



City of Lake Forest Park  
17425 Ballinger Way NE  
Lake Forest Park, WA 98155  
206-368-5440

FOR STAFF USE ONLY	
Application Number:	<u>2015-PAUE-0001</u>
Amount Received:	_____
Receipt Number:	_____

**PUBLIC AGENCY AND UTILITY EXCEPTION APPLICATION**

Owner of Record: LAKE FOREST PARK WATER DISTRICT

Site Address: 18460 47th Ave. NE

Contact Name: Alan Kerley, Manager Contact Phone Number: 206-365-3211

Representative's Name: Dan Mundall, PE MUNDALL ENGINEERING // Box 799, Sumas, Wa 98295

Representative's Phone Number 360-319-1285 Alternate: \_\_\_\_\_

Parcel Number(s): KC#401990-0176

**FEES MUST BE PAID AT TIME OF APPLICATION**

<input checked="" type="checkbox"/>	Reasonable Economic Use Exception Request	\$ 4,000.00
<input type="checkbox"/>	Drainage review fee (as needed)	500.00 per lot
<input checked="" type="checkbox"/>	Land Use Public Notice Signage Fee	200.00 / \$25 if add'l posting
	+ 5% Tech fee	
	<b>Total Due:</b>	<u>210.00 \$ 4,410.00</u>

The applicant may be responsible for additional fees related to engineering and legal expenses:

Zoning classification: Residential RS10,000

Is the site near the shoreline (within 200 feet): NO

Comprehensive Plan designation: \_\_\_\_\_

Circle known utilities / services to the site: (gas, electric, water, sewer, cable, garbage, phone, other)  Internet

RECEIVED

DEC 04 2015

Please provide the requested information: (see attached notes)

(Attach additional sheets if necessary)

1. Can you demonstrate that there is no other practical alternative to the proposed development with less impact on the sensitive areas?

Briefly describe here: - The proposed development is the only practical alternative for this facility. Other sites were looked at (see attached notes) but these are found unsuitable for various reasons including: elevation of the pumps (must be below reservoir), excessive noise, no open exit creating "confined space" work zone.

2. What are the known environmentally sensitive areas on or near the site, such as steep slopes, wetlands or streams?

- McKinnon Creek is surrounded on both sides by steep slopes and small wetland areas.
- The attached site map and stream study shows these areas and how they relate to the proposed project.
- There is a steep slope of 24 feet total vertical drop immediately west of the proposed pumphouse.
- The nearest wetland is over 60 feet west of the proposed pumphouse.
- There are also some areas of steep slope along the route of proposed utility piping (see map)

3. Describe the nature of the public agency and utility use exception request. What is proposed? What is the extent of the reasonable economic use exception? Does the proposal impact the sensitive area(s) and/or the associated buffer(s)? Indicate as much specific information as possible. \*\*\*Please see attached notes for a more descriptive answer to the above\*\*\*

- Lake Forest Park Water District is a special purpose government utility that is chartered by the State of Wash. Our proposal is to construct a pumphouse on a developed lot that is zoned residential RS10,000.
- Please see the site plan attached with these documents for a description of the entire project.
- We are re-locating our McKinnon Creek pumping station which pumps water from our wells to the distribution system. The new facility will be concrete and masonry construction with metal roof and will measure up to 24x32 feet.
- Pumps will be located in the daylight basement pipe gallery with a control room and small office upstairs.
- The proposed building will be built at the crown of a steep slope of 24 feet total drop. From the daylight basement the steep slope drops 10 feet with a more gradual slope below that to McKinnon Creek about 135 feet west.

4. What is the proposal's intended outcome?

- This project will replace our aging wood pumphouse that is surrounded by wetland on a steep slope near McKinnon Creek
- Associated with the new pumphouse is the construction of over 2000 feet of buried HDPE water transmission main which varies in size from 4" to 12" along with 2" PVC electrical and comm. ducting and a 20'x40' storage shed.
- Our objective is a water supply system that is safer, quieter and with adequate valves & controls that provide for normal operation as well as emergency conditions.
- In addition we are provisioning the new pumphouse with support for iron/manganese removal and ozone or UV disinfection as these may be required to meet regulatory requirements in the future.

5. Describe the mitigation measures associated with this proposal.

- Noise mitigation: we will be installing the pumps in an underground concrete gallery to abate noise from the 25hp pumps. The facility will generate significantly lower levels of noise. Noise levels from the existing pumps were measured at 25ft (adjacent property line). Levels ranged from 46 - 53dBA (1pump-2pumps). Noise will reduce to 40dBA or below with the proposed facility.
- NOTE: L FPMC 8 24 050 limits noise generating equipment to 55dBA (day) and 45dBA (night) at the nearest property line.
- Steep slope near the proposed pumphouse is up to 24 feet vertical but is not considered a risk. (see attached rpt. by Robinson Noble).

6. Identify and list any special studies that have been performed to evaluate your proposal, such as a wetland delineation, functional assessment, biological evaluations, soils studies, geotechnical reports, habitat assessments, vegetation and tree management/preservation plans, mitigation plans, etc. Provide the title of the study or plan, the author and the date prepared. - Geotechnical report by PanGeo Inc., April 14, 2014

Reference study from another project:

- Stream and Wetland Delineation Study by The Watershed Company, Sept. 25, 2013

- Wetland Delineation by Watershed Company, Nov. 3, 2015

7. The applicant must provide the following submittal requirements. **It is important to note: It is the responsibility of the applicant to prove that all criteria are met in order for the Hearing Examiner to consider approval of the application.**

A. A site-plan that must be accurate, legible and drawn to scale (a recent survey may be required) that provides the following:

1. The existing dimensions and lot size, proposed dimensions and lot size.
2. Identify adjacent streets, existing and proposed access.
3. Identify existing and proposed structures and distances to property lines.
4. Location of proposed alterations or improvements.
5. Location of any sensitive areas on or near the site.
6. Location of any open space or preservation areas.
7. Location of any significant trees (6" diameter or greater)
8. If possible, locate drainage channels, sewer and water lines.
9. Identify existing and proposed easements.
10. Elevation plans, if applicable.

B. Preliminary Drainage Plan (required for some proposals) prepared by a professional engineer licensed in the State of Washington. Drainage requirements, systems and techniques must comply with the King County Surface Water Design Manual, as adopted by the City of Lake Forest Park

C. When the application of the sensitive areas requirements would preclude an owner from making any reasonable economic use of the owner's property, then an exception may be applied for. The Hearing Examiner may grant an exception from the requirements of Chapter 16.16 of the Lake Forest Park Municipal Code only to the minimum necessary extent to allow for reasonable economic use of the applicant's property. The Hearing Examiner may not exempt regional retention/detention surface water management facilities from stream buffer or wetland buffer requirements of Chapter 16.16 of the Lake Forest Park Municipal Code, whenever those buffers provide critical or outstanding habitat for herons, raptors or state, federal or locally designated endangered or threatened species, unless the applicant clearly establishes that the facility will protect the public health and safety and either will repair damaged natural resources or will not adversely affect such critical or outstanding habitat. All of the following criteria must be met before a reasonable use exception may be granted.

**Applications must include a thorough response to the following criteria:**

1. There is no other practical alternative to the proposed development with less impact on the sensitive areas;
2. The application of this chapter would unreasonably restrict the ability to provide utility services to the public;
3. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
4. The proposal attempts to protect and mitigate impacts to the sensitive area functions and values consistent with the best available science with the objective of no net loss of critical area functions and values; and
5. The proposal is consistent with other applicable regulations and standards.

**8. Release / Hold Harmless Agreement**

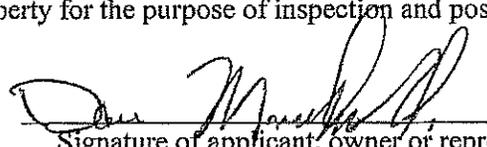
I, the undersigned, his/her heirs and assigns, in consideration for City processing the application agrees to release, indemnify, defend and hold the City of Lake Forest Park harmless from any and all damages and/or claims for damages, including reasonable attorneys fees, arising from any action or inaction as based in whole or in part upon false, misleading or incomplete information furnished by the applicant, his agents or employees.

The undersigned acknowledges that this application is for a permit from the City of Lake Forest Park; that any permit issued by the City as a result of this application establishes only that the applicant's project complies with City ordinances and regulations; and that other State and Federal laws and regulations, particularly the Endangered Species Act, U.S.C. 16.31, et. seq., may apply to this project. The undersigned further acknowledges and accepts responsibility for complying with such other laws and regulations and agrees to release the City of Lake Forest Park, indemnify and defend it from any claim, damages, injuries, or judgments, including reasonable attorney's fees, arising from or related to violations of such other laws or regulations.

**9. Permission to enter subject property**

I, the undersigned, grant his/her or its permission for public officials and staff of the City of Lake Forest Park to enter the subject property for the purpose of inspection and posting attendant to this application.

MAR. 11, 2016  
Date

 P.E.  
Signature of applicant, owner or representative

Complete applications must be submitted to the City of Lake Forest Park Planning and Building Department, 17425 Ballinger Way NE, Lake Forest Park, WA 98155.

**NOTES IN SUPPORT OF PUBLIC AGENCY UTILITY EXCEPTION:**

**McKinnon Creek Pumphouse**

Lake Forest Park Water District  
February 18, 2015 ed. 11/27/2015

***Background and Introduction***

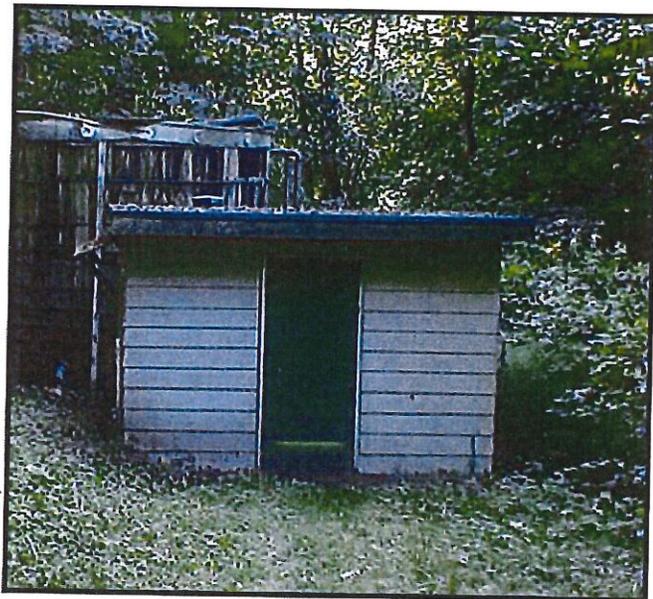
Lake Forest Park Water District is one of four utilities serving residents of Lake Forest Park with drinking water. The District has deep wells and artesian spring sources located in a 12 acre forested property it owns along McKinnon Creek in the vicinity of 49<sup>th</sup> Place and 187<sup>th</sup> Street. In addition to 4 deep wells and 8 shallow artesian wells the McKinnon Creek well field has 3 distribution reservoirs, metering vaults, standby chlorination facility and a pumphouse where well pumping is controlled and monitored and where water is boosted to a higher zone reservoir for distribution to customers in elevated areas.

Over many decades the District has developed considerable water supply infrastructure on a piece meal basis. In the last Comprehensive Water System Plan (CWSP 2005) the District recognized its need for systematic planning in the McKinnon Creek water supply system to correct a century of incremental and remedial infrastructure developments which together increase the risk of catastrophic system failure.

The District Comprehensive Water System Plan 2005 called for a new concrete pumphouse to replace the failing wood structure that was constructed in the 1940's. The new facility is needed to consolidate pumping and control functions and also provide space for equipment to remove iron, manganese and arsenic. The existing pumphouse is located in a vacated right-of-way on the east bank of McKinnon Creek and is unsuitable for the proposed facility because:

- It is located on steep embankment and lacks space to accommodate the proposed facility
- It is located in a wetland
- It is located less than 15 feet from McKinnon Creek and creates erosion and flooding risk
- It is located in a vacated right-of-way that has unresolved issues regarding ownership

Another site (near deep well #3) was considered by the District in a 2001 feasibility study but this site was also found to be in a wetland and has drainage issues, making it undesirable for the pumphouse.



**Figure 1 - Existing Pumphouse near McKinnon Cr.**

After failing to locate a suitable site for a new pumphouse on its own land the District was able to purchase a residential lot on the south border of the McKinnon Creek wellfield. This site (#18460 47<sup>th</sup> PL NE) previously had a single family dwelling which had been razed to construct a new home. The site has excellent drainage, sufficient space and immediate proximity to District facilities so water pipes, electrical cables and communications cables can be extended easily. In addition, the proposed pumphouse location is critical in allowing a structured layout of underground utilities.

The following sections describe the proposed pumphouse as it relates to the provisions of LFPMC 16.16.

**1. No Other Practical Alternative with less impact on sensitive areas**

Alternative sites for a new pumphouse in the District’s 12.6 acre McKinnon Creek wellfield property were examined before the District was able to purchase #18460 47<sup>th</sup> Place – a residential lot zoned RS-10. The table below briefly compares impacts to sensitive areas at the proposed site “A” and an alternative site “B” that was considered at #18460 47<sup>th</sup> Place. The attached site map and photos illustrate these options:

Site	Site	Sensitive Area Issues	Other Issues
18460 47 <sup>th</sup> Place (Primary location on crown of slope)	A	<p><b>Steep Slope:</b> Pumphouse is proposed near the crown of a steep slope which has total drop of 24 ft over 53 ft (45% average slope.) The concrete daylight basement of the pumphouse would be 10-12 feet below the crown of slope and a concrete cistern would be 8 feet below the level of the basement floor along west side of pumphouse. (see attached profile) LFPMC requires 25 ft buffer + 15 ft setback from steep slopes.</p> <p><b>Wetland:</b> Proposed pumphouse and cistern is about 60 ft east of a category 2 wetland near McKinnon Cr. LFPMC requires 100 ft buffer from this class of wetlands.</p>	Requires removal of 2 trees on steep slope.
18460 47 <sup>th</sup> Place Alternate location near far east side of level building pad.	B	<p><b>Steep Slope:</b> Building is still less than LFPMC required 25 foot buffer + 15 foot setback from steep slope.</p> <p><b>Wetland:</b> Building and concrete cistern would be partially within buffer zone of category 2 wetland near McKinnon Cr.</p>	<ul style="list-style-type: none"> <li>- Insufficient setback for sensitive noise receptors. 15ft to adjacent property line increases noise more than 10 dB(A) and could exceed allowed noise per LFPMC 8.24.050.</li> <li>- still infringes on 25 foot buffer + 15 foot setback from steep slope as called for by LFPMC Sec. 16.16</li> </ul>

**Table 1 – Proposed and Alternative Pumphouse site impacts**

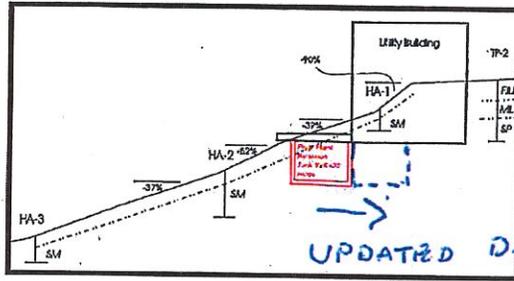


Table 3 Profile Sketch of Proposed Pumphouse and **Holding Cistern (red)**

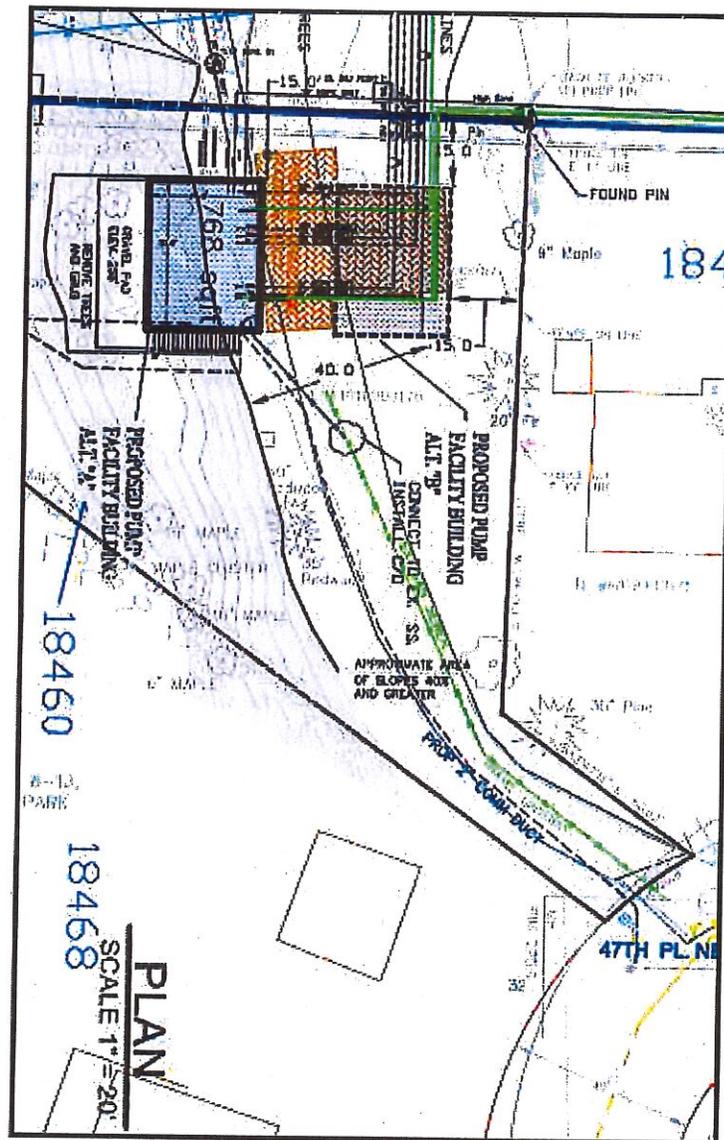


Table 2 Site Plan Showing Proposed Pumphouse Facility and Alt. B (dashed line) oriented to match profile

**2. Application of LFPMC Chapter 16.16 Would Unreasonably Restrict the Ability to Provide Utility Services to the Public**

Historically the 18460 47<sup>th</sup> Ave. lot had supported a 1,120 sq-ft residence. However LFPMC 16.16 does not allow the District to construct a 768 sq-ft (24 x 32ft) water pumphouse (needed to supply community water); and in fact will only allow a building of 200sq-ft or less. This unreasonably restricts the ability of the District to provide utility services to the public.

Alternate site layout "B" was examined for the proposed pumphouse in a best attempt to comply with LFPMC 16.16 (Item #1 above, see map) but the alternate site layout still fails to comply with municipal code and also unreasonably restricts our ability to provide utility services to the public as outlined here:

- a) *alternate site layout "B" may cause excessive noise to a sensitive receptor (adjacent resident) because the pumphouse would be only 15 feet from the nearest property boundary and pumphouse noise levels at the property line would be more than 10 dB(A) higher (more than double in magnitude) compared with layout "A". This could create issues with the adjacent residents and is undesirable.*
- b) *alternate site layout "B" will not allow pump and pipe gallery to have open exit to daylight and would create a "confined space" designation resulting in hazard to operators. This would restrict maintenance functions, impairing the operation of the facility.*
- c) *alternate site layout "B" requires costly relocation of overhead 3-phase electrical power line in order to allow drive-thru access to the site which is essential for utility operations.*

**3. This Proposal Does Not Pose an Unreasonable Threat to the Public Health, Safety, or Welfare on or off the development proposal site.**

A geotechnical study was completed by Robinson Noble Saltbush and is attached. This study concluded: *"It is our opinion that the site is compatible with the planned improvements. We do not anticipate that the planned McKinnon Creek Pumphouse will have adverse impacts on the slope stability"*

**4. This Proposal Attempts to Protect and Mitigate Impacts to the Sensitive Area Functions**

Several considerations will be made in an attempt to protect and mitigate impacts to the sensitive area functions of the site including:

- a) Re-plant four (4) native species trees in the steep slope to replace one (1) 12" tree that will be removed.
- b) Proposed building site (layout A) will enhance slope stability. A geotechnical information report concluded:
  - "It is our opinion that the site is compatible with the planned improvements. We do not anticipate that the planned McKinnon Creek Pumphouse will have adverse impacts on the slope stability of the top portion of the slope..."
- c) Invasive species including English Ivy will be removed from the steep slope area west of the building and replaced with native species which have proven effectiveness for erosion control.

**5. This Proposal is Consistent with other applicable regulations and standards**

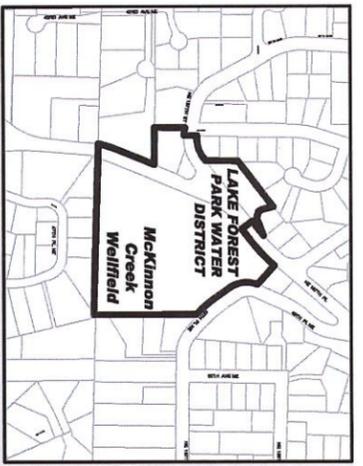
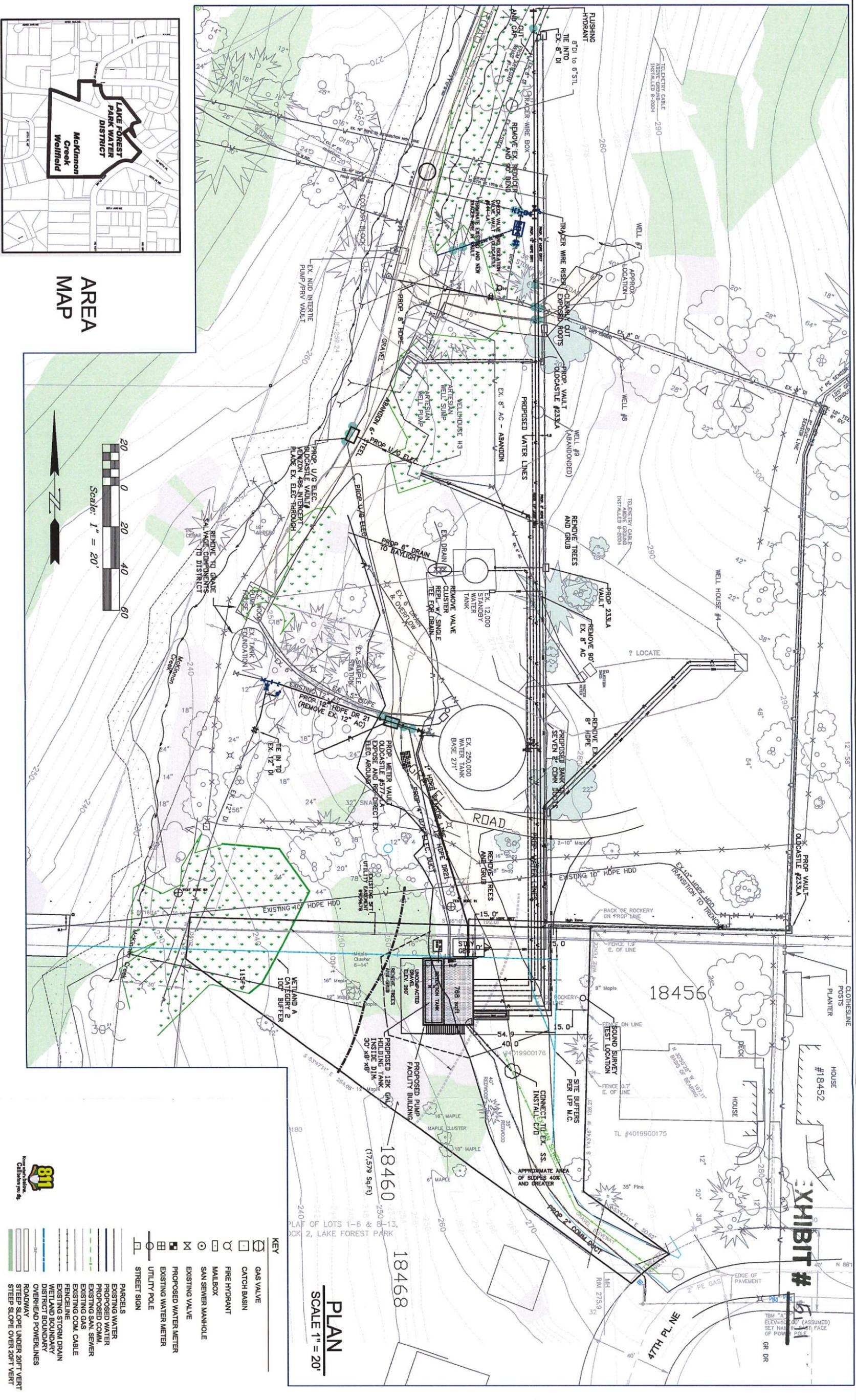
The proposed site meets other regulations and standards including:

- a) it is outside the Sanitary Zone of community wells (as recognized by Washington Dept. Health) so as to minimize possibility of contamination. The proposed site meets these needs.
- b) it is not located in a wetland and minimizes impact to recognized wetlands.
- c) it complies with LFPMC 18.22 requirements for setback.
- d) It will comply with LFPMC 8.24.050 regulation for noise

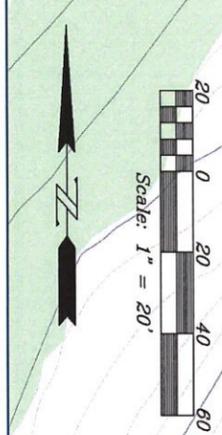


EXHIBIT # 5.10





AREA  
MAP



**KEY**

	GAS VALVE
	CATCH BASIN
	FIRE HYDRANT
	MAILBOX
	SAN SEWER MANHOLE
	EXISTING VALVE
	PROPOSED WATER METER
	EXISTING WATER METER
	UTILITY POLE
	STREET SIGN
	PARCELS
	EXISTING WATER
	PROPOSED COMM.
	EXISTING SAN, SEWER
	EXISTING GAS, SEWER
	EXISTING COM. CABLE
	FENCING LINE
	EXISTING STORM DRAIN
	WETLAND BOUNDARY
	DISTRICT BOUNDARY
	OVERHEAD POWERLINES
	ROADWAY
	STEEP SLOPE UNDER 20% VERT
	STEEP SLOPE OVER 20% VERT

**PLAN**  
SCALE 1" = 20'

**EXHIBIT # 511**

<b>REVISIONS</b>		<b>GENERAL NOTES</b>		<b>DESIGNED BY</b>		<b>DATE</b>		<b>JOB NO.</b>	
NOV 16, 2016	PERMIT ISSUE	DATE	DATE	DM	DATE	DATE	DATE	M109-001	DATE
JUNE 23, 2016	PERMIT ISSUE	DATE	DATE	DM	DATE	DATE	DATE	M109-001	DATE
NOV 16, 2015	PERMIT ISSUE	DATE	DATE	DM	DATE	DATE	DATE	M109-001	DATE
APRIL 17, 2014	DRG#1	DATE	DATE	DM	DATE	DATE	DATE	M109-001	DATE
<b>GENERAL NOTES</b>		<b>DESIGNED BY</b>		<b>DATE</b>		<b>JOB NO.</b>		<b>DRIVING NO.</b>	
DATA: Control Data from King County Survey Control Points #22, 117 (HPGNHANN)		DM		DATE		DATE		PWTF_WB-S1	
VERTICAL DATA: Elevations are NAVD83, conversion factor for data imported from NSVD23 = 43.37		DM		DATE		DATE		PWTF_WB-S1	
DATE: 11-2016		DM		DATE		DATE		SHEET 1 OF 1	
DATE: 11-2016		DM		DATE		DATE		SHEET 1 OF 1	

**MUNDALL ENGINEERING & CONSULTING**

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Professional Engineer License # 40233



**LAKE FOREST PARK WATER DISTRICT**  
PWTF 2013  
McKinnon Creek Pump Facility Building and Utilities  
14400 47th Pl. NE