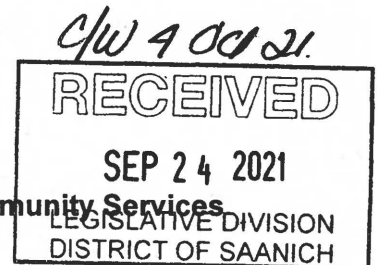




The Corporation of the District of Saanich

Report

To: Mayor and Council
From: Suzanne Samborski, Director Parks, Recreation and Community Services
Date: 9/23/2021
Subject: Pickleball – Noise Issues and Possible Mitigation Measures



RECOMMENDATION

That Council provide direction on:

1. Pickleball noise mitigation at two dedicated pickleball courts, and
2. Endorse the attached Pickle Ball Court Guidelines (Appendix A) for use in planning future outdoor courts in parks

PURPOSE

The purpose of this report is to present a variety of options to mitigate noise complaints generated by pickleball in parks.

DISCUSSION

Current Issue:

The two courts at Tolmie Park were the first purpose built outdoor pickleball courts in the Capital Region. They were installed as part of the park improvement project in 2016. At the time, through community engagement, pickleball players voiced the need for their own facilities. Prior to this time, pickleball was played on tennis courts with lines painted for both sports (11 of Saanich's 34 tennis courts have pickleball lines). The sharing of courts creates some difficulties and both sets of players much prefer separate courts. Two additional dedicated pickleball courts were built in 2017 at McMinn Park, which also has two shared courts. Table 1 lists parks with pickleball facilities. No new dedicated pickleball courts have been constructed since 2017.

In early 2017 staff began hearing complaints from residents living in proximity to the courts that there was a noise problem. The first problem was the type of sound created by the paddles striking the hard plastic ball as well as the loud vocalizations from the players. The second problem was ongoing noise levels due to the constant use of the courts. Many players have told staff that these are the best pickleball courts in the region and so a large number of players are willing to drive long distances to play at the park.

Table 1: Outdoor Pickleball Facilities in Saanich		
Court Type	Locations	Total Number of courts
Tennis that have Pickleball Lines painted on them (11 courts)	Copley West	2
	Hampton	2
	Rosedale	2
	Majestic	1
	McMinn	2
	Prospect Lake	2
	Sub-total	11
Dedicated Pickleball (4 courts)	Tolmie	2
	McMinn	2
	Sub-total	4
Total		15

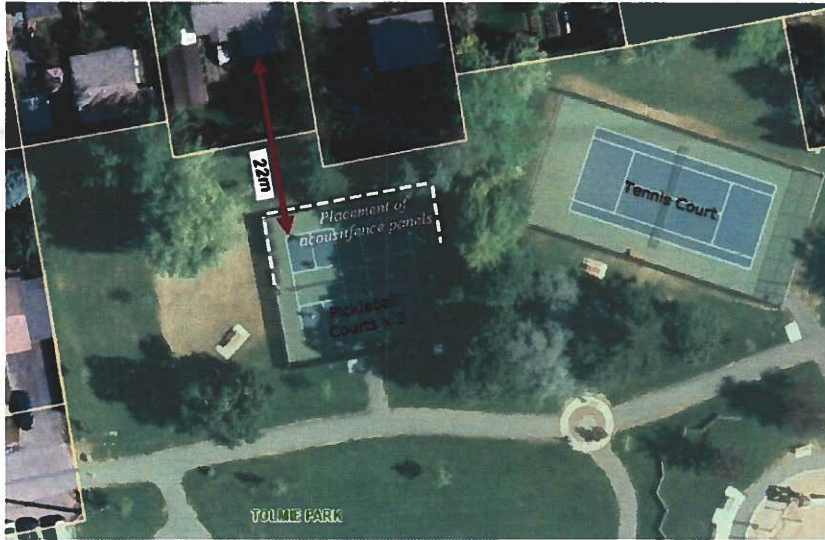
Note: there are 34 outdoor Tennis courts in Saanich Parks, 11 (32%) of which have Pickleball lines painted on them.

Residents who live adjacent to both Tolmie and McMinn Parks have made ongoing complaints about noise coming off the courts. The noise generated at Tolmie Park is more acute since the courts are much closer (22 meters) to neighbouring homes, whereas the closest home to the McMinn Courts is 76 meters away. Noise complaints from parks where pickleball players share tennis courts has been minimal which we assume is due to the lower levels of use. Residents adjacent to both Tolmie and McMinn Parks have approached staff asking them to help address the noise concerns. Staff have also become aware of the pressure on the limited parking that pickleball typically generates

In 2018, acoustic fencing material (Acoustifence) was installed at the courts in Tolmie Park at a cost of \$6,776 plus staff time to install. To evaluate the effectiveness of this barrier Saanich contracted RWDI Engineering to measure the noise levels generated by pickleball with and without the barriers in place.

The measurements were conducted at the southern property line of homes just north of the courts (fence line closest to the courts). See the site map 1 below. They concluded that the noise control material significantly reduced the number of pickleball noise events at the higher Lmax ranges. However, it was noted that the reductions achieved were more modest within the backyards of the residences and at their facades. Greater reductions in noise levels could likely be achieved if the height of the noise barrier were increased.

At its current height of six feet, the noise barrier is likely more effective at reducing ball impact noise at court level rather than the noise created by the player's vocalizations. In addition, it is suspected that pickleball noise may reflect off the eastern section of the acoustic fence. Ideally the inside face of the noise control fence would be treated with a sound absorptive material.



Site Map 1

Noise mitigation at the McMinn Park courts consists of a 'poly' tarp installed by players, which a couple of neighbours have stated has helped deflect some of the noise. However, the tarp is not considered an ideal permanent solution by staff.

Parks staff have recently ordered two panels of a sound absorptive material (cost of \$2,800) to trial at Tolmie Park. It is hoped that this new product will significantly mitigate the noise impacts however due to its high cost, a trial evaluation will be conducted first. Other municipalities such as Oak Bay and the City of Victoria have expressed an interest in this trial as they are having similar issues. If this trial proves successful then depending on the extent of installation required, the cost could be in the range of \$45,000.

Differences between Pickleball and Tennis:

Pickleball differs from tennis in that:

- The sound produced by the impact of the hard paddle and ball creates a sharp high-pitched pop.
- There is a higher player density than for tennis – more players in small areas (four pickleball courts can fit in the same space as one regulation sized tennis court).
- Typically most pickleball games are played as doubles so there are four players per court.
- The games are shorter than tennis so there tends to be other players at the courts either waiting their turn to play or watching or cheering on games.
- The demand for parking is high as pickleball is typically played (95% of the time) with doubles. Therefore, if all players drive individually they would require four parking spaces per court. Often there are several groups playing back-to-back so the number of parking spaces required could be up to 16 in the case of Tolmie or McMinn Parks. It would be beneficial for pickleball players to carpool or use alternative transportation to help reduce parking congestion in parks and local streets.
- Neighbours have observed there is much more chatter between players (pickleball tends to be a social game with lots of bantering back and forth).
- It is one of North America's fastest growing sports and there is a very high level of demand for pickleball facilities everywhere not just in Saanich.

- Due to the solid paddle and ball, pickleball can be played in soft rain and therefore is a year-round sport – whereas tennis tends to be played in drier conditions (due to the saturation of the ball and string racquet).

Options to Consider:

A number of options have been identified and are outlined below.

Option	Table 2 - Proposed Plan of Action	Cost Implications
A	<p>Sound Mitigation: Acoustics professionals to design and install acoustic solutions for noise mitigation at Tolmie Park. Raising the height of the fence to nine feet would be recommended.</p> <p>Depending on the design submitted, implement new sound panels Raising the height of the fence</p>	<p>\$30,000 (estimated) \$10,000</p> <hr/> <p>\$45,000 one-time capital cost, plus ongoing maintenance (cost unknown)</p>
B	<p>Limiting Play Times and Locking of Gates: Develop a schedule that is acceptable to neighbours and players and then have security company lock and unlock gates at Tolmie Park and possibly McMinn Park (with the current security contract, the exact time of opening and closing cannot be guaranteed but would be within 1 hour of scheduled time)</p>	<p>\$1700.00 per year</p>
C	<p>Introduce a booking system for the courts (along with limited hours): The Victoria Regional Pickleball Association has suggested that a booking system may help with controlling times and play at a particular court. A court fee for this service would be recommended to cover administrative costs and would require Council direction. Limiting times would be as above. Program details would require further consultation.</p>	<p>\$500 (staff time to set up), plus maintenance of the program which is unknown</p>
D	<p>Remove pickleball from Tolmie Park: Cancel pickleball at Tolmie Park, resulting in a loss of two purpose built pickleball courts in Saanich and:</p> <ol style="list-style-type: none"> Repurpose the court for a different use (future use to be researched and determined) or; Remove the court altogether and restore back to open park space 	<p>\$10,000 (remove nets and repainting the surface etc.)</p> <p>\$25,000</p>
E	<p>Approve the 'Proposed Saanich Guidelines for Distances and Mitigation Measures for Pickleball Courts' as outlined in Appendix A and utilize them in determining and mitigating sound at all new locations for pickleball in Saanich.</p>	

Staff have had ongoing discussions with representatives of the Victoria Regional Pickleball Association (VRPA) since the Tolmie courts were opened. One option that other jurisdictions have tried is requiring the use of special paddles and foam balls to reduce the sound level. Experience in other municipalities has shown that there was not much compliance and when consulted the VRPA were not supportive of this idea as it apparently changes the nature of play quite significantly.

Another point made by VRPA is a need for more courts, which would lessen the demand on some of the neighbourhood courts. Their suggestion was to remove the pickleball lines from all the tennis courts in Saanich and then convert a few tennis courts pickleball. A regulation sized tennis court (note not all tennis courts are built to that standard) can be converted up to four pickleball courts however, more consultation and research would be required before any tennis courts were decommissioned.

Staff is seeking Council direction on the options outlined in the table. Options A, B and C could be implemented alone, or in some combination. Option D would be an alternative to A, B and C. And Option E is being recommended to be endorsed by Council through Recommendation 2.

Planning guidance for future pickleball courts in parks

If Council would like to support dedicated pickleball opportunities in parks in the future then it is recommended courts be located beyond 50 m of existing neighbouring residences. Courts located less than that distance from residential properties would require proper acoustic mitigation as part of the design. All future potential sites would be reviewed to determine and what sound mitigation would be required. See appendix A for more information. The cost of acoustic systems will vary depending on the site but estimates are upwards of \$50,000.

FINANCIAL IMPLICATIONS

The costs of the various options for Tolmie and McMinn Parks vary and are shown in Table 2. While funds exist for testing the acoustic panels, capital funds for full treatments (Option A), if the tests are successful, would be designated in the 2022 capital plan. Options B and C could be managed within current operations budget. Option D would also need to be designated in the 2022 capital plan.

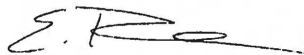
ALTERNATIVES

1. That Council provide alternative direction to staff.
2. That Council direct staff to continue with the status quo.

CONCLUSIONS

The community surrounding Tolmie and McMinn pickleball courts has clearly expressed the desire for Saanich to undertake some immediate measures to assist with the noise impacts of this game.

Prepared by

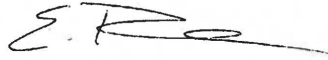


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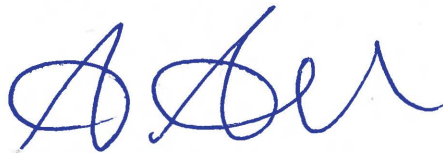
Park Planner and Designer

Reviewed by



Eva Riccius
Senior Manager, Parks

Approved by

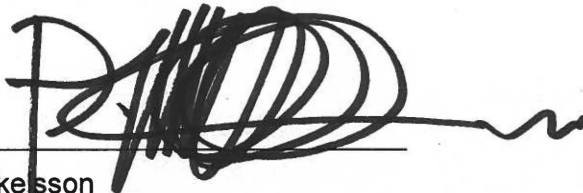


Suzanne Samborski
Director of Parks, Recreation and Community
Services

JL

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:

I endorse the recommendation from the Director of Parks, Recreation and Community Services.



Paul Thorke
Chief Administrative Officer

Appendix A

Proposed Saanich Guidelines for Distances and Mitigation Measures for Pickleball Courts

- Not develop pickleball courts within 50m (164') of neighbouring homes (the courts at Tolmie Park fall within in this category) – unless major sound abatement is installed.
- Courts within 50 m and 110 m (350') of residential structures would require some mitigation measures (the courts at McMinn Park fall within this category).
- Courts within 152 m (500 ') to 182m (600') of residential properties or other noise sensitive areas should be reviewed by an acoustics professional during the site selection phase. For sites located in a valley, it may be necessary to consider abatement at buffer distances greater than 500 ft. (152 m) to 600 ft. (182m) feet due to additional refraction effects created in these situations.

Mitigation measures usually consist of freestanding walls, berms, or acoustical panels strategically placed to shield noise sensitive areas from the pickleball courts. To be effective, the walls etc. must block the line of sight to the paddles during play. On level terrain, this means a minimum wall height of eight feet above the playing surface. Lowering courts into the ground and using the excess soil to build a berm around the courts can reduce costs. Placing the wall on top of the berm will lower the required height of the wall itself, reducing construction costs. The wall may be constructed of various materials/acoustical absorption systems provided they have sufficient mass for effective sound insulation. Note: Graffiti would be a concern with all walls/sound panels placed in parks.

Other considerations:

- When walls are parallel to each other, reflections between them can degrade the performance of the walls significantly. In this case, sound absorbing panels must be considered on one or both walls to stop multiple reflections from amplifying the sound going over the walls -- this can double the cost of the walls.
- Court orientation also plays a role. More sound propagates in the direction of play than to the sides of the pickleball court. By positioning the courts so that the line of the net runs through the most noise sensitive area, a noticeable reduction in sound pressure level can be achieved.
- If sound mitigation is not considered when installing future pickleball courts it may result in unexpected limitations required of players and/or the municipality could have ongoing disputes with players and neighbours.

NOTE: Currently there is little information readily available on suggested distances that Pickleball Courts need to be away from houses and we have developed our guidelines based on articles published by Spendiarian & Willis Acoustics & Noise Control of Tucson, Arizona and the Vancouver Pickleball Association.

September 2021