



**CITY AUDITOR** 345 6<sup>th</sup> Street, Suite 600, Bremerton, WA 98337-1873 & Phone (360) 473-5369

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September 12, 2017

To: Audit Committee Members

Pat Sullivan, Audit Committee Chair and Council Member  
Deborah McDaniel, Audit Committee Vice-Chair  
Leslie Daus, Audit Committee Member and Council Member  
Anthony Hillman, CPA, Audit Committee Member  
Dennis Treger, CPA, Audit Committee Member

**Re: “Sergeant Ged W. Honsowetz Police Firearm Training Facility”**

Dear Audit Committee Members:

At your request and based on information reviewed to date, I am submitting my findings regarding the “Sergeant Ged W. Honsowetz Police Firearm Training Facility” (“Firing Range”) review. The purpose of this report is to provide Firing Range background information and information that may be used to assess the reasonableness of operating a firing range in close proximity to two City of Bremerton’s (“City”) wellheads.

My work included the consideration and/or analysis of certain records including:

1. [Contracts between the Bremerton Police Department and various law enforcement agencies for use of the Firing Range \(example attached as Exhibit C\);](#)
2. [July 17, 2015 contract between the City and KEMRON Environmental Services;](#)
3. [December 2016 “Feasibility Study for Bremerton Small Arms Range”, prepared by Kemron Environmental Services, Inc.;](#)
4. [“Environmental Stewardship Plan \[for the\] City of Bremerton Police Department Small Arms Firing Range”, last updated September 2015;](#)
5. [June 2005 United States Environmental Protection Agency \(“EPA”\) manual titled, “Best Management Practices for Lead at Outdoor Shooting Ranges” \(“BMP Manual”, 103 pages\);](#)
6. [March 13, 1997 letter from Jeff Hannapel of the USEPA Office of Solid Waste re: regulatory status of lead shot;](#)
7. [September 6, 1988 letter from Sylvia Lowrance of the USEPA Office of Solid Waste re: the applicability of Resource Conservation and Recovery Act \(RCRA\) regulations to shooting ranges;](#)
8. [November 2012 National Institute for Occupational Safety and Health \(NIOSH\) publication, “Reducing Exposure to Lead and Noise at Outdoor Firing Ranges”;](#)



9. [February 2005 Technical Guideline titled, "Environmental Management at Operating Outdoor Small Arms Firing Ranges", prepared by The Interstate Technology & Regulatory Council Small Arms Firing Range Team \("ITRC Guideline", 125 pages\);](#)
10. [City of Bremerton Scope of Work for the Small Arms Firing Range and associated aerial map \(attached as Exhibit A\);](#)
11. [August 2, 2017 Kemron cost proposal for the modified cleanup of the Firing Range \(attached as Exhibit B\);](#)
12. [City of Bremerton Firing Range expenditure reports \(FinancePlus\) from 2014 through 2016;](#)
13. [City of Bremerton Firing Range revenue reports \(FinancePlus\) from 2014 through 2016;](#)
14. ["Interlocal Lease Agreement between the Bremerton Department of Public Works & Utilities and the Bremerton Police Department", from June 1, 1999 through June 30, 2009;](#)
15. [Draft/Unexecuted "Interlocal Lease Agreement between the Bremerton Department of Public Works & Utilities and the Bremerton Police Department", from an unspecified date in 2010 through an unspecified date in 2020;](#) and
16. Brownfield Funding research.

Additionally, I visited the Firing Range and discussed its background with the following individuals:

Captain Tom Wolfe, Bremerton Police Department  
Lieutenant Mike Davis, Bremerton Police Department  
Kathleen Cahall, Bremerton Water Resources Manager

### **DISCLAIMER**

The environmental narrative in this report is very limited and intended to only provide general information about some environmental issues associated with outdoor shooting ranges. For a more in-depth understanding of potential environmental issues and laws, it may be appropriate to refer to the above-cited source documents and/or consult an environmental expert or attorney.

### **FIRING RANGE BACKGROUND**

The Bremerton Police Department ("BPD") leases from Bremerton Public Works ("BPW") approximately three acres to use as a firing range. The Firing Range is on land owned by the Bremerton Water Utility near two active wellheads but it is not in the highly protected Union River Watershed that provides 60 percent of Bremerton's fresh water supply. The Firing Range has been in consistent use for over 50 years, since approximately the mid-1960s. The wellheads were installed in the 1980s.

The Firing Range currently has two training areas: a 50-yard pistol range and a 100-yard rifle range<sup>1</sup>. Officers can bring their vehicles on the range and practice various maneuvers. Bremerton police officers would likely have to travel to Shelton or Tacoma for firearms training if the City did not have its own firing range. BPD is scheduled for firearms training twice a month most of the year.

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<sup>1</sup> A third range area used for shotgun firing was recently closed due to its proximity to a BPW wellhead.



Terms for use of the range property were specified in a 1999 interlocal lease agreement between BPW and BPD ("1999 lease agreement"), which expired in 2009. The 1999 lease agreement provides that BPD can use the premises "for the purpose of operating and maintaining a firing range for police officer qualification and maintenance of proficiency in the use of various firearms." It also provides that BPD can allow other law enforcement or similar agencies to use the facility for the same purpose.

In lieu of paying rent to BPW, the 1999 lease agreement states BPD will maintain and improve the premises, including maintenance of roads, buildings, grounds and payment of utilities. BPD is also responsible for any environmental damage or costs attributable to operation of the Firing Range. BPD has continued to operate the Firing Range without a written agreement since 2009.

### **IN APPRECIATION OF SERGEANT HONSOWETZ**

Sergeant Ged W. Honsowetz was hired as a BPD Patrolman in 1965, transferred to the Detectives Division in 1969, and was promoted to Sergeant in 1971. In total, Sergeant Honsowetz served in Bremerton law enforcement for 23 years.

Sergeant Honsowetz volunteered many hours to improve firearm training of officers as well as to improve the firearms facility itself. In October 1988, Mayor Gene Lobe and the Bremerton City Council, with the encouragement of BPD Officers and Members, proclaimed the Firing Range as the "Sergeant Ged W. Honsowetz Police Firearm Training Facility" through Resolution No. 2231. Sergeant Honsowetz passed away at age 48, three months after the Firing Range was named in his honor.

### **FIRING RANGE PURPOSE**

BPD's number one responsibility is to keep Bremerton safe. BPD serves our community by enforcing the law and combatting crime. The purpose of the Firing Range is to provide law enforcement personnel a safe location for marksmanship instruction and practice, which is very important for the safety of Bremerton and other regional police officers.

### **LEAD BULLETS AND THE ENVIRONMENT**

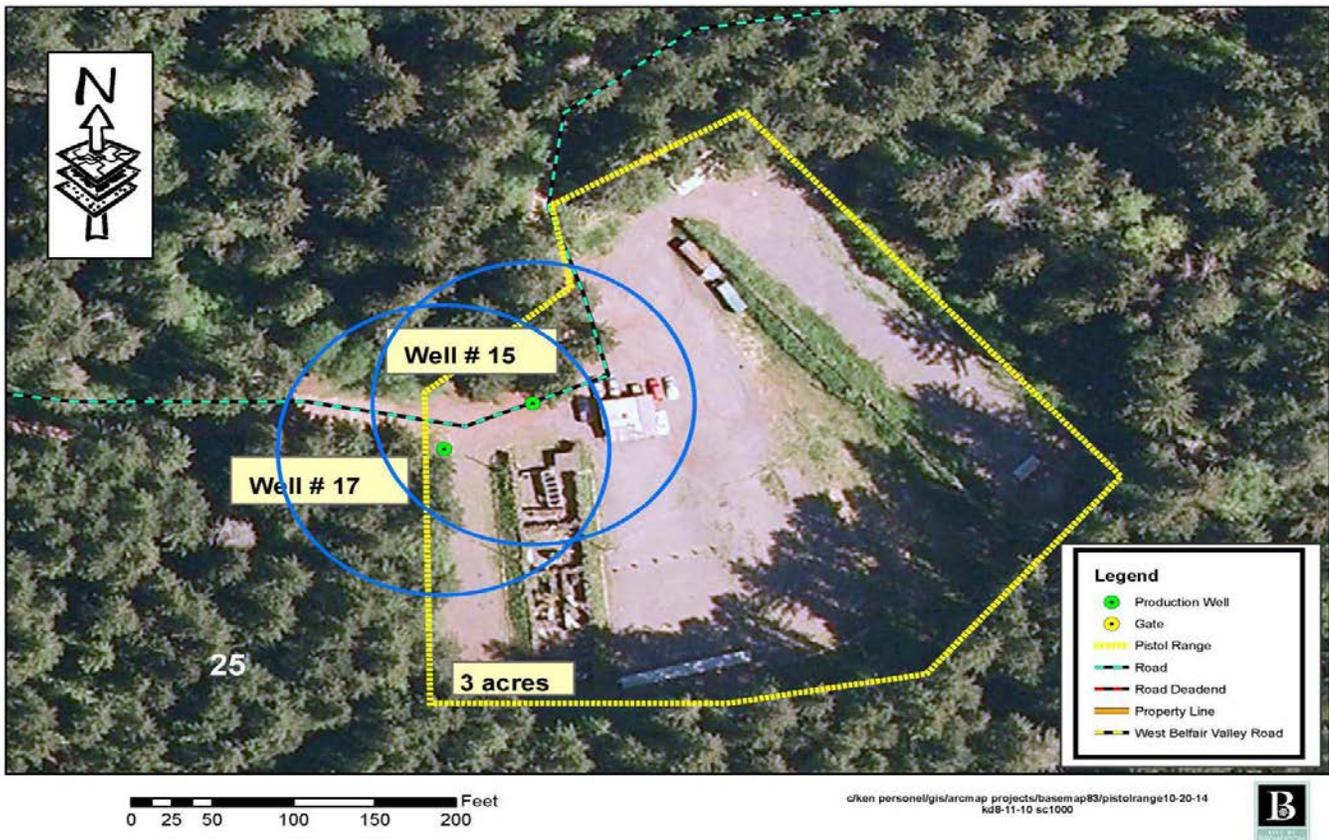
The Firing Range has some lead in the soil in the form of spent bullets and shot. Lead contaminates range soil as a result of bullet fragmentation and leaching due to weathering. Depending on circumstances, lead can reach groundwater depending on the depth of groundwater, climate, or soil chemistry; however, ongoing testing since the 1980s, and recent testing performed by a third party consultant retained by the Bremerton Water Utility ("BWU") provided evidence of lead in the surface and near surface soil but no evidence of lead reaching the groundwater at the Bremerton Firing Range.

### **FIRING RANGE DESCRIPTION**

The Firing Range is located in the Gorst Creek Watershed on land owned by the BWU. It is in a level forestry setting oriented away from residential areas and surface water bodies. It is not open to the public and is only used by trained law enforcement personnel under supervised conditions. The area is gated and posted "No Trespassing". There is a small building on site with a restroom and storage.

Below is an aerial view of the range (outlined in yellow) with Wellheads #15 and #17 clearly labelled. Additional photo details are noted below:

- The cleared vertical area on the left side of the range (near the wellheads) is the former shotgun range.
- The cleared area in the center of the range is the pistol range.
- The cleared area on the right is the rifle range.
- The direction of fire is toward the bottom of the photo (S/SE)



This photo (left) shows Wellhead #17 (on the right side of the photo) as you look down the now-closed shotgun range. At the end of the range is a dirt berm backstop backed by trees; and on the left is a dirt berm and tire barrier separating the defunct shotgun range from the pistol range.



## **CITY WATER**

The City owns and manages 3,000 acres of protected watershed surrounding the Union River Reservoir. Surface water from the Union River Reservoir is Bremerton's major source of water. The reservoir holds approximately 1.4 billion gallons<sup>2</sup> of water and provides about 60 percent of Bremerton's water supply. The remaining 40 percent of Bremerton's water supply comes from 13 deep production wells, drawing on underground water supplies throughout the Bremerton area. As previously stated, there are two water supply wells located at the Firing Range but the Range is not in the highly protected Union River Watershed.

The City regularly tests its water supply for physical, bacteria, and chemical (including lead) content. Water quality is regulated by the State Department of Health. Bremerton's water supply has continued to meet all state and federal requirements even with continuing increased regulations over the years. Bremerton's water quality is so good that Bremerton is one of few systems in the United States not required to have a costly filtration system. In 2017, Bremerton was awarded the "Exemplary Source Water Protection Award for Medium Source Water Systems".

## **BEST MANAGEMENT PRACTICES FOR OUTDOOR FIRING RANGES**

The ITRC Guideline states practicing environmental stewardship provides an opportunity for firing range operators to proactively manage their ranges and prepares them to respond to concerns that may arise from the community and others. The 125-page ITRC Guideline further states that once existing and potential environmental risks are evaluated and addressed, outdoor firing ranges can minimize environmental impacts through proper design and management.

The EPA developed a manual, "Best Management Practices for Lead at Outdoor Shooting Ranges<sup>3</sup>" ("BMP Manual"), that provides useful general information to assist shooting range owners/operators with lead management. The 103-page manual includes information about the following topics and more:

- Why lead is an environmental, public and regulatory concern;
- What laws and regulations apply;
- Benefits of applying good management practices;
- What can be done to successfully manage lead;
- Minimizing litigation risk; and
- Recycling lead.

Following are some comments from the BMP Manual concerning benefits of minimizing lead's environmental impact and a four-step approach to lead management:

### **Benefits of Minimizing Lead's Environmental Impact**

The BMP Manual states all ranges will benefit from proactively implementing a sound lead management program:

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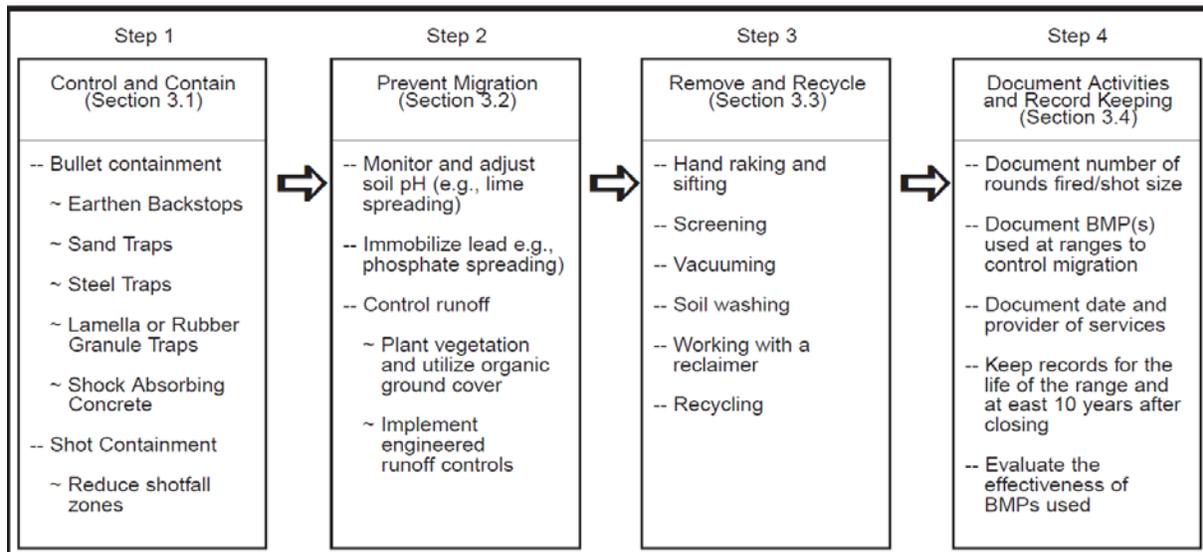
<sup>2</sup> The City's water supply serves about 60,000 people with an average of about 7 million gallons per day.

<sup>3</sup> Revised June 2005.

- The potential of lead exposure and contamination to humans, animals, and the environment is reduced;
- It improves public relations;
- Lead can be recycled and reclaimers may give owners a percent of the recycling profit;
- Costly and lengthy future remediation activities may be reduced or eliminated;
- The risk of lawsuits may be reduced or eliminated.

**Four-Step Approach to Lead Management**

The BMP Manual lays out a four-step approach to lead management by 1) Controlling and containing the bullets, 2) Preventing migration of lead to the subsurface and surrounding surface water bodies, 3) Removing the lead from the range and recycling, and 4) Documenting activities. Specific practices related to each step are summarized in the table below<sup>4</sup>:



**FEASIBILITY STUDY**

In July 2015, the City contracted with KEMRON Environmental Services, Inc. (“KEMRON”) to prepare a plan/feasibility study related to the Firing Range. This feasibility study identifies BMPs for range operations as well as interim remediation options for the site. KEMRON issued its findings in a December 2016 report.

Exhibit A of the Professional Services Agreement (“PSA”) between the City and KEMRON summarizes the PSA scope of work. The cited project goals were to:

- Ensure all BPD Range activity occurs outside of the sanitary control and wellhead protection area of City production wells.
- Determine a budget estimate for regular recycling of the range’s spent bullets and shot.

<sup>4</sup> These practices should not be considered alternatives to lead reclamation, but rather should be followed between lead reclamation events.



- Ensure the BPD Range is operated and maintained in accordance with environmental BMPs for outdoor small arms firing ranges outlined in the ITRC Guideline.

The KEMRON report states the soils at the Firing Range are mostly sands and sand and gravel, with some layers of clay and silty clay, with low permeability. Well #15 is an 8-inch well installed in 1981 to a depth of 294 feet below ground surface. Well #17 is a 12-inch well installed in 1982 to a depth of 293 feet below ground surface.

The data collected for KEMRON's report shows no indication that lead is migrating from the Firing Range surface soil to the groundwater being collected in the nearby wells. However, lead was found in the surface soil and up to 20 inches below the surface near the wellhead protection zones and KEMRON recommends implementing BMPs to remove the risk of this lead migrating to the groundwater.

The most conservative option provided by KEMRON is removal or reduction of total lead at the site. The report explains that closure of the existing Firing Range would necessitate complete remediation of all soils exceeding a certain cleanup level (250 mg/kg). In addition to the cleanup cost, the cost to replace the range on another piece of property would include land acquisitions, design, and construction of the range. The KEMRON report states the City expressed there is no current plan to shut down and move the Firing Range; thus, the KEMRON report does not provide a cost estimate for this option.

KEMRON stated as an alternative to closing the range and performing a complete remediation, the City could move the contaminated soil away from the wells and treat it with phosphate compounds to reduce mobility. KEMRON recommendations for the City's consideration are to reduce the amount of lead, reduce the mobility of lead, protect the area around the wellheads, and continue operation of the Firing Range in an environmentally responsible manner include the following:

- Mine the lead from the backstop of the pistol range. Excavate and sieve the lead slugs from this soil, treat the soil with phosphate to reduce mobility, then return the soil to the backstop.
- Scrape an average of six inches of soil in the former shotgun area, treat this soil with phosphate and move it away from the wellheads. Grade the area so surface water drains away from the wellheads.
- Move the tires to the far side of the range or dispose of the tires.
- Implement BMPs such as bullet containment (i.e. backstops), prevent migration (i.e. treat soil with phosphate), remove and recycle lead regularly, and document Firing Range activities including rounds fired/shot size, efforts to control migration, and other BMPs followed.

The KEMRON recommendations appear consistent with the BMPs set forth in the EPA "Four Step Approach to Lead Management", which were presented in the previous section of this report. The KEMRON report states the aforementioned recommendations could be done concurrently or separately as budget and schedule allow.

Cost estimates for KEMRON's recommendations cited above range from \$122,356 to \$222,184, as shown below. The difference between the two estimates is related to tire disposal: Option 1 is \$100,000 higher and is based on having Waste Management transport and dispose of the tires in Oregon; Option 2 assumes the soil is sieved from the tires, which are then shredded on-site and the soil is treated and re-used on site.



Description	Option 1	Option 2
Shotgun Area 1:		
Scrape, treat, move and shape side berms/backstop	\$ 43,567	\$ 43,567
Tire disposal	162,738	62,910
<b>Total Shotgun Area 1</b>	<b>206,305</b>	<b>106,477</b>
Pistol Area 2:		
Excavate and screen backstop soils	15,879	15,879
<b>Total Area 1 and 2</b>	<b>\$ 222,184</b>	<b>\$ 122,356</b>

As this report was being drafted, the City entered an agreement with KEMRON to perform the modified cleanup of the range for a total cost of \$151,911.12, including sales tax. Please refer to Exhibits A and B for additional details regarding the Kemron scope of work.

In addition to following KEMRON recommendations, the City is planning to add some fencing to separate the range from the wellhead area, provide containers for the casings to be recycled, and use the recycle funds toward range improvements, including constructing a concrete floor and new backstop with sand (for easier removal of lead for recycling) backed by concrete. It is important to ensure that the range improvements are scheduled to occur no later than immediately following the cleanup so that no new lead is released into the newly cleaned soil. Pat Coxon, Wastewater Treatment Plant and Forestry Manager, suggested BPD charge the other range users a one-time fee toward the range improvements.

**BROWNFIELD FUNDING FOR ASSESSMENT OR CLEAN UP**

The USEPA provides competitive grants to fund environmental assessment and cleanup of brownfields to restore contaminated property for redevelopment or reuse. A brownfield is “a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” Redevelopment may include efforts to develop the property or create green space or some other endeavor.

There are many nuances related to Brownfield Grant eligibility, types and amount of funding available, etc., which are beyond the scope of this report; however, a few notable nuances include:

- \$200,000 cleanup limits per site;
- \$200,000 assessment limits per site with exceptions up to \$350,000 per site;
- Parties responsible for the contamination (i.e. governments of law enforcement agencies that use the Firing Range) are not eligible to receive Brownfield Funding for the assessment or cleanup. However, the contaminated land could be transferred to another government or non-profit entity<sup>5</sup> that would be eligible for Brownfield Funding.

<sup>5</sup> Non-profit entities may be eligible for cleanup funding but not assessment funding.



If the City ever decided to close the Firing Range, it could potentially transfer the property to a government or non-profit entity that does not share responsibility for the contamination. The new owner could then apply for Brownfield Funding.

### **RENTAL AGREEMENTS WITH OTHER LAW ENFORCEMENT AGENCIES**

BPD has license agreements with 11 other law enforcement agencies to use the Firing Range. In most cases, the agreements with each of the law enforcement agencies has the same terms. A sample agreement is attached as Exhibit C. In summary, these agreements stipulate the following key terms:

1. Licensee may use the range up to 30 days per year;
2. Licensee schedules use of the range on a first scheduled basis;
3. The agreements are automatically renewed annually on a calendar year basis unless terminated by either party;
4. The City maintains the premises in good repair and condition except damages resulting from Licensee negligence;
5. Licensee shall clean up all garbage and debris after use;
6. 30-day written termination notice required;
7. Licensee provides a qualified range officer to supervise activity while Licensee uses the range; and
8. Hold harmless provision.

The current rate for use of the premises is \$100 per day. Prior to January 1, 2013, the daily rate was \$75.

There is a substantial number of ammunition casings on the ground in the pistol range, suggesting at least some lessees are not cleaning up the debris as required in the contract. Captain Wolfe stated that the presence of ammunition casings on the ground upon arrival discourages range users from picking up their own casings. The contract states the lessee shall pick up all garbage and debris; perhaps it would be more effective to add language specifying a requirement to pick up ammunition casings and to post a sign on site with this requirement.

Risk Management Specialist Thelma Swem suggested the hold harmless provision could also be improved by adding a waiver of liability for any worker's compensation claims arising from range activity.

### **FIRING RANGE FINANCIAL SUMMARY**

From 2014 through 2016, FinancePLUS<sup>6</sup> reports show the Firing Range average annual revenue was \$6,800; expenses (for tire removal) averaged \$471; and net income averaged \$6,362. The table below summarizes annual revenue and expense from 2014 through 2016:

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<sup>6</sup> FinancePLUS is the City accounting software.



Description	2014	2015	2016
Firing Range:			
Revenue	\$ 6,500	\$ 7,400	\$ 6,600
Expenses	1,213	200	-
<u>Net income</u>	<u>\$ 5,287</u>	<u>\$ 7,200</u>	<u>\$ 6,600</u>

Because the Firing Range is on BPW land, certain costs, such as environmental consulting charges and expenses to protect nearby forest land and personnel from potential firing range hazards, are charged to BPW.<sup>7</sup> Additionally, volunteers (police and others) have donated labor, and businesses and individuals have donated supplies, which are not included in the amounts shown above.

Although BPD contracts with 11 law enforcement agencies, seven agencies actively used the range in 2016. The table below shows 2016 revenue by law enforcement agency:

Bainbridge Island Police	\$ 1,300
Dept of Corrections	2,200
Military Sealift Command	200
Naval Criminal Investigative Service	1,200
Poulsbo Police	500
Washington State Patrol	1,200
<u>2016 Total Revenue</u>	<u>\$ 6,600</u>

Kitsap County Sheriff’s Office (“KCSO”) is the largest user of the range. Beginning early 2014, KCSO provided four Bremerton SWAT members with gear in lieu of paying for use of the firing range.

**REDUCING EXPOSURE TO LEAD AND NOISE AT OUTDOOR FIRING RANGES**

BPW developed a Stewardship Plan that outlines their plan for managing the environmental impacts of the range, including those related to lead. The Stewardship Plan states people using the range should protect themselves from lead exposure by following the recommendations of the National Institute for Occupational Health and Safety publication, “Reducing Exposure to Lead and Noise at Outdoor Firing Ranges.”

This 2-page publication provides recommendations for workers and users of outdoor firing ranges to reduce exposure to associated lead and noise. Recommendations include safe work practices, watching for symptoms of lead poisoning, good hygiene practices, and use of personal protective equipment.

It may be appropriate to attach a copy of this publication as an exhibit to the license agreements and post a copy at the Firing Range.

<sup>7</sup> Ms. Cahall, City Water Resources Division Manager, and Mr. Coxon, City Waste Water Treatment Plant and Forestry Manager, acknowledged no Firing Range expenses per se can be or are paid out of their respective enterprise utility funds.



## SUMMARY

The Firing Range was established on utility lands in approximately the mid-1960s and the wells were installed in the 1980s. Because the soil has low permeability and the wells are about 300 feet deep, there has been no impact to the wells as established by frequent water testing. However, BWU is required to protect the "sanitary control" and "wellhead protection" areas.

At the end of 2016, environmental experts retained by the City issued a report identifying best management practices and remediation options for the Firing Range that provide the measures necessary to protect the sanitary control and wellhead protection areas. The environmental experts' recommendations are being carried out by the fiscally responsible parties: BPD and BWU. In addition to the environmental experts' recommendations, BPD may wish to consider the following suggestions:

1. Reduce the impact to the environment by enforcing the contract term that stipulates the licensee shall clean up all garbage and debris after use. Modify the language in the contract to specify picking up ammunition casings.
2. Execute a current agreement or memorandum of understanding between BPD and BPW for the land used as the Firing Range.
3. Include a copy of "Reducing Exposure to Lead and Noise at Outdoor Firing Ranges" with the license agreements and/or post a copy of this publication at the Firing Range.
4. Obtain funding, if necessary, to perform any additional measures needed to mitigate environmental impacts, such as constructing a new backstop and range floor to facilitate casing clean up. Consider charging a one-time fee from other range users for the improvements.

Outdoor range operators are not legally required to dispose of spent ammunition while in operation although the absence of a waste management system can leave them vulnerable to costly lawsuits. The cost of disposing spent ammunition can be offset in whole or in part by the recycle value of the lead. Considering potential environmental impacts associated with firing ranges, investing in mitigating measures seems prudent.

Please contact me if you have questions or need additional information.

Sincerely,

Jennifer L. Sims CPA/CFF, CFE  
City Auditor

cc: Mayor Lent  
City Council Members  
Steven Strachan, Chief of Police BPD  
Tom Wolfe, Captain BPD  
Chal Martin, Public Works & Utilities Director  
Kathleen Cahall, Water Resources Manager  
Pat Coxon, Wastewater Treatment Plant and Forestry Manager  
DeWayne Pitts, Finance Director  
Mike Riley, Assistant Finance Director