

**Jeffco Public Shooting Range (JPSR)**  
 Public Meeting One – May 31, 2016  
 Ralston Valley High School  
 Summary

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**Introduction**

This public meeting about the Jefferson Public Shooting Range (JPSR) is the first of two meetings about this topic. The purpose of this meeting is to update the community on the recommendations from the JPSR working group and the current state of technical and other studies, to provide the community with an opportunity to get answers to questions they might have, and to learn what issues, questions, and concerns remain and how staff can respond to them in a timely fashion. The purpose of the second meeting will be to discuss community interests associated with the JPSR and to explore design options and approaches for the JPSR to ensure the best fit for Jeffco.

**First Round of Polling**

Before jumping into the substantive presentations and discussion, participants were asked to answer some baseline questions about their feelings regarding the JPSR. 41 to 46 people participated in this polling exercise, depending on the question. Below are the pre-polling results. *Note: Polling results are not intended to drive a decision one way or another; they are intended to help participants and staff get a sense of who attended the meeting, what their perspectives are, and how valuable the meeting was.*

**Where do you reside? (This question provides the demographic data for following questions)**

- 64% - In a neighborhood near the shooting range
- 19% - Elsewhere in Jefferson County
- 17% - Elsewhere in Arvada
- 0% - Outside of Jefferson County

<b>What is your level of support for the JPSR?</b>	
38% - Strongly support	44% of those who reside elsewhere in Jefferson County
	43% of those who reside in a nearby neighborhood
	13% of those who reside elsewhere in Arvada
30% - Strongly opposed	40% of those who reside in a nearby neighborhood
	13% of those who reside elsewhere in Arvada
	11% of those who reside elsewhere in Jefferson County
13% - Neutral	50% of those who reside elsewhere in Arvada
	22% of those who reside elsewhere in Jefferson County
	0% of those who reside in a nearby neighborhood
11% - Opposed	17% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Arvada
	0% of those who reside elsewhere in Jefferson County
9% - Support	25% of those who reside elsewhere in Arvada
	22% of those who reside elsewhere in Jefferson County
	0% of those who reside in nearby neighborhood

<b>How well informed do you feel you are about the JPSR?</b>	
40% - Informed	47% of those who reside in a nearby neighborhood
	33% of those who reside elsewhere in Jefferson County
	25% of those who reside elsewhere in Arvada

23% - Very informed	27% of those who reside in a nearby neighborhood
	22% of those who reside elsewhere in Jefferson County
	13% of those who reside elsewhere in Arvada
19% - Ill-informed	50% of those who reside elsewhere in Arvada
	22% of those who reside elsewhere in Jefferson County
	10% of those who reside in a nearby neighborhood
13% - Very ill-informed	13% of those who reside in a nearby neighborhood
	13% of those who reside elsewhere in Arvada
	11% of those who reside elsewhere in Jefferson County
4% - Neutral	11% of those who reside elsewhere in Jefferson County
	3% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Jefferson County

### Staff Presentations

After gathering the baseline data, County staff and contractors gave two presentations to better inform the small group discussions. Below are the highlights of these discussions.

#### *JPSR Background and History (Scott Grossman – Jeffco Open Space)*

- 32 percent of the population of Jeffco owns a firearm, while 35 percent of Coloradans and 40 percent of Americans own a firearm.
- There are eight indoor shooting areas in the Denver Metro Area and one outdoor shooting area; this excludes the dispersed shooting in the Pike-San Isabel National Forest.
- Dispersed shooting on US Forest Service (USFS) and Bureau of Land Management (BLM) lands is unregulated and has led to environmental degradation and increased public safety risks.
- There is a partnership for sport shooting between the north and the south areas of Denver, and they have been working to address the issue of shooting ranges.
- In 1990, the Jefferson Board of County Commissioners appointed a task force to study the feasibility of a public and law enforcement training site, and in 1991, the task force recommended a shooting range at the current Rooney site.
- Jeffco and the City of Lakewood created a master plan for a site with many recreation activities, including a shooting range, in 1993; only Thunder Valley and a law enforcement training facility were constructed due to budgetary issues.
- In 2013, the Jeffco Board of County Commissioners requested a staff analysis of a public shooting range utilizing the Northern Front Range Sports Shooting Partnership criteria as a guide; 11 potential shooting range sites were eventually identified.
- The Jeffco Board of County Commissioners put together a working group to assess the feasibility of the potential public shooting ranges and come up with operating criteria in 2014.
- The JPSR Working Group was made up of diverse members representing multiple municipalities, state and federal agencies, non-profit organizations, and private citizens.
- The JPSR Working Group released a report of findings in 2014 comprised of the following:
  - The shooting range should allow 10 to 15 outdoor lanes for both rifles and pistols with additional acreage for amenities and utilities; any extra room should be used to accommodate archery and trap and skeet shooting.
  - The site should not be smaller than six acres, a maximum of 30 minutes from major intersections, a minimum of one-half mile from residential and non-residential areas, and one-quarter mile from recreational development.

- Ancillary criteria were created and taken into account when selecting sites, although they were not weighed as heavily as the main criteria.
- The only site that met all major criteria was the Blunn/Pioneer site.
- The design and management parameters consist of controlled access, maximum noise reduction, environmental best practices, specific hours of operation, restricted large-caliber firearms, family-friendly facilities, and educational programs.
- The JPSR Working Group developed a master plan for an entire 1600-acre facility, of which the shooting range occupies six acres.
- The first public meeting regarding the Blunn/Pioneer Master Plan took place in May 2015, and public engagement continued through July; the final report of the Master Plan was released in Fall 2015.
- The Master Plan details numerous facilities, including a dog park, motocross track, police department training, and a shooting range.
- Additional studies, such as the noise study and a site-specific concept plan, must be completed; when the results of these studies are available, they will be shared with the public.
- The next public meeting on June 28, 2016, will have the final report with incorporated feedback from this public meeting.
- *Note: The complete presentation slides used by Jeffco Open Space staff are available on the Jeffco Open Space website for the JPSR: <http://jeffco.us/bcc/board-programs/shooting-range/>.*

*Jeffco Public Shooting Range Sound Measurements (Tom Damiana - AECOM)*

- Jeffco hired AECOM to complete a sound study with the objective of producing technical material for project stakeholders to use in understanding the potential noise impacts from a shooting range located near the southeast corner of the Highway 93 and West 82<sup>nd</sup> Avenue intersection.
- All the results shared at this meeting are preliminary.
- To complete this study, they used direct measurements of unmitigated sounds with various firearms at representative receptors.
- Direct measurements can be used to compare standards, predict noise levels at various locations, and predict noise levels with various mitigation measures in place.
- The study measured impulsive sounds (noise of short duration, generally less than one second), and continuous sounds (background noise); any noise over 55 decibels (dB(a)) in a residential area must be mitigated.
- Four representative receptor measurement locations were selected, as well as a control site; although, one of the sites was moved after the first round of measurements due to topographical features inhibiting sound propagation.
- A .45 caliber handgun, 5.56 mm rifle, and a .308 caliber rifle were the tested firearms.
- Measurements were collected with five sound measurement devices that took one-second measurements and provided a one-second average.
- Octave bands (the highest and lowest sounds) were measured at the control site.
- Meteorological measurements are continuously collected and can be used to provide context for other measurements, and the same can be said for vertical atmospheric structure information collected from the BAO Tower and Stapleton.
- There were routine calibration checks throughout the day and between each test fire.
- Site 1 is the control location and the boundary of the proposed shooting range; Sites 2 through 4 are various distances from the test shooter to provide more diverse information.

- There were three sets of measurements with five shots per firearm per measurements set on May 11, 2016, and two sets of measurements with five shots per firearm per measurement set on May 13, 2016; data from both days shows considerable ambient noise.
- The numbers plotted on the map for each site represent the highest noise event that occurred at that site, but the high-decibel events at each site did not all occur in the same measurement set.
- The highest one-second averages were 62 dB(a), 60 dB(a), 93 dB(a), 81 dB(a), 54 dB(a), and 96 dB(a) at the shooting location.
- There is an area around the shooting range (indicated by a dotted blue line on the AECOM map) where the ambient noise and the shooting noise are the same and cannot be measured; this does not mean that the shots cannot be heard to the human ear, but rather that the shot and the ambient noise were the same dB(a).
- The noise measurement example shows a basic picture of the noise measurements captured during each five-shot measurement set at all sites.
- This data will all be analyzed more extensively, as these results are only preliminary.
- The measurement summary shows maximum one-second average during each shooting, as well as the average background noise at the same time.
- *NOTE: The complete presentation slides used by AECOM are available on the Jeffco Open Space website for the JPSR: <http://jeffco.us/bcc/board-programs/shooting-range/>.*

### Small Group Discussion

Participants were asked to break into small groups and discuss their perspectives on the JPSR and why they felt that way. Below are the themes from these discussions.

Perspective	Explanation
There is no need for a shooting range.	<ul style="list-style-type: none"> <li>• Those who are doing dispersed shooting are not likely to drive all the way to Arvada to go to a shooting range facility.</li> <li>• There are not enough firearm owners in Jeffco to rationalize the construction of the JPSR.</li> <li>• It is not necessary to put a shooting range so close to a residential area, as there are other options.</li> <li>• There is already a shooting range at I-70 and Heritage Road.</li> <li>• This shooting range should be on the other side of Highway 93 or not constructed at all.</li> <li>• The JPSR has already been agreed upon and will be constructed regardless of public feedback.</li> </ul>
The shooting range poses safety risks.	<ul style="list-style-type: none"> <li>• A high-caliber bullet can travel well over a mile.</li> <li>• Six- or seven-foot berms at the shooting range may not offer enough protection for neighbors in the case of a stray bullet.</li> <li>• The noise is a safety hazard, particularly for horses on trails.</li> </ul>
The shooting range will negatively impact nearby residences and wildlife.	<ul style="list-style-type: none"> <li>• The shooting range is too close to residential areas.</li> <li>• The JPSR will decrease property values for nearby residences.</li> <li>• The shooting range will negatively impact neighbors.</li> <li>• Nearby residents bought houses close to open space for a reason and do not want to hear gunshots all day, evening, and weekend.</li> <li>• Gunshot noises are disturbing.</li> <li>• Wildlife will have limited space to retreat when shooting starts.</li> </ul>

There is a great need for a shooting range.	<ul style="list-style-type: none"> <li>• Many shooting ranges have closed over the years.</li> <li>• There are no shooting ranges in the area.</li> <li>• There are no public shooting ranges nearby.</li> <li>• The closest shooting range is over 30 miles from Arvada.</li> <li>• This shooting range will experience high demand.</li> </ul>
This shooting range will increase safety and firearm literacy.	<ul style="list-style-type: none"> <li>• Gun owners need a place to shoot safely.</li> <li>• Gun owners need a place to learn more about firearm safety.</li> <li>• The shooting range is a great opportunity to teach young people the proper use of firearms.</li> </ul>
A designated shooting range will be safer than the alternatives.	<ul style="list-style-type: none"> <li>• The shooting range will deter people from shooting in manners that could harm livestock or people.</li> <li>• The JPSR will protect the environment.</li> <li>• A safe, controlled, and clean range will support all types of gun enthusiasts.</li> </ul>
A shooting range is meeting community needs.	<ul style="list-style-type: none"> <li>• Citizens should support all groups, and this is one of them that need commitment and support.</li> <li>• This shooting range will be self-sustaining by user fees and will not cost taxpayers money after the site is built.</li> <li>• There are public facilities for almost every other type of activity; firearm enthusiasts deserve an equitable facility.</li> </ul>
The noise study is not effectively measuring the impacts of the noise in the area.	<ul style="list-style-type: none"> <li>• Sound testing must be done in the neighborhoods.</li> <li>• The noise will disturb wildlife.</li> <li>• Neighbors could hear every shot that was fired during the noise study.</li> <li>• The noise study was skewed because, during the shot times, the wind was blowing east to west, which is not typical.</li> <li>• The noise impact on animals, both wild and domestic, must be studied.</li> <li>• The noise study does not accurately reflect the sound impacts to the neighborhood.</li> <li>• The noise study does not account for the impacts of consistent and increased noise.</li> </ul>
Additional information should be provided at future meetings.	<ul style="list-style-type: none"> <li>• Provide the process on how this was entered into the Jeffco or Arvada Master Plan.</li> <li>• Allow presentations at public meetings about why there is opposition for the JPSR.</li> <li>• Hold a field trip to the proposed shooting range site for interested citizens.</li> <li>• Complete comparison studies looking at other public and private shooting ranges.</li> </ul>
Other design features should be considered.	<ul style="list-style-type: none"> <li>• There should be a trap and skeet range in Jeffco, as the closest range if over an hour away.</li> <li>• The site should be expanded to accommodate shotguns.</li> </ul>

*General Comments*

- There should be enough clickers [polling devices] at the next meeting for all participants.
- Demographic polling questions should be more specific—using distance from the shooting range site to be consistent with the other data.

- The next meeting should not be in the cafeteria.
- There should be more outreach to the surrounding communities before the next public meeting.
- The sound system must be improved at the next meeting.
- The PowerPoint presentations were hard to see.
- Use handouts for more visual interpretation.
- The presentations were hard to follow.
- The next meeting should have better presentations.

### **Questions: Asked and Answered at This Meeting**

Each small group was asked to list the questions that members of the group have and then prioritize the questions they came up with during their discussions. Each group's prioritized question was asked and answered in front of the whole group. These questions and responses are listed below. The rest of the small groups' questions were answered by the appropriate staff after the meeting. These are listed in the next section of the meeting summary.

*What compensation will be given to homeowners for loss of property value, facility, or life? There is a precedent for this type of compensation for homeowners at Rocky Flats.*

It is still unclear if homeowners of adjacent properties will experience loss of property value. Jeffco is working with consultants like AECOM to better understand the impacts of the shooting range on adjacent properties. It is most likely that if significant compensation were required because of the construction of the shooting range, Jeffco would explore alternate locations.

*How can citizens be assured that their voices are being heard?*

Staff is here tonight gathering feedback and will continue gathering feedback and meeting with the public as long as the process takes. Jeffco is committed to community engagement and doing the best job possible to ensure that all concerns are addressed. As past examples, the public engagement for Crown Hill Park greatly influenced development and design; residents are happy with the outcome.

*What other developments can be expected nearby?*

The Blunn/Pioneer Master Plan that was produced last year following an extensive public engagement process depicts the developments that have been discussed. All this information is easily accessible on the City of Arvada website.

*Are there plans for what will happen if the JPSR is not able to meet its capacity? Can it be expanded?*

The current plan details the development of a minimum of 15 lanes for pistols and 15 lanes for rifles, and it is expected that there will be a desire for more or other types of shooting. If the proposal becomes more concrete, Jeffco will have to explore the options of a lease with the City of Arvada. To get the lease in the first place, Jeffco will have to show Arvada that the facility can be operated while addressing community concerns. If the facility reaches capacity, the City would have to approve any expansion. If this model is successful, and a staffed and controlled facility can be properly managed, there are additional County sites that may be suitable for development in the future. These options will be explored as they arise.

*Can the noise from the shooting range be heard in the nearby neighborhoods, and why was this not tested?*

It is uncertain if the noise from the shooting range can be heard in the neighborhoods. This was not tested in the first part of the noise study because at certain distances, the sound of the shot is at the

same level or lower and the ambient noise, so the sound is no longer measurable. AECOM wants to get measurements that are close enough that noise levels can be projected at property lines.

*What is the noise impact on dogs and wildlife?*

This has not been tested at this point.

*How much can mitigation efforts be expected to lower sound levels?*

This question will be answered at during the next phase of analysis. At this point, it is not possible to say what will be effective, other than mitigation close to the origination of the noise is more effective. This information will be available at the next public meeting.

*Who will run and manage this facility?*

The JPSR Working Group examined this issue in 2014, and there is still not a clear answer. It is possible it could be a public-private partnership, as there many businesses that specialize in running operations like this.

*Is this the only site being considered?*

This is the current site being considered because it met the most criteria. There are other sites that were initially examined that can be assessed again if this does not work out. It is also possible to find a new site, although there are not many in the County that would be available and suitable. Jeffco staff will work through all the operations methodically.

*How are citizens to know that the Jeffco Board of County Commissioners will not close the range in the future?*

This project is currently in the beginning stages, and the Commissioners have agreed to allow the noise study. They will analyze the results of all the meetings and the studies before deciding to move forward with a lease. If they approve the JPSR, all the information about timing will be included in the lease. Staff is currently just working to gather information so the Commissioners can make an informed decision.

*Will there be a yes-no public vote?*

The voice of the people in approving this project would come in the form of elected officials, such as Arvada City Councilors and the Jeffco Board of County Commissioners.

*What noise mitigation efforts have worked in the past and could be explored in this project?*

Shooting areas are often enclosed on all four sides with berms. Mitigation can come from engineering and institutional controls, such as limiting hours of operation, allowing only smaller caliber firearms, creating physical barriers, increasing distances, and using paper targets. The noise level analysis will offer more information on this topic later in the process.

*What steps will be taken to ensure horses will not be spooked by gunfire?*

Jeffco will work with the City to design a good trail system that separates uses effectively and will also implement various mitigation techniques. If there are existing horse trails in proximity to the JPSR, equestrian trails may be moved to other locations that are more fitting for that type of use.

***See additional questions submitted in writing and associated responses after the final polling results below.***

## Second Round of Polling

After the presentations, small group discussion, and question-and-answer session, participants were asked to answer the same baseline questions about their feelings regarding the JPSR. 41 people participated in this polling exercise. Below are the post-meeting polling results.

*Note: Polling results are not intended to drive a decision one way or another; they are intended to help participants and staff get a sense of who attended the meeting, what their perspectives are, and how valuable the meeting was.*

<b><i>What is your level of support for the JPSR?</i></b>	
46% - Strongly support	71% of those who reside elsewhere in Jefferson County
	45% of those who reside in a nearby neighborhood
	20% of those who reside elsewhere in Arvada
34% - Strongly opposed	41% of those who reside in a nearby neighborhood
	40% of those who reside elsewhere in Arvada
	0% of those who reside elsewhere in Jefferson County
10% - Neutral	40% of those who reside elsewhere in Arvada
	14% of those who reside elsewhere in Jefferson County
	3% of those who reside in a nearby neighborhood
7% - Opposed	10% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Arvada
	0% of those who reside elsewhere in Jefferson County
2% - Support	14% of those who reside elsewhere in Jefferson County
	0% of those who reside elsewhere in Arvada
	0% of those who reside in nearby neighborhood

<b><i>How well informed do you feel you are about the JPSR?</i></b>	
50% - Informed	71% of those who reside elsewhere in Jefferson County
	50% of those who reside elsewhere in Arvada
	45% of those who reside in a nearby neighborhood
20% - Very informed	31% of those who reside in a nearby neighborhood
	29% of those who reside elsewhere in Jefferson County
	17% of those who reside elsewhere in Arvada
14% - Ill-informed	17% of those who reside elsewhere in Arvada
	17% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Jefferson County
7% - Neutral	17% of those who reside elsewhere in Arvada
	7% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Jefferson County
0% - Very ill-informed	0% of those who reside elsewhere in Jefferson County
	0% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Jefferson County

Note: The question below was not included in pre-polling due to a PowerPoint oversight.

<b>What is your primary concern or interests in the JPSR?</b>	
34% - Noise	40% of those who reside elsewhere in Arvada
	38% of those who reside in a nearby neighborhood
	14% of those who reside elsewhere in Jefferson County
34% - Place to shoot	57% of those who reside elsewhere in Jefferson County
	31% of those who reside in a nearby neighborhood
	20% of those who reside elsewhere in Arvada
17% - Welcoming, family-friendly facility	29% of those who reside elsewhere in Jefferson County
	20% of those who reside elsewhere in Arvada
	14% of those who reside in a nearby neighborhood
7% - Impact on lifestyle	20% of those who reside elsewhere in Arvada
	7% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Jefferson County
5% - Other	7% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Jefferson County
	0% of those who reside elsewhere in Jefferson County
2% - Concern about firearms	3% of those who reside in a nearby neighborhood
	0% of those who reside elsewhere in Arvada
	0% of those who reside elsewhere in Jefferson County
0% - None	0% of those who reside elsewhere in Jefferson County
	0% of those who reside elsewhere in Arvada
	0% of those who reside in a nearby neighborhood
How valuable did you find this meeting?	Very valuable - 22%
	Valuable - 61%
	Neutral - 10%
	Useless - 2%
	Very useless - 5%

How likely are you to attend the next community meeting about the JPSR?	Very likely - 71%
	Likely - 27%
	Neutral - 2%
	Unlikely - 0%
	Very unlikely - 0%

Below are the pre- and post-polling results for a side-by-side comparison.

<b>Question</b>	<b>Pre-polling</b>	<b>Post-polling</b>
What is your level of support for the JPSR?	Strongly support - 38%	Strongly support - 46%
	Support - 9%	Support - 2%
	Neutral - 13%	Neutral - 10%
	Opposed - 11%	Opposed - 7%
	Strongly opposed - 30%	Strongly opposed - 34%

Question	Pre-polling	Post-polling
How well informed do you feel you are about the JPSR?	Very informed - 23%	Very informed - 29%
	Informed - 40%	Informed - 50%
	Neutral - 4%	Neutral - 7%
	Ill-informed - 19%	Ill-informed - 14%
	Very ill-informed - 13%	Very ill-informed - 0%

### Next Steps

The meeting summary and all meeting materials will be posted on the City and County websites. The next meeting will take place on **Tuesday, June 28, 2016**. The meeting location will be announced when it is available. The final results of the noise report and analysis of mitigation options will be presented at that time. The feedback from this meeting and the following meeting will be compiled and presented to Arvada City Council and the Jeffco Board of County Commissioners.

After this meeting, participants are encouraged to remember that nothing is set in stone, and these are designed to be open conversations, not final discussions. Participants are encouraged to leave feedback on the meeting process and design on a comment card to ensure that the meeting is as valuable as possible for those attending.

### Additional Questions: Answered in Writing after the Meeting

#### Process

- **Is there a national shooting society or association that could be approached to study the proposed site and make an informed evaluation?** *The National Rifle Association offers services that will evaluate existing shooting ranges. It is our understanding they offer very limited services evaluating proposed sites or plans. At this time, we are unaware of other such services. We will continue to seek out this assistance.*
- **There seems to be a lot of opposition to this project; why does that not result in a more thorough review?** *We believe this process is thorough, and will continue to ensure that it is.*
- **Why is there never a presentation of the opposite views at these meetings?** *The meetings are designed to be neutral. They are focused on providing information so that all parties can be informed. The polling conducted during the meeting was split between support and opposition and indicative of the opinions in the audience.*
- **Is the decision already made to build the facility as proposed?** *No. This proposed project is still in the fact finding stage and therefore, still up for discussion. Elected officials will ultimately make the decision.*
- **This shooting range seems to be a done deal and it will happen no matter what the community says or feels. Is that true?** *No. This proposed project is still in the fact finding stage and therefore, still up for discussion. Elected officials will ultimately make the decision.*
- **Why were no County Commissioners present at this meeting?** *Jefferson County staff generally conducts the meeting and results are then brought to the County Commissioners when they are considering a project or proposal.*

### **Shooting Range Logistics**

- **Why is there going to be a fee? The skate park, bike paths, and dog parks are all free, and supported by taxes.** *The cost of maintaining this facility are greater than these examples. It is more on par with a golf course. Costs will include upkeep, sound mitigation, lead remediation, etc. Due to expected volume of use, a focus on safety, and a desire for a family friendly environment, a staffed range would be required. Fees help offset the cost of staffing and operations.*
- **Will memberships be required? What is the cost? The proposed range will be open to the public. Fees will be based on operating costs and are intended to be affordable.**
- **What shooting venues are anticipated?** *We interpret this to mean what types of firearms. See answers below.*
- **How many shooting alleys are proposed?** *15 pistol lanes, 50 yd max. 15 rifle lanes, 200 yd max.*
- **What ranges and distances will be provided?** *15 pistol lanes, 50 yd max, 15 rifle lanes 200 yd max.*
- **Is the firing line covered?** *Yes. This is generally referred to as a shoot house. This would provide safety and sound mitigation.*
- **What security measures will be used at the shooting range?** *Things such as a perimeter fence, locked gates, surveillance equipment, and staffing would be considered if the design progresses.*
- **Will there be interference with or by other activities?** *No. The range would be self contained and fenced off.*
- **What is the anticipated impact to existing wildlife?** *Environmental studies will be addressed if this project proceeds. While there will likely be some impact, this site only encompasses six acres of a total 1,600 acres of the Blunn/Pioneer site.*
- **Will the anticipated professional agencies interested in utilizing the shooting range be flexible with scheduling with the general public shooters?** *The range as proposed would primarily serve the general public.*
- **What are the hours for the facility, and will early morning hours limited?** *Hours of operation will be limited to address noise. No early morning or night use would be permitted.*
- **What is the ammunition caliber limit?** *Firearms that are chambered for .50 cal BMG or similar would be prohibited.*
- **Are there a maximum number of alleys in the future?** *The maximum number of shooting lanes has not been determined at this time. The minimum number of lanes per the 2014 JPSR Working Group Report to make a public range vis 15 rifle and 15 pistol. The maximum number of lanes will likely be limited by space (or land available), noise mitigation or other safety considerations.*
- **What type of guns will be permitted?** *Pistols, rifles chambered, black powder rifles up to .50 caliber.*
- **What types of guns will not be permitted?** *Shotguns, automatic, bump firing, .50 BMG or similar, would not be permitted. Regardless of type, firearms would not be permitted to be fired at a rate of more than 1 round every 3 seconds.*
- **Which direction will the range face?** *If all safety factors are equal, it is generally desirable for ranges to be oriented to shoot north.*
- **Will the police range be included in this analysis?** *While information from this study may be useful the law enforcement facility is not part of this project.*
- **Will the police facility be built regardless of the decision on the public range?** *The two projects are unrelated and not dependent on the other. No work has begun on the police facility; Arvada City Council has said to move forward with studying the public shooting range.*

*The Blunn/Pioneer Master Plan recognizes both projects, but views them as independent projects, not dependent on each other.*

### **Other Facilities**

- **Have there been any complaints about the shooting range at Leyden Reservoir?** *While there is not an official shooting range at Leyden Reservoir there is private property in the surrounding area on which legal duck and goose hunting occurs. Arvada Police Department has had three reports of gunshots in the surrounding area since June 2015.*
- **Why aren't you running models at nearby neighbors – i.e., Leyden Rock?** *Sound modeling will be conducted for nearby neighborhoods. The first step of the noise analysis is the sound study, with the results presented at the May 31, 2016 public meeting. The results of the sound modeling will be presented at the next community meeting scheduled for June 28, 2016.*
- **Why not have discussions with Lakewood since they already have a shooting range master plan?** *The shooting range master plan for the Thunder Valley location has been overtaken by the expansion of the Thunder Valley motocross track.*
- **Where is the next closest shooting site?** *The closest public outdoor facility that is open to the general public is at Cherry Creek State Park which is 35 miles (1hr) from this location. If you search for shooting facilities most of what you see are either private outdoor ranges or indoor ranges.*

### **Noise Study**

- **What is the C.R.S. noise exception for shooting ranges?** *The sport shooting range exception to the Noise Abatement State Statute is contained in Section 25-12-109, Colorado Revised Statutes.*
- **Is the state (C.R.S.) standard on noise what governs here?** *This question is best answered by the City of Arvada. Here is their response; state law will control.*
- **Whose noise guidelines are being followed to determine mitigation?** *This question is best answered by the City of Arvada. Here is their response; state law will control.*
- **How does five shots account for the cumulative effect of 30 lanes of guns being fired at the same time?** *The modeling is 15 x 5.*
- **Do highways make more noise as traffic increases?** *Highways will produce increased noise levels with increased traffic up to a point. When traffic increases to the point of congestion, noise levels will decrease due to decreased vehicle speeds.*
- **Why was a one-second average chosen for the noise study? A gunshot is a millisecond in duration and averaging over a second artificially lowers the DBA results.** *The 1-second equivalent continuous sound pressure level (Leq) is a typical method for comparing sound to other sources and provides a standardized time constant that can be scaled to represent range activity for sound modeling.*
- **Will residents be notified when future noise testing is done? The human ear is much more accurate than SPL meters.** *Yes, however no future testing is scheduled at this time. The sound level meters are certified by the manufacturer, are calibrated during the sound study, and have a high level of accuracy. The human ear cannot quantify sound levels.*
- **How can citizens protest the noise study? It left a lot of unaddressed issues such as noise that can be heard in neighborhoods and multiple shots. Additionally, the test shot was likely below the actual decibel of a true shot, so the study may be invalid.** *The noise from all shots were accurately measured during the sound study, and the data collected is suitable for use with sound modeling. The sound level meters are certified by the manufacture, are calibrated during the sound study, and have a high level of accuracy.*

*Results from the sound study report will be presented at the June 28 community meeting and will include results of sound modeling for nearby neighborhoods.*

- **Did any noise study site go into the neighborhood?** *No. Sound measurement locations and distances were selected to be far enough away to ensure distance attenuation of noise can be characterized but close enough to the range to allow the individual sound source shots to be discernable in the data collected. Locating the meters in nearby neighborhoods would have placed them too far away from the noise source, because the individual sound source shots would not have been identifiable in the background noise, and measurements would not have met project objectives. Results from the sound study report will be presented at the June 28 community meeting and will include results of sound modeling for nearby neighborhoods.*
- **Why is there not a study where people in the neighborhood sit or stand on their decks and listen to see if they hear the gunshots?** *While the human ear is capable of picking out singular events from surrounding sounds, like car horns and gun shots, it is not good at quantifying sound levels. The sound level meters are certified by the manufacture, are calibrated during the sound study, and have a high level of accuracy.*
- **Why weren't any of the test sites chosen in the nearby neighborhoods?** *Sound measurement locations and distances were selected to be far enough away to ensure distance attenuation of noise can be characterized but close enough to the range to allow the individual sound source shots to be discernable in the data collected. Locating the meters in nearby neighborhoods would have placed them too far away from the noise source, because the individual sound source shots would not have been identifiable in the background noise, and measurements would not have met project objectives. Results from the sound study report will be presented at the June 28 community meeting and will include results of sound modeling for nearby neighborhoods.*
- **How will the shooting range be a good neighbor? Will those in close proximity have a say in noise and light levels or remediation?** *The proposed range would not be open at night and therefore would not be lighted at night. The range would be staffed, have operational controls in place, and the maximum amount of noise mitigation would be incorporated in the design phase. There are many examples of shooting ranges being good neighbors. This range would attempt to emulate those practices.*
- **Did any noise study use human ears?** *No. While the human ear is capable of picking out singular events from surrounding sounds, like car horns and gun shots, it is not good at quantifying sound levels. The sound level meters are certified by the manufacture, are calibrated during the sound study, and have a high level of accuracy.*
- **How does citizens knowing about the noise study impact the objectivity of the testing?** *The testing was of an unbiased nature and in order to maintain the integrity of the study potential tampering of the noise monitoring equipment was prevented. Citizens were made aware of the study, just not exact dates and times.*
- **Was the noise study performed with actual number of alleys of the number of shots at the same time?** *The sound study was performed using three firearms, representing typical large caliber hand gun, small caliber rifle, and large caliber rifle. Each firearm was fired singly at a rate of one shot per minute for five rounds. The sound test was conducted during morning, mid-day, and evening to evaluate changes in background noise levels and potential daily atmospheric fluctuations. The data collected can be scaled and used in conjunction with modeling to simulate the expected sound levels from the proposed firing range physical and operational configuration, including the number of shooting lanes and number of shots.*
- **Is any decibel lower than max target considered acceptable?** *Sound study and sound modeling results will be compared to the Noise Abatement State Statute contained in Section 25-12-109, Colorado Revised Statutes and other applicable regulations.*

- **If shotguns are permitted, was that shot measured?** *Shotguns would not be permitted.*
- **Were all type of permitted guns tested for noise?** *A representative sample of firearms was tested including those that at the high-end of permissible noise. Since shotguns and extremely large caliber rifles would be prohibited, they were not tested.*
- **Could site expansion be considered from 6 acres to 20 acres so more noise mitigation and vegetation can block the noise and lights from the residents' views?** *Noise mitigation features are most effective when placed nearest the sound source. Because the proposed facility will have limited hours of operation, there are no current plans for lights.*

### ***Economic Impact***

- **What is the economic impact of this shooting range on the immediate Arvada area?** *Although there is not an economic impact study for this facility, it is likely it will generate some local spending and tourism.*
- **What is the anticipated revenue for the City of Arvada and Jeffco?** *Any revenue from this facility would simply cover the operational costs. Net revenue is not anticipated for either entity.*
- **How much money does Jeffco have to build the facility?** *Jefferson County has set aside \$1 million in seed money anticipating this facility would be built and operated with a public-private partnership.*
- **What will it cost per year to run this facility?** *The facility is still in the early stages of the proposal process. It is unknown at this time what the operating costs may be.*
- **What would fee be and is it a profit center or simply self-funded?** *The proposed operations plan of any new range would be self-funded and not profit based.*