

2021 *Lucie Kirchknopf*



Votorantim Cimentos North America

**St Marys Cement**

Community Liaison Committee

June 4, 2021

# Peregrine Falcon Eyas



**Cimento (f)**



**Santa Maria (f)**



**Calcário (m)**

On June 1<sup>st</sup> 2021 the Canadian Peregrine Falcon Association was on site to band 3 peregrine falcon chicks which hatched in May.

# Agenda

- ❖ **Welcome and Introductions**
- ❖ **Review of March 12<sup>th</sup>, 2021 Meeting Minutes**
- ❖ **Complaints 2021 Year to Date**
- ❖ **Wind Roses**
- ❖ **Enviro-Suite**
- ❖ **Noise Abatement on Kiln Stack**
- ❖ **Questions Brought Forward in Advance of Today's Meeting**
- ❖ **Round Table**
- ❖ **Closing Remarks**

# Welcome and Introductions



## Community Liaison Committee

The next Community Liaison Committee is going to be held **June 4th, 2021 at 10am**. Due to the COVID-19 Pandemic this meeting will be held virtually. Members of the public who wish to observe as the members of the Committee discuss information with respect to St Marys Cement can watch the live meeting online. Please see the Town of St Marys Event Calendar for the link to the online meeting.

Please submit any questions and concerns in advance of the meeting to [kara.terpstra@vcimentos.com](mailto:kara.terpstra@vcimentos.com).

- ❖ Thank you to the Town of St Marys for allowing us to use their software
- ❖ Round Table Introductions
- ❖ Did anyone have any comments/concerns about the March 12<sup>th</sup> Meeting



# Complaints 2021 Year to Date

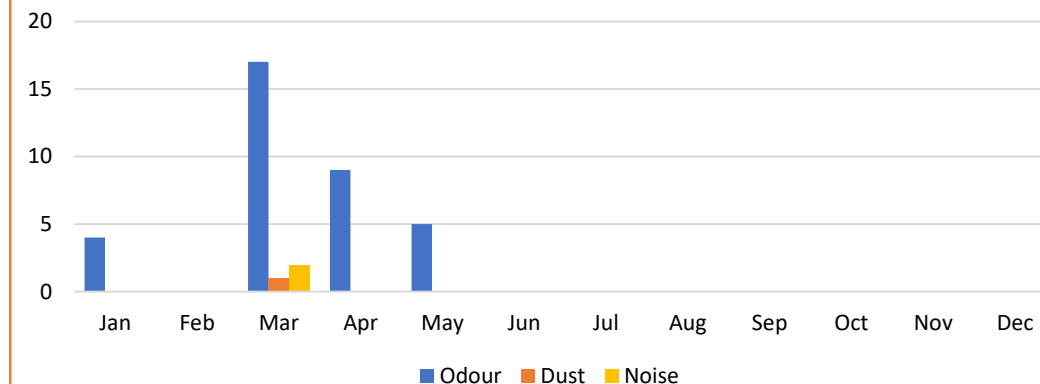
Complaints 2021 Year to Date

	Odour	Mention Health*	Dust	Noise
<b>Total</b>	<b>36</b>	<b>32</b>	<b>1</b>	<b>3</b>
<b>January</b>	4	3	0	0
<b>February</b>	0	0	0	0
<b>March</b>	17	16	1**	2
<b>April</b>	9	9	0	1
<b>May</b>	6	1	0	0
<b>June</b>				
<b>July</b>				
<b>August</b>				
<b>September</b>				
<b>October</b>				
<b>November</b>				
<b>December</b>				

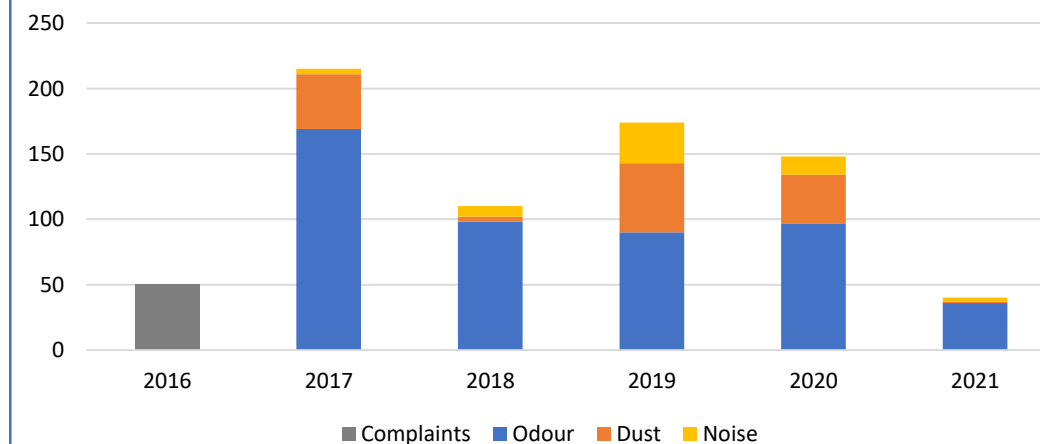
\*Reminder – Complaints which 'Mention Health' are counted when a resident calls with an odour complaint and highlights that they have health concerns. They are not separate complaints received by the plant.

\*\* Dust complaint indicated limestone with chlorides, likely road salt.

2021 Complaints

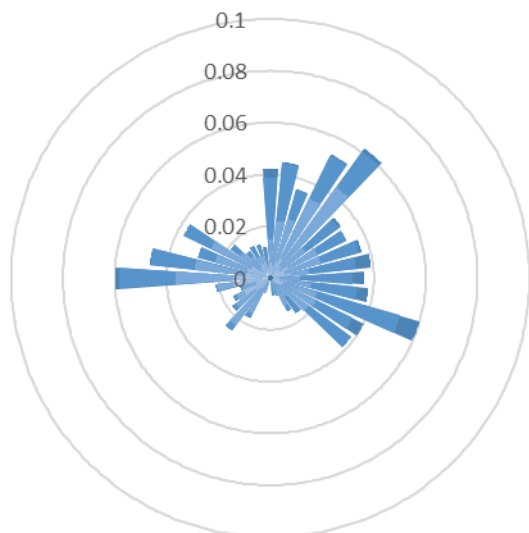


Complaints Year to Year



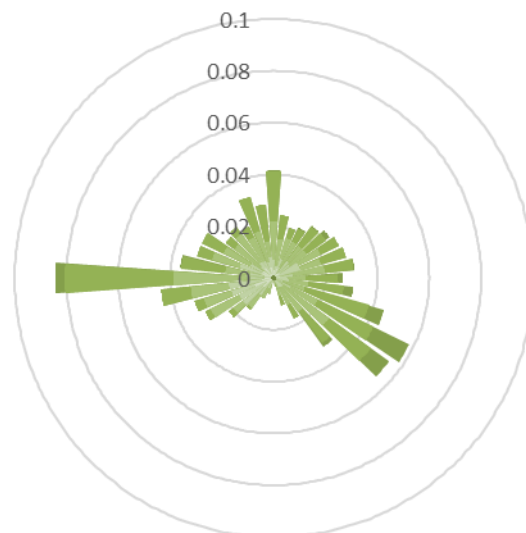
# Wind Projection Seasonal 2020

Wind Projection : December 21,  
2019 to March 19, 2020



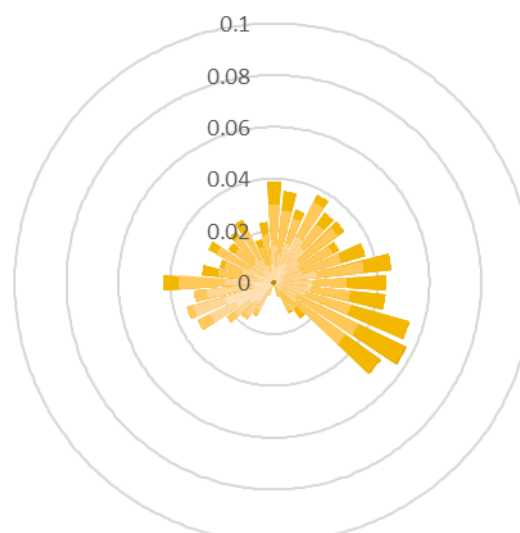
**Winter**

Wind Projection : March 19, 2020  
to June 20, 2020



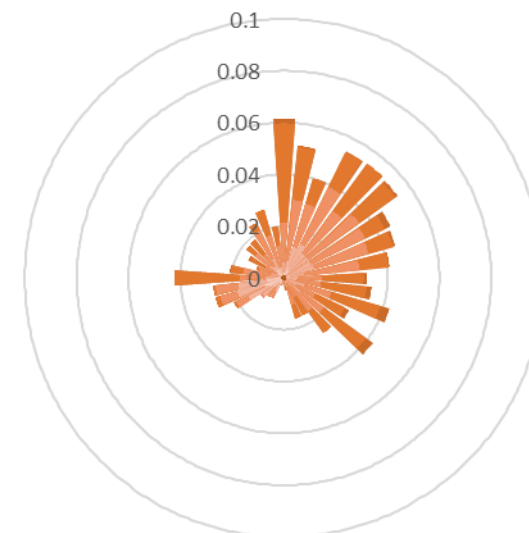
**Spring**

Wind Projection : June 20, 2020  
to September 22, 2020



**Summer**

Wind Projection : September 22,  
2020 to December 21, 2020

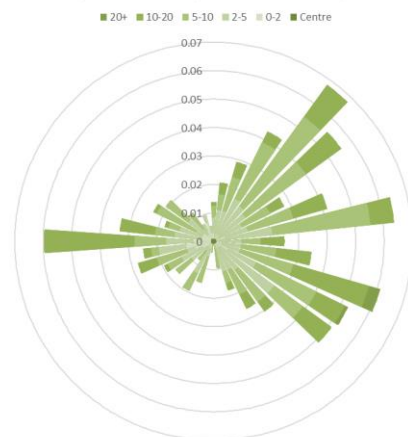


**Fall**

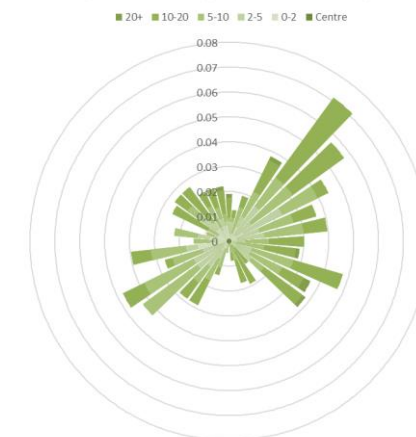
- During all 4 seasons the wind direction is predominant from the South West.

# Wind Projection 2021

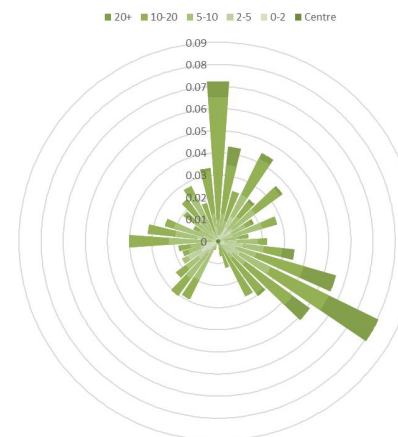
Wind Projection : January 01, 2021 to January 31, 2021



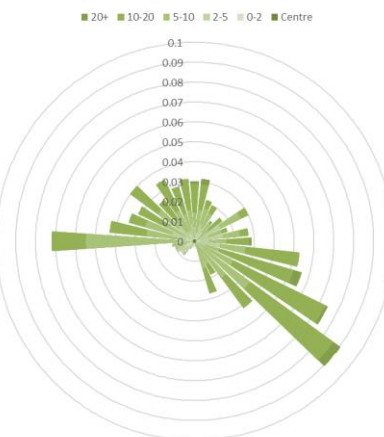
Wind Projection : February 01, 2021 to February 28, 2021



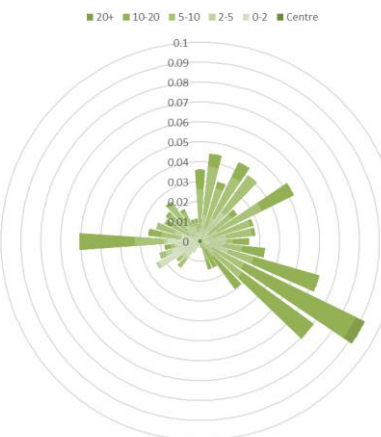
Wind Projection : March 01, 2021 to March 31, 2021



Wind Projection : April 01, 2021 to April 30, 2021

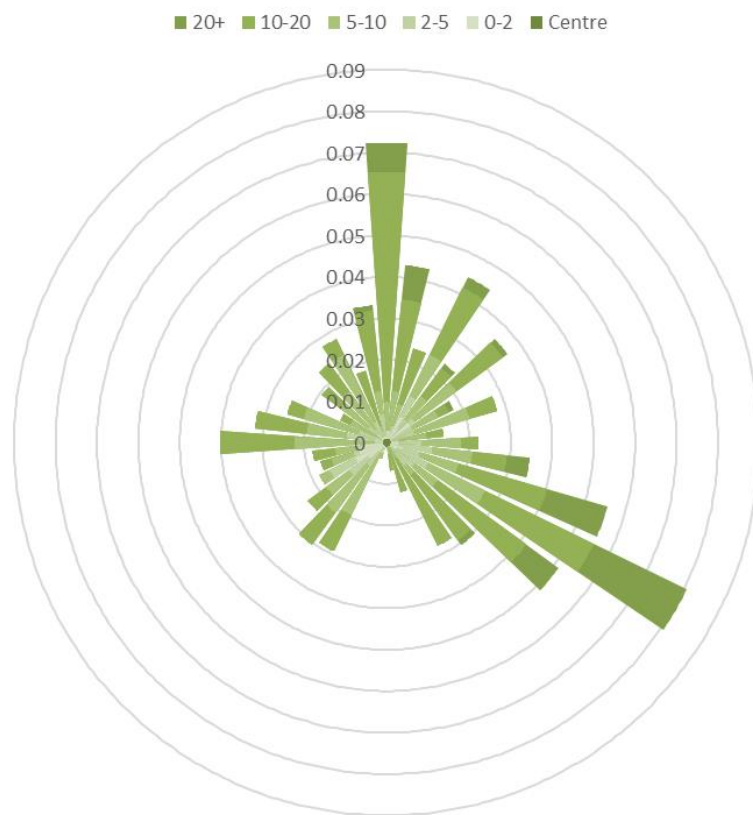


Wind Projection : May 01, 2021 to May 31, 2021



# Wind Projection 2021

Wind Projection : March 01, 2021 to March 31, 2021

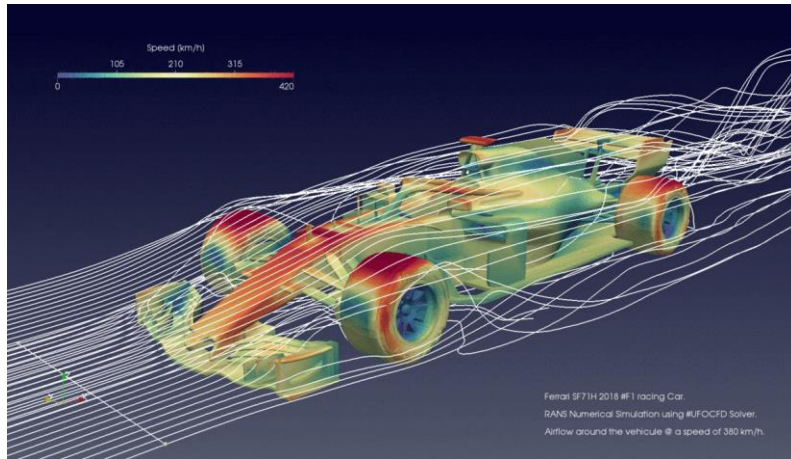


- 17 Complaints in Marcy
- 14/17 came from 3 residents
- The #1 complaint came from a NE direction but the wind for March was not often in the NE direction

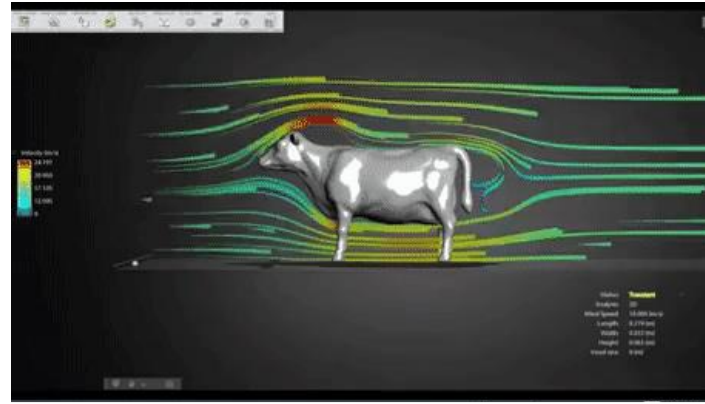


- See other presentation

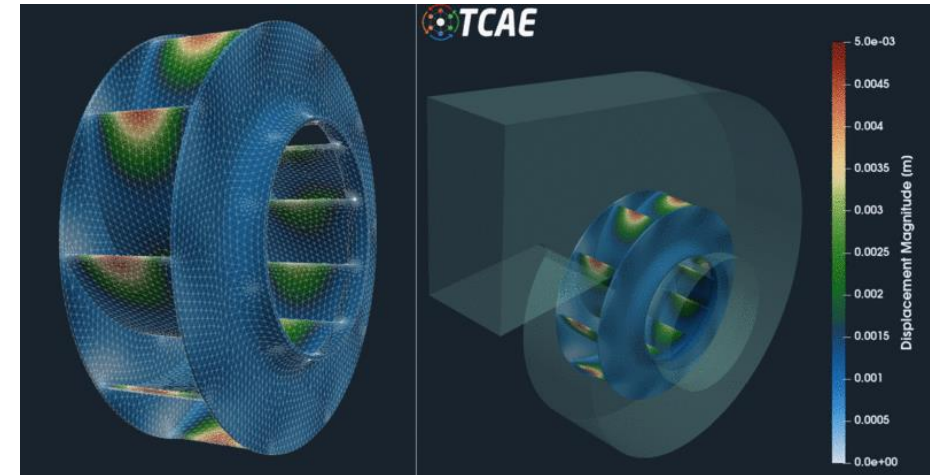
# Noise Abatement of Kiln Stack



Computational Fluid Dynamic (CFD) Modelling of a **Ferrari**



Computational Fluid Dynamic (CFD) Modelling of a **Cow**



Computational Fluid Dynamic (CFD) Modelling of a **Main ID Fan**

- St Marys Cement is taking an innovative approach and working with Industrial Noise and Vibration Centre (INVC) to install aero-acoustic fan inserts to decrease the tonal noise of the stack
  - The tonal noise comes from the Main ID (Induced Draft) fan of the plant which creates the sound coming out of the Kiln stack
  - INVC will complete Computational Flow Dynamic (CFD) modelling of the Main ID Fan to determine inefficiencies which are causing noise
  - INVC will propose alterations to the Main ID Fan that will remove these inefficiencies
  - This innovative approach has proved effective in various industrial applications for noise abatement
- St Marys Cement has a requirement for noise abatement on the Main Stack due in summer 2023
  - This timeline was changed from summer 2021 after discussions with the MECP about the engineering requirements for the INVC solution
  - The INVC solution will be implemented in summer 2021 to eliminate a portion of the Kiln Stack noise
  - The remainder of the stack noise will require a stack silencer which needs further engineering due to the size of the silencer and limitations of the plant structure

# Questions Brought Forward in Advance

- Discussion on the origin of the limestone (why does this area have so much?)
  - Limestone is formed when minerals precipitate out of water
  - Fossils of Flora and Fauna can also be found in the quarry limestone
  - Our limestone comes from the Devonian Era (419.2M years ago to 358.9M years ago)
  - The 'Devonian Bench' of limestone extends all the way to Southern Michigan



Trilobite Fossil as found in the Quarry

- Size and lifespan of the quarry and plans for expansion
  - St Marys Cement Quarry is approximately 1300 acres
  - Altogether there is 50 years of limestone reserves



# Questions Brought Forward in Advance

- Sources of the clay and gypsum used for cement manufacturing
  - Clay is some of the overburden and is mined on site



- Gypsum can come from a variety of sources, either synthetic (manufactured in Michigan) and naturally occurring (Nova Scotia, Newfoundland, Michigan)

# Questions Brought Forward in Advance

- What products does SMC produce?
  - At the plant we manufacture 9 different blends of cement, see below
  - Our company also has Aggregate and Ready-Mix operations which provide concrete
- Is cement only sold in bulk for further processing?
  - Cement is sold in bulk, totes, and in bags from St Marys Plant
  - St Marys Cement Plant manufactures the cement product and then Ready Mix operations mix it with water and aggregate to create the concrete
- Does SMC produce/sell premixed dry concrete in bags?
  - No, St Marys Cement Plant only manufactures the cement.
- What are some of the specialty cements manufactured?
  - St Marys Plant manufactures 9 different blends of cement
    - Contempra is the environmentally friendly cement which has higher percentages of limestone and lower carbon footprint
    - Masonry cement which is specially designed for bricking applications
    - Silica Fume blended cement is used for higher strength applications like a high rise
    - General Use cement is used for houses and buildings in town
    - High Early cement is used for precast applications such as garden statues
    - The other types of cement vary on strength and set time depending on what the end use is for



## COPING WITH STRESS DURING THE COVID-19 OUTBREAK



**It is normal** to feel sad, stressed, confused, scared or angry during a crisis.

Talking to people you trust can help. Contact your friends and family.



**Be aware that not everything you hear about the virus may be true.**

Stay updated and use information from trusted sources, like your health authority, World Health Organization (WHO) or your local Red Cross or Red Crescent.



**Limit worry and agitation** by lessening the time you and your family spend watching or listening to media coverage that you perceive as upsetting.



**Draw on skills you have used in the past** that have helped you to manage previous adversities and use those skills to help you manage your emotions during this outbreak.



**If you must stay at home**, maintain a healthy lifestyle including proper diet, sleep, exercise and social contact with family and friends at home and remotely.



**Deal with any emotions you may have in a healthy manner.**

If you feel overwhelmed, talk to a health worker or counsellor. Have a plan, where to go to and how to seek help for physical and mental health needs if required.

Source: WHO

## Round Table & Closing Remarks

**Kara Terpstra – Environmental Manager**  
**at 519-284-1020 x 235**

**or at**

**[kara.terpstra@vcimentos.com](mailto:kara.terpstra@vcimentos.com)**