

## **MINUTES**

### **PWSCG (55) Meeting**

**10:00 – 16:30 Tuesday 11<sup>th</sup> October 2022**

**Hybrid meeting**

#### **WSCG confirmed Attendees**

Duncan Potts – Chair of the PWSCG  
Kim Shillinglaw – Independent member of the PWSCG  
Ago Sousa – UK Health Security Agency  
Sebastian Lawrence – Cabinet Office  
David Gibbs – Civil Aviation Authority  
Darren Cormack – Scottish Government  
Mark Cooney – Scottish Government  
Gary Quinn – Northern Ireland Government  
Peter Dobson – Environment Agency  
Matthew Steele – Ministry of Defence  
James Cross – National Highways  
Carla Tobias – National Highways  
Aimee Batt – Gloucestershire Police

#### **Met Office confirmed Attendees**

Alison Wood - Head of Public Weather Service  
John Harrison - Associate Director, Relationships  
Ian Belcher - Public Weather Service Business Manager  
Lisa Martin - Senior Marketing Manager, Propositions Team  
Will Lang - Head of Civil Contingencies Services

#### **PWSCG confirmed Apologies**

Shaun West – Gloucestershire Police  
James Partington – BEIS  
Ben Brooke - Warwickshire Fire and Rescue Service  
Andy Brown – Environment Agency

#### **BEIS confirmed attendees**

Sarah Davies – Head of PWSCG secretariat  
Paul Riches – PWS secretariat  
Eli Johnson – PWS secretariat

## Actions

Action	Owner	Date
PWSCG members to receive a summary of IMOSG in future meetings.	BEIS Secretariat	At a PWSCG following an IMOSG meeting (2 per year, last one held in August 2022)
The Met Office to include precipitation to better represent wet and dry as a metric in future comparative accuracy reports.	Ian Belcher	March 2023
The Met Office will continue to develop the Citizen Engagement strategy and an implementation plan.	John Harrison	April 2023
The Met Office to develop a timeline for when improvements to the two KPIs highlighted by CAA may be made given the delays with the supercomputer implementation. (Science Roadmap)	Ian Belcher to liaise with Mike Gray	By 30 November 2022
The Met Office and National highways to discuss data sharing and collaboration on the air pollution work.	Met Office & Highways England	November 2022
The Met Office to consult OGDs who have a policy lead that links to weather related health services to help inform the approach to improving weather related health services.	Met Office	By spring to meet next deadline to report back to PWSCG
BEIS and the Met office to revisit the phrasing of D2.2 in the CSA.	PWS BEIS & Met Office secretariat teams	30 November 2022
The Met Office will share updates of the new weather maps trial and will provide any updates on whether this will be rolled out.	Ian Belcher	Complete

## Decisions

Meeting minutes from April 2022 signed off by the PWSCG.
Actions from the April 2022 PWSCG meeting agreed by PWSCG.
Members agreed with the recommended approach for D1.2, context and advice in warnings.
The group agreed to continue to investigate the need for a cold weather warning and to report back findings at the April PWSCG meeting.
PAG 3 and PAG 4 deliverables and recommendations were approved.
The PWSCG were content to endorse the strategic intent of the Citizen Engagement Strategy.
The PWSCG endorse the current approach to D2.2 and support the continuation of work. The Met Office will continue to investigate which stakeholders should be involved in this work, how it could be delivered across different partners and funding options for this deliverable. They will present their findings by the deadline for this milestone.

### 1) Welcome Met Office colleagues & Introductions

- DP welcomed Met Office colleagues and introduced the agenda items to be covered in the meeting

#### a) Agree actions and minutes from April 2022 PWSCG meeting

- PR asked for comments or modifications to the minutes and actions for the April 2022 PWSCG meeting. No comments or amendments were made.

**Decision:** The group signed off the minutes from the April 2022 meeting.

**Decision:** The group agreed the actions from the April 2022 meeting.

### 2) Updates

#### a) BEIS update

- The Deputy Director for FARE team, James Partington, is leaving and recruitment underway for replacement.
- New minister confirmed for the science portfolio as Nusrat Ghani.
- The Government's Arm's Length Body Review is ongoing, with the Met Office review underway.
- Civil Service 25 (CS25) exercise aimed at reducing the size of the civil service may impact the Met Office, although views of CS25 taken by the new Government are still awaited.

#### a) PWSCG Chairs update

- DP summarised his engagement as detailed in the meeting pack Chair's report.
- The main points of interest for the PWSCG chair recently have been the extreme heat warnings and the Citizen Engagement Strategy.

- The PWS teams are keen to encourage more face-to-face meetings again, and planning to hold meetings in Northern Ireland and Scotland before Christmas.
- Recently attended an Interdepartmental Met Office Strategy Group (IMOSG) between Met Office and other Government Departments. PWSCG members requested a summary of IMOSG in future meetings.

**Action:** PWSCG members will receive a summary of IMOSG in future meetings.

**b) Independent Members update, including MARG report**

- KS highlighted recent activity as detailed in the meeting pack Independent Member's report.
- The Citizen Engagement Strategy (CES) has been the main point of focus for the Independent Member recently; this will help to guide the direction of Met Office engagement in future years. A focal point is the increased emphasis on increasing the indirect reach of Met Office products with attribution. There is work to be done on defining what exactly this may mean.
- The MARG meeting was held during summer with broadcasters providing positive feedback on Met Office performance during the extreme heat warnings. The group also discussed cold weather warnings and health related forecasts.

**c) Met Office update**

- IB presented the Met Office update as detailed within the meeting pack.
- The Heat warning in July 2022 had positive feedback from the public, with high awareness and action taken.
- Deliverables and Performance Measures are mostly on track, with two PMs currently rated as amber.
- PWS costs are being interrogated carefully to ensure alignment with customer outcomes.
- The Met Office are experiencing resourcing challenges. Impacts on PWS have been mitigated so far.

**2) Review of this year's weather & warnings**

- Performance of Severe Weather Warnings are well above target.
- Summer 2022 was warm and dry, with two notable hot spells. This meant there was limited opportunity to test new Nowcasting capabilities due to the nature of the dry summer, so more work is needed on implementing and testing these services.
- There were two extreme heat events in summer 2022, with multiple locations in the UK recording temperatures above 40 degrees Celsius in July. 46 locations exceeded their previous records. There were record overnight temperatures. Both red and amber warnings had the longest lead time for any Met Office warning.
- During this period a holistic approach with other Government departments (OGDs) and Government Agencies was taken to provide more insight into Met Office decision making and employ effective communication about them. Particularly with UKHSA and Cabinet Office.
- The advice statements within the warnings were agreed across Government, for example a decision for statements about calling 999 in emergencies only were included.

- There were significant impacts from the heat on health and fatalities, wildfires, melting tarmac and runways, rail disruption, strain on healthcare facilities.
- Surveys with the public demonstrated that 97% of the public were aware of the warning, with 98% taking action based on the warning.
- The Met Office are undertaking a lessons learnt review and would welcome feedback from the PWSCG. The Cabinet Office also have feedback for the Met Office from their lessons learnt report.
- The Cabinet Office spoke about maintaining awareness and amount of action taken by the public in subsequent heat events. Future communication could be enhanced in order to ensure the public continue to act. Possibly by using the impacts to communicate risk, but further discussions with the Met Office should be had.
- The PWSCG would like to continue to see the Met Office to work together with other agencies and departments to ensure consistent public messaging across all platforms during events such as these. The group asked the Met Office to target a zero tolerance approach to messaging that is inconsistent.
- The group also agreed that the Met Office need to be careful in being too prescriptive when recommending behaviours and action to avoid the public tiring of the messaging.

### **3) Winter briefing and Met Office support to Government**

- There was a PWS milestone in 21/22FY which agreed to offer coordinated briefings on long term forecasts to government departments and resilience community.
- There is now a 'winter outlook' briefing pack which is being used to inform briefings on the likelihood of different weather patterns during the winter season.
- Briefings are currently being delivered to BEIS, Cabinet Office, flood partners, DfT, with future briefings planned for DCMS Defra, DAs and LRFs.
- Additional parameters will be included such as wind impact added to this briefing in future; the PWSCG agreed that this is an important element of the long-term outlook and supported its introduction.
- The PWSCG noted that the context of these long-term briefings is important, agreeing that when they are presented it needs to be clear how they sit within the wider context and forecasting limitations.

### **4) RAG Review of Theme 1 Performance Measures and Deliverables**

- EJ gave an update as per the meeting pack.
- All Theme 1 Performance Measures (PMs) and Deliverables are on target.

### **5) Update on Theme 1 Deliverables progress:**

#### **a) D1.2- Improve the context & advice of warnings**

- LM gave an update on this deliverable as described in the meeting pack.
- The Met Office review found that improvements should be made to the context and advice within their warnings.
- They advised that full implementation of the recommendations should be delayed to time the work with a scheduled technological development. This would result in

improved efficiency and implementation for both the Met Office and partners organisations.

- Applying the full recommendations would require large IT changes which would take time and the proposed solution is due to internal prioritisation but also to reduce duplication in effort by capitalising on planned future work. The proposed solution would also result in a consistent application of these changes across partners.
- The Met Office have planned an interim implementation for the short term to deliver some of the recommendations while awaiting the full implementation.
- The PWSCG were asked to sign-off on the recommendations proposed for this milestone.
- The PWSCG asked if the issues with recruitment and retention of staff were impacting the implementation, or whether it was around the finite resources. The Met Office confirmed that it is multiple elements but that because the work to improve the IT architecture that this would relate to is already planned and prioritised, further delays are not anticipated.
- Members also noted that the delay could provide benefits in giving more time for additional testing of advice statements with partners.

**Decision:** Members agreed with the recommended approach for D1.2.

**b) D1.4 - Review the need for a cold weather warning service**

- As part of the CSA, for D1.4 Met Office were asked to review the need for a cold weather warning service. The ultimate aim of this service would be to reduce the number of winter deaths, although there would be other potential benefits.
- The Met Office would like to seek the views of PWSCG members on the need to continue to investigate the requirements for a cold weather warning.
- Cabinet Office recognise the possible duplication of this service and the health alerts issued by UKHSA, and suggested that possible link up between the Met Office and UKHSA warnings to provide better visibility could be a solution. The PWSCG noted that the UKHSA warnings are currently only delivered for England, which may create a barrier to this solution.
- The PWSCG noted that avoiding cold impacts can be harder for individual citizens than avoiding heat impacts. Given that an element of this relates to individual economic circumstances it is important to be mindful of how much impact a cold weather warning service could provide. We need to understand other impacts that it could help to avoid or reduce.
- The Met Office highlighted that implementation would be fairly straightforward, because when the heat warning was introduced some underlying work was also completed to prepare for other warning types that may be needed.
- The MARG meeting also canvassed opinions on this and there was mixed feedback.

**6) UKHSA review:**

**i) Review of the summer's extreme heat and health impacts**

- AS presented a summary of the impacts of extreme heat on health.

- Summer 2022 was very busy for UKHSA due to high heat and the length of hot spells. The first UKHSA level four heat alert was issued.
- The UKHSA note that they recognise some guidance on what to do in these situations of extreme heat needs to be improved, e.g. guidance for people who are homeless, prisons, events.
- Small increases in temperature could result in exponential increases in death rates.
- There was a spike in mortality during both periods of extreme heat during 2022. Overall mortality was higher in August due to the longer period of heat, although the heat was less extreme. Similar effects were seen in other locations across Europe.

#### ii) **Cold weather impacts- looking forward to the coming winter**

- AS presented a summary of the impacts of extreme cold on health
- Cold weather has both direct and indirect impacts on health.
- Many excess deaths in winter are due to infectious diseases, it is difficult to estimate the direct impacts of cold weather alone on excess deaths. COVID-19 has made this more challenging.
- There are exponential increases in mortality with decreasing temperatures, and those living in the coldest 25% of homes have a higher risk of mortality than those living in the warmest 25% of homes.
- The UKHSA have undertaken a cold weather briefing and will continue their cross-Government work during the winter.
- The link between COVID-19 deaths and both heat and cold is currently unclear; there appears to be correlation between covid and hot weather, as well as between covid and cold weather. Causation has not been established due to lack of data across multiple years.

#### b) **Summary discussion of D1.4 and UKHSA cold weather impacts**

- The group discussed complexities of this type of warning, including:
  - much of the burden for relieving heat is a personal economic burden;
  - A Met Office warning service could trigger improved responses from community and responder groups to provide support for those in need of it;
  - The warnings could lose impact if they are triggered too often;
  - The impacts that might be felt if there is a warning issued and individuals do not have capacity to make change to protect themselves from the cold;
- The group agreed that the impact of cold will not be solved by warnings alone, but more integration of services may be needed to improve services during periods of extreme cold.

**Decision:** The group agreed that the Met Office should continue to investigate the need for a cold weather warning, with no clear consensus on the need for a service.

## 7) **PAG reports & performance updates – comments and questions from PWSCG**

### a) **Performance Update**

- EJ gave a summary of performance to date for Themes 2 and 3.
- Theme 2 is all on target. The Met Office have been developing a report on the comparative accuracy of their forecasts. They are using an external company to assess

comparative accuracy with other providers. Licensing terms mean the full results cannot be shared with the PWSCG. Headlines from the report demonstrate that the Met Office are not the highest performing supplier in terms of accuracy but are within 5% of the highest performer for max temps and 2.5% for min temps for days 1-4. Better at wind speed - and number 2 in ranking for all forecasts ranges.

- PWSCG ask to look at precipitation and 'weather' in future for this. The Met Office noted challenges around this, but will attempt to deliver it.

**Action:** The Met Office to try to include precipitation and weather in future reports.

- Within Theme 3 there are two ambers:
  - PM3.2: Trust held by the public in the Met Office measured quarterly via the Corporate Trust Tracker. Achieve an average end of year 80% combined trust score, with 50% trust a lot score.
    - Both scores have increased during the year, but 'trust a lot' score currently below target;
    - Combined trust scores on target: Score was 80% in May survey and 82% in August survey;
    - Trust a lot score below target: 44% in May survey and 48% trust a lot in August survey.
    - PM3.3: Public Perceptions of forecast accuracy (direct channels). Improve Consumer Accuracy Index (CAI) scores to 79% from 2023 and 82% by 2024.
    - CAI score below target at 77.9 in April, and 75.8 for July; In previous years the CAI score also dropped during summer months;
    - The overall CAI scoring for the market has declined significantly from April 2022, driven by a decline in the major weather providers such as Met Office, BBC and Accuweather.
    - Met Office overall score above competitors for 12 of the 13 metrics in the CAI;

**b) PAG 3 report**

- The group were asked to share any comments or questions on the PAG 3 report. There were no questions from PWSCG members.

**c) PAG 4 report**

- The group were asked to share any comments or questions on the PAG 3 report. There were no questions from PWSCG members.

**d) Review sign off for PAG3 and PAG4 deliverables and recommendations & any matters arising**

- PWSCG members content with the recommendations and reports for PAG3 and PAG4.

**Decision:** PAG 3 and PAG 4 reports were signed off.

**8) D3.0- Citizen Engagement Strategy update**

- The Met Office gave an update of the Citizen Engagement Strategy, as included within the meeting pack. The BEIS PWS Secretariat and the PWSCG Chair and Independent Member have fed into development of the CES.



- The Met Office propose to maintain and enhance the Met Office direct channels (e.g. website, app). It is recognised that the Met Office could do more innovative work to develop their direct channels.
- The Met Office also propose to work with partners to grow their indirect attributed reach. This allows more users to see and recognise Met Office forecasts.
- The Met Office will increase focus on developing the ‘thrive’ elements of their work in engagement.
- More work will be done to understand the Met Office reach for all demographic groups along with specialist segments of the audience and what needs could be met by the Met Office.
- The Met Office also aim to replace indirect non-attributed reach with attributed reach.
- To make these changes, the Met Office will interrogate investment made with PWS funding to enable them to redirect budgets to do this work.
- The Met Office are beginning to develop some metrics that could be used to indicate success in the implementation of the strategy.
- The PWSCG were asked if they endorse the approach to the CES.
- MoD asked for clarification on the role of education for the public in the strategy. LM confirmed that although some of the underpinning work was not included in the paper, the Met Office see learning and education as an important feature of the work behind the strategic outline presented here. It is likely that the educational elements would be delivered via direct channels, but the Met Office also work with some indirect channel partners on educational pieces.
- The Chair’s view is that the new strategy has a clear focus and the secretariat, the chair and IM endorse the view.

**Decision:** The PWSCG were content to endorse the strategic intent of the strategy.

- The Met Office will continue to develop the strategy and an implementation plan.

#### **9) D2.2 – Health forecasts accuracy and communications review – Feedback and sign-off**

- LM presented an update on progress for Deliverable 2.2, reported within the meeting pack.
- Research has demonstrated that the public expect to see a range of health forecasts within Met Office forecasts. They also expect to be told if there are risks due to pollen, UV, air pollution.
- If the PWSCG endorse further work on health forecasts, the Met Office will align the work to the CES and provide more information to the PWSCG in due course.
- The Met Office have regular meetings with the UKHSA and Defra, who both think the Met Office should include these forecasts within their platforms.
- It is not yet clear who should or will be funding these services.
- The Met Office clarified that different health forecasts could be prioritised, not all need to be implemented at the same time.
- The PWSCG agree that the work should be continued, but would like a further view on the role of OGDs in this work particularly within resourcing and policy leads. It was noted that the Met Office can act as a leader in cross-Government working within this sphere.

- National Highways have a dense network of air quality monitoring stations and would like to engage with the Met Office on this.

**Decision:** The PWSCG endorse the current approach and support the continuation of work. The Met Office will continue to investigate which stakeholders should be involved in this work, how it could be delivered across different partners and funding options for this deliverable. They will present an update to this work at the April 2023 PWSCG meeting.

**Action:** The Met Office and National highways to discuss data sharing and collaboration on this work.

**Action:** The Met Office to work with OGDs and EAs to establish input from other departments and agencies for this work.

**Action:** BEIS and the Met office to revisit the phrasing of D2.2 in the CSA as it was agreed that the scope was not clear.

## 10) Current Met Office challenges and potential impacts to PWS

- JH gave an update on current Met Office challenges which may impact the PWS.

### a) Supercomputer update

- The overall supercomputer implementation plan is experiencing a delay of approximately 12 months due to COVID-19 related impacts on availability of global silicone chips.
- The impacts on finances are felt in terms of timeline of finance rather than the amount of budget.
- There are no current impacts on many PWS programmes, such as IMPROVER implementation.
- The CAA highlighted that there are two global model forecast KPIs that the Met Office are currently not reaching and it seems that this is impacted by the supercomputer delay. The CAA would like reassurances as to when upgrades might improve performance on those KPIs.

**Action:** The Met Office to develop a timeline for when improvements to the two KPIs may be made.

### b) Inflation

- There is some insulation on inflation costs due to a) civil service pay remit being confirmed below inflation and b) the supercomputer energy costs for the new computer are borne by the provider of the supercomputer, not the Met Office.
- This means that the Met Office PWS inflation estimates are approximately 6% across 25% of the PWS budget.
- Discussions are needed around prioritisation and budgeting for future years. The secretariat will be involved in these discussions.

### c) Staff retention

- There are some pressures on staff retention within some areas of the Met Office (technology for example).
- PWS deliverables are currently being prioritised within the technology demands, but it is an ongoing challenge.

- The Met Office is operating with a range of job vacancies and CS25 may have an impact on efficiencies required by the Met Office.
- These factors considered meant that the Met Office will be required to carefully consider all work and will keep the BEIS secretariat and PWSCG informed of the impacts of this.

#### **11) AOB**

- The PWSCG asked for an update on the beta trial of new weather maps and asked if these maps would be applied across industry specific weather maps. The CAA reported positive feedback from the Aviation sector on the new maps.
- The feedback was generally positive, with some requests for additional layers on the maps. The Met Office will update the group on the progress of the trial and how these maps may be rolled out.

**Action:** The Met Office will share updates of the trial and will provide any updates on whether this will be rolled out.

- For the next meeting PWSCG members were encouraged to attend in person.