



WASHOE COUNTY HEALTH DISTRICT

AIR QUALITY MANAGEMENT DIVISION



Public Health
Prevent. Promote. Protect.

DIVISION DIRECTOR STAFF REPORT **BOARD MEETING DATE: September 25, 2014**

DATE: September 12, 2014

TO: District Board of Health

FROM: Charlene Albee, Director
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SUBJECT: Program Update – Groundbreaking Research Project; Divisional Update; Monthly Air Quality Index; Program Reports – Monitoring & Planning; Permitting & Enforcement

1. Program Update

a. Groundbreaking Research Project

The Nevada State Constitution was amended to authorize patients, on the advice and with written authorization of their physicians, to obtain and use marijuana for medical purposes. State Law and County Code provide for four types of establishments to provide medical marijuana: cultivation, production, independent testing laboratories, and dispensaries. The Washoe County Health District Regulations Governing Air Quality Management, specifically Section 030.200, requires facilities with the potential to emit air contaminants above 2 pounds per day to obtain an Authority to Construct/ Permit to Operate. Existing cultivation facilities in other states have experienced explosions when not properly ventilated, therefore, it is reasonable to assume there are volatile organic compound (VOC) emissions generated from the cultivation process and a public health and safety risk must be considered.

Estimated emissions from industrial processes are typically calculated with the application of an emission factor developed through research or from actual source tests. AQMD staff began researching the availability of emission factors for the cultivation of marijuana as soon as the state law was adopted but to no avail. Staff research even included making contact with our international air quality peers in the Netherlands and Spain. After finally coming to the conclusion there are no emission factors available, staff began to look for a surrogate and found hops to be the closest botanical relative to marijuana. AQMD staff approached the Desert Research Institute (DRI) and the University of Nevada, Reno College of Agriculture (UNR) with a proposal to quantify the VOC emissions from the cultivation of hops in a controlled environment. Both DRI and UNR conducted independent investigations of the subject matter to determine what information was available prior to committing to the project. Their conclusions matched that of the AQMD staff, there is no information available regarding the VOC emissions from marijuana or hops. Based on this discovery, both entities were excited about the opportunity to complete ground breaking research and agreed to participate in the project. AQMD has committed \$50,000 from the State of Nevada

Department of Motor Vehicles Pollution Control Account Excess Reserves (Washoe County Health District Account #20392) to fund the project.

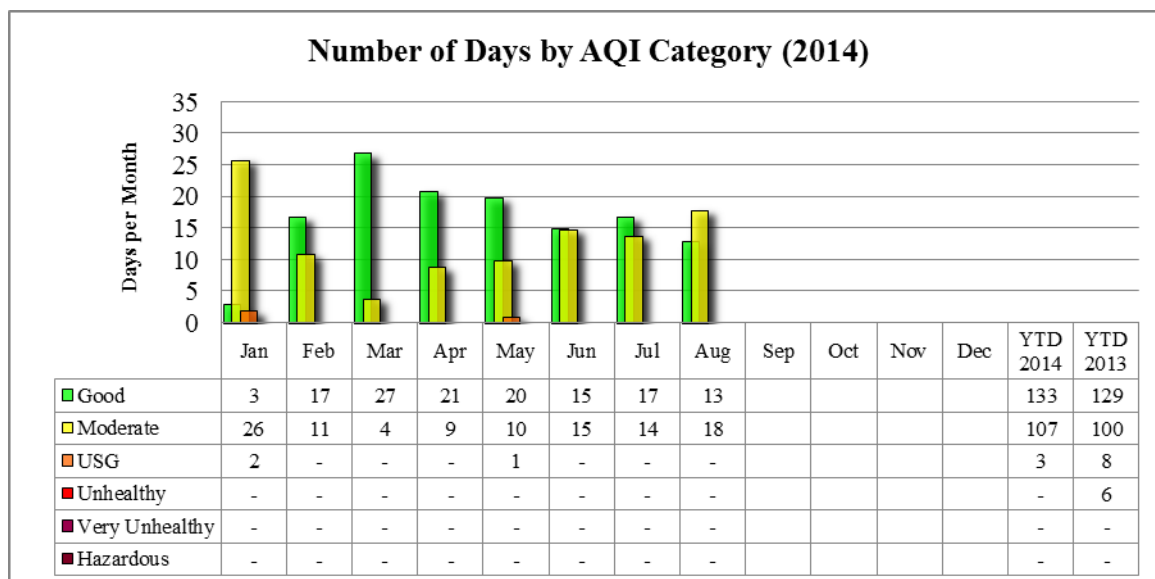
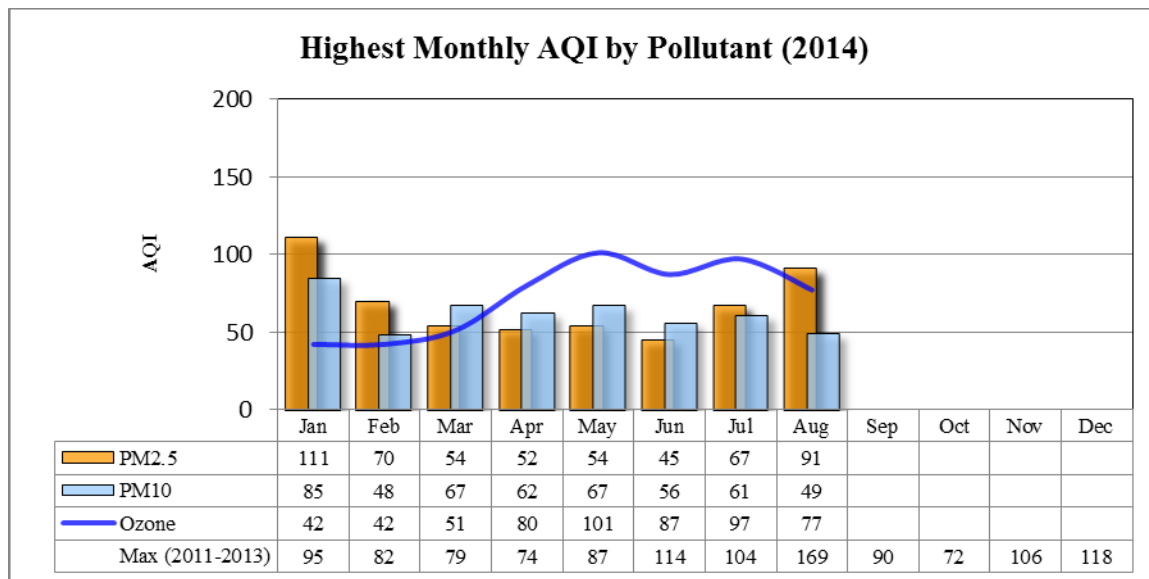
The project will involve the use of one of the DRI EcoCELL grow chambers located at the Dandini Boulevard Facility. The EcoCELL is equipped with environmental controls and all of the monitoring and sampling equipment necessary to analyze the VOC emissions generated from the growth cycle, planting through budding of the hops. The hops cuttings will be acquired from Urban Roots, a nonprofit educational farm and community center, who has evaluated the feasibility of growing hops in Nevada. In collaboration with UNR, the EcoCELL will be blacked out and equipped with grow lights to represent the indoor growing conditions required of the legalized cultivation facilities. Sampling will be conducted following U.S. Environmental Protection Agency protocols established in the *“Technical Assistance Document for Sampling and Analysis of Ozone Precursors”* (U.S. EPA 1998; U.S. EPA 2009). Following the approval of the Sole Source purchasing agreement, the project began in August and results from the project are expected to be presented in April. The ultimate goal is a VOC emission factor expressed in micrograms per plant that can be applied to the cultivation facilities during the engineering reviews required as part of the air quality permitting process.

Even though the Nevada State law has approved the use of medical marijuana, Federal law still considers the possession or use of marijuana to be a federal offense. AQMD recognizes the legal disparity but made the determination that the public health and safety of the citizens of Washoe County is worth the investment in the project. U.S. EPA Region IX has been made aware of the research project and expressed their surprise that Washoe County has initiated the research project and will be permitting the activities. Region IX identified thirty-eight (38) air agencies located in the states that have legalized some form of marijuana and, with the exception of Puget Sound Clean Air Agency in Oregon; none have expressed an interest in permitting the associated activities.

This project is just one more example of the commitment of AQMD staff to *“Keep it Clean”*.

2. Divisional Update

- a. Below are two charts detailing the latest air quality information for the month of August. The top chart indicates the highest AQI by pollutant and includes the highest AQI from the previous three years in the data table for comparison. The bottom chart indicates the number of days by AQI category and includes the previous year to date for comparison.



Please note AQI data are not fully verified and validated and should be considered preliminary. As such, they should not be used to formulate or support regulation, guidance, or any other governmental or public decision. For a daily depiction of the AQI data, please visit www.OurCleanAir.com for the most recent AQI Summary.

3. Program Reports

a. Monitoring & Planning

There were no exceedances of any National Ambient Air Quality Standards during the month of August.

Staff have been making improvements to the Know the Code program in preparation for this winter season. The most noticeable improvement will be replacing the standard twice a day (morning and late afternoon) update with a single mid-afternoon update. The single daily update will provide the media and public improved consistency. Delivery of the burn code will be through OurCleanAir.com, EnviroFlash, Facebook, Twitter, and the Air Quality Hotline. Partners such as the local media and National Weather Service play an important role during Know the Codes season by using their resources to inform the public. Know the Code season begins November 1.

EPA completed the final report for their September 2013 Technical Systems Audit (TSA) of the monitoring program. TSAs ensure that monitoring programs meet federal requirements for data quality. In general, EPA found that the AQMD's program is robust and meets EPA requirements. As with any audit, this TSA uncovered some program areas that can be strengthened. The AQMD will develop a plan and timeline to correct these findings. This plan will be submitted to EPA by mid-October 2014.

AQMD is an active member of the Washoe County Green Team (GT). The GT is a cross-departmental committee encouraging sustainable practices in the County's operations. The GT submitted a successful proposal for a County Special Community Project grant to install hydration stations at 15 County facilities. Site selection criteria included high general public foot traffic. Hydration stations reduce the number of disposable single-use water bottles discarded into the environment. The first station is expected to be installed at the Washoe County Senior Center in September 2014. The Health District lobby is included in the list of the 15 facilities to receive a station.

b. Permitting & Enforcement

Type of Permit	2014		2013	
	August	YTD	August	Annual Total
Renewal of Existing Air Permits	94	642	98	1339
New Authorities to Construct	8	80	3	88
Dust Control Permits	11 (117 acres)	83 (880 acres)	10 (96 acres)	105 (1420 acres)
Wood Stove Certificates	31	237	42	329
WS Dealers Affidavit of Sale	5	64 (43 stoves removed)	13 (7 replacements)	134 (83 replacements)
WS Notice of Exemptions	465 (4 stoves removed)	4580 (48 stoves removed)	342 (3 stoves removed)	7346 (83 stoves removed)
Asbestos Assessments	55	533	97	828
Asbestos Demo and Removal (NESHAP)	16	137	15	199

Staff reviewed seventeen (17) sets of plans submitted to the Reno, Sparks or Washoe County Building Departments to assure the activities complied with Air Quality requirements.

- The Permitting Section continues work on the new regional permitting system dubbed “One”. The Accela core training is complete and was attended by Air Quality’s designated Subject Matter Expert (SME) Lauri Mendoza. The training covered the terminology and functionality of the system. This training was to prepare the SME for the upcoming analysis sessions with the Accela staff. Air Quality has submitted all required documentation to Technology Services for review and analysis scheduling.
- Inspectors continue to monitor the progress of the installation of emissions control devices at the Truckee Meadows Water Reclamation Facility (TMWRF). A major component of the new system was scheduled for delivery in the middle of September has a new delayed delivery date in the middle of October. This amended delivery date may not affect the overall completion date for the project.
- The vacant Permitting Engineer position interviews were completed and a candidate selected. The candidate has accepted the offer for the position and is scheduled to start September 22, 2014. Once the new permit engineer reports the AQMD Permitting and Enforcement Branch will be fully staffed.

Staff conducted fifty-four (54) stationary source renewal inspections in August 2014. Staff also conducted inspections on asbestos removal and construction/dust projects.

COMPLAINTS	2014		2013	
	August	YTD	August	Annual Total
Asbestos	4	16	6	18
Burning	1	4	0	8
Construction Dust	3	23	7	0
Dust Control Permit	3	13	0	7
General Dust	4	35	3	46
Diesel Idling	0	3	0	8
Odor	1	12	2	16
Spray Painting	0	4	0	5
Permit to Operate	3	25	2	55
Woodstove	0	8	0	16
TOTAL	19	143	20	209
NOV's	August	YTD	August	Annual Total
Warnings	8	25	4	46
Citations	0	7	4	40
TOTAL	8	32	8	86

*Discrepancies in totals between monthly reports can occur due to data entry delays.