



**BCRG**

**BROOKLYN COMMUNITY  
REPRESENTATIVE GROUP**

**BCRG COMMUNITY FORUM 3/2021**

**MEETING 49**

WEDNESDAY

3 November, 2021

6:00 – 8:10 pm

via Zoom

**Chair:** Catherine Botta    **Notetaker:** Andrea Mason



# MEETING PURPOSE

To provide an update on progress towards resolution of dust, noise and odour issues

<b>1</b>	<b>Welcome, Catherine Botta</b> <ul style="list-style-type: none"><li>o Introductions</li><li>o Acknowledgements</li><li>o Meeting purpose and overview of agenda items</li></ul>
<b>2</b>	<b>Rolling Actions Update</b> <i>Andrea Mason</i>
<b>3</b>	<b>Community Update</b> <i>Bert Boere, Bruce Light</i>
<b>4</b>	<b>Greening the Pipeline Project</b> <ul style="list-style-type: none"><li>o Update on the progress in Brooklyn</li></ul> <i>Nino Polon, Melbourne Water</i>
<b>5</b>	<b>EPA Victoria Update on dust, noise and odour program</b> <ul style="list-style-type: none"><li>o compliance activity</li><li>o <i>Inner Melbourne air monitoring</i></li><li>o <i>Citizen science</i></li></ul> <i>Steve Lansdell, Regional Manager, Western Metropolitan Region</i> <i>Rosemary Fedele and Paul Torre - Senior Applied Scientists</i>
<b>6</b>	<b>Air Quality Monitoring sites in the Brooklyn Precinct</b> <i>Marcel Van Der Schoot, DoT, and EPA</i>
<b>7</b>	<b>Inner West Source Apportionment Project</b> <i>Jacinda Shen, Senior Applied Scientist</i>
<b>8</b>	<b>Wrap up &amp; Close</b>

Notes from this meeting will be posted on the Brooklyn Industrial Precinct website and will be available to the public. Meeting participants should advise Andrea Mason or Cath Botta if they would like their name removed from this public document.

The intent of these meeting notes is to promote open communication between local business, local and state government, community and EPA Victoria (EPA). They are not to be used in a manner that compromises this objective.

Notes from this meeting will be posted on the Brooklyn Industrial Precinct website and will be available to the public. Meeting participants should advise Andrea Mason or Cath Botta if they would like their name removed from this public document.

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## ACTIONS FROM THE MEETING

- Action 0311\_1** BCRG to approach Department of Transport Deputy Secretary to see if any consideration has been given to air quality.
- Action 0311\_2** BCRG to follow the progress of the Parliamentary Inquiry into the Health Impacts of Air Pollution in Victoria.

### ITEM 1.

#### WELCOME, (Catherine Botta)

The final notes from the July 2021 meeting are available from the [Brooklynip website](#).

Catherine Botta (Convenor) welcomed everyone to country and to the online BCRG forum particularly Cr Sam David, Brimbank CC. Cath reminded everyone of the purpose of the forum – to foster collaboration between members of the community, industry, EPA Victoria, local and state government.

Everyone was invited to introduce themselves.

### ITEM 2.

#### ROLLING ACTIONS, (Andrea Mason)

Andrea Mason, Executive Officer, BCRG reminded everyone of the Rolling Actions list which records actions from each meeting and updates actions that have been addressed between forums. These are available on the [Brooklynip website](#) and are circulated with the enews.

#### **The status of the actions from the previous meeting is:**

- Action 0707\_1** BCRG to send out details of the survey for Greening the Pipeline Brooklyn. **COMPLETE**
- Action 0707\_2** Invite Project managers and Program leader for EPA citizen science projects to next BCRG. **COMPLETE**
- Action 0707\_3** EPA to provide an overview of all the monitoring sites in the Brooklyn area would be of interest including WGT, VicRoads, Council, EPA – perhaps a physical map at next face to face BCRG that can be added to. **COMPLETE TONIGHT**
- Action 0707\_4** Invite the EPA Victoria CEO to the next BCRG? **EPA expected to be hosting a meeting in 2022 with CEO in attendance.**
- Action 0707\_5** EPA to investigate why the historical air quality data has been removed from their website. Stephen Lansdell via Chat Hi all, just thought it was worth clarifying that historical hourly air quality data is available at [data.vic.gov.au](#). Files for each year are uploaded once data validation is complete. To request data not yet available on [data.vic.gov.au](#), please contact EPA ([contact@pea.vic.gov.au](mailto:contact@pea.vic.gov.au) or on 1300 372 842) with the details of your request. We can follow up for any further context on why this historical data is stored at [data.vic.gov.au](#) rather than directly on EPA's website if that is helpful

## ITEM 3.

### COMMUNITY UPDATES

#### (Bert Boere, Brooklyn Residents Action Group)

Bert Boere reported that The Inner West Air Quality Network which will continue to push for actions on recommendations in the Inner West Air Quality Report.

Bert outlined the community's frustrations with the West Gate Tunnel Project – Community Liaison Group and the Millers Rd and Williamstown Rd Working Group where concerns have not been addressed about truck movement and air quality on Millers Rd, Williamstown Rd and the plans and traffic movement in the intersection of Millers Rd and the Altona North shops. Other community groups such as [Save Willy Road](#) and the [Maribyrnong Truck Action Group](#) have been lobbying the Department of Transport (DoT) and WGTP for disclosure of plans and reports for these areas.

They have recently discovered that a Final Report "[Millers Rd and Williamstown Rd Corridor Study](#)" has been released by the DoT.....that the community have not participated in preparing, that has recommendations/actions in it that were never discussed nor agreed to. There does not seem to be clear communication or consultation with community or shop owners.

The impacts on air quality from traffic movement has potentially harmful effects in the Brooklyn area.

**Action 0311\_1:** BCRG to approach Department of Transport Deputy Secretary to see if any consideration has been given to air quality.

**Action 0311\_2:** BCRG to follow the progress of the Parliamentary Inquiry into the Health Impacts of Air Pollution in Victoria.

## ITEM 4.

### Greening the Pipeline Project

#### (Nino Polon, Melbourne Water)

Presentation can be seen in [Attachment 1](#) or enjoy this video <https://www.youtube.com/watch?v=mrmfFnZZmck>

Nino gave an overview of the Greening the Pipeline Project which is a linear parkland extending across Inner West Melbourne aimed at connecting environment and community.

The vision is to transform the existing physical barrier of the old sewer into a vibrant community space.

The project extends for 27 kms from Brooklyn to Werribee River and is broken into 9 zones. The Brooklyn zone extends from Millers Rd to Little Boundary Rd and is a critical as gateway to the entire reserve. Melbourne Water is still developing the final masterplan following community engagement in August. The design will incorporate key feedback to include more enhanced urban greening.

Vegetation will act as windbreak and help with dust and odour issues.

#### **QUESTION: Are you seeking extra funding for the project or delivering committed funds?**

**Nino:** There is some funding available in Brooklyn from our partners such as Hobsons Bay CC and the West Gate Tunnel Community Fund. There is currently no funding for the wider masterplan which is still being costed.

#### **QUESTION: Is the Masterplan finalised or will there be any further community consultation? What other plans are there that may impact on the plan?**

**Nino:** Melbourne Water is working with West Gate Tunnel Project already and incorporates their plans. There are no plans for further community feedback – the final masterplan will be based on the community engagement already undertaken. If there are any critical issues that present themselves, these may be addressed if flagged but we are confident most feedback will be incorporated into the Masterplan.

## ITEM 5.

### EPA Victoria Update on dust, noise and odour program

(Steve Lansdell – Western Metropolitan Regional Manager)

- Citizen Science program
- compliance activity
- update on the dust management plan for Brooklyn

*Steve Lansdell, Regional Manager, Western Metropolitan Region*

All EPA presentations can be seen in [Attachment 2](#).

#### Compliance and Enforcement Update

Stephen gave an update on the work EPA has been doing since July 1, 2021, under the framework of the new environment protection duties – where the onus is on preventing harm. Some of the tools include:

- Improvement notices – which relate to improvements at sites e.g. fire prevention and odour management
- Notice to investigate – asks businesses for more information where there are issues
- Environmental Action Notices – particularly in relation to odour and land reclamation
- Prohibition Notice – requires a business to cease operations
- There are also several active investigations from the earlier.

#### Odour

The decreasing trend of reporting continues partly due to priority site upgrades & controls improving and proactive & sustained compliance & monitoring required by businesses.

#### **QUESTION:** Do you find the BIP Strategy Committee meetings hosted by Brimbank CC useful?

**Stephen:** Yes, the meetings are a good way to bring agencies and industry together to understand the broader plans for the region.

**COMMENT:** *The plant at Australian Tallow Producers always smells and I can't be bothered reporting anymore. You must be careful to note that the number of reports doesn't necessarily mean the problem has been diminished.*

**Stephen:** With COVID restrictions easing it is hoped that EPA will have more staff out and about doing proactive surveillance. EPA is still encouraging the community to report as the data is invaluable – there are several tools available for this including an odour diary. <https://www.epa.vic.gov.au/report-pollution/report-odour>

# The Science - Inner Melbourne air monitoring

## Rosemary Fedele and Paul Torre - Senior Applied Scientists

The air monitoring results show a lower trend of exceedences continuing – only one on July 9 and another in Footscray on Oct 15 (uncommon).

A series of maps showing all the air monitoring sites in Inner Melbourne was shown. Monitoring varied but covered PM2.5, carbon monoxide (CO), carbon dioxide (CO2), sulphur dioxide (SO2), nitrogen dioxide (NO2), ozone (O3), benzene, toluene, ethylbenzene and xylene (BTEX), ultra-fines and black carbon (BC):

- *Joint citizen science project with Beacon Cove Neighbourhood Association (BCNA) - shipping, ferries and traffic emissions*
- *Dept of Transport (DoT site) -traffic pollution*
- *EPA sites – Brooklyn, Altona North, Footscray and Melb CBD*
- *EPA Citizen science site – with community in existing areas of concern*
- *Melbourne CC Smart Cities - air pollution management*
- *Maribyrnong Truck Action Group - traffic*
- *Private site*
- *West Gate Tunnel Project – impacts before and after tunnel opening.*

**COMMENT (CHAT):** *Interesting to see that there are no air monitors inside the Brooklyn industrial precinct i.e. Jones/Bunting/Geelong Roads. These are the areas that impact on BCRG members and closer to the source.*

**Rosemary:** The EPA Brooklyn monitor is already in the community – it records wind direction and then data is used to attribute the pollution impact at the residents not at the source.

**COMMENT:** *People who work in the BIP are often being exposed at the source – not just the residents further away - there must be cumulative impacts from particulate emissions. EPA should be sharing this data, reflecting the real issue and including it in the reports to the public.*

**Rosemary:** EPA is now asking industries to monitor air quality onsite. Some of this monitoring by industry is being shared with EPA when required e.g. Sims Metal and Western Land are doing this.

EPA would prefer there were no exceedences or industry causing harm from exceedences.

**COMMENT:** *Environmental Restorative Justice is being studied by the Australian National university and relates to the theory of repairing harm resulting from a criminal environmental event. This could be extended for victims of pollution – particularly health and amenity impact – and the air quality data is important. The pathway for EPA would be to do something with what the data is showing i.e. real actions. The monitoring site data needs to be integrated so that the full picture can be seen by everyone.*

**Paul:** The role of air monitors in industry is to get short term triggers for industries to implement their plans to reduce community impact. EPA is strongly advocating for industries to incorporate all the tools available to them including short term triggers of 10 -15 minute intervals plus visual impacts.

### Citizen Science – Inner Melbourne air monitoring

EPA is working on several citizen science projects to improve community education around air quality and support data collection. These include the EPA Hive project with six schools to increase scientific literacy in air pollution and health and the Shipping Emissions project with BCNA.

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## ITEM 6.

### **Air Quality Monitoring sites in the Brooklyn Precinct (Marcel van der Schoot – Air & Climate Specialist, Department of Transport)**

This presentation can also be seen in [Attachment 2](#).

Marcel gave an overview of the new initiative between DoT and EPA focussed on urban roadside air pollution monitoring. The goal is to understand the human health impact of vehicle pollution close to the source with high resolution data that is publicly accessible in real time and can be used to inform policy and decision making.

Monitoring is based on ultrafine particles and black carbon using seven fixed sites and four mobile stations that can be used anywhere e.g. outside schools. Sites in Melbourne are as close as possible to EPA sites for highest precision, are on both sides of roads where necessary. The main central research site is in Brooklyn on Geelong Rd at Federation Trail.

Other data sources will be used to include noise, weather, traffic movements and ambient air quality.

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## ITEM 7.

### **Inner West Source Apportionment Project (Jacinda Shen, Senior Applied Scientist)**

This presentation can also be seen in [Attachment 2](#).

Jacinda outlined this other new initiative aimed enhancing the understanding of PM2.5 pollution in the Inner West of Melbourne.

The project uses ambient monitoring and source sampling across three main areas of focus – traffic, shipping and industry. The model is being designed to show what component is coming from which source. Statistical data over 12 months will be required to get best results and data collection began in May 2021.

The ambient monitoring station at Barbara Beyer Rec Reserve is close to traffic, the port, industry and near high community recreation areas. The Spotswood Kingsville RSL site is 30m from nearest house which is a typical resident site but also close to West Gate Freeway, the port and industry.

There are two pieces of equipment at each site and the two different filters will be analysed by experts in source apportionment. This will provide rolling 3-day sampling over a year.

The Source profiling site is at Coode Island.

Specific industry sources and apportionment models are not ready yet and industry source profiles are not yet developed.

Monitoring includes a large range of chemicals but based on traffic emission, sea salt and shipping and bushfires.

#### **QUESTION: Can you clarify which ambient data is going to be used as a control vs other data collection?**

**Jacinda:** The ambient air monitoring will give rolling 3-day data. Analysis of the filters will give us the chemical fingerprint that can be cross referenced with other data to see which sources are responsible in an exceedance event – to see how much of each source is causing a particle pollution e.g. what percentage is from sea salt or traffic.

**QUESTION: Why is PM10 missing – it has terrible impact on health and a known carcinogen?**

**Jacinda:** This study is wholly PM2.5 as it is linked to health as an important indicator. There is a lot more equipment required for PM10 studies which are outside the scope of this project.

**QUESTION: Will the impact of COVID have any impact on the results?**

**Jacinda:** The project start was delayed from 2020 until after the first lock down in 2021 when things were open but since then more lockdowns have happened. We are hoping that the next 6 months will reflect normal conditions. It will however provide an opportunity to see any impacts of transport and the contribution of transport to pollution.

**Marcel:** The data on emissions from trucks showed no changed during COVID but general traffic emissions has dropped.

**Paul:** Ambient air monitoring reports across the globe have demonstrated that the reduction in transport resulted in lower pollution and there was some drop in pollutants in the Inner West but not so much for PM2.5 readings.

.....  
Cath thanked everyone for attending.

**Proposed dates for BCRG Community Forums 2022:** March 16th, May 25th, November 2nd

Time, format and venue tbc  
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**Meeting closed 8.10 pm**  
.....

**Meeting Attendance Record – 3 Nov 2021**

17 people attended via Zoom.

Name	Organisation	Name	Organisation
Andrea Mason	EO, BCRG	Geoff Mitchelmore	Resident Altona North
Arthur Vatsakis	Hobsons Bay City Council	Jacinda Shen	Hobsons Bay City Council
Bert Boere	BRAG	Marcel van der Schoot	Department of Transport
Badi Kargar	Resident	Kristen Gilbert	Brimbank City Council
Carmen Largaiolli	Resident	Paul Torre	EPA Victoria
Catherine Botta	BCRG Chair	Rosemary Fedele	EPA Victoria
Chris Bydder	EPA Victoria	Cr Sam David	Brimbank City Council
		Steve Lansdell	EPA Victoria
Jacinda Shen	EPA Victoria		
Felicity Tepper	ANU		

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# ATTACHMENT 1.

## GREENING THE PIPELINE ZONE 9

### BROOKLYN INDUSTRY PRECINCT



## Greening the Pipeline vision



# Greening the Pipeline extent

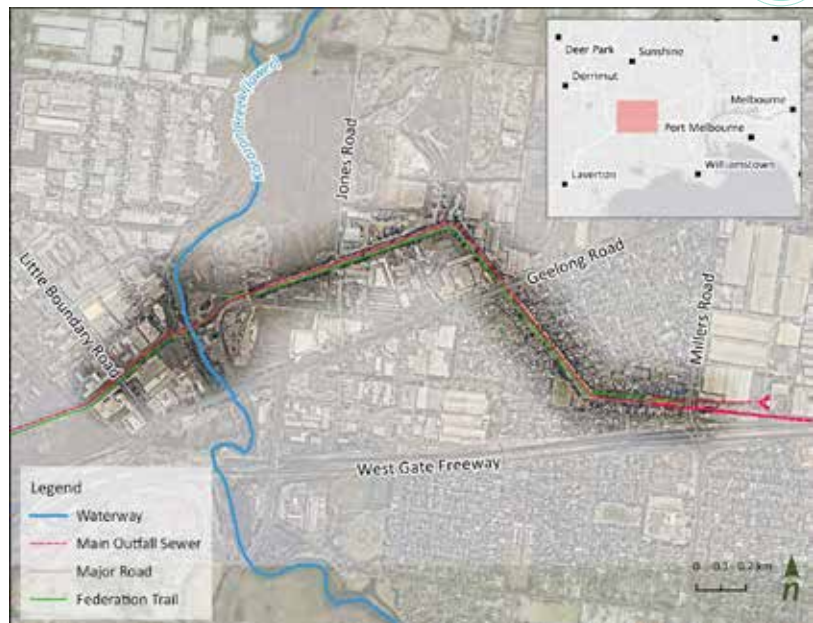


# Brooklyn Masterplan area



The Masterplan area consists of the Main Outfall Sewer reserve, also referred to as the Pipeline Reserve and/or Federation Trail.

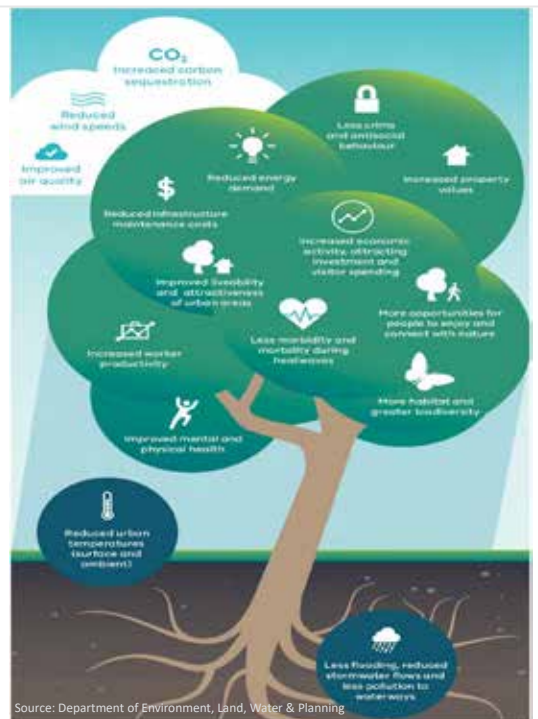
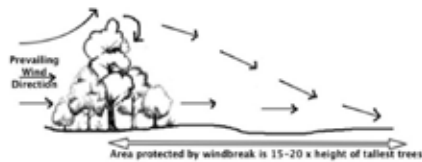
The reserve is approximately 40m wide and 2.4km long, from Millers Rd to the Little Boundary Rd.



# Brooklyn Industrial Precinct, Federation Trail



## Benefits of urban greening



Source: Department of Environment, Land, Water & Planning

# Timelines



## Project timeline

- 
**Phase 1: Community engagement**  
 29 June - 8 August 2021  
 Identifying what's important to the community to help shape the Masterplan for Greening the Pipeline Brooklyn.
- 
**Report back to the community**  
 August 2021  
 Report back what we heard from the community and the next steps in developing the Masterplan.
- 
**Phase 2: Masterplan development**  
 August - November 2021  
 Development of the Masterplan.
- 
**Share Masterplan designs**  
 Late November - early December 2021  
 Once the Masterplan has been finalised, we will share this with the community.
- 
**Seek capital funding**  
 December 2021 - ongoing  
 Seek capital funding to deliver the Masterplan.

# Working together



# References



Get project updates:

<https://yoursay.melbournewater.com.au/greening-the-pipeline-brooklyn>

Nino Polon  
Greening the Pipeline project manager  
[Greeningthepipeline@melbournewater.com.au](mailto:Greeningthepipeline@melbournewater.com.au)  
Mobile: 0408 369 238

Project website  
[www.greeningthepipeline.com.au](http://www.greeningthepipeline.com.au)

[Google map](#)

[Pilot Park time lapse construction](#)

*"The best time to plant a tree is twenty years ago.  
The second best time is now."*

Anonymous



## ATTACHMENT 2.

EPA UPDATE- BROOKLYN COMMUNITY REPRESENTATIVE GROUP  
3 NOVEMBER 2021



# EPA Update Brooklyn Community Representative Group

3 November 2021

Steve Lansdell – Western Metropolitan Regional Manager

Rosemary Fedele, Jacinda Shen, Paul Torre – Senior Applied Scientists

Marcel van der Schoot – Air & Climate Specialist, Department of Transport



## Presentation outline

- Compliance and Enforcement Update
- Air Quality Monitoring and Citizen Science
- Department of Transport – Roadside Projects
- Inner West PM<sub>2.5</sub> Speciation & Source Appointment

# The regulatory action

## Compliance & Enforcement

## Compliance & Enforcement

1<sup>st</sup> July – 31<sup>st</sup> October

- Improvement Notices – 8
- Notice to Investigate – 3
- Environmental Action Notices – 3
- Information Gathering Notice – 1
- Prohibition Notice – 1
- Active investigations – 3



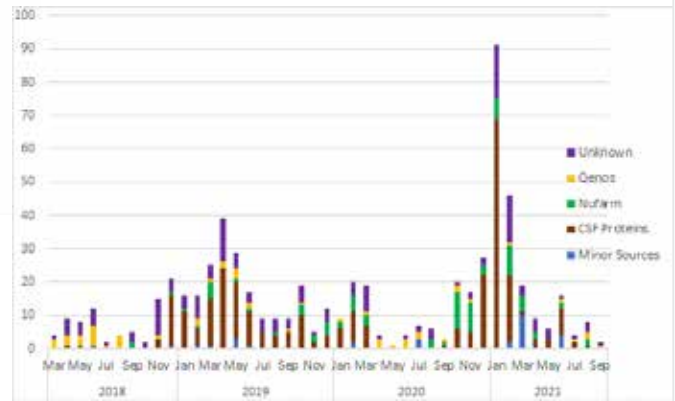
If we see non-compliance, our response will be measured and proportionate.

Deliberate and criminal non-compliance will be taken seriously.

## Odour reports



- Decreasing trend continues
- Priority site upgrades & controls improving
- Proactive & sustained compliance & monitoring required



## The science

Air monitoring projects

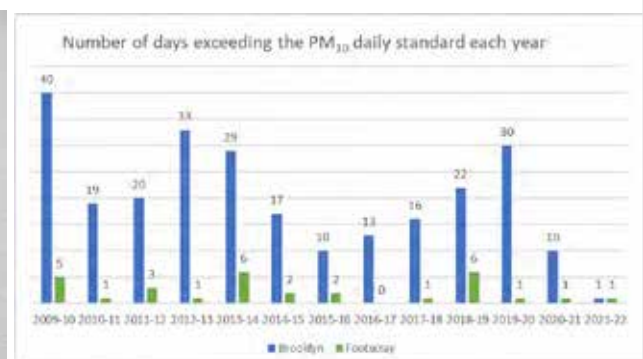
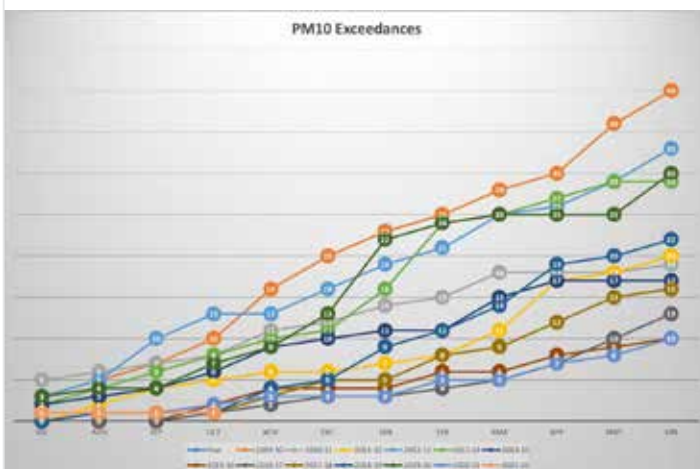


# Inner Melbourne air monitoring

Rosemary Fedele  
Senior Applied Scientist

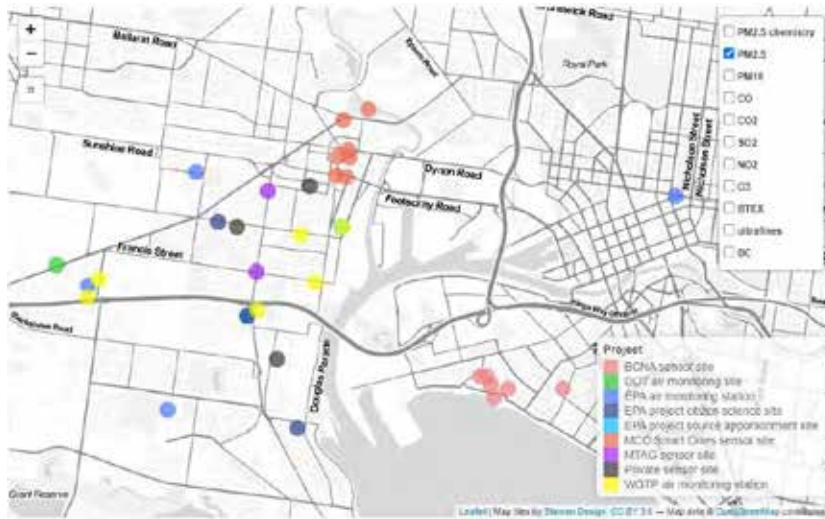
## Air monitoring results

Brooklyn & Footscray – particulate matter



- Lower trend of exceedances continues in 2021/22
- 1 day exceeding at Brooklyn (July) & Footscray (Oct)

## Inner Melbourne air monitoring



## Inner Melbourne air monitoring



## Inner Melbourne air monitoring



## Inner Melbourne air monitoring



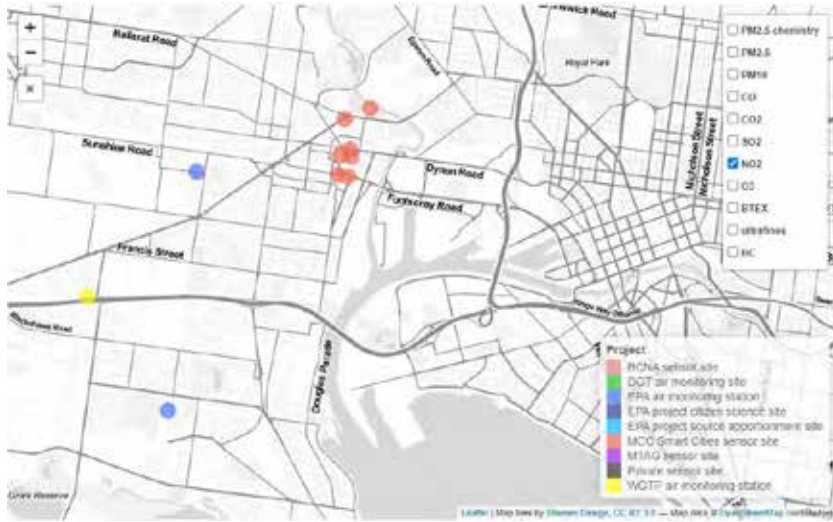
## Inner Melbourne air monitoring



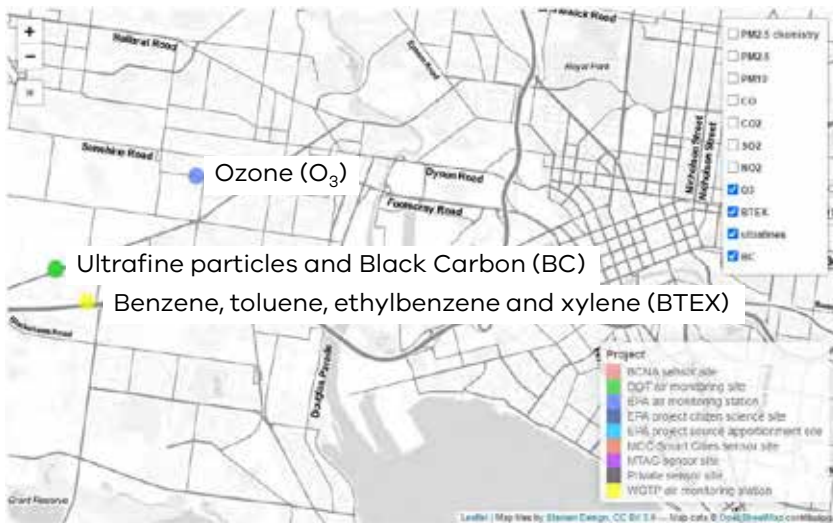
## Inner Melbourne air monitoring



## Inner Melbourne air monitoring



## Inner Melbourne air monitoring



## Citizen Science inner Melbourne

### Aims

- Work with citizen scientists to help build understanding of air pollution and health impacts in inner Melbourne
- Monitor air in areas of existing community concern

### Projects

- Air monitoring in inner west Melbourne
- Shipping emissions in Port Melbourne

## Air monitoring in inner west Melbourne

- DustTracks deployed in three locations as part of the citizen science project
- Locations: Kingsville Primary School  
Spotswood-Kingsville RSL and  
Fire Rescue Station, Newport
- Measures PM<sub>2.5</sub>
- Data is available on EPA's AirWatch website





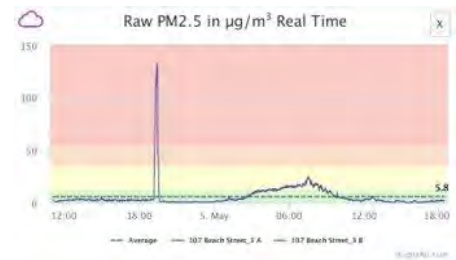
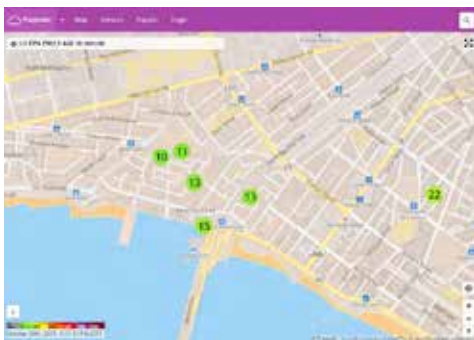
## Air monitoring in inner west Melbourne

- EPA Hive for six schools in inner west
- Measures PM<sub>2.5</sub>
- Air science class with schools (sensors are easy to assemble)
- Data is available via phone app or computer
- Increase scientific literacy in air pollution and health (Kids Teaching Kids Conference)



## Shipping emissions in Port Melbourne

- Six purple air sensors were deployed in collaboration with community
- Measures PM<sub>2.5</sub>
- Data is available on PurpleAir website ([www2.purpleair.com](http://www2.purpleair.com))

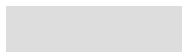


**Questions?**



## **Department of Transport – Roadside projects**

Marcel van der Schoot  
Air & Climate Specialist





# DoT urban roadside air pollution monitoring network

Nov 2021



## Overview

- New DoT roadside air monitoring initiative
- Mobile pod testing & demonstration
- AQ sensor trial
- Lockdown observations
- Data outputs



## New leading edge initiative!

### What?

- Develop new roadside air monitoring capability for DoT

### Why?

- Quantify road transport contribution to urban air pollution exposure
- Promote and Verify interventions (e.g. anti-idling, anti-congestion)
- Inform policy and decision-making (new EP Act)
- Enhance awareness and education of air pollution and climate change
- Support high density monitoring and smart city capabilities

### How?

- 7 fixed monitoring sites across Melbourne + 4 mobile stations
- UFP and BC focus

3

## Smarter Roads Program – WS7 “Air Quality Monitoring” New urban roadside air monitoring capability for DoT



### Key Features

- research quality data
- MULTIPLE applications
- collaborative (DoT-EPA-Universities)

### Fixed monitoring – 14 stations

- 7 sites - strategic locations
- sampling both carriageways
- close to EPA monitoring sites
- central research hub site -Brooklyn SUPER site

### Mobile monitoring – 4 pods

- verification of interventions
- hotspot surveys
- sensitive locations

4

## Data sources



5

## Mobile air monitoring pods

- Completed Brooklyn trial (traffic radar and low cost PM) (Oct 2020 – Feb 2021)
- Completed Dandenong “Green Wave” PoC trial – heavy vehicle signal prioritisation technology trial (Mar-Apr 2021)
- Demo model – Kew – now!



6

## Brooklyn "Super Station" - research site



- Geelong Rd - Federation Trail
- Freight/PT/AT
- Central research site
- "Low Emission Initiative Priority Zone" – **first initiative**
- Demonstration site new technology / smart city sensors

7

## Brooklyn "Super Station" – air quality sensor trial



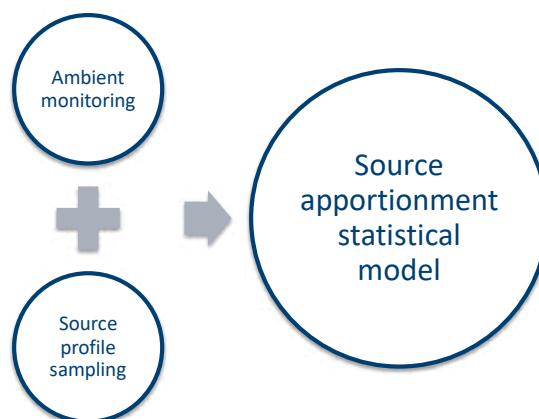
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# Inner West Source Apportionment Project

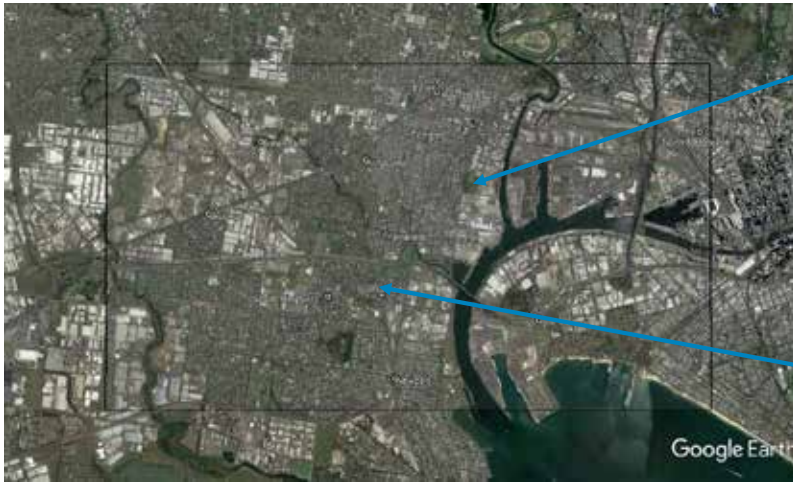
Jacinda Shen  
Senior Applied Scientist

## Project objective

To understand the contribution of pollution sources to air quality in the inner west



# Study area



Barbara Beyer Reserve  
West Gate Tunnel Project  
Monitoring Station

Spotswood-Kingsville RSL

# Ambient monitoring program

- Equipment**
  - 2 samplers per site
- Sample frequency/duration**
  - 1 in 3 days
  - 12 months duration to June 2022
- Sample type**
  - Filters
- Laboratory partners**
  - CSIRO
  - GNS Science, New Zealand



Barbara Beyer Reserve, Yarraville



Spotswood-Kingsville RSL

# Source profile sampling

## Approach

- Informed by the conceptual model
- Port of Melbourne collaboration

## Number of samples

- Up to seventy

## Frequency / duration

- Dependent on the source, meteorology and logistics

## Targeted sources

- Light & heavy vehicles
- Shipping including port activities
- Industry in Yarraville, Port Melbourne, Brooklyn



Tip of Coode Island, Port of Melbourne



Environment  
Protection  
Authority Victoria



# What are we looking for?

## Gravimetric mass

- $PM_{2.5}$  concentration

## Black carbon

## Elements

- Na, Mg, Al, Si, P, S, Cl, K, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, As, Se, Br, Sr, Mo, Cd, Sn, Sb, Te, Cs, Ba, La, Ce, Sm, Pb, Hg, In, W

## Soluble ions

- $Na^+$ ,  $NH_4^+$ ,  $K^+$ ,  $Mg^{2+}$ ,  $H^+$ ,  $Cl^-$ ,  $NO_3^-$ ,  $Br^-$ ,  $NO_3^-$ ,  $SO_4^{2-}$ ,  $C_2O_4^{2-}$ ,  $PO_4^{3-}$ , F, acetic acid, formic acid, MSA,  $HCO_3^-$

## Anhydrous sugars

- Levoglucosan, mannosan, mannitol, sorbitol, galactosan, glucose and arabitol

## Organics

- Organic carbon, brown carbon, elemental carbon

Traffic emissions, secondary organic aerosols

Sea salt, soil, resuspended matter, industry, shipping, secondary aerosols

Bushfires, planned burns, woodsmoke, biogenic sources

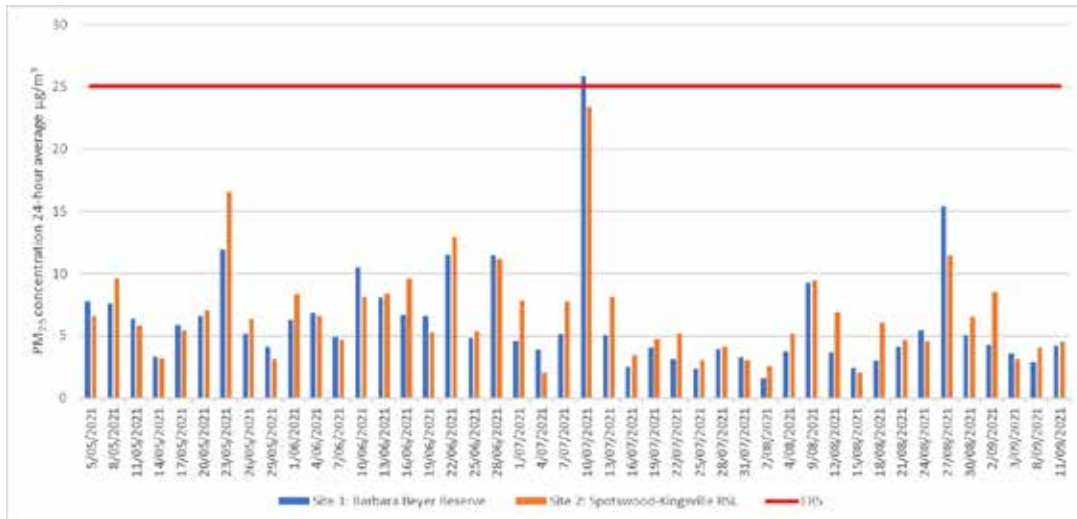
Traffic emissions, secondary organic aerosols



Environment  
Protection  
Authority Victoria



# Results so far



# Who is involved?

Port of Melbourne

**Project Partner**

- Inner West Community Reference Group
- Spotswood-Kingsville RSL
- Transurban
- CPBJH Joint Venture
- Maribyrnong City Council
- Beacon Cove Neighbourhood Association

**Project stakeholders**





# Thank you

## Project contact:

Jacinda Shen, Specialist Applied Scientist

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