



# Update on Indoor Air Quality Ventilation Improvements

Engineering and Operations Committee

Item 6b

May 10, 2021

# Background

- Healthy indoor air quality is essential to ensuring safe working conditions
  - Key element of COVID-19 response and return-to-work planning
- Metropolitan meets or exceeds industry indoor air quality guidelines at all facilities
- Metropolitan has over 750 HVAC systems serving varied environments in over 150 buildings



*“Good indoor air quality in buildings... contributes to a favorable and productive environment for building occupants, giving them a sense of comfort, health and well being.”*

*Occupational Safety and Health Administration*

# Varied Indoor Environments



**Union Station Headquarters**



**Laboratories**



**Field Offices**



**Shop Areas**



**Control Rooms**



**Pump Plants**

# Historical Indoor Air Quality Enhancements

- Recent challenges with increased wildfire hazards
- Enhancements to improve indoor air quality of essential facilities for wildfire smoke
- Protection for essential staff required for 24-hour operations
- Guidelines and procedures developed to minimize staff exposure



Diemer during Freeway Complex Fire



Jensen during Saddle Ridge Fire

# Improvements for COVID-19 Prevention



Increased Outside Air



Running HVAC Longer



Increased Filtration

*Immediate Multi-layered Response*



Facility Improvements



Decreased Occupancy

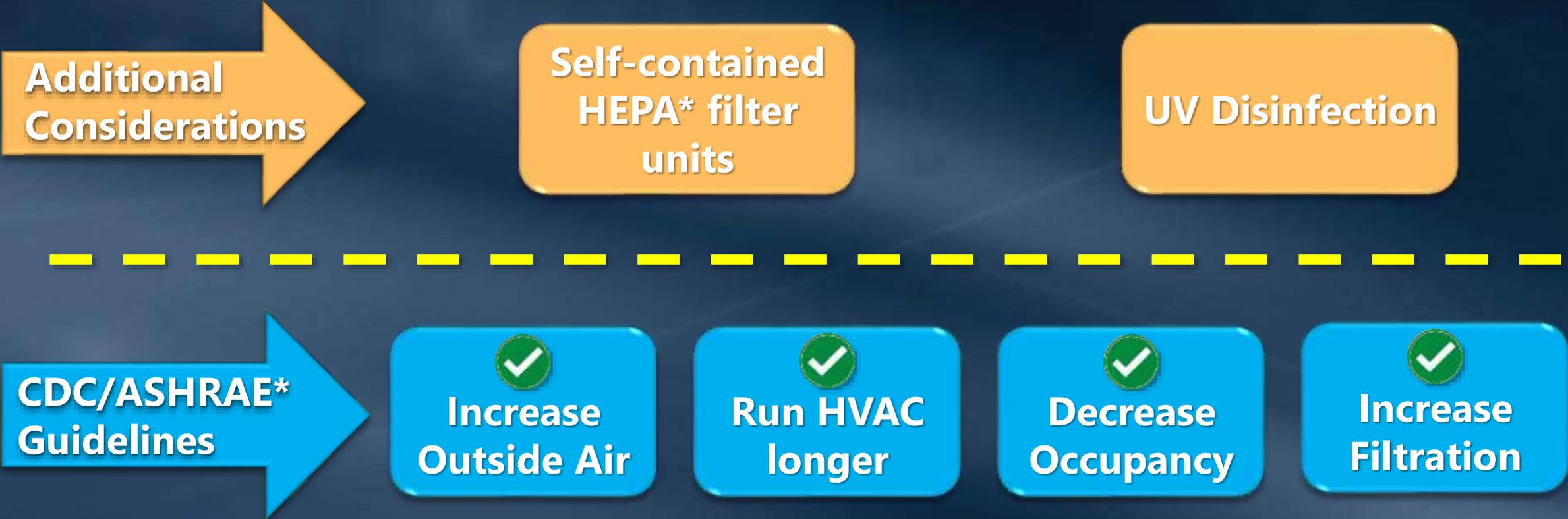
**NOTICE TO EMPLOYEES AND VISITORS**

Protect Yourself and Others from **COVID-19**

-  Stay home and **DO NOT ENTER** if you are sick. Employees notify your manager you will not be in to work and email AskHR@mwdh2o.com or call (213) 217- 7738.
-  Social Distancing: **DO NOT CONGREGATE.** Stay **6 FEET AWAY** from others as much as possible.
-  Use cloth face covering or surgical mask anytime you will be in contact with others or in common areas (i.e. elevators, lobbies, hallways, break or restrooms, work shops etc.)
-  Wash you hands with soap and water for **20 SECONDS** or clean your hands with hand sanitizer often.

**Social Distancing**

# Metropolitan's HVAC Systems Meet or Exceed COVID-19 Industry Guidelines



HEPA: High-Efficiency Particulate Air

CDC: Centers for Disease Control and Prevention

ASHRAE: American Society of Heating, Refrigerating and Air-Conditioning Engineers

# Indoor Air Quality Enhancements Beyond Industry Guidelines

## Supports COVID-19 Return-to-Work

- Self-contained HEPA filter units
  - Reduces virus spread by removing virus from air
  - Rapidly deployable and cost effective for small to medium sized areas
- UV disinfection
  - Reduces virus spread by inactivating virus particles
  - Cost effective for large or higher-density areas



HEPA Filter



UV Disinfection

# Proposed Indoor Air Quality Enhancement Plan

## Low Density, Intermittent Use

- Current Measures

## Moderate Density, Frequent Use

- Self-contained filtration enhancement
- Approximately 150 units @ \$600/unit

## High Density, Frequent Use

- Enhanced UV disinfection
- Cost is application dependent and will be phased with HVAC capital projects, as needed



# Summary

- Several improvements made over the years to enhance indoor air quality at Metropolitan facilities
- Metropolitan meets or exceeds all current industry guidelines for indoor air quality
- As part of a multi-layered approach, further enhancements are planned and in process to support COVID-19 return-to-work

