



City of Portland, Oregon
Bureau of Development Services
Noise Program
 FROM CONCEPT TO CONSTRUCTION

Carmen Rubio, Commissioner
 Rebecca Esau, Director
 Phone: (503) 823-7350
 TTY: (503) 823-6868
 www.portland.gov/bds

NOISE REVIEW BOARD MEETING MINUTES

Date of meeting:	8/9/2023
Start time:	06:00 PM
End Time:	08:23 PM
Location:	Zoom meeting - Meeting ID: 880 2876 6900

The meeting of the Noise Review Board was called to order at 06:02 pm on August 9, 2023, by the Chair Mary Sipe. She welcomed everyone to the meeting and introduced herself as the Chair of the Noise Review Board.

I. Meeting Attendees

	Participants	Attendance
Board Members	Mary Sipe - Chair	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent
	Desi Wright - Professional in Construction	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent
	Derek Trost - Community Member At-Large	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent
	Alex Marine - Professional in Acoustics	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent
	Board Member # 5 - Community Member At-Large	Vacancy
Nonvoting Members	Paul van Orden - Noise Control Officer	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent
City Staff	Beth Benton – Manager Property Compliance Division	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent
	Juliette Olivella Lopez – Noise Program Coordinator	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent

II. Board member introductions

NRB Chair Mary Sipe started the meeting reading the City Attorney Statement of Conduct during NRB Meetings following with Board members introductions.

All other voting members, nonvoting members and city staff introduced themselves and gave a short greeting.

III. Review and approval of previous minutes

NRB Chair Mary Sipe mentioned that the previous minutes had been shared with all board members by email and no feedback or edits had been received. The Chair also asked if any board members had any edits to share, and as there were none, therefore NRB Chair stated that the minutes for April, May, and June were approved as written. These approved minutes would be posted on the Noise Review Board website.

IV. Public comments

NRB Chair Mary Sipe inquired about any public comments. At that point, Michael Hall introduced himself as the co-chair of a grassroots volunteer organization called Quiet Clean PDX (QC PDX). He proceeded to



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explain that their organization had been actively working since 2018 towards the elimination of gas-powered leaf blowers in Portland, following the example set by other cities.

Michael had requested a spot on the agenda for the September 13th meeting to delve into a noise ordinance centered around the prohibition of gas-powered leaf blowers, with exceptions only for emergencies. He noted that he had engaged in discussions with Mary Stipe and Paul Van Orden, acknowledging their understanding that any modifications regarding leaf blowers' regulation needed to be a part of a broader overhaul of Title 18.

In his comments, Michael detailed the various issues associated with gas-powered leaf blowers. These issues encompassed noise complaints, unhealthy emissions, and the inadequate enforcement of decibel restrictions. Michael accentuated the distinct and extensive noise propagation caused by gas leaf blowers. He presented electric leaf blowers as a more sustainable alternative, citing examples of companies successfully transitioning to electric models.

Michael underscored the mounting evidence in favor of a ban on gas-powered leaf blowers and addressed common counterarguments from the industry against such a ban. He expressed gratitude for the opportunity to discuss the matter and expressed their willingness to provide data and resources for further deliberation. Michael also emphasized the potential collaboration with Multnomah County in their joint efforts to mitigate the noise pollution attributed to gas leaf blowers.

Following Michael's comments, Lisa Scott also contributed her thoughts. Lisa informed the board that the shared Pickleball presentations had contained valuable insights. Despite their awareness of the issue, the Pickleball Club had extended its operating hours and even organized a pickleball tournament.

NRB Chair Mary Sipe expressed gratitude for both public comments and indicated that the upcoming agenda item, a presentation by Beth Benton from BDS, would delve into the process of amending Title 18. This topic would encompass changes related to leaf blower noise, a pertinent matter considering the ongoing interactions with the Quiet Clean PDX group, and Pickleball. The Chair highlighted that significant code changes were on the horizon, making it an opportune time to address these concerns.

Board members were then invited to share their questions or comments.

Noise Control Officer Paul mentioned that he had not participated in formal meetings with the Quiet Clean PDX group. While there were initial interactions when the group met with the county regarding potential restrictions on leaf blowers, the noise officer's involvement had been limited due to impending substantial code changes. These upcoming changes might provide a more comprehensive avenue to address individual issues. Paul stressed the importance of examining this issue within the context of both past pioneering efforts and future developments.

The Chair concluded this portion of the agenda by mentioning her intention to share the documents provided by the group and inviting Board Members to explore the Quiet Clean PDX website.



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V. Workplan for amending Title 18. Noise Code

Beth Benton introduced herself as the Manager of the Property Compliance Division at BDS. She mentioned that she had received the noise program from Civic Life in April 2023, and had been learning about Title 18 and the noise program ever since. She emphasized her background in enforcement and expressed that she was approaching the Title not as a noise expert but as an enforcement person and a public servant. Beth conveyed that Title 18 appeared outdated and pointed out that the last major changes were around 2001. The primary focus in amending Title 18 is to enhance community expectations, clearly articulate requirements, bolster the Noise Program's ability to enforce the code, and establish reasonable standards for safeguarding community health and needs. Simultaneously, to support industries, jobs, entertainment, economic stability, and growth.

Beth outlined the proposed plan to amend Title 18. The Noise Program intends to undertake a substantial amount of work, dividing efforts between the Noise Review Board and a Noise Advisory work group. This advisory group would comprise a mix of city staff and community members with specialized knowledge, skills, or direct involvement in noise, noise pollution, or noise mitigation. The Noise Program and part of city staff would serve as a Steering Committee, offering guidance, planning, and material facilitation for the work.

The plan involves breaking down the work into manageable sections based on the Balanced Approach Methodology. These sections are noise sources, land use, noise abatement, and operational tactics. Beth provided a sample timeline for the process, set to launch in the fall of 2023. This timeline included working on each section, sharing recommendations with the Board, and preparing a draft code. Public feedback would be actively sought through community engagement meetings and input sessions. Additionally, a 30-day public comment period would precede presenting the proposal to the Council for approval.

In closing her presentation, Beth acknowledged the possibility of additional meetings and offered an overview of the process's stages.

Derek Trost referred to a presentation slide displaying a pyramid diagram depicting the Balanced Approach Methodology. He requested clarification regarding the significance of the pyramid's sequence and priority. He expressed uncertainty about whether the pyramid indicated a foundational element or was simply a visual aid.

In response, Juliette Olivella addressed Derek's query. She explained that the pyramid represented a noise management methodology, wherein interconnected aspects like source, land use, abatement, and operational tactics were arranged in order of importance for effective management, but she clarified that the pyramid didn't signify their relevance from an acoustic impact standpoint. In essence, Juliette clarified that the pyramid served as a representation of the approach to be adopted for noise management to effectively combat the issue of pollution.



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Derek also proposed the inclusion of "allowances" as a topic of discussion into the operational tactic section. However, there was a divergence of opinions on the terminology and its application. Beth suggested the use of simpler terms due to the diverse audience, including non-native English speakers. The conversation further touched on the incorporation of various industries like construction and music, where allowances or exceptions were granted based on specific requirements. Beth mentioned the importance of employing precise and easily comprehensible definitions and terminology for effective community engagement. The concept of noise allowances in different contexts was introduced by Derek, leading to differing viewpoints on whether the term "allowances" or "variances" was a better fit within the code's context. The conversation concluded with Beth stating that this matter would be subject to discussion and review within the Noise Advisory Workgroup, in collaboration with the NRB. Recommendations from the previous year's work session would also be taken into account during this deliberation.

Lisa Scott, a member of the public, inquired about the composition of the Noise Advisory Workgroup. She pointed out that there was no representation for concerns related to pickleball or pickleball noise issues. Beth responded by stating that she viewed Pickleball as part of a larger category, specifically sporting events. In response to this, Mary Sipe drew comparisons to past instances for exemptions, such as pile driving. She explained that similar considerations would be taken for addressing pickleball. The exception for sporting events would be reevaluated by the entire workgroup. This reevaluation would also extend to other areas where the code's evaluations might no longer be suitable, such as leaf blowers or events at PIR, along with other sound-related matters. In conclusion, Beth emphasized that pickleball was more of a subject that needed addressing than requiring a specific expert member on the Noise Advisory Group. She underlined that community meetings would play a crucial role in comprehensively understanding and analyzing the topic from the perspectives of both pickleball players and those who were affected by it.

Derek concurred with the mentioned perspective and emphasized the importance of considering specific points throughout the process. He highlighted the distinct roles of the Noise Advisory Workgroup and the Noise Review Board. He stated that the NRB would be responsible for examining exemptions and assured the community that these matters would be thoroughly analyzed, considering testimonies and historical patterns related to the topic.

Derek also inquired about the utilization of complaint data for making noise-related decisions. Beth and Juliette replied, exposing the approach of prioritizing noise issues based on complaints and the sensitivity of the community. Juliette highlighted the necessity of involving specialists such as social workers or professionals with backgrounds in social sciences. These experts could address non-acoustic concerns that were intertwined with noise problems or sensitivity.



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Derek also mentioned the involvement of psychoacoustics professionals to address the intricate interplay of both the physics and psychological aspects of sound. The conversation further delved into the challenge of managing noise impacts, with the recognition that certain sounds affect individuals differently.

Beth underscored the importance of leveraging complaint data but cautioned that relying solely on numbers might not offer a comprehensive understanding. She mentioned the significance of also considering community feedback and emerging noise issues. This holistic approach will be crucial to obtaining a well-rounded perspective on noise management.

Martin Leima, a community member, brought up a potential conflict between Title 14 and Title 18 concerning noise regulations. Beth acknowledged her awareness of this conflict and explained that Title 14 pertained to police enforcement and fell under the jurisdiction of the Police Bureau. Both Martin and Beth agreed that there ideally shouldn't be a conflict between the regulations. However, they recognized that noise was addressed within Title 14, albeit defined differently.

Alex had expressed anticipation for the forthcoming proposed changes in response to Beth presentation.

The conversation on this topic concluded with Mary expressing her gratitude and excitement for the progress that had been achieved in the endeavor to address the amendment of Title 18.

VI. Follow up on Early Morning Concrete Pour Variances

The subsequent item on the agenda involved a discussion and follow-up regarding the variances for early morning concrete pours. Mary had conveyed that she had conducted an analysis and collected data on an additional 22 concrete pours. She had compiled a spreadsheet containing information about approximately 72 concrete pours, encompassing all the variances that the noise office had issued since the previous year. Among these variances, about 18 had been granted following the establishment of the guidelines, but there were no accompanying videos. Furthermore, approximately 7 variances had been granted outside the established guidelines due to exceptional circumstances.

In light of this, Mary intended to explore the possibility of obtaining videos for those variances without recordings. She also mentioned the potential approach of reaching out to the concrete suppliers for further information. She proposed the idea of inviting them to an upcoming noise review board meeting or at least engaging in conversations to gather more insights to bring back to the Board. This approach aimed to focus on both advancing further studies and enhancing the enforcement of regulations.

Mary highlighted the significance of addressing complaints received by the noise office regarding these variances. However, she mentioned that this topic would be deferred until the next month, possibly even until October, in order to gather more comprehensive information.

During the discussion, Desi raised a question about the 7 variances lacking video evidence. Desi asked whether it was a single contractor consistently ignoring variance rules or if multiple contractors were involved. In response, Paul clarified that various contractors were involved. He explained that the



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challenge with obtaining videos for concrete pour variances stemmed from the initial understanding that not all videos might be attainable. He emphasized the importance of uniformly applying any enforcement related to videos to all cases, rather than just a few. For Paul, the current question was whether to consistently enforce this video requirement.

The conversation progressed with Mary sharing additional examples and specific situations related to concrete pour variances. Ultimately, Mary and Paul concurred that the next steps involved collecting more information, establishing communication with suppliers, and presenting their findings in an upcoming Board meeting.

Mary concluded this agenda point by mentioning that the interim rule for construction activities during high heat had obviated the need for many variances when commencing work at 6 am under certain weather conditions. This alteration had streamlined the process.

VII. Noise Complaint Data

Mary had indicated that the Noise Complaint data and Paul's presentation had been shared beforehand for everyone to review.

Subsequently, Paul delivered a comprehensive breakdown of noise complaints. He delved into various categories, outlining their corresponding percentages, and organizing them into distinct types. Here's a condensed overview of the data he presented: Music-Related Complaints 51.5%, Construction Complaints 16.5%, Mechanical Complaints 8.2%, Other Complaints 7%, PIR Complaints 4.8%, Industrial/Commercial Complaints 4.5%, Leaf Blower Complaints 3.3%, Alarm Complaints 2.9%, Air Traffic Complaints 0.7%, Garbage Complaints 0.5%.

Paul proceeded to showcase visual representations illustrating how complaints were distributed across various sections of the city and months within the quarter. He emphasized the prevalence of complaint numbers in Southeast Portland and drew attention to the distinctive influence of Portland International Raceway on noise complaints within the North Portland region.

Desi acknowledged that the consistent trend of the highest complaint numbers arising from Southeast Portland had been a recurring observation in past reports. Given this repetitive pattern, she proposed that heightened attention and concentrated efforts might be warranted to effectively address noise-related concerns in that area of the city.

In response to Desi's comment, Paul explained a chart that provided a more intricate visualization of complaint types. This chart was divided into two segments, distinguishing less frequent complaint types from the more prevalent music and construction-related complaints. Paul explained the importance of segmenting complaints data by city sections. He explained that this approach facilitated the identification of potential equity and diversity issues, underscoring the need to ensure that all neighborhoods received adequate services and information. He acknowledged that this data could offer insights into engagement



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levels across different areas and could contribute to discussions about potential changes to the Code or procedural adjustments.

Shifting his focus to historical trends in complaints, Paul encouraged the Board to explore the data from various angles, utilizing tools such as others pie charts or visual representations to derive deeper insights from the complaints.

Derek then requested the inclusion of information categorized by the time of day in the data analysis. He posited that this breakdown could yield valuable insights, particularly when comparing complaint categories. For instance, Derek believed that analyzing the timing of construction complaints could help differentiate between routine construction activities and potentially unauthorized activities. Similarly, he emphasized the importance of distinguishing complaints about live music performances during their designated hours versus those that occur outside of those hours. Paul responded by exposing the challenge of extracting precise time-of-day information from noise complaints. He pointed out that some complainants used broad descriptions like "all hours, all days," which made it challenging to ascertain the exact timing of the noise issues. Despite efforts to prompt for more specific information during the intake process, certain complaints remained vague. Paul recognized the need for more detailed information and the purposes of having more precise breakdowns of complaint types based on the time of day. However, he highlighted that the feasibility of achieving this goal would depend on the information supplied by the complainants themselves.

Mary underscored the significance of Derek's request in capturing the specific times when noise complaints were reported. There was also a brief discussion regarding the division of data according to the City fiscal year. Mary pointed out that the NRB operates with a workplan aligned to the calendar year, so having consistent date formats would be beneficial.

VIII. Conference and information from Pickleball presentation

Continuing to the subsequent point, Paul delved into the insights extracted from presentations at the noise conference, specifically on pickleball noise. Paul's remarks encompassed five primary papers, and he went on to present an overview of the key points highlighted within each paper.

1. **The Statistics of Pickleball Sound and Recommended Noise Standard:** The author emphasized the importance of the Lmax index in noise regulation for this matter. While many noise codes average sound over time, it's essential to also consider short-term peak sound levels as Lmax.
2. **Pickleball Sound Testing Procedure:** The author attempted to create a testing procedure to measure the impact sound from pickleball paddles and balls. They aimed to quantify and characterize the noise produced by different equipment used in the game. However, Paul expressed concerns about the practicality of using this methodology to manage noise in the long term.



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3. Pickleball Sound Mitigation Distances: The paper discussed the distances required for acceptable sound levels with no mitigation, 10 dB mitigation, and 20 dB mitigation. Paul noted that achieving substantial mitigation, such as 20 dB, in real-world scenarios might be challenging and often requires structural changes.
4. Case Study of Noise Impact: The authors shared their experience addressing noise concerns related to pickleball in Cape Cod. They revealed their frustrations in trying to achieve positive changes despite quantifying and characterizing the noise issue. The study highlighted the challenges of dealing with specific noise violations in different local codes and state standards.
5. Measurement Protocol and Challenges: Paul highlighted this 5th paper that employed a slow measurement protocol to capture pickleball sound. The method's inefficiency in characterizing the quick staccato nature of pickleball sound was emphasized, accenting the importance of using accurate measurement protocols to assess noise impacts.

Paul acknowledged the ongoing dialogue and evolving understanding of noise issues, stressing that no definitive conclusions were reached in the presented papers. These discussions help inform future noise management strategies, and the board was invited to ask questions for further clarification.

No questions were asked but Mary shared additional observations and insights from the papers presented at the noise conference. She highlighted key points from the papers related to pickleball noise:

1. Consensus on Distance as Mitigation: Mary noted that there appeared to be a consensus among the papers that the primary method of mitigating pickleball noise is by maintaining a sufficient distance between the outdoor pickleball courts and nearby residential dwellings. This approach was seen as common sense and an effective solution to address the noise issue.
2. Components of Noise Impact: Mary shared the growing understanding that noise impact involves four components: loudness, tone, duration, and frequency. The papers highlighted the significance of these elements in contributing to negative community effects. Mary emphasized that discussions should go beyond decibel levels and consider these four components to comprehensively address noise concerns.

Derek also emphasized the significance of including the concept of psychoacoustics within a discussion about sound perception and noise. He clarified that psychoacoustics pertains to how the brain processes sound and holds relevance in both music creation and noise management. Derek pointed out that although it's occasionally misconstrued as hypersensitivity, psychoacoustics is indeed a scientific field. He highlighted that patterns in sound, such as musical beats or noises, significantly influence our perception. Accordingly, Derek suggested integrating the principles of psychoacoustics into conversations about noise complaints and the broader impact of noise on the community.

Mary echoed Derek's input and referenced a previous presentation on acoustics and noise delivered by Mike to the PIR subcommittee. She contemplated the idea of having Mike Raley, former NRB Acoustic Professional board member offer a similar presentation to educate new Board members. Mary



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highlighted that the past presentation had been well-received by both proponents and opponents of PIR, providing a foundational understanding of noise propagation and interpretation. Derek aligned with Mary's viewpoint regarding Mike's presentation and delved into points pertinent to noise control for pickleball courts. He underscored the significance of recognizing scientific expertise in the field of acoustics, citing the concept of utilizing roofs or ceilings as effective sound mitigation measures. Derek proposed that when an outdoor space, such as a court, is covered, it presents novel opportunities for managing sound. He observed that many noise abatement strategies presume an open ceiling, and the effectiveness of measures like sound curtains or walls is contingent on this assumption.

Derek elucidated that high frequencies exhibit directional characteristics, and their obstruction from one point (A) to another (B) can be achieved through the implementation of a roof. This approach effectively reduces the necessary height of sound barriers. He emphasized the significance of capturing sound reflections within a semi-enclosed setting to diminish sound pressure levels emitted. Derek underscored the importance of employing such mitigation strategies for enhanced noise control, particularly in settings like pickleball courts.

Desi posed a question regarding a potential approach that entails requiring building permits for pickleball courts, particularly given the current context where the Noise Program is part of the Bureau of Development Services (BDS). This approach could potentially have an impact on both public spaces managed by Parks and Recreation as well as private properties.

Derek lent his support to the question, underscoring the importance of aligning the code with the practical reality of having both sound transmitters and receivers within the community. He offered examples illustrating how planning and zoning could address scenarios such as residential homes situated near parks or live music venues adjacent to residential areas. Derek emphasized that historical oversights in these considerations need to be integrated into the fabric of the code.

Beth concurred with Desi's query and proposed that regulation of pickleball could extend beyond just noise concerns. She outlined how leveraging Title 33, the zoning code, to regulate pickleball activities based on the zoning of specific areas could offer a more comprehensive approach.

Lastly, Paul apprised the Board about the paper he presented at the conference. Within his conference presentation, he delved into the city's Noise Review Board, shedding light on its historical trajectory and primary function. He outlined the composition of the board, comprising both citizen and technical members, while emphasizing the pivotal role of citizens in exerting substantial influence. Paul highlighted that the board's purpose revolves around employing science and community engagement to address noise-related matters. Notably, a key piece of feedback he received from the conference was the rarity of such a successful board on a global scale, particularly its role in tackling noise as a human health issue. The underlying objective of his presentation was to provoke responses from the acoustics community and advocate for the board as a model for other municipalities. The overarching message underscored that the board's approach has been efficacious and should serve as a continuing model in the future.



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Concluding the agenda point, Mary conveyed her gratitude for the valuable insights shared by Paul and underscored the exceptional and substantial role played by the NRB.

IX. Work Plan Discussion

There was a need to conclude the meeting for Derek due to time constraints. The work plan discussion remained postponed.

The NRB Chair Mary Sipe inquired if there were any further topics for discussion before wrapping up the meeting, but no additional comments were put forth.

X. Adjournment

NRB Chair Mary Sipe adjourned the meeting at 8:23 PM.

Document Version Control Table

Version	Author	Date	Control
0.1	Juliette Olivella Lopez	08/23/23	Creation
0.2	Beth Benton	08/28/23	Spelling corrections
0.3	Mary Sipe	09/05/23	Spelling corrections
FINAL	NRB	09/10/23	Approval

Approved - NRB 09/10/23