

## **MEMORANDUM**

TO:

Water Right File 63-34831

FROM: DATE:

Anna Kaiser 12/18/2019

SUBJECT:

Diversion Rate Clarification

On 12/16/2019, The Department of Water Resources (Department) received TPC Brooklyn Park Investors, LLC's application for permit proposing an aesthetic storage use of 288 acre-feet. Using the surface area and maximum pond depths outlined under section 7 of the application, and the standard depth correction factor 0.4, the Department calculates an average pond depth of 14.2 feet and total pond capacity of 362 acre-feet. After adding estimated evaporation loss (57.8 acre-feet), the Department estimates the total volume required for the proposed pond is actually 420 acre-feet. The application contains no further information supporting the selected diversion rate of 288 acre-feet.

Via telephone conversation on 12/18/2019, TPC Brooklyn Park Investors' representative Scott King of SPF Water Engineering clarified the applicant's selected diversion rate as follows:

SPF Water Engineering used Eagle Lakes' pond-depth contours (rather than the Department's standard 0.4 average depth conversion factor) to calculate the dimensions of the pond yielding an average depth of 9 feet and a total pond capacity of 230 acre-feet. These dimensions more accurately reflect the pond's true size. When adding the estimated evaporation loss, the total volume required is 288 acre-feet.

The above clarification provides sufficient information to justify the applicant's selected diversion of 288 acre-feet per year.

## Kaiser, Anna

**From:** Scott King <SKing@spfwater.com>

Sent: Wednesday, December 18, 2019 9:12 AM

To: Kaiser, Anna
Cc: Lori Graves

**Subject:** RE: TPC Brooklyn Park- Permit Application

**Attachments:** EAGLE LAKES -- POND EXHIBIT.pdf

Anna,

Here's the map the applicant provided and that we just discussed.

Thank you, Scott

From: Kaiser, Anna < Anna. Kaiser@idwr.idaho.gov>

Sent: Tuesday, December 17, 2019 4:58 PM

To: Lori Graves <LGraves@spfwater.com>; Scott King <SKing@spfwater.com>

Subject: TPC Brooklyn Park- Permit Application

Good afternoon,

I am reviewing TPC Brooklyn Park Investors LLC 's Application for Permit submitted December 16, 2019. Items 5, 6 and 7 require further clarification. Using the maximum depth (45 ft. on the southern 65% and 18 ft. on the northern 35%) provided under Item 7 on the application, I get a total pond capacity of 362 AF. When adding the estimated evaporation loss, the total volume required seems like it should be 420 AF.

Under items 5 and 6, the application proposes a total volume of 288 AF, using an average pond depth of 9.0 ft. and total pond capacity of 230 AF (outlined in Total Storage Calculations spreadsheet).

Could you please further clarify the pond depth and total volume required for this application?

I attached a scan of this application for reference.

Thank you! Anna

Anna Kaiser | Water Resource Agent IDWR-Western Region 2735 W Airport Way, Boise ID 83705 (208).334.2190 | anna.kaiser@idwr.idaho.gov



December 11, 2019



Patrick Kelly, Water Rights Supervisor IDWR Western Region Office 2735 Airport Way Boise, ID 83705

Subject: Application for Permit - TPC Brooklyn Park Investors

Application for Transfer - New Union Ditch Co.

Dear Patrick,

Enclosed on behalf of TPC Brooklyn Park Investors, is an *Application for Permit* requesting aesthetic storage from shallow ground water for a pond near Eagle. Consumptive use resulting from the pond will be mitigated with Boise River water from New Union Ditch Company as proposed under the *Application for Transfer* also enclosed.

Check No. 000194 for \$830 is enclosed for the filing fees; \$330 for the permit application and \$500 for the transfer application. Thank you very much for your consideration and assistance in this matter. Please call me if you have any questions.

Sincerely,

Lori Graves

Water Rights Specialist

lo Conar

Cc: Brian Liquin, Rennison Companies Inc.

Gary Heikes, New Union Ditch Co.

**Enclosures** 

SPF file number: 1394.0010