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JUN 15 2018

DEPARTMENT OF
WATER RESOURCES

June 15, 2018

Shelley Keen
Idaho Department of Water Resources
322 E. Front St.
P.O. Box 83720
Boise, ID 83720-0098

Re: Permit No. 63-32835 (City of Nampa)

Dear Shelley,

I am writing on behalf of the City of Nampa (City) in response to your correspondence to Chris Meyer dated October 25, 2017. I have consulted with Chris in preparing this response. The City seeks reinstatement of Permit No. 63-32835 (the Permit) and issuance of a water right license for reasonably anticipated future needs (RAFN). This letter provides the documentation requested in your letter, together with an accompanying beneficial use field report prepared by SPF Water Engineering (SPF).

BACKGROUND INFORMATION

The Permit was issued on October 5, 2009 for 5.0 cfs. It was issued as a RAFN right with a 21-year planning horizon (2009-2030) based on data developed in 2008 by CH2M Hill (now known as Jacobs), J-U-B Engineers, and Taylor Planning. The relatively short planning horizon reflects the fact that the 2008 studies, which were the only ones available at the time, were focused in large part on infrastructure planning.

New water master plans were prepared for the City's potable and irrigation systems by Keller Associates in 2014. Those master plans included revised estimates of future water demands based on new data from COMPASS. The projections were for the years 2020, 2025, 2030, 2035, 2040, and for full build-out. The projections are set out as Attachments A and B to this letter. These projections were considerably lower than the 2008 projection, presumably due to the intervening Great Recession.

A table setting out each of the City's municipal water rights is set out in Attachment C. The total diversion authority is summarized in Table 1.

Table 1. Total Diversion Authority for City's Potable and Irrigation System Water Rights (including only decreed and licensed rights within the City's municipal delivery system)

System	Authorized Diversion Rate (cfs)
Rights originally associated with the potable delivery system	49.55
Rights originally associated with the irrigation delivery system	77.04
TOTAL	126.59

A comparison of the current diversion authority for potable system rights with the 2014 projection for the potable system demand shows a negative "gap" for each year through 2040. (There is a positive gap for full build-out, but the master plan does not include a projection of when full buildout will occur.) The gap analysis based on potable system demand is summarized in Table 2.

Table 2. Potable System Gap Analysis (based on projected peak hour demand)

Year	Projected Population	Projected Peak Hour Demand		Current Potable System Diversion Authority (cfs)	Gap (Demand minus Diversion Authority) (cfs)
		gpm	cfs		
2020	92,334	14,125	31	49.55	-18.08
2025	101,727	15,412	34		-15.21
2030	113,393	16,950	38		-11.78
2035	128,574	18,836	42		-7.58
2040	137,810	20,264	45		-4.40
Full Buildout	397,474	58,065	129		79.83

In sum, there is no basis to license the Permit based on a revised RAFN projection of potable system demand alone. Instead, as described in previous correspondence, the City seeks licensing based on combined potable and irrigation system demands.

As you know, the City historically developed its potable and non-potable water delivery systems separately. Accordingly, water rights were identified with one system or the other. This distinction is no longer valid. The systems have been interconnected at certain points and will become increasingly interconnected.

Currently the systems are interconnected at Well 14, which directly connects to both the potable and irrigation systems.¹ In addition, in 2016 or 2017, the City installed five interconnection points between the two distribution systems.² These are not installed at the well but are connections between pipelines of the two systems.³

The integration of these systems is necessary to meet peak irrigation demands when surface water is not available (due to seasonal curtailment during times of drought, emergencies such as a canal breach, and during the shoulder seasons before and after surface water availability). Without integration, it would be necessary for the City to construct many additional stand-alone irrigation wells at considerable expense.

As reflected in your letter of October 25, 2017, the City's Permit may be eligible for licensing as a RAFN right if proper documentation is provided.⁴ We provide that information below, in the same order as set out in your letter.

REQUESTED DOCUMENTATION

Revised description of the City's service area

As noted in your letter, Idaho Code § 42-217(4) requires the permit holder to submit "a revised description of the service area." Read in context with the other requirements in that subsection (a revised RAFN and a revised planning horizon), we understand this to be a requirement for a revised future service area, aka, a revised planning area. Moreover, the statute defines "service area" flexibly to include areas outside of the city limits.⁵

¹ This is documented with respect to Well 14 in the Beneficial Use Field Report prepared by SPF and submitted to IDWR in 2008 in connection with Water Right No. 63-12591.

² Documentation of the interconnections was provided to IDWR in correspondence from Chris Meyer dated September 5, 2017. (See, in particular, the set of "Irrigation Cross Connection" drawings prepared by Keller Associates dated January 2015.)

³ These interconnections are installed each year during the irrigation season. For maintenance reasons involving backflow protection, they are removed during the non-irrigation season and reinstalled the next year.

⁴ In your letter of October 25, 2017, you acknowledge the City's position that "its construction of the well to distribute water through established trunk lines is consistent with the guidance articulated in Application Processing Memorandum No. 74, authored by Mat Weaver." You then conclude: "When it submitted its statement of completion, if the City already had constructed the new well and had the complete system already in place for distributing the water diverted from the well, and only lacked a physical connection of the two, the City's development probably meets the system capacity standard for establishing a RAFN right."

⁵ "The service area for a municipality may also include areas outside its corporate limits, or other recognized boundaries, that are within the municipality's established planning area if the constructed delivery system for the area shares a common water distribution system with lands located within the corporate limits." Idaho Code § 42-202B(9).

Accordingly, the City's revised description of its service area corresponds to its current area of city impact ("impact area"). This includes both the area that is now within the city limits and the area that the City anticipates annexing and providing services. The City's area of impact has been approved by Canyon County.

Attachment D includes a map showing the current impact area. Attachment D also includes a copy of City Ordinance No. 4278, which describes the impact area. In addition, SPF will provide a GIS shapefile of the City's future service area (i.e., current impact area) to you via email.

Revised planning horizon

Idaho Code § 42-217(4) also requires the permit holder to submit "a revised planning horizon." As noted, the Permit was issued on the basis of a 21-year planning horizon for the years 2009-2030, and the Keller master plans contain demand projections through the year 2040. The City will undertake longer-term water demand studies at approximate 5-year intervals as part of its ongoing water master planning process.

Accordingly, the City's revised planning horizon corresponds to the Keller master plans—a total of 22 years (from now through December 31, 2040).

IDWR's guidance on RAFN rights⁶ states that, at the time of licensing, the "planning horizon can only be amended downward to reflect a revised lowered future water demand." (RAFN Guidance at 20). That does not appear to be consistent with the statute, which provides simply that the applicant shall provide a revised planning horizon. We do not perceive that extending the duration of the planning horizon constitutes an enlargement so long as the quantity stated in the permit is not increased, particularly given that the statute expressly contemplated a "revised planning horizon" at the time of licensing.

It is not necessary to resolve this here. The City would prefer that the Department recognize the City's 2040 planning horizon as reflected in its most recent planning. But if the Department does not wish to extend the planning horizon, a RAFN license may still be justified based on the current planning horizon ending on December 31, 2030. As shown in Table 4 below, there is a positive "gap" in 2030 as well as 2040.

⁶ Mat Weaver, *Memorandum – Application Processing No. 74, Permit Processing No. 20, License Processing No. 13, Transfer Processing No. 29*, at 5 (Mar. 16, 2015) (replacing Nov. 15, 2014 and Nov. 13, 2013 versions) ("RAFN Guidance").

Revised estimate of reasonably anticipated future needs, including a gap analysis

Our revised forecast of RAFN is based on information found in the two planning documents prepared for the City by Keller in 2014 (for its potable and irrigation systems). As noted above, excerpts of the master plans containing these tables are reproduced in Attachments A and B to this letter. The demand forecast for potable use is found in Table 5.4 on page 5-8 of Keller's "Water System Master Plan". The demand forecast for non-potable use is found in Table 5.4 on page 5-6 of Keller's "Irrigation Master Plan".

The total future demand for the Permit's planning horizon are summarized in Table 3. This table shows only anticipated water demands (in gpm from the Keller master plans, converted to cfs). The corresponding revised population projections are the same as those set out in Table 2.

Table 3. System-wide Future Water Demand (combined potable and irrigation)

Demand	2030				2040			
	Peak Day		Peak Hour		Peak Day		Peak Hour	
	gpm	cfs	gpm	cfs	gpm	cfs	gpm	cfs
Potable	13,039	29	16,950	38	15,588	35	20,264	45
Irrigation	70,549	157	94,393	210	85,660	191	114,610	255
TOTAL	83,588	186	111,343	248	101,248	226	134,874	301

Comparing revised future demand (Table 3) to the revised portfolio of water rights (Table 1) leads to the revised gap analysis presented in Table 4.

Table 4. Revised Gap Analysis (combined potable and irrigation)

Gap	2030	2040
Based on Peak Day Demand		
Total Projected Demand	186	226
Current Integrated System Diversion Authority	126.59	126.59
Difference	59.41	99.41
Based on Peak Hour Demand		
Total Projected Demand	248	301
Current Integrated System Diversion Authority	126.59	126.59
Difference	121.41	174.41

Four "gaps" are displayed (peak day vs. peak hour and 2030 vs. 2040). Each of them shows a substantial shortfall between the City's current water rights and projected future demands.

Reinstatement of Permit

At the time the Statement of Completion was submitted in 2015, the City's consultant believed the Permit (although issued for RAFN) could be licensed as a non-RAFN water right (with no increment of additional diversion rate). The Department determined the Permit could not be licensed for non-RAFN use, thus making the Statement of Completion insufficient for the RAFN Permit and the Permit subsequently lapsed in 2017.

Since the lapsing of the Permit in 2017, the City and its attorney and consultants have met with IDWR and diligently worked to determine the best water right strategy for the City and to document the information needed to proceed with licensing the RAFN Permit. The City respectfully requests reinstatement of the Permit based upon submittal of the information set out above and in the Attachments, together with the enclosed Beneficial Use Field Report (Attachment E). We also enclose on behalf of the City the \$250.00 reinstatement fee.

Best Regards,



Roxanne Brown
Sr. Water Rights Specialist

CC: Michael Fuss, Director, Public Works Department
Nate Runyan, Deputy Director, Public Works Department
Chris Meyer, Water Counsel

Attachments A through E

SPF Job No. 270.0400

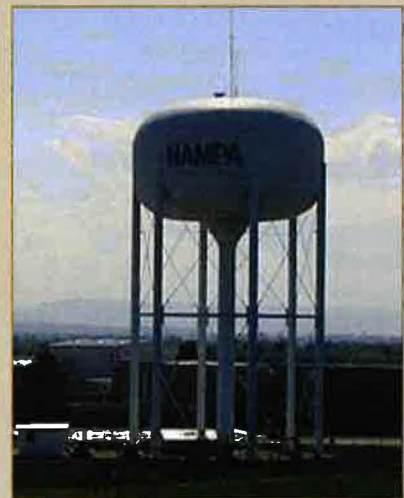
Attachment A

**Keller Associates – Water System Master Plan
(Excerpt: Demand Forecast)**

City of Nampa, Idaho

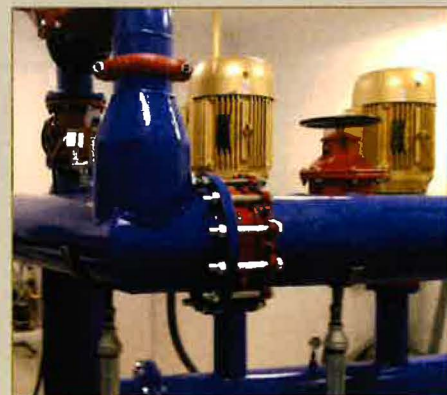


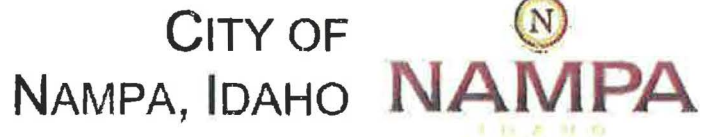
Water System Master Plan



KELLER
associates

September 2014
Final





Water System Master Plan

APPROVED
By: Carly Cantel P.E.
IDAHO DEQ
Boise Regional Office
Date: 9/22/2014



KELLER
associates

Keller Associates
131 SW 5th Avenue, Suite A
Meridian, Idaho 83642

213051/3/13-345



Signed by:
James Bledsoe, P.E.
Project Manager

Table 5.4: Water Demand Forecast

	Population	Jobs	ADD (gpm)					MDD (gpm)						
			Zone 1	Zone 2	Zone 3	Zone 4 ^a	Total	Zone 1	Zone 2	Zone 3	Zone 4 ^a	Total	Zone 1	Zone 2
2012 Design	82,160	30,893	0	4,148	792	24	4,964	0	6,886	1,314	40.4	8,240	0	8,95
2020^b	92,334	37,390	155	4,901	1,459	31	6,545	257	8,135	2,422	51.6	10,865	334	10,5
2025	101,727	42,630	164	5,293	1,646	38	7,142	273	8,787	2,733	63.1	11,856	355	11,4
2030	113,393	48,457	177	5,754	1,877	47	7,855	293	9,551	3,116	77.9	13,039	381	12,4
2035	128,574	54,758	191	6,328	2,154	56	8,729	317	10,505	3,575	93.0	14,490	412	13,6
2040	137,810	61,712	200	6,727	2,400	64	9,390	331	11,167	3,984	105.8	15,588	431	14,5
Buildout	397,474	231,099	363	16,850	9,005	688	26,907	603	27,971	14,948	1,143	44,665	784	36,3

^aZone 4 includes only the area directly serviced by Belmont

New Residential ADD = 58 gpcd (includes 7% waterloss)

MDD/AC

^bAdded two new 450 gpm industrial demands for 2020

New Commercial ADD = 60 gpjd (includes 7% waterloss)

PHD/MC

Attachment B

Keller Associates – Irrigation Master Plan (Excerpt: Demand Forecast)

City of Nampa, Idaho



Irrigation Master Plan



KELLER
associates

May 2014 – Final





Irrigation Master Plan



KELLER
associates

Keller Associates
131 SW 5th Avenue, Suite A
Meridian, Idaho 83642

213051/4/14-110



Signed by:
James Bledsoe, P.E.
Project Manager

5.5 DISTRIBUTION OF DEMANDS

The City of Nampa's GIS system includes a database of lands that are irrigated with the City's pressure irrigation system. Figure 3 in Appendix A illustrates the location and distribution of these parcels. According to City GIS staff, approximately 95% of the parcels receiving pressure irrigation service are accounted for in the GIS. Existing demands were distributed to these parcels based on the assumptions in Table 5.3. The shading in each parcel showing in Figure 3 reflects the portion of land that is irrigable. For developed commercial areas, the portion is small, while larger residential developments and large green spaces are much higher.

5.6 WATER DEMAND FORECAST

Demands were forecasted using available Compass data. Populations, numbers of housing units, and the number of jobs per acre were determined using Compass projections for TAZs in the planning area, and are summarized in Table 5.4. These projected Compass values were then joined with City future land development plans to assign jobs to commercial areas and housing units and populations to residential zones. Irrigated acreage was estimated for each TAZ. Current demands were based on production and irrigated acreage, while future demands developed irrigated acreage based on increases in population and jobs.

Table 5.4: Demand Forecast

Year	Population	Jobs	Irrigated Acres	Average Season Demand (gpm)	Max Month (gpm)	Max Week (gpm)	Max Day (gpm)	Max Hour (gpm)
Current	82,160	30,893	4,225	30,675	43,884	47,322	51,929	69,480
2020	92,334	37,390	4,877	35,409	50,657	54,625	59,943	80,202
2025	101,727	42,630	5,288	38,394	54,927	59,230	64,996	86,963
2030	113,393	48,457	5,740	41,674	59,619	64,290	70,549	94,393
2035	128,574	54,758	6,289	45,666	65,330	70,449	77,307	103,435
2040	137,810	61,712	6,970	50,600	72,389	78,060	85,660	114,610
Buildout	397,474	231,099	19,494	141,525	202,468	218,329	239,585	320,557

Attachment C

Table of Municipal Water Rights - Potable and Irrigation Systems (Including only decreed and licensed rights within the City's integrated municipal delivery systems)

City of Nampa
Summary of Current Water Rights

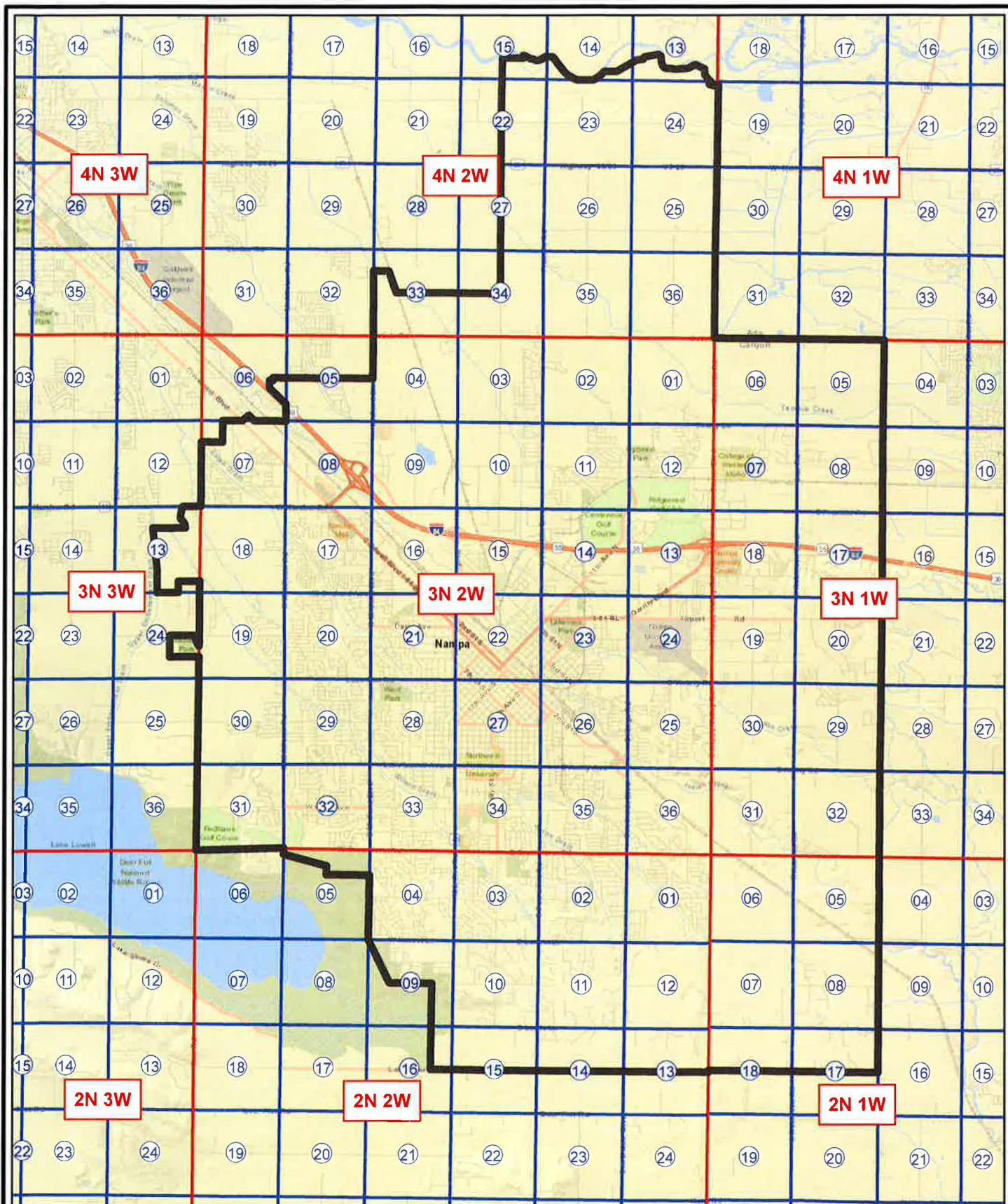
Water Right No.	Original Well	Authorized Diversion Rate (cfs)
63-02449	Mayor's	0.80
63-02450	Near Mayor's Well	1.00
63-02484	6th Street South	1.62
63-2779	3	2.00
63-02780	Lakeview	2.50
63-2781	4	3.00
63-2787	5th & Phyliss	30.00
	Kohler (aka Cemetery)	
	Sugar St. (aka E. Powerline)	
	19th Ave North	
	15th Ave North	
	14th Ave North/1st St.	
	Indian Creek	
	Meyer	
	Chestnut	
	Kurtz	
	Maple	
	Holly	
	Fern	
	19th South*	
	14th South	
	High St.	
	Hudson	
	4th St. South	
63-02943	Canyon	1.74
63-03257	Sierra Park	0.58
63-05257	13th Ave North	0.30
63-5258	6	2.10
63-07003	Birds Eye*	7.68
63-7567	8	2.79
63-07708	State Street	0.40
63-08312	Morgan	0.50

City of Nampa
Summary of Current Water Rights

Water Right No.	Original Well	Authorized Diversion Rate (cfs)
63-8324	9	3.00
63-08539	Midway Park	0.78
63-9180	10	4.00
63-09853	Grange Park	1.00
63-09889	Colorado	1.50
63-10211	Meadowbrook 1	7.71
	Boone Ave.	
	Venice	
	West Park	
	Sweetwood Circle	
	Winther Ave.	
	Young Ave.	
	Juniper Square	
63-10212	7	2.23
63-10319	Centennial golf course	2.05
63-11511	Karcher II	1.50
63-11729	12	2.68
63-11894	Augusta	0.51
63-12322	Pheasant Hollow	0.84
63-12463	17	3.00
63-12474	11	3.50
63-12506	15	3.50
63-12543	16	4.00
63-12591	14	3.50
63-28219	1,2	1.22
63-28220	5	1.93
63-31243	18	2.60
63-31504	Amity Ave.	3.73
63-31598	Karcher Interchange	0.20
63-31949	Vista Ridge	3.40
63-31961	Farm & City	1.46
63-32179	Farm & City	0.24
63-32337	Happy Valley	5.00
63-33022	16	4.50
AUTHORIZED DIVERSION RATE TOTAL		126.59

Attachment D

Future Service Area Description (Area of City Impact Map and Ordinance No. 4278_



Service Area Boundary

City of Nampa Municipal Service Area
 (as updated September 6, 2016
 by Ordinance No. 4278)



1

Miles



SPF WATER
 ENGINEERING



**Canyon County
Recorder's Office
Document
Cover Sheet**



2016-037131

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CHRIS YAMAMOTO

CANYON COUNTY RECORDER

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ORDINANCE

NAMPA PLANNING & ZONING

**ORDINANCES OF THE CITY OF NAMPA
NOTICE OF ADOPTION AND SUMMARY OF
ORDINANCE NO. 4278**

AN ORDINANCE ENACTED BY THE NAMPA CITY COUNCIL AMENDING THE CITY OF NAMPA AREA OF CITY IMPACT BOUNDARY, REQUIRING ORDINANCE AND BOUNDARY MAP TO BE FILED IN THE OFFICE OF THE CITY CLERK; PROVIDING FOR AN EFFECTIVE DATE; PROVIDING FOR SEVERABILITY; AND REPEALING ALL ORDINANCES, RESOLUTIONS, ORDERS AND PARTS THEREOF, IN CONFLICT HERewith.

Section 1: Amends the Area of City Impact Map, with an exhibit that shows the new boundary.

Sections 2 through 5: Provides that the City Clerk shall keep the original ordinance and copy of the map on file; the ordinance shall be in full force and effect from and after its passage, approval and publication according to law; provides for severability; repeals conflicting ordinances, resolutions, and orders.

Ordinance No. 4278 provides an effective date, which shall be on the 13th day of September, 2016. Ordinance No. 4278 was passed by the Council and approved by the Mayor on the 6th day of September. The full text of the ordinance is available at Nampa City Hall, 411 Third Street South, Nampa, Idaho 83651. The Mayor and City Council approved the foregoing summary on this 6th day of September, 2016, for publication on this 13th day of September, 2016 pursuant to Idaho Code § 50-901A.



Mayor Robert L. Henry

Attest:

Deborah Bishop, City Clerk

STATEMENT OF LEGAL ADVISOR

I have reviewed the foregoing summary and believe that it provides a true and complete summary of Ordinance No. 4278 and provides adequate notice to the public as to the contents of such ordinance.

DATED this 6th day of September, 2016.

Mark Hilty, Attorney for City of Nampa

ORDINANCE NO. 4278

AN ORDINANCE ADOPTING THE AREA OF IMPACT MAP PURSUANT TO IDAHO CODE SECTION 67-6526; REPEALING ALL ORDINANCES, RESOLUTIONS, ORDERS, AND PARTS THEREOF IN CONFLICT HEREWITH.

WHEREAS, the Nampa Planning & Zoning Commission held a public hearing on March 22, 2016 concerning the adoption of an amended Area of City Impact Map and recommended to the Mayor and City Council that the City of Nampa adopt an amended map; and

WHEREAS, the Canyon County Planning and Zoning Commission held a public hearing on April 21, 2016 concerning the adoption of an amended Area of City Impact Map and recommended that the Canyon County Board of Commissioners adopt an amended Area of City Impact map for Nampa; and

WHEREAS, the Nampa City Council held public hearings on May 16, 2016 and July 18, 2016 concerning the adoption of an amended Area of City Impact Map and considered the recommendation of the Planning and Zoning Commission and public comment as was presented; and

WHEREAS, the Canyon County Board of Commission held a public hearing on August 25, 2016 concerning the adoption of an amended Area of City Impact Map and considered the recommendation of the Planning and Zoning Commission and City Council and public comment as was presented.

NOW THEREFORE, BE IT ORDAINED by the Mayor and City Council of the City of Nampa, Idaho:

Section 1: That the Nampa City Area of City Impact Map attached hereto as Exhibit "A" and incorporated herein by this reference as set forth in full, is hereby adopted and approved pursuant to Idaho Code § 67-6526.

Section 2: The City Clerk shall keep the original of the Ordinance with a copy of the map attached on file in the office of the City Clerk.

Section 3: This ordinance shall be in full force and effect from and after its passage, approval, and publication, according to law.

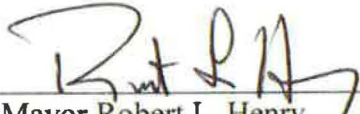
Section 4: This ordinance is hereby declared to be severable. If any portion of this ordinance is declared invalid by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect and shall be read to carry out the purposes of the ordinance before the declaration of partial invalidity.

Section 5: All ordinances, resolutions, orders and parts thereof in conflict herewith are repealed.

PASSED BY THE COUNCIL OF THE CITY OF NAMPA, IDAHO, THIS 6TH DAY OF SEPTEMBER, 2016.

APPROVED BY THE MAYOR OF THE CITY OF NAMPA, IDAHO, THIS 6TH DAY OF SEPTEMBER, 2016.

Approved:



Mayor Robert L. Henry

Attest:



City Clerk (or Deputy)

State of Idaho)

Canyon County)

On this 6th day of September, 2016, before me, the undersigned, a Notary Public in and for said State, personally appeared Robert L. Henry and Deborah L. Bishop known to be the Mayor and City Clerk of the City of Nampa, Idaho, a municipal corporation, who executed the foregoing instrument.

In Witness Whereof, I have hereunto set my hand and affixed by official seal, the day and year in this certificate first above written.

Patricia Rose

Patricia Rose

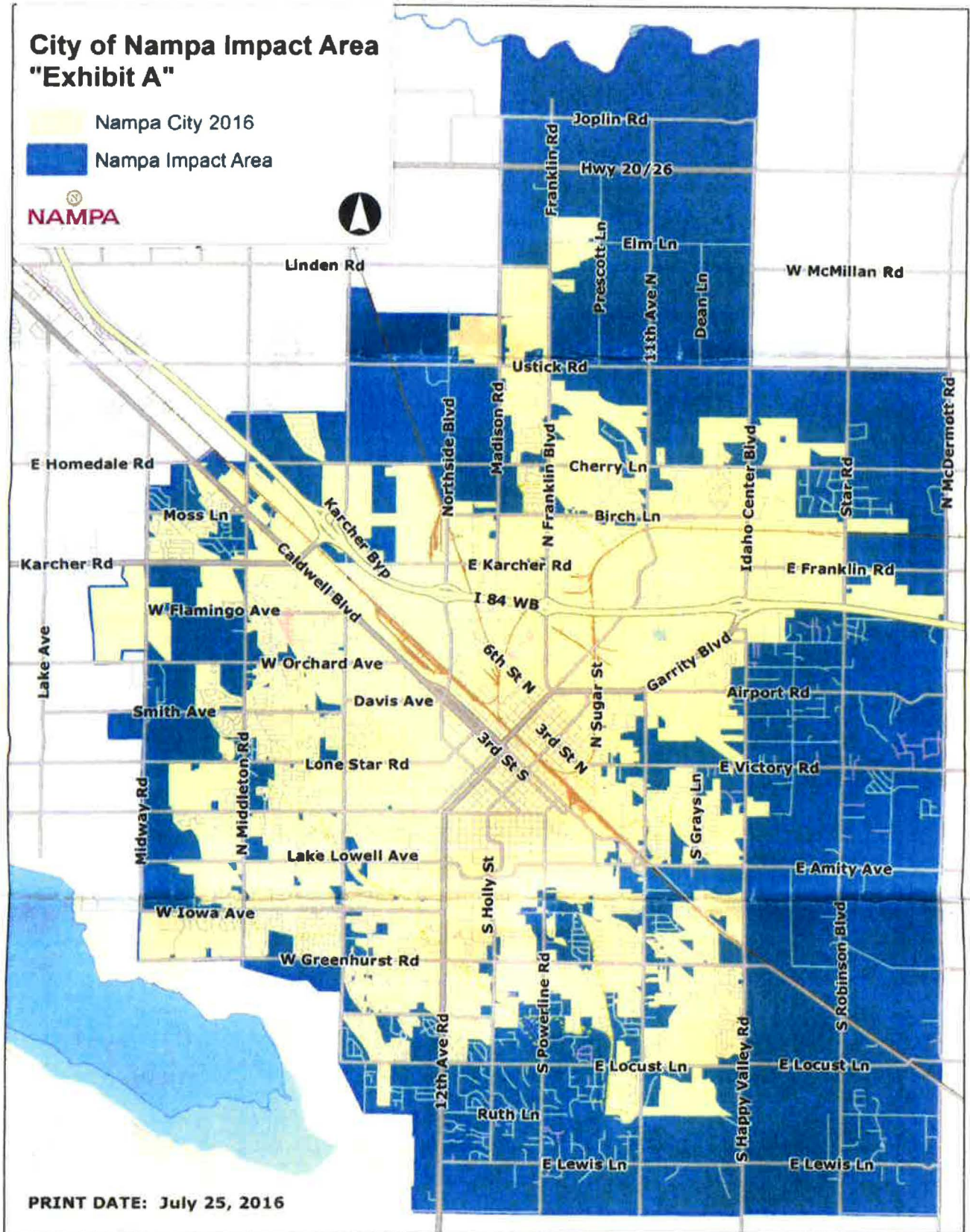
Residing at: Nampa, Canyon County, Idaho

My Commission Expires: 09/01/2022



City of Nampa Impact Area "Exhibit A"

Nampa City 2016
 Nampa Impact Area



PRINT DATE: July 25, 2016

Attachment E

Beneficial Use Field Report