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# Air Quality Status Reports 2023

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<b>Committee considering report:</b>	Joint Public Protection Committee
<b>Date of Committee:</b>	11 December 2023
<b>Chair of Committee:</b>	Councillor Lee Dillon
<b>Date JMB agreed report:</b>	20 November 2023
<b>Report Author:</b>	Suzanne McLaughlin
<b>Forward Plan Ref:</b>	JPPC4278

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## 1. Purpose of the Report

- 1.1 To inform the Joint Public Protection Committee (JPPC) of the submission and results of the annual air quality reports for Bracknell Forest (BFC) and West Berkshire Councils (WBC). These reports are for the monitoring data and action plan progress for the calendar year 2022.
- 1.2 To inform the JPPC that the annual air quality report for Wokingham Borough Council has also been submitted and the results received and passed on to Wokingham Borough Council in accordance with the shared service arrangements effective from the 1<sup>st</sup> April 2022.

## 2. Recommendations

That the Committee:

- 2.1 **NOTES** the contents of the two Air Quality Annual Status Reports as set out in [Appendix A for Bracknell Forest Council](#) and [Appendix C for West Berkshire Council](#).
- 2.2 **NOTES** the feedback from the Department of Environment, Food and Rural Affairs (DEFRA) on the reports as set out in Appendix B for Bracknell Forest Council (BFC) and Appendix D West Berkshire Council (WBC).
- 2.3 **APPROVES** that consultation for the potential revocation of the BFC Bracknell Air Quality Management Area (AQMA) and WBC Newbury and Thatcham AQMAs be undertaken in accordance with the recommendations from DEFRA.
- 2.4 **NOTES** the progress on the measures to improve air quality set out in each report.
- 2.5 **APPROVES** the ongoing and planned future measures to improve air quality set in each report.
- 2.6 **NOTES** that the Air Quality Status Report produced by the Public Protection Partnership (PPP) on behalf of Wokingham Borough Council has been submitted to DEFRA, the feedback received, and both have been passed on to the authority for processing under their governance arrangements.

### 3. Implications and Impact Assessment:

Implication	Commentary
<b>Financial:</b>	<p>Work relating to Air Quality monitoring and reporting is funded from the general revenue budget allocated to the Public Protection Service. Several proposals in the action plans continue to require additional funding to implement whilst others are relatively low cost and are covered from PPP revenue budget.</p> <p>Grant funding from Defra has been available and PPP have applied annually. In addition, West Berkshire Council (on behalf of the Partnership) was awarded £259,406 in March 2021 by DEFRA to fund a project focused on behavioural change for the residents who drive in the three boroughs by launching an anti-idling campaign as well as PM<sub>2.5</sub> monitoring in / near the Air Quality Management Areas.</p>
<b>Human Resource:</b>	<p>Staff who undertake this work are a shared resource with Wokingham BC under the new IAA with Wokingham.</p> <p>One benefit of the shared service is the ability to have staff that specialise in areas such as this and the service is fortunate to have several officers with significant expertise in environmental matters generally and air quality specifically.</p> <p>The 2021/22 Grant from DEFRA has meant that the authority was able to appoint an Air Quality Officer on a fixed term contract until September 2023 to support the anti-idling campaign. The post holder left WBC in April 2023 and since then the work has been undertaken in PPP and recharged to the grant.</p>
<b>Legal:</b>	<p>Under the Local Air Quality Management (LAQM) system local authorities are legally required to assess air quality in their area and designate Air Quality Management Areas (AQMAs) if improvements are necessary.</p> <p>Where an AQMA is designated, of which there are two in Bracknell Forest (Crowthorne and Downshire Way, Bracknell) and two in West Berkshire (Newbury A339 and Thatcham A4), local authorities are required to produce an Air Quality Action Plan (AQAP) describing the pollution reduction measures it will put in place. Where the pollutant levels no longer exceed the Objectives then the AQMAs should be revoked. Where a Local Authority no longer has any AQMAs then an Air Quality Strategy is to be produced. Where a Local Authority still has an AQMA these are to be regularly reviewed and must be revised no later than every five years.</p>
<b>Risk Management:</b>	<p>This is a legal requirement under the Environment Act 2005. Failure to comply with our statutory obligations could present the risk of challenge to the PPP partner authorities.</p>

<b>Property:</b>	There are no direct property implications arising from this report.			
<b>Policy:</b>	<p>The Inter-Authority Agreement (IAA) identified Environmental Protection as one of the five Strategic Priorities for the Joint Public Protection Committee.</p> <p>Under this heading the Committee in turn identified air quality as a priority for 2021/22. West Berkshire has declared a climate emergency. They have embedded Air Quality improvements into their Environment Strategy and Climate Emergency Action Plans.</p> <p>Bracknell Forest Council's Climate Change Strategy was completed and published in January 2021 and have a target of net carbon zero by 2050.</p>			
	<b>Positive</b>	<b>Neutral</b>	<b>Negative</b>	<b>Commentary</b>
<b>Equalities Impact:</b>				
<b>A</b> Are there any aspects of the proposed decision, including how it is delivered or accessed, that could impact on inequality?		x		No specific groups are affected by the contents of the proposals as there are no decisions being made. Air quality can be particularly harmful to the young, elderly, pregnant and those suffering ill health. Consideration to all these matters is given in this report and appendices and / or the national clean air strategy.
<b>B</b> Will the proposed decision have an impact upon the lives of people with protected characteristics, including employees and service users?		x		No specific groups are affected by the contents of the proposals as there are no decisions being made. Air quality can be particularly harmful to the young, elderly, pregnant and those suffering ill health. Consideration to all these matters is given in this report and appendices and / or the national clean air strategy.
<b>Environmental Impact:</b>	x			<p>Under the Local Air Quality Management (LAQM) system local authorities are legally required to assess air quality in their area and designate Air Quality Management Areas (AQMAs) if improvements are necessary.</p> <p>Where an AQMA is designated, local authorities are required to produce an Air Quality Action Plan (AQAP) describing the pollution reduction measures it will put in place.</p>

			These reports are therefore designed to have a positive impact on the environment.
<b>Health Impact:</b>	X		<p>The Air Quality Objectives have been put in place to protect people's health and the environment.</p> <p>Although there has been a reduction in air pollution since the 1970s, poor air quality is still the largest environmental risk to public health in the UK. It shortens lives and reduces quality of life, particularly amongst the most vulnerable, the young and old, and those living with health conditions.</p> <p>Ongoing monitoring and where appropriate the creation of action plans is designed to improve the quality of lives of our residents.</p>
<b>ICT or Digital Services Impact:</b>		X	<p>None</p> <p>The <a href="#">Air Quality Status Reports are published on the PPP website.</a></p>
<b>PPP Priorities:</b>	X		The Inter-Authority Agreement (IAA) identified Protecting and Improving Health as one of the five overarching themes with Environmental Protection one of the Strategic priorities for the Joint Public Protection Committee. Under this heading the Committee in turn identified improved air quality as a priority for 2021- 2024.
<b>Data Impact:</b>		X	None
<b>Consultation and Engagement:</b>	Each local authority within PPP is required to submit an Annual Status Report (ASR) to the Department for Environment, Food and Rural Affairs (DEFRA) each year and a template is provide.		
<b>Other Options Considered:</b>	None – The production of the reports is a statutory requirement.		

## 4. Executive Summary

- 4.1 Local authorities are required to submit an Annual Status Report (ASR) to the Department for Environment, Food and Rural Affairs (DEFRA) each year and a template is provided. The overall aim of this document is to report on progress in achieving reductions in concentrations of emissions relating to relevant pollutants below air quality objective levels. It is also where local authorities identify new or changing sources of emissions.

On completion, local authorities should submit their report to the Secretary of State (DEFRA) for consideration, who will provide comments back in a timely manner and to which the local authorities are expected to have regard.

The core requirements of the ASR:

- To report progress on the implementation of measures in the local air quality action plan and other measures and their impact in reducing concentrations below air quality objectives.
- To provide a summary of monitoring/modelling data (either locally retrieved and/or from the national network) to assess the air quality situation in the area and the likelihood of air quality breaches, and to provide the necessary evidence base for the impact of air quality measures.
- To report on significant new developments that might affect local air quality.
- To encourage joint working with other agencies, such as Public Health, and the Highway Authorities.
- To present information in a public-facing executive summary for the lay reader so that the local public can more easily engage with local air quality issues and measures taken to improve it.

4.2 Annually DEFRA set a deadline for submission and there are implications of late submission in respect of whether air quality grant bids will be favourably received. The Service has again completed and submitted the reports for all three authorities within the appropriate timescales.

4.3 The PPP understands the importance of DEFRA approving the reports as the data is used by third parties in planning applications, as well as in-house decisions by Highways and Transport Planning colleagues. In addition, the increased significance is recognised as identified actions are now intrinsically linked with Climate Emergency Plans and Environmental Strategies.

## **5. Report Submission**

5.1 Air quality monitoring and improvement contributes to a number of principal priorities of the PPP, and continues to be identified as such in 2023-24 with synergies directly with climate change and environmental protection. In Summer 2019 all PPP local authorities made commitments with respect to climate change, and air quality continues to be regularly in the news, alongside, the cross cutting climate change theme.

5.2 Although Wokingham Borough Council has opted to withdraw from the Partnership the PPP continues to undertake air quality work for the local authority under a new agreement. The three Annual Status Reports were completed in-house by the deadline of the 30 June 2023. The reports were submitted as follows:

- Bracknell Forest            15th June 2023
- West Berkshire            15th June 2023
- Wokingham                15th June 2023

## 6. Impact of the Covid Pandemic and beyond on Air Quality

- 6.1 Members were previously informed that, as was to be expected, the Covid pandemic did have an impact on air quality due to reduced traffic movements. A management decision was taken during the various lockdowns and restrictions in 2020 and 2021 to continue monitoring air quality. The 2021 levels of nitrogen dioxide generally increased compared to 2020. This was due to the increase in traffic levels. However, the Nitrogen Dioxide levels were lower in both years when compared to 2019 with a significant reduction during the periods of the national lockdowns. In 2022 the levels showed a very minor increase.
- 6.2 The traffic flows for 2022 were still lower than the pre pandemic year 2019. By the end of 2022 the traffic levels were still below the comparable 2019 time period. Comparing 2019 and 2022 the monthly trends in traffic, the pattern is broadly the same. Of the four years 2019 to 2022, as expected, the pollution and traffic levels are the lowest in 2020.
- 6.3 A summary for each area can be found in the Executive Summary at the beginning of each report.

## 7. Bracknell Forest

- 7.1 There are two Air Quality Management Areas (AQMAs) declared across the Borough: AQMA "Area 1: The Bagshot Road (A322) Horse and Groom Roundabout Downshire Way AQMA" (Bracknell AQMA) and AQMA "Area 2: The Bracknell Road (B3348) and Crowthorne High Street, Crowthorne AQMA".
- 7.2 The major source of air quality pollutants in Bracknell Forest is emissions from road transport. In particular, the contribution from the A322 in Bracknell, the B3348/High Street and Sandhurst Road Crowthorne have been identified as significant. The main pollutant of concern is Nitrogen Dioxide (NO<sub>2</sub>) and to a lesser extent the increased levels of particulate matter.
- 7.3 The levels of Nitrogen Dioxide in 2022 have shown a decreasing trend since 2018. The annualised continuous monitored NO<sub>2</sub> Annual Mean in 2022 of 31.1 µg/m<sup>3</sup> at Downshire Way did not exceed the Air Quality Objective level of 40 µg/m<sup>3</sup>. This is a reduction from 36.6 µg/m<sup>3</sup> in 2018.
- 7.4 There were no exceedances of the 1- hour Objectives of 200 µg/m<sup>3</sup> (not to be exceeded 18 times / year) in 2022; this is a reduction from 4 in 2018.
- 7.5 There were no exceedances of the ratified, bias corrected, annualised and distance corrected diffusion tubes within the Bracknell and Crowthorne AQMAs. There were no locations greater than 60 µg/m<sup>3</sup> which further indicates that there are unlikely to be any exceedance of the 1-hour Objective. All the 2022 sites showed an increase from the 2021 data except for Firmount, Bracknell Road, Crowthorne. However, the levels have been reducing in the five years since 2018. The increase was expected in 2022 as there were no lockdowns and traffic levels have increased.
- 7.6 The Particulate Matter PM<sub>10</sub>, which is monitored in the Bracknell AQMA (when annualised) measured 18.5 µg/m<sup>3</sup> and did not exceed the Annual Mean Objective of 40 µg/m<sup>3</sup>. The results also showed no exceedances of the 24-hour Annual Mean Objective of 50µg/m<sup>3</sup>, which is not to be exceeded more than 35 times a year. In 2021

the annual mean concentration was 17.1  $\mu\text{g}/\text{m}^3$ , so the result is a very slight increase. The  $\text{PM}_{10}$  level demonstrates a decreasing trend since 2018 when the level was 19.0  $\mu\text{g}/\text{m}^3$ .

- 7.7 Bracknell Forest produced an Air Quality Action Plan in 2014, updated in 2016. The Plan outlines local measures to improve pollution levels within the AQMAs and more widely across the borough. The action plan is integrated with the delivery of the adopted Local Transport Plan (LTP) to improve local air quality and climate change, through joint working with the Council's Environmental Health, Transport Planning and Planning Divisions.

### **Actions to Improve Air Quality**

- 7.8 Smoothing the traffic flow and reducing journey times and major highway improvements along the A329/A322 corridor have resulted in a 38% reduction in 2022  $\text{NO}_2$  levels when compared to 2011. Works to reduce the bottleneck on Downshire Way have now been completed as have other works on the A322 roundabouts.
- 7.9 The speed humps along the High Street in Crowthorne have been upgraded and replaced with speed cushions to reduce stop start driving. As a result the  $\text{NO}_2$  levels have dropped from 41.7  $\mu\text{g}/\text{m}^3$  in 2011 to 20.1  $\mu\text{g}/\text{m}^3$  in 2022.

### **Commentary from DEFRA**

- 7.10 DEFRA have confirmed that the report 'is well structured, detailed and provides some information specified in the Guidance' and 'On the basis of the evidence provided by the local authority the conclusions reached are acceptable for all sources and pollutants.' They also noted that the comments from last year's ASR have been addressed and welcomed the robust and accurate QA/QC procedures were applied for the automatic station; that the trend in concentrations are clearly presented; maps of monitoring locations clear; and the report signed off by the Director of Public Health.
- 7.11 DEFRA noted a small number of annualization, formatting and presentational issues and inconsistencies with the data within the report and these have been rectified.
- 7.12 DEFRA noted that current Air Quality Action Plan was published in 2014 and reviewed in 2016, and welcome that BFC acknowledge that a review is due its periodic review. This work has commenced with PPP working with colleagues within BFC in Public Health, Transport Planning, Highways and Climate change teams.
- 7.13 There is justification to revoke the Bracknell AQMA as the data trend shows a decrease from 2018 at all the monitoring sites within the AQMA and the levels have remained 10% below the objective for 5 years, so it is considered that there is sufficient evidence the Nitrogen Dioxide Objective will be maintained in that area.
- 7.14 The Crowthorne AQMA is below the Air Quality Objective in 2019 but showed exceedances of 36  $\mu\text{g}/\text{m}^3$  in 2020 and 2021, as levels have not remained 10% below the objective for 5 years, so it is considered that further data is needed before this AQMA can be considered for revocation.



## 8. West Berkshire

- 8.1 There are two Air Quality Management Areas (AQMAs) declared across West Berkshire Council: One in Thatcham (on the A4) and one in Newbury (A339, St John's Roundabout)
- 8.2 The major source of air quality pollutants in West Berkshire are road transport and in particular the contribution from the A339 and A4. The main pollutant is NO<sub>2</sub> in Newbury and Thatcham and consequently, two AQMAs have been declared. The Newbury AQMA was declared for exceedances of both the one-hour and Annual Mean NO<sub>2</sub> Objectives. The Thatcham AQMA was declared for the Annual Mean NO<sub>2</sub> Objective.
- 8.3 The NO<sub>2</sub> levels in 2022 have showed a decrease on the pre pandemic levels since 2018 and only 15 of the 36 diffusion tube sites have increased since 2021, and none of the monitoring locations within West Berkshire exceeded the Annual Objective of 40µg/m<sup>3</sup>. The 1 Hourly Objective Nitrogen Dioxide was not exceeded in 2021 (permitted level of 18 exceedances of 200µg/m<sup>3</sup> per year).
- 8.4 The NO<sub>2</sub> levels within the two AQMA's have also shown a reduction over the past five years, and we therefore recommended to DEFRA that we revoke them both. The continuous monitor located in the Newbury AQMA showed that the Annual Mean NO<sub>2</sub> Objective was met, measuring 26.2µg/m<sup>3</sup> in 2022, which has decreased from 27.5µg/m<sup>3</sup> in 2021. The decrease is likely to be due to new traffic patterns which are emerging, with peak hours dispersing creating a better traffic flow and less congestion.
- 8.5 Over the past five years there has been a general decrease of NO<sub>2</sub>, at a number of sites both within, close too and away from the existing AQMA's. Overall the levels in West Berkshire have been reducing over the 5 years up to 2022.

### Actions to Improve Air Quality

- 8.6 The Service continues to work with the Development Control team to review the air quality impact of planning applications and has completed all Pollution Prevention and Control inspections as required for the control of emission to air from industrial processes.
- 8.7 Looking ahead there are a considerable number of road initiatives to be carried out, electric vehicle charging points to be installed (in 2022 there were 36), further developments to be made to cycle routes, improvements to the cycle lesson and bike storage facilities at schools.
- 8.8 Promoting alternative and active travel to schools and School Street scheme set up near Calcot Infant and Junior schools.

### Commentary from DEFRA

- 8.9 DEFRA commented that the 'report is well structured, detailed, and provides the information specified in the Guidance.' They accepted the conclusions reached for all sources and pollutants.
- 8.10 DEFRA identified a small number of errors that have been corrected. The inclusion of trend graphs was commended.



- 8.11 The report includes detailed discussion of the measures the Council are taking to address PM<sub>2.5</sub> which they welcomed. They encouraged the council to include comparisons to the regional and national average in future reports.
- 8.12 DEFRA stated that QA/QC procedures have been applied appropriately and accurately, justification for the use of national local bias adjustment and annualisation.
- 8.13 There is justification to revoke both AQMAs following three consecutive years of compliance, (excluding 2020 and 2021). The data trend shows a decrease from 2018 at all the monitoring sites within the AQMAs and the levels have remained 10% below the objective for 5 years, so it is considered that there is sufficient evidence the Nitrogen Dioxide Objective will be maintained in that area.
- 8.14 Suggestion that the Air Quality Action Plan (AQAP) which was published in 2011 be reviewed.
- 8.15 DEFRA commended the Council on the progress that had been made and welcomed the collaborative approach that West Berkshire Council is taking with the Public Protection Partnership.

## 9. Next Steps

### Revocation Bracknell Town, Newbury and Thatcham AQMAs

- 9.1 A local authority can, at any time, revoke an AQMA, and provide the justification for doing so. This is due to a change in interpretation of the guidance in the DEFRA LAQM Technical Guidance (TG22, August 2022) from DEFRA, as originally three consecutive years of data was necessary before revocation could be considered, they now state that as long as levels have remained 10% below the Objective level for 5 years then revocation is justified. Where 2020 and 2021, the pandemic years, are a continuation of a downward trend and part of many consecutive years of compliance (e.g., where compliance has also been achieved in 2019, prior to COVID-19) the AQMA may be considered for revocation. Since receiving the ASR 2023 Appraisal contacted the DEFRA LAQM Helpdesk for clarification was sought and confirmed their advice.
- 9.2 A Draft Revocation Report has been produced for each local authority. These are set out at **Appendix E** for Bracknell Forest and **Appendix F** for West Berkshire, which are to be subjected to consultation. As with consultation carried out for the declaration of the AQMAs, is it required with the DEFRA; Environment Agency; National Highways; All local authorities neighbouring the local authority in question; Other public authorities as appropriate; and bodies representing local business interests and other organisations as appropriate, such as internal public health and transport colleagues, and town / Parish councils.
- 9.3 No specific time period for consultation nor the method is stated in the Environment Act 1995, but a minimum period of 4 weeks is proposed. The only requirement is to publish the intention to revoke. Following which responses are fed back to decision making body for a determination.
- 9.4 A final Order for approval of intention is then sent to DEFRA and then finally the Revocation Order is made and sealed, which must also be published on each Council's and the PPP's website.

## **Air Quality Action Plans and Air Quality Strategy**

9.5 The Air Quality Action Plan review for the Crowthorne AQMA is required and revised to focus on Crowthorne High Street and surrounds. This work has already commenced within BFC, most notably Highways, Transport and Active Travel colleagues. For West Berkshire a review of the AQAP is now not required due to the proposed revocation of the two AQMAs. Once revoked West Berkshire Council are then required to develop and publish an Air Quality Strategy, to be produced in consultation with the Director of Public Health, in order to set out and progress the steps the local authority will take to improve air quality in their area.

## **Future Monitoring**

9.6 The monitoring programme for 2024 has been confirmed. Advice from DEFRA on the implication of the revocations was requested and they state that we are able to remove the continuous monitoring, but it is recommended that where possible to ensure good air quality is maintained once the AQMA is removed. To this end the passive diffusion tube network will be continued across the borough / district both within the current AQMAs and outside these AQMAs as well as other locations where there are known hotspot / congestion locations.

## **10. Other air quality related matters of note**

10.1 As mentioned previously the service was awarded £259,000 from DEFRA for a grant to carry out air quality projects which aim to change the behaviour of those 448,000 residents who drive in the three boroughs by launching an anti-idling campaign as well as monitoring PM<sub>2.5</sub> near schools within /near the AQMAs. These projects will be completed in spring 2024. See Appendix G for the quarterly updates to DEFRA on this work.

10.2 PPP made a further grant application, on behalf of the BFBC, WBC and Wokingham BC, as part of the DEFRA Air Quality Grant Applications 2023/24 programme in September 2023 for a focus on PM<sub>2.5</sub> from domestic burning. Funding is to be awarded in order to improve public awareness in local communities about the risks of air pollution and projects that deal with Fine Particulate Matter (PM<sub>2.5</sub>). We expect to hear the outcome in March 2024.

## **11. Concluding Observations**

11.1 The improvements to Air Quality across the three local authority areas is to be welcomed. There are many factors that have contributed to this but it is clear that the range of interventions made by each Council has contributed to this improvement.

11.2 Air Quality continues to be high profile area of work and the links with the sources of pollutants and health impacts becoming more apparent during and after the Covid pandemic. The authorities must continue to not only monitor the levels of pollutants but ensure that we continue to progress actions set out within the action plan and continue to raise the profile of improvements in air quality is good for our residents' health.

11.3 The evaluations provided by DEFRA are positive and the Committee is asked to both note the reports and the DEFRA evaluation, endorse the proposals set out in the action plan and approve the consultations set out in this report.

11.4 The duty on local authorities to both assess and improve air quality is not just a legal requirement but a public demand. The effects on health of poor air quality are indisputable and Councils have been given a range of tools to tackle the causes.

11.5 In simple terms the causes are known but the solutions are wide ranging. The proposals set out in the plans seek to address several approaches ranging from raising awareness, changing human behaviour and matters of infrastructure.

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## Appendices

**Appendix A** – Bracknell ASR Report [Air Quality Monitoring - PPP \(publicprotectionpartnership.org.uk\)](https://publicprotectionpartnership.org.uk)

**Appendix B** - Bracknell Appraisal Response from DEFRA

**Appendix C** – West Berkshire ASR Report [Air Quality Monitoring - PPP \(publicprotectionpartnership.org.uk\)](https://publicprotectionpartnership.org.uk)

**Appendix D** – West Berkshire Appraisal Response from DEFRA

**Appendix E** – Bracknell Town Revocation Report

**Appendix F** - Newbury and Thatcham Revocation Report

**Appendix G** – Quarterly Update to DEFRA regarding grant

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## Background Papers:

Bracknell Forest Council's LTP3 and supporting documents which can be accessed via the Council's website, at: <https://www.bracknell-forest.gov.uk/planning-and-building-control/planning/planningpolicy/transport-policy>

West Berkshire Council's LTP3 and supporting documents which can be accessed via the Council's website, at: <https://www.westberks.gov.uk/ltp>

Defra: National Clean Air Strategy 2019  
<https://www.gov.uk/government/publications/clean-air-strategy-2019>

### Subject to Call-In:

Yes:  No:

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