

**Plan Amendment 2020-CW-3CP (Airport Noise Policy) Should Not Be Adopted:  
Rationale and Recommendations**

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Paper Submitted for Hearings

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## 1. Introduction

Airport and residential are incompatible land uses. Intense aircraft noise traumatizes residents in encroaching communities, and noise-stressed residents demand relief. But the damage to the neighborhood cannot be undone. Federal regulations prohibit airports receiving FAA Airport Improvement Program funds from limiting aircraft access to airport facilities based on concerns about aircraft noise. The result is a continuous round of noise complaints, recriminations, and meetings with little opportunity for reducing a community's exposure to aircraft noise. County residents experience this dilemma today at Washington National airport.

In recent times, Fairfax County land use policies have spared residents and Dulles airport this fate. The Comp Plan guidance that residential development is not recommended inside the 60 DNL contour has kept dense residential development away from the airport. The policy has been effective in assuring that conflicts with neighboring communities over aircraft noise issues are manageable. Dulles typically receives 1500 to 2000 noise complaints in a year, while in 2018, Washington National received 76,000. The Johnson Aviation report (see Sect 2.2) commented on the county's success at Dulles as compared to the situation at other major hub airports:

*"Fairfax County and MWAA together have made Dulles International a rare example in the U.S. of well-planned, airport-compatible land use success."* [Refl, cover letter first page].

*"All other large hub airports have grown with the increase in demand for air service while the communities around those airports have grown in around them. Quieter aircraft and billions of dollars in noise mitigation have combined over time to reduce the number of people impacted by aircraft noise while the number of aircraft operations have increased dramatically. However, the problem of community aircraft noise impacts is far from eliminated and this spending by the Federal Aviation Administration (FAA) and local communities will continue."* [Refl, pg7].

The report describes the noise mitigation program at Minneapolis-Saint Paul International Airport as one example of the effort made at major airports landlocked in residential communities. Since 1992, the airport has spent \$482 million on noise mitigation projects out to the current 60 DNL contour and in a buffer area that extends one mile beyond the 60 DNL contour. [Refl, pg33].

Properly managed, some beneficial residential development between the 60 and 65 DNL contours at Dulles undoubtedly is feasible. However, as currently managed, such development jeopardizes the welfare of both residents and the airport.

In 2019, the Board adopted the Westfields amendment, which broke precedent by recommending residential development between the 60 and 65 DNL contours within Land Unit J of the Dulles Suburban Center. MWAA and local aviation industry representatives strongly opposed the amendment citing the concern that aircraft noise exposure in these developments will lead to residents frustrated by aircraft noise and conflicts with the airport and its future development. Subject plan amendment now is recommending residential development between the 60 and 65 DNL contours everywhere in the Dulles airport noise impact area.

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This paper argues that the Board's ongoing effort to populate the borders of Dulles airport with residential development is poorly managed, compromised a mass of misinformation, and misguided.<sup>1</sup> The Board is heedless of the risks they are taking with the future of both county residents and the airport.

Sect 4 of the paper describes the reasons for recommending that subject plan amendment should not be adopted and makes recommendations. Sect 5 provides information substantiating two principal recommendations, namely, that the noise mitigation standard in subject plan amendment is inadequate and that the Board should adopt the 2019 contours.

Appendix B provides a chronological list of principal recent events related to Dulles land use policy.

This paper has been distributed to the Planning Commission and the Board of Supervisors. It is Paper Three of three papers distributed to commissioners and supervisors on the subject of Board efforts over the last three years to develop residential uses between the contours at Dulles. Paper One in the series demonstrated that the information provided supervisors in the 21 July 2020 LUPC meeting was deeply flawed and the decisions made in the meeting by supervisors therefore were not valid, in particular the decision to not adopt the 2019 contours. The paper recommended that the Board embrace their consultant's recommendations to adopt the 2019 contours and develop meaningful restrictions for residential development between the contours. Paper Two focused on the inadequate noise mitigation standard proposed in subject plan amendment and recommended that the Board collaborate with MWAA, local representatives of the aviation industry, and Loudon County to develop appropriate restrictions for the developments. All three papers are available online at <https://holmesrun.org/2022/04/01/westfields-issues>.

## **2. Background**

### **2.1. Westfields Amendment**

On 7 May 2019 the Board adopted PA 2018-III-DS1 (Westfields), which recommended residential development between the 60 and 65 DNL contours of Land Unit J of the Dulles Suburban Center under conditions requiring noise survey and analysis, noise mitigation, occupant notification, and avigation or similar hold-harmless agreements allowing the airport to use airspace above developments for flight operations. The amendment was based on a Westfields Business Owners Association master plan focused on transitioning the 40-year-old, outdated, failing office park to a mixed-use residential, retail, and office development. Westfields occupies the entirety of or nearly the entire Land Unit J. Appendix A provides a short summary of a two-day Urban Land Institute analysis of the status of Westfields and means for repositioning the site for economic success.

The Westfields amendment recommended 4250 additional residential units above the number then existing and approved. Prior to adoption, residential development inside the 60 DNL contour was not recommended in any land unit. [Ref2, pg 19]. Residential development in Land Unit J was limited by the Comp Plan to a total of 1246 units of which only 248 had been constructed. [Ref3, pg 6]. As a consequence of the Westfields amendment, 5496 dwelling units now are recommended – enough

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<sup>1</sup> Concerns about the accuracy of information that has been provided to the Board are described in Sect 13 on pg 13 of [Ref7](#) and in Sect 9 on pg 11 of [Ref9](#).

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housing for 12,600 residents.<sup>2</sup> From hearing testimony it is apparent that the Board's principal objective in promoting the amendment was to protect the county's property tax base by allowing Westfields to transition to mixed-use. [Ref12 Video at 6:22:10, 6:30:50, and 6:32:40].

On 24 April 2019, the motion in the Planning Commission to recommend adoption of the Westfields amendment *failed* by a vote of 4-5-2. In the same meeting, by a vote of 10-0-1 (one commissioner absent) the Planning Commission recommended that the Board authorize a Comp Plan amendment to consider adopting the 2019 contours as soon as they became available. [Ref4].

In the May 2019 Board hearing, every representative of the Washington area aviation industry testifying strongly opposed the amendment, including:

- Michael Cooper, Metropolitan Washington Airports Authority [Ref12 at 4hr:54min].
- Richard Del Tos, Metropolitan Washington Airlines Committee [Ref12 at 5hr:00min:55sec].
- Tom Michaels, United Airlines: [Ref12 at 5hr:33min].
- Keith Meurlin, Washington Airports Task Force: [Ref12 at 4hr:44min:40sec].

John Boylan, President of the Dulles Regional Chamber of Commerce, similarly opposed the amendment. Notwithstanding the opposition, the Board adopted the Westfields amendment by a vote of 6-3 with one supervisor out of the room.

## 2.2. Johnson Aviation Report

Following the Westfields amendment public hearing, Sully District Supervisor Kathy Smith made a motion and the Board agreed to direct staff to gather information and recommend next steps for consideration of the 2019 noise contours that MWAA had delivered to staff in April 2019. [Ref5]. The county engaged Johnson Aviation of Oak Park, California, to provide perspective and expert advice regarding the question of adopting the contours. The first and principal recommendation of the Johnson Aviation 15 Mar 2020 report was that the county *should adopt the 2019 contours as a guide for land use planning*. The second recommendation recognized that switching from the 1993 to the 2019 contours could result in some areas moving from one side of a contour to another and proposed that decisions regarding residential development in these areas should be made on a case by case basis.

On 21 July 2020 Nick Johnson of Johnson Aviation briefed the Land Use Policy Committee (LUPC) on his report. The report did not address the question of allowing residential development between the 60 and 65 DNL contours at Dulles airport because, according to Mr. Johnson's slides, Johnson Aviation had not been assigned a task to address the question. Nonetheless, the second bullet on Slide 13 read, "*Analyze 60-65 DNL area to permit residential with restrictions.*" Speaking to this bullet, Johnson said to "*Look carefully at the area between 60 and 65 DNL to permit residential uses with restrictions. Reasonable restrictions in this area are really important because the area would be impacted.*" (Emphasis Johnson's.).

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<sup>2</sup> At 2.3 residents per dwelling unit.

### **3. Principal Provisions of Subject Plan Amendment**

The amendment proposes to modify the section Land Use Planning within the Dulles Airport Noise Impact Area of Area Plan Overview for Area III of the Comp Plan to recommend residential uses between the 60 and 65 DNL contours of the Dulles Noise Impact Area. Currently, this section of the Comp Plan states that residential development inside the 60 DNL contour is not recommended.

The section Dulles Suburban Center of the Area III plan would be modified to recommend that, where new residential development is considered between the 60-65 DNL noise contours, the guidance in Objective 4 of the Environment section of the Comprehensive Plan Policy Plan should be followed.

For residential development within the 60-65 DNL noise contours at Dulles, Objective 4 would be modified to provide guidance for noise studies, mitigation of interior noise levels to 45 dBA, aviation easements or the like, and notification of lessors/purchasers regarding proximity to Dulles airport and aircraft noise. Notifications would include maps of Dulles airport environs showing the location of residential units and the 65 DNL noise contour. These conditions functionally are nearly congruent with corresponding conditions in the Westfields amendment with the exception that guidance to mitigate noise to 65 dBA or less in private recreation areas has been dropped. Currently, Objective 4 recommends that new developments should not expose residents in their homes to noise in excess of 45 DNL or to noise in excess of 65 DNL in outdoor recreation areas. With a modification proposed by subject plan amendment, Objective 4 would advise that new residential development should not occur in areas with projected highway noise exceeding 75 DNL or projected aircraft noise exceeding 65 DNL.

The plan amendment bases its proposals and justifications on the 1993 contours.

### **4. Plan Amendment Should Not Be Adopted**

#### **4.1. Proposed Guidance for Noise Mitigation Is Inadequate.**

Proposed Objective 4 provides two standards for mitigating interior noise, one that would require extremely dense (and economically unaffordable) sound insulation in homes and one that would require no sound insulation beyond that inherent in any home built with standard materials and construction practices. The guidance fails to provide a practical, actionable standard for the noise mitigation necessary for homes in the Dulles noise environment. Residents would be insufficiently protected from highly annoying aircraft noise in their homes, and the airport would not be protected from a deluge of noise complaints and a future dealing with the consequences.

Prior to adopting the amendment, the county should incorporate effective noise mitigation standards for residences between the 60 and 65 DNL contours and the standards should be included in the Zoning Ordinance as requirements. Standards only as guidance in the Policy Plan are insufficient. See Sect 5.1 of this paper for explanation of the above comments.

#### **4.2. Board First Should Adopt the 2019 Contours**

MWAA delivered the 2019 contours to the county in April 2019. In May 2019, the Board directed staff to make recommendations regarding consideration of the contours, and staff subsequently engaged Johnson Aviation as described earlier. During his briefing to the 21 July 2020 LUPC meeting, Nick Johnson recommended that Board adopt the 2019 contours for purposes of land use

planning. Immediately following Johnson's briefing, staff, with a briefing devoid of relevant considerations and accurate information, recommended that the Board should *not* adopt the contours. The minutes of the meeting state that supervisors had agreed with staff's recommendation to not adopt. And that's where the decision stands. Incredibly, the Board has pocketed and tabled indefinitely the proper and necessary consideration of the contours in public hearings by county aviation and business interests and by residents. Apparently the 2019 contours conflict with the Board's ill-considered plans for populating the borders of Dulles airport with noise-sensitive residential development.

Now the Board proposes to use the out-of-date 1993 contours as the basis for subject plan amendment's recommendation to allow residential development everywhere between the 60 and 65 DNL contours and for establishing the associated conditions under which the developments would be approved. The proposal risks introducing ambiguity, confusion, distrust, and litigation into the Dulles land use management process. The county should adopt the 2019 contours prior to making any additional decision regarding land use in the Dulles airport environs.

In any case, the Board should hold public hearings on the question of adopting the 2019 contours prior to any further consideration of subject plan amendment. See Section 5.2.

#### **4.3. Board Should Focus on Providing Viable Homes for Families**

The Board should recognize that they have a responsibility to provide for the health and wellbeing of residents who would occupy the Dulles developments. If residential developments between the contours cannot provide a comfortable, healthy living space where families can thrive, then the developments should not be allowed. Much of the discussion in Board meetings has focused on the needs of failed/failing office parks and industrial sites as well as the need to protect and enhance the county's property tax base. There has been little discussion regarding the welfare of residents and the airport. [\[Ref7\]](#), Sect 14, pg 16]. The failure to propose a viable standard for mitigating interior noise levels is one example of a concerning disregard for the wellbeing of prospective residents.

A second concern is apparent lack of an overall plan for the 3117 acres between the contours where sites, today largely zoned industrial and commercial, now would accommodate residential uses. How are the residential communities expected to knit together and function normally in the aircraft noise environment? What development conditions/guidance will be provided re community features expected, for example, recreational opportunities for families and children where residences will be located in highly annoying aircraft noise settings?

Prior to adopting subject plan amendment, the staff report should be amended to include a description of how the county will plan and manage the development of the area to assure that it provides viable homes and neighborhoods for families in the Dulles noise environment.

#### **4.4. Amendment Should Cite Experience and BMPs at Other Airports**

The 28 July 2020 motion by Supervisor Smith that authorized subject plan amendment speculated that allowing residential uses between 60 and 65 DNL noise contours at Dulles would be consistent with land use policies of most jurisdictions with international airports. Presumably these many jurisdictions have accumulated a fund of knowledge regarding how residential development can be managed successfully in close proximity to airports, including effective standards and techniques for mitigating

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noise and best management practices for creating viable residential neighborhoods notwithstanding aircraft noise.

On page 28, the staff report states that Loudon County allows residential development between the contours under conditions requiring acoustical treatment of homes. But the report doesn't spell out the acoustical treatment requirements, or whether the requirements are mandatory or only guidance, or whether the county places other limitations such as prohibiting residential development directly under approach paths to busy runways. Furthermore, the report does not describe Loudon's experience and lessons learned from its standards. Why not?

The Board is recklessly underestimating the risks to the county community inherent in their heedless approach to populating the borders of Dulles airport. The Johnson Aviation report is clear that, among the many international airports with residential developments between the 60 and 65 DNL contours, there are many suffering the consequences in much the same way that residents and National airport suffer aircraft noise. The Johnson Aviation report makes the risks clear but to no effect on the Board. It is apparent that the Board regards the Dulles land area and its failed and failing office park(s) principally as an area requiring transition to mixed use; residents will need to put up with some noise (so "buyer beware"); and the airport will be fine, no worries. That attitude risks permanent damage to the character of the area and the future of the airport. [[Ref8](#) starting at 2:06:20, [Ref11](#) starting at 0:46:10, [Ref12](#) starting at 4:44:00].

The staff report should be amended to document standards and practices found successful at other airports as the basis for the regulations and guidance proposed for residential development between the contours at Dulles, in particular for noise mitigation.

#### **4.5. The Board Should Collaborate with MWA and Local Aviation Industry Reps**

The Board consistently has failed to heed the advice of aviation industry experts regarding the development of land nearby the airport. The Board has dismissed the two principal recommendations of their consultant, Johnson Aviation, as well as advice received from MWA, from the three aviation industry representatives who testified at the Westfield hearing, and from correspondence submitted to hearings by aviation interests. John Boylan, President of Dulles Regional Chamber of Commerce, opposed the Westfields amendment and recommended that the county work with MWA and Loudoun County to develop a Dulles solution satisfying the interests of the three parties. [[Ref12](#) at 4:51:00]. But Westfield couldn't wait. The Board approved Westfields and moved on.

The Board should recognize that they have a responsibility to actively support the future of Dulles airport, and they are members of a community that shares that responsibility with them, including MWA, the aviation industry that depends upon the airport, and Loudoun County. The Board now should engage with MWA and Loudoun County to develop the standards for residential uses between the 60 and 65 DNL contours that Johnson Aviation recommended nearly two years ago. Go together and make a professional job of it.

Staff should solicit comments from MWA and Loudoun County planning staff on revised standards for residential development between the contours, in particular, the standards for noise mitigation. The comments received from MWA and Loudoun should be published in the revised staff report.



## 5. Explanation of Concerns

### 5.1. Noise Mitigation Guidance Is Inadequate

The amendment would modify Objective 4 (Noise) in the Environment section of the Policy Plan to include two standards for mitigating interior noise generated by transportation. The first is the existing standard that new development should not expose residents in their homes to noise levels exceeding 45 DNL. The second and new standard recommends that, for new residential development between 60 and 65 DNL aircraft noise contours, noise levels in interior living spaces should not exceed 45 dBA. The 45 dBA standard is impractical in the Dulles aircraft noise environment and the 45 DNL standard provides no protection beyond that inherent in standard builder practices.

Noise from aircraft overhead can exceed 85 dBA. Reducing that to 45 dBA inside would require 40+ dBA building shell attenuation, which is at least 100 times greater than the 20 dBA attenuation one can expect from standard building materials and construction practices. The staff report notes on page 26 that, in some cases, 25 dBA of shell attenuation can be provided at an additional cost of \$5000 per dwelling unit, but the cost of attenuation increases significantly for 30 dBA attenuation and greater. Forty dBA attenuation is 10 times 30 dBA; it requires the shell to deflect or absorb 99.99% of the noise outside. Residential construction providing this level of noise insulation almost certainly is not affordable among homes envisioned between the 60 and 65 DNL contours at Dulles. Consequently, the proposed 45 dBA interior noise limit is not useful guidance for noise mitigation. It's simply not feasible economically.

The 45 dBA interior noise limit was introduced into the Comp Plan by the Westfields amendment. The fact that none of the four developments approved on Land Unit J since adoption of the Westfields amendment proffered to meet the 45 dBA limitation supports the conclusion that the guidance is not efficacious.

Noise levels expressed in terms of dBA refer to instantaneous (here and now) sound pressure levels. DNL values, on the other hand, are sound pressure levels averaged over one or more 24 hour periods, perhaps one day, a month, or an entire year.<sup>3</sup> [Ref9, Sect 4]. A noise at 45 dBA would be heard as sound at a constant volume. However, aircraft noise is episodic - a quiet period followed by a noisy period as the aircraft passes. In order for aircraft noise to average out to 58 DNL, as an example, the noisy periods need to significantly exceed 58 dBA in order to balance out the quiet periods. In a May 2019 sample of 6287 aircraft noise events (fly overs) captured by Dulles Noise Monitoring Terminal #25 located on the final approach path to Runway 1 Right, the average noise level over the 31-day period was 58.1 DNL, the loudest noise event recorded was 87 dBA, and 11% of the noise events exceeded 75 dBA.

Figure 1 shows the interior noise levels that would be experienced inside a building at NMT #25 that provided the listed values of building shell attenuation. [Ref9, Sect 5]. Inside a building constructed with standard materials and practices (20 dBA attenuation), interior noise levels would be as high as 67 dBA and 140 noise events per day would exceed the 45 dBA limit. A building with shell

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<sup>3</sup> This paper uses the notation 60 DNL (as an example) for noise levels expressed in terms of DNL. Elsewhere 60 DNL might be written as DNL 60, DNL 60 dBA and  $L_{dn}$  60 dBA - different notations, the noise level is the same in all four cases.



attenuation of 27 dBA would reduce the interior noise level to 60 dBA and 48 events per day would exceed 45 dBA.

**Figure 1. Building Shell Attenuations and Interior Noise Levels**  
(Based on May 2019 NMT #25 Noise Measurements at Dulles)

<b>Building Shell Attenuation (dBA)</b>	<b>Max Interior Noise Level (dBA)</b>	<b>Number of Events with Interior Noise Levels Exceeding 45 dBA</b>
20	67	4325 (140/day)
27	60	1476 (48/day)
34	53	93 (3/day)
42	45	0

The staff report notes on page 26 that, in a representative sample of aircraft noise, the noise level that occurs most frequently (denoted “Modal Lmax”) generally exceeds the DNL value (the 24-hour average noise level) by 10 dBA. It’s a useful rule of thumb if one recognizes that a significant number of noise events will exceed Modal Lmax. Figure 2 provides a summary of the Dulles May 2019 NMT #25 sample and a sample from Washington National.

**Figure 2. Examples of Dulles and Washington National Aircraft Noise**

<b>Airport</b>	<b>Dulles</b>	<b>National</b>
<b>MWAA Noise Monitoring Terminal</b>	NMT #25 on Final Approach to Runway 01R	NMT #8 in Founder’s Park, Old Town
<b>Time Period</b>	Month of May 2019	Month of May 2019
<b>Noise Events</b>	6287	11,476
<b>DNL</b>	58.1	61.6
<b>Modal Lmax</b>	70 dBA	68 dBA
<b>Events Exceeding Modal Lmax</b>	2251 (35.8%)	5955 (51.9%)
<b>Events Exceeding 75 dBA</b>	690 (11.0%)	1691 (14.7%)
<b>Events Exceeding 80 dBA</b>	48 (0.8%)	50 (0.4%)
<b>Loudest Event</b>	87 dBA	85 dBA

At Dulles, Modal Lmax exceeded the DNL level by 12 dBA and 36% of noise events exceeded Modal Lmax. At National, Modal Lmax exceeded DNL by 6 dBA, and 52% of noise events exceeded Modal Lmax. Modal Lmax by no means represents the maximum noise level experienced at a site.

The current Planning Commission has recommended approval of four developments in Land Unit J since the Board adopted the Westfield amendment with its guidance that interior noise levels should not exceed 45 dBA.<sup>4</sup> In no case did an applicant propose to limit interior noise to 45 dBA. In three cases, The Retreat, Boulevards, and Commonwealth Land Bay A, the applicants proffered to limit interior noise levels to the 45 DNL residential standard that has been in Objective 4 for some time.

<sup>4</sup> The current Board has approved three of the developments. Commonwealth Land Bay A is pending before the Board.

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The county asked the Stonebrook applicant to proffered 25 dBA building shell attenuation, and the developer agreed noting that windows and doors would need to provide 6-8 dBA more attenuation than their standard products. [Ref9, Sect 6.1]. In a 65 DNL noise setting, 25 dBA attenuation would limit interior noise to 40 DNL, but, in the May 2019 data sample from Dulles NMT #25, interior noise levels still would reach 62 dBA and 2251 noise events per month (73/day) would exceed 45 dBA.

The proposed 45 dBA limit on interior noise provides no actionable guidance for noise mitigation among residential developments expected between 60 and 65 DNL at Dulles. The necessary 40+ dBA building shell attenuation is not affordable. The 45 dBA guidance can be written out in Objective 4, but the likelihood that developers would be able to meet it is nil. Instead, developers can be expected to adopt the 45 DNL guidance. However, in a 65 DNL noise environment, a 45 DNL standard can be met with standard building materials and construction practices (20 dBA attenuation).

The first conclusion is that developers would be able to meet the only feasible noise mitigation standard proposed in subject plan amendment (45 DNL) simply by building homes using standard materials and practices. No additional sound insulation would be required. Presumably, the residents who filed the 76,000 noise complaints against Washington National airport in 2018 lived in homes similarly constructed. The second conclusion, then, is that subject plan amendment provides no realistic protection against the likelihood that, over time, the anticipated progression of residential developments between 60 and 65 DNL at Dulles would expose homes and residents there to highly annoying aircraft noise to a degree similar to the trauma that plagues National airport today. (See [Ref8](#) at 2:29:10 for Supervisor Storck's description of the noise at National.)

The proposed standard for noise mitigation is not adequate for protecting either residents or the airport.

#### Recommendations:

- The county should develop effective standards for mitigation of interior noise that adequately would protect the health and wellbeing of residents as well as protect the airport from a deluge of noise complaints and the fate suffered by National airport. The standards should be based on documented experience and best practices at major hub airports that have successfully accommodated residential development between 60 and 65 DNL contours.
- The noise mitigation standards should be added to Sect 3103.2 of the Zoning Ordinance as requirements to be met between the 60 and 65 DNL contours of the Airport Noise Impact Overlay District. Discretionary standards in the Policy Plan are inadequate for assuring the welfare of either residents or Dulles airport.
- Mitigation standards for aircraft noise should be based upon the location of the building within the noise contours. They should not be based solely upon a survey of the site noise environment. The objective is to assure that building interiors will remain habitable as the airport develops and aircraft noise increases within the contours over time.

### **5.2. Adopt the 2019 Contours**

For more than three years, the Board has gone to great lengths to avoid adopting the 2019 contours. In the May 2019 Westfields hearing, Chairman Sharon Bulova introduced a substitute motion arguing that, in order to better protect the airport, the Board should make a decision on the 2019 contours prior to allowing residential development inside the 60 DNL contour. She was voted down principally on the basis that dire straits at Westfields required immediate relief and could not wait for the public

hearing process that would be required for a decision on the contours. [Ref12 Video at 6:13:30]. Instead the Board adopted the Westfields amendment and directed staff to collect information, including the possibility of engaging a consultant, to support a future decision on the contours.

### 5.2.1. 21 July 2020 LUPC Meeting

As mentioned earlier, on 21 July 2020 staff's consultant, Nick Johnson of Johnson Aviation, briefed the Land Use Policy Committee on the findings in his report [Ref1, Ref6 & Ref8 Video at 1:30:15]. He certified that MWAA had developed the 2019 contours in accordance with FAA standards in a process that effectively engaged the aviation community and county stakeholders, including representatives of Fairfax County government. *His principal recommendation was that the Board should adopt the 2019 contours as the basis for its land use decisions concerning the airport.* Immediately following Johnson's briefing, staff presented slides *recommending that the Board should not adopt the 2019 contours.* [Ref10 & Ref8 at 1:56:15]. Her recommendation was based on three principal concerns: [Ref7, Sect 13.1].

- Concern Dulles Has Surplus Capacity: Staff expressed concern that the airport has sufficient capacity to meet future demand for many years to come, with an additional runway, perhaps another 60-90 years. Dulles currently is operating at about 30% capacity.
- Concern Dulles Planning Is Different: Fairfax and Loudoun counties have protected Dulles airport from encroaching residential development ever since it began operations in 1962 with few noise-sensitive uses nearby (i.e., on a "green field"). As a consequence, over its 60 years of operation, Dulles has been a good neighbor for surrounding communities. Noise complaints total 1500-2000 per year compared with 76,000 at Washington National. In the recent past, Dulles has been protected from encroachment by discouraging new residential development inside the 60 DNL noise contour. There is only one other green field airport in the county, Denver Int'l, and it is similarly protected from encroachment. As pointed out in the Johnson Aviation report, all the other large hub airports have grown over time to meet the demand for air service while surrounding communities have grown in around them. [Ref1, pg 7]. Consequently, Dulles and Denver are unique in their ability to keep noise-sensitive development at arm's length. Staff expressed concern about this "different planning" that goes on at Dulles and only one other airport in the county. In staff's view, planning at Dulles should not be different from planning at all the other large hub airports.
- Misunderstood That Contours As a Plan: The 60 DNL contour that has been used to discourage encroaching residential development is based on a calculation (in accordance with FAA guidance in 14 CFR Part 150) of the noise the airport would generate operating at full capacity. The 1993 contours similarly are based on an airport full-capacity noise calculation. The lifetime of a residential development and its successors extends many years into the future, and the objective has been and should continue to be assurance that new developments are not subjected to excessive aircraft noise as operations at the airport increase to full capacity. Consequently the contours protecting communities should represent the noise the airport would generate at full capacity. Staff misunderstood the Part 150 capacity calculation as a 60-90 year plan for Dulles airport development and argued that such long-range planning is inappropriate for land use planning purposes.

Clearly, none of these concerns raised by staff addressed the pertinent question of which set of contours, 1993 or 2019, better represents the current and future noise environment at Dulles. What's more, in her briefing Byron made no mention of the fact that the Planning Commission, Nick Johnson, MWAA, and aviation industry representatives testifying in the Westfields hearing had recommended

that the county adopt or hold public hearings on the question of adopting the 2019 contours. The material presented by staff could not have been less to the point and more misleading had obscuration and confusion been the objective.

Michael Cooper, MWAA Manager of State and Local Government Affairs, was present in the 21 July 2020 LUPC meeting. Supervisor Herrity proposed that Cooper be allowed to address the committee on the subject of the contours. Supervisor Smith, chairman of the committee, refused his request saying, “*We don't do that. We're not going to do that. I'm chairman of the meeting.*” No supervisor in the meeting intervened and Cooper was not allowed to speak. [Ref8 Video at 2:21:40]. Smith went on to describe her unfounded conclusion that the 1993 contours accurately describe “*what's happening now at the airport and will happen for many years into the future,*” and to declare as a “*false narrative*” the notion that residents will complain about aircraft noise and complaints will jeopardize the future development of the airport.

In the discussions that followed the two briefings, five supervisors of the nine present expressed opinions that the 2019 contours should not be adopted. Two of the supervisors gave no reason for their opinion and two expressed concerns about adopting contours based on what Byron had characterized as a 60-to-90 year, long-range development plan for the airport. Meeting minutes stated that there was general agreement among Board members that aligned with the staff recommendation to not adopt the contours. The minutes subsequently were approved in the October 2020 meeting of the committee. *Based on these events, staff announced in the 15 March 2022 LUPC meeting that the Board had made the decision to not adopt the 2019 contours.* No supervisor intervened to correct the statement. Is the Board unanimous in the (mistaken) belief that they can reject the 2019 contours without first soliciting public comments and holding a public hearing on the question?

Now the Board is proposing to use the out-of-date 1993 contours as the basis for recommending residential development everywhere between the 60 and 65 DNL contours as well as for the associated guidance recommending noise surveys, noise mitigation, occupant notification, and aviation or similar agreements. It is not clear that any of the staff report analysis and justification for these proposals is relevant to allowing residential development between the legitimate 60 and 65 DNL noise contours at Dulles, the 2019 contours.

### **5.2.2. Contour Comparison**

A major factor accounting for the differences between the 1993 and 2019 contours is the significant reduction in aircraft engine noise achieved over the intervening 29 years. A second principal factor is the narrowing or concentration of approach paths to runways as a consequence of Next Generation air traffic control procedures recently implemented by FAA.

Figure 3 attached provides a comparison of the 1993 and 2019 contours in both Fairfax and Loudoun counties. The 1993 contours are in yellow; the 2019 contours are blue. Areas colored magenta have been added; they were outside the 1993 contours but are inside the 2019 contours. The area's colored green are newly released; they were inside the 1993 contours but are outside the 2019 contours. In Fairfax County the 2019 60+ noise impact area is larger than the 1993 area. The principal addition is the magenta “peninsula” in the southeast quadrant. The 2019 65+ impact area is substantially smaller. On page 28 of the staff report, the reader is told that, in Loudon County, the 65+ area is reduced by

10.82 acres. Staff did not provide the same information for Fairfax County, presumably because they consider the question of adopting the 2019 contours here moot.

Figure 4 attached shows the consequences within Land Unit J of adopting the 2019 contours. On the west side of the area there is little effect. However, on the east side a substantially larger area is included inside the 60 DNL contour, and a small area is newly included inside the 65 DNL contour. In particular, the 1993 contours place the Stonebrook site at approximately 62 to 63 DNL; the 2019 contours place it slightly above 65 DNL.

It is important to understand how DNL values are assigned to contours. As described earlier, DNL values represent aircraft noise averaged over one or more 24 hour periods. The total noise generated over the 24-hour period(s) is summed up and then spread over the entire time interval to produce an average value. The noise generated by a typical overflight it's not expected to increase in the future. What is expected to increase is the number of overflights in a typical 24-hour period. The shapes of the noise contours outline the principal areas expected it to be impacted by aircraft noise. The DNL value assigned to a contour represents the average noise for an average day when the frequency of overflights corresponds to the airport operating at full capacity.<sup>5</sup> However, actual aircraft noise averaged over a particularly busy day in 2022 (or anytime) reasonably could approach or exceed the DNL values etched on the 2019 contours. As flight operations at the airport increase over time, the likelihood of such a day occurring will increase.

It is imperative that the Board adopt the 2019 contours before making further land use decisions concerning the airport:

- Section 3103.2 of the Zoning Ordinance states that the purpose of the Airport Noise Impact Area (the contours) is to control conflicts between land uses and noise generated by aircraft in order to protect public health and safety from excessive noise. The 2019 contours define the areas where aircraft noise impacts occur today and are expected to occur in the future. The 1993 contours describe the areas where noise impacts occurred 29 years ago. Land use planning should be based on the current (2019) contours.
- The noise impact area protected against residential development should continue to be defined based on the airport operating at full capacity. If the protected area were based on a 20-year traffic forecast, as an example, development could be allowed in locations where, 30 or 40 years later, noise would have increased, the 65 DNL contour would have moved farther away from the airport, and older developments could find themselves now inside the 65 DNL contour. *The objective has been and should continue to be to assurance that residential developments will remain outside the 65 DNL contour as the airport expands to full capacity. Consequently, the protected 65 DNL contour should be calculated based on aircraft noise generated at full airport capacity.*
- The 2019 contours represent the best and most reliable estimate currently available of where noise occurs at the airport today and where it will occur in the future. These are the areas where residential development should be limited in order to assure that both today's residents and future residents will be adequately protected from unhealthy exposure to aircraft noise. *While the average-day noise levels depicted on the 2019 contours are calculated based on the airport*

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<sup>5</sup> The total noise generated by the airport operating at full capacity for a full year is divided by 365 to produce the noise generated in an average day. The noise for the average day then is spread over 24 hours to produce the DNL value for the contour.

*operating at full capacity in the future, it is reasonable to expect similar (peak-day) noise levels when the airport is particularly busy today.*

### **5.2.3. Legal Liability Risks**

The 65, 70, and 75 DNL noise contours are formal boundaries in HUD, FAA, and Fairfax County rules and regulations limiting residential land uses. The FAA publishes rules and a series of advisory circulars regarding accepted means for establishing these noise contours at airports. The bona fide noise contours at Dulles airport are the contours most recently published by the airport authority in accordance with these rules. Certainly the county can independently publish boundaries of a noise impact area at the airport, but calling the boundary of the area a 65 DNL noise contour risks accusations that the county intentionally is misleading the public regarding current and future noise levels at the airport, unless, of course, at publication the boundary is the current MWAA 65 DNL contour. Similarly, if the county is going to establish certain rules for noise-sensitive development between the 60 and 65 DNL contours, these contours would need to be the current 60 and 65 DNL contours established by MWAA. Finally, the county will need to publish an authentic 65 DNL contour for the airport in order to assure that land use decisions comply with HUD, FAA, and county guidance. How is it sensible for the Board to substitute its out-of-date 1993 contours for these purposes?

No one doubts that a certain proportion of the thousands of residents anticipated to move into developments between the 60 and 65 DNL contours will complain about the noise.<sup>6</sup> To limit the number of complaints, the plan amendment proposes that residents will have been notified about proximity to aircraft noise and given copies of maps showing the 65 DNL contour. Which 65 DNL contour will they be given, the 2019 contour or the out-of-date 1993 contour?

Consider the case of a Stonebrook resident who was given 1993 contours showing her residence *outside* the 65 DNL contour. (See Figure 4 for the Land Unit J contours.) Later she discovers: (1) that she cannot comfortably tolerate the noise, (2) that on the official, FAA-standard, MWAA 2019 noise map current at the time of her purchase her home is *inside* the 65 DNL contour, and (3) neither the county nor the FAA recommends residential development inside the 65 DNL contour. Wouldn't she be justified in seeking damages from the county on the basis that the county should have adopted the current (2019) contours and required their use on her noise notification map thereby assuring that she would be accurately informed regarding the noise exposure of her home?

And consider the case of someone who buys a home outside the 1993 contours but inside the magenta "peninsula" in the southeast corner of the DNL 60+ area of the Fairfax County 2019 contours in Figure 4. If the county were working to the 1993 contours at the time of purchase, the resident would not have received a noise notification while homeowners immediately to the west and inside the 2019 60 DNL contour would have. If the resident later became weary of the noise, wouldn't he be entitled to damages from the county on the basis that he was equally entitled to noise notification but was denied because the county intentionally was using out-of-date contours, in part, in an effort to promote development and increase tax revenue?

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<sup>6</sup> It was pointed out earlier that the Board already has approved sufficient housing in Land Unit J to accommodate 12,600 residents. Much of this housing will be between 60 and 65 DNL contours.

The focus on protecting and increasing tax revenue here is a consequence of Board discussions of Dulles land use policy that consistently have mentioned tax revenue as a principal objective of residential development between at Dulles. [[Ref11](#) Video at 0:05, [Ref12](#) Video at 6:05 and 6:32:45].

Apparent benefits of county efforts to avoid adopting the 2019 contours are nil. What's to be gained? At the same time, county policies and land use decisions based on out-of-date, Board-adopted contours risk introducing ambiguity, confusion, distrust, and litigation into the Dulles land use management process. The county should adopt the 2019 contours prior to further consideration of subject plan amendment.

## **6. Response to Staff Report Conclusions**

The conclusion section of the staff report justifies the plan amendment with a number of specious assertions. The first conclusion notes that most international airports have residential uses between the 60 and 65 DNL contours and depend upon noise mitigation/abatement measures “to help ensure the economic viability of the airport.” Presumably, the statement is a recommendation that circumstances at Dulles airport should be the same, airport economic viability dependent upon soundproofing homes in adjacent communities exposed to highly annoying aircraft noise. The Johnson Aviation report discusses the difficulties all or most major hub airports suffer as a consequence of adjacent neighborhoods exposed to intense aircraft noise. Many or most suffer much as National airport suffers. Until recently, previous Boards have made an effort to protect residents and Dulles airport from this grim fate. The current Board should continue the effort.

The second conclusion asserts that, with effective noise mitigation, allowing residential uses between the contours could provide economic development and provide housing. There is no question that, properly managed, some residential development between the contours could be beneficial, but continued mismanagement risks irreparable damage to the welfare of both residents and the airport.

The third conclusion states that the impact of subject plan amendment would be minimal if it is applied only to areas not currently developed, planned, or entitled because plan amendments would be required. Perhaps the statement, properly understood, is correct, but the impact of the amendment is not minimal. It would allow residential development everywhere on the 3117 acres between the contours with the possible exception of the 1100 acres (36%) currently devoted to public parks and facilities. The development conditions (noise mitigation standards, etc.) for all of these residential developments are specified in subject plan amendment. What’s more, the previous Board had no difficulty adopting the Westfields plan amendment despite strenuous opposition from MWAA, the local aviation industry, and the president of the Dulles area chamber of commerce. Plan amendments are no impediment.

The fourth conclusion states that the entitlement process (approval of rezoning applications, PCAs, etc.) would assure that noise impacts are adequately mitigated. However, this has not been the case for any of the four approvals since the Westfields amendment was adopted in May 2019. Three of the four approvals accepted standard residential construction practices as adequate acoustical treatment of homes, including homes in a development (The Retreat) located directly under one of the two busiest runways at Dulles airport.



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Finally, staff consistently has cited their concern that the Comp Plan and the Zoning Ordinance are not “aligned.” The Zoning Ordinance provides mitigation requirements for areas impacted by noise exceeding 65 DNL. The Comp Plan recommends that residential development should not be allowed in areas impacted by aircraft noise exceeding 60 DNL. Each document appropriately serves its purpose. There is no misalignment. Even so, this paper recommends that the noise mitigation standards for residential development between the contours should be codified as requirements in the Zoning Ordinance. This should resolve anyone’s concern about misalignment.

Subject plan amendment should not be adopted.

### References:

1. Johnson, Nick. Review and Assessment – Dulles International Airport Aircraft Noise Contour Map Update. Johnson Aviation Consulting, Oak Park, CA. 15 Mar 2020. ([Link](#))
2. Plan Overview. Comprehensive Plan, Area III. Current Plan (2017 Edition, Amended thru 10-16-2018). ([Link](#)).
3. Staff Report. PA 2018-III-DS1, Dulles Suburban Center (Land Unit J). 13 Feb 2019. ([Link](#))
4. Cooper, Jill. PA 2018-III-DS1 – Comprehensive Plan Amendment (Dulles Suburban Center, Land Unit J, Sully District). Planning Commission Memo. 30 April 2019. ([Link](#))
5. Potter, J.E. Letter to Board Chairman Sharon Bulova Re: Washington Dulles International Airport Noise Contour Map Update. 19 April 2019. ([Link](#))
6. Johnson Aviation Inc. et al. Dulles Int’l Airport Aircraft Noise Contour Map Update Project Briefing. Briefing to Board LUPC Meeting, 21 July 2020. ([Link](#))
7. Miller, Clyde A. Protect Dulles Airport. Paper addressed to Planning Commission and Board of Supervisors re PA 2020-CW-3CP. 9 Mar 2022. ([Link](#))
8. Land Use Policy Committee Meeting. 21 Jul 2020. [[Video Record](#)]. Start at 1hr:27min:20sec.
9. Miller, Clyde A. Proposed Amendment Lacks Necessary Development Standards. Paper addressed to Planning Commission and Board of Supervisors re PA 2020-CW-3CP. 6 Apr 2022. ([Link](#))
10. Byron, Barbara. Washington Dulles International Airport: Airport Noise Considerations. Department of Planning and Development. 21 July 2020. ([Link](#))
11. Board Briefing on Dulles Airport. Board Meeting with MWAA. 26 Mar 2019. [[Video Record](#)].
12. PA 2018-III-DS1. Land Unit J of the Dulles Suburban Center. Board Hearing. 7 May 2019. [[Video Record](#)]. Start at 4hr:32min:30sec.
13. Aircraft Noise Contour Update. Ricondo and Harris Miller Miller & Hanson. May 2019.<sup>7</sup> ([Link](#))
14. What’s Next for Westfields? Urban Land Institute, Washington, D.C. 5-6 Dec 2016. ([Link](#))

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<sup>7</sup> To the best of his knowledge, the author of this paper is not related to anyone at Harris Miller Miller and Hanson.

### Westfields International Center at Dulles:

Westfields is an 1100-acre, 40-year-old, failed or failing business park with boundaries congruent with those of Land Unit J in the Dulles Suburban Center. In 2016, the Westfield Business Owners Association engaged the Urban Land Institute (ULI) to convene a two-day technical assistance panel to develop strategies for repositioning Westfields for economic success. In its prime, more than 25,000 people commuted daily to Westfield for work. Core tenants included large-scale, prestigious contractors principally engaged on contracts with DOD and other federal government agencies.

The 25-page ULI report [[Ref14](#)] summarized the status of the office park in 2016 as follows:

*“While the office park’s assets are numerous, several challenges exist, including obsolete office buildings; internal office space planning severely lagging behind current office market trends; lack of mix of uses in the vicinity; auto-centric design with heavy traffic congestion; lack of pedestrian connections and other modes of transportation; lack of community identity and branding; and newer competitors in the market offering modern amenities and easy multi-modal access in close proximity to the Westfields location.....*

*Over the years, it continued to operate along the lines of an outdated vision, and must now renew itself to what a 1,100-acre office park should look and feel like in 2017 and beyond. Panelists contended that evolving into a mixed-use environment by attracting retail and residential uses that support employees will be key to success. Because a large portion of the office buildings are either obsolete or vacant, change will be necessary to accommodate current and future market requirements.*

*The site lacks cohesion, a sense of community, and an identifiable brand. .... Panelists noted the importance of stitching the campus together with architecture, land uses, and other design elements. Furthermore, there is a lot of newer, more accessible office stock nearby, which creates competition for attracting tenants. This is further putting pressure on Westfields to provide modern amenities and solve traffic issues to balance the lack of transit access.”*

The marketing strategy recommended by the panel was in three parts:

- Market outward-facing uses to potential retail and residential investors/ developers.
- Market inward-facing uses to brokers as a secure, connected, and peaceful office environment using existing office space.
- Recognize that retail and residential uses are the future of Westfields’ success, and will drive the office leasing process.

The report made a number of recommendations regarding land use, transportation and physical design, development strategies, and implementation. Office occupancy was described as dependent upon a “secure hub” concept of federal agencies and their contractors as a continuing theme of the office park. The introduction of residential and retail uses was emphasized as the principal objective in the first phase of the transition, and high-density development was encouraged to compensate for the cost of noise insulation for buildings. In later phases of the redevelopment, obsolete office buildings would be demolished.

The goal recommended by the panel was a transition from a business park to a community within a park, a town. The report did not address the effects of aircraft noise or prospects for effective noise mitigation.

**Summary of Activities Related to Dulles Residential Developments**

<b>Doc/Event</b>	<b>Development/Action</b>	<b>Staff Rpt Date</b>	<b>PC Date (Vote)</b>	<b>BoS Date (Vote)</b>
RZ/FDP 2006-SU-025 PCA 78-S-063-5 (Land Unit J)	Commonwealth 100 acres. Appli: Commonwealth Centre Investors Land: 100 ac, WS overlay Prior: Office, retail, hotel (2) Proposed: I-3 to PDC to allow office, hotel, retail.	9/19/07	9/27/07	10/15/07
PA 2014-III-DS1	The Preserve 51 ac Added option with conditions for predominantly residential development of 51 ac parcel in Land Unit J for Preserve	3/25/2015	No online record found	6/2/2015 (9-0) 1 out of the room
RZ 2014-SU-016 (Land Unit J)	The Preserve at Westfields Appli: Westfields Venture LP Land: 51 ac, WS overlay Prior: Undeveloped Proposed: 155 SFA, 650 multifamily, 20,000 sf accessory retail.	6/23/2015	7/8/2015 (9-0) 3 absent	7/28/2015 (7-0) 3 out of the room
PCA 2006-SU-025-02 (Land Unit J)	Commonwealth - Land Bays B & C Appli: Regency Land: 21 ac, WS overlay Prior: Open field Proposed: 186,000 sf of retail. 140,000 sf for Wegmans plus 46,000 sf eating/shopping.	9/30/2015	10/14/15 10-0 2 absent	10/20/15 9-0 1 out of the room
PA #2013-III-DS1 Submission DSC-J-1 (Land Unit J)	Commonwealth 100 acres: PA added option for mixed use resid, retail, and theatre.	3/15/17	3/29/17 12-0	5/2/17 10-0
PCA 2006-SU-025-03 (Land Unit J)	Commonwealth - Land Bay D. Appli: Regency & Toll VA Land: 37 ac, WS overlay Prior: Open field, successional forest Proposed: 550,000 sf of residential use: 120 SFA & 112 multifamily stacked plus 100,000 sf retail & theatre	6/7/17	6/22/17 (12-0)	7/11/17 (9-0) 1 absent

Doc/Event	Development/Action	Staff Rpt Date	PC Date (Vote)	BoS Date (Vote)
PA 2013-III-DS1	<ul style="list-style-type: none"> <li>In Land Unit J, DSC Advisory Grp approved Submission DSC-J-1 (J-1) above.</li> <li>In Land Unit J, DSC Advisory Group did <u>not</u> approve Conf Center Dr mixed use development. (J-2)</li> <li>In Land Unit J, Westfields Business Owners Assoc. withdrew their Urban Land Institute proposal (J-3)</li> <li>In Land Unit I, DSC Adv Grp did <u>not</u> approve Long &amp; Foster proposal for residential development isolated among industrial uses.</li> </ul>	4/4/18	4/26/18 (11-0) 1 absent	5/15/18 Brd amended PA text, (9-0). PA left open for future amendments. Brd authorized new PA for resid. in Land Unit J inside 60 DNL, (9-0). 1 out of the room.
MWAA Briefing 3/26/2019	Board briefed by MWAA on Dulles airport development and operations.	<del> </del>	<del> </del>	<del> </del>
MWAA Letter 4/19/2019	J.E. Potter, MWAA CEO, letter to Chairman Bulova formally requested that the county adopt the 2019 airport noise contours.	<del> </del>	<del> </del>	<del> </del>
PA 2018-III-DS1 (Land Unit J)	In Land Unit J only allow: 4250 additional dwelling units 600,000 sf retail Residential uses between 60 and 65 DNL	2/13/19	2/27/2019 d 3/14/2019 d 4/3/2019 d 4/26/2019 Failed (4-5-2) 1 absent	5/7/2019 (6-3) 1 out of the room Board directed staff to gather information & in a future LUPC meeting make recommendation re adopting MWAA 2019 contours.
Board of Supervisors 01/01/2020	Current Board assumed it duties.	<del> </del>	<del> </del>	<del> </del>
Johnson Aviation Report 3/15/2020	Consultant report published validating the methodology used to develop the MWAA 2019 contours	<del> </del>	<del> </del>	<del> </del>
RZ 2019-SU-009 (Land Unit J)	The Retreat at Westfields Appli: Elm Street Communities Land: 20 ac, AN & WS overlays Prior: Upland forest and wet pond Proposed: 120 SFA	12/30/2019	1/15/2020 d 1/29/2020 d 2/12/2020 (8-0-1) 3 absent	3/24/2020 d 4/14/2020 (10-0)

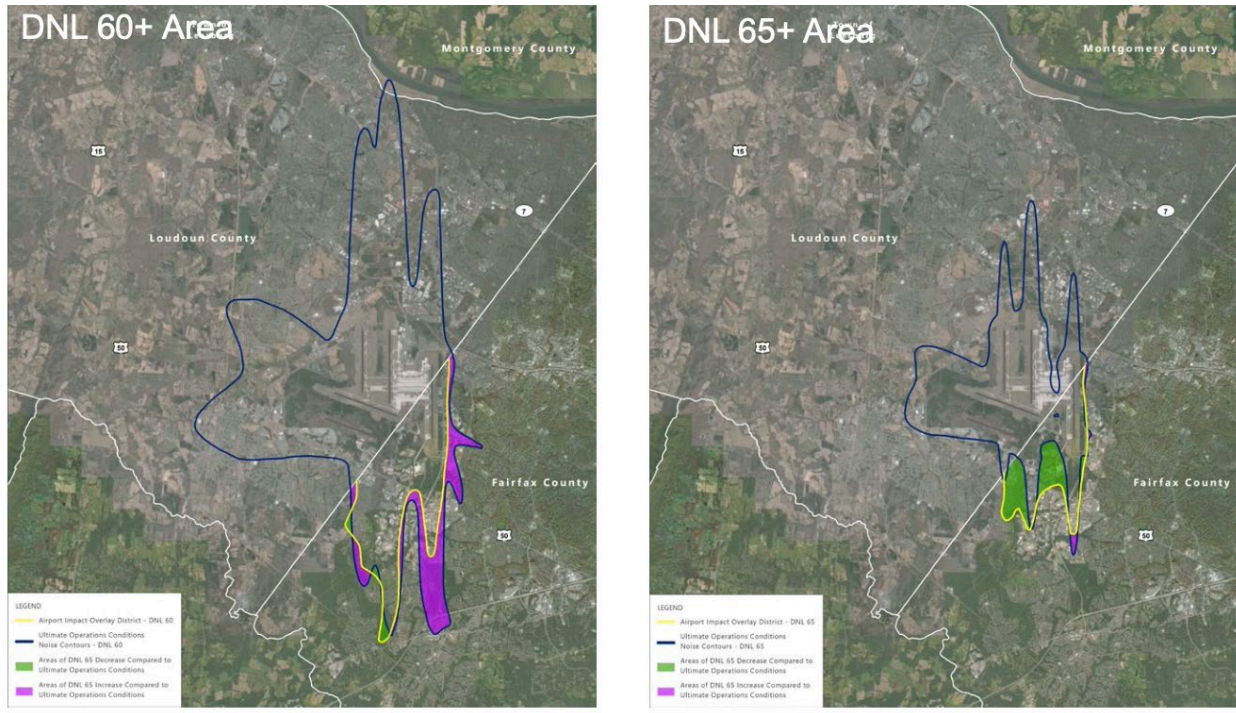
Doc/Event	Development/Action	Staff Rpt Date	PC Date (Vote)	BoS Date (Vote)
Land Use Policy Committee Meeting 7/21/2020	Consultant briefing and recommendation to adopt Dulles 2019 noise contours. Staff recommendations to <i>not</i> adopt the contours and to allow residential uses between 60 & 65 DNL.	X	X	X
Board Meeting & Plan Amendment Auth. 7/28/2020	Board authorization of PA 2020-CW-3CP based on results of 7/21/2020 LUPC meeting.			
RZ 2019-SU-010 (Land Unit J)	Boulevard at Westfields Appli: K Hovnanian Land: 22 ac, WS overlay Prior: Open field, Two vacant parcels Proposed: 330 DU max; 120 stacked multifamily, 120-135 midrise multifamily	6/30/2020	7/15/2020 d 7/29/2020 8-1-3	9/29/2020 (8-0-1) 1 absent
RZ 2019-SU-005 (Land Unit J)	Stonebrook at Westfields Appli: Stanley Martin Homes Land: 12 ac, AN & WS overlays Prior: Open field Proposed: 14 SFA, 120 stacked multifamily	9/2/2020	9/17/2020 d 10/7/2020 (9-3)	11/7/2020 (7-3)
RZ 2006-SU-025-05 (Land Unit J)	Commonwealth - Land Bay A Appli: Toll Mid-Atlantic & JLB Realty Land: 22 ac, AN & WS overlays Prior: Open field Proposed: 436 DU, 355 in 70 ft high rise plus 81 Triplex in 55 ft mid rise	6/29/2021	7/14/21 d 7/28/21 (11-0-1)	Pending
Land Use Policy Committee Meeting 3/15/2022	Staff update on status of PA 2020-CW-3CP	X	X	X

AN – Airport noise overlay    d – deferred    WS – Water supply protection overlay

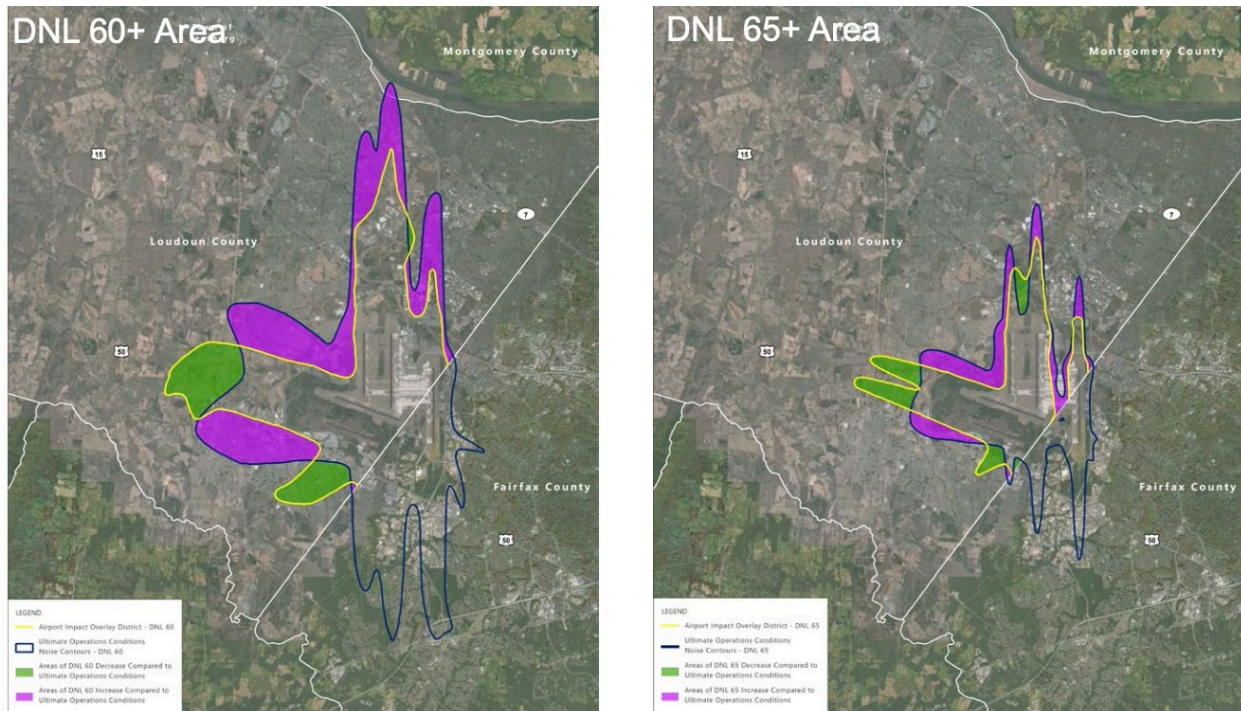


**Figure 3. Comparison of 1993 and 2019 Contours**  
1993 (Yellow) and 2019 (Blue). [Ref13, pgs 364 and 365].

**Fairfax County**



**Loudoun County**





**Figure 4. Land Unit J Developments.**  
(1993 Orange Contours and 2019 Blue Contours) [Based on [Ref13](#), pg 369 & 373].

