

Air Quality Index

(Rajasthan)



Central Pollution Control Board
Zonal Office – Bhopal

INDEX

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Status of Air Quality in 05 Districts of Rajasthan *w.r.t.* Air Quality Index

Under National Ambient Air Quality Standards, 2009; 12 pollutants are notified based on short term & long term monitoring for Industrial/residential and Sensitive/ecological areas i.e. PM₁₀, PM_{2.5}, SO₂, NO₂, NH₃, Pb, O₃, CO, Ni, As, B(a)P & Benzene. Under National Air Monitoring Program (NAMP), a huge quantity of data generates annually for prescribed parameters i.e. PM₁₀, SO₂ and NO₂. CPCB evaluated the concept of Air quality Index (AQI) utilizing the data of Ambient Air Quality to ascertain the quality of air in terms of its probable impact on health and environment.

AQI is calculated for 03 parameters (PM₁₀, SO₂ and NO₂) monitored under NAMP. The calculated values are categorized in 06 pollution categories i.e. Good, Satisfactory, Moderate, Poor, Very Poor & Severe as reported in AQI document.

With the help of mapping softwares i.e. *Autocad Map, Mapinfo & ArcGIS*; yearwise maps of air quality level at stations are also prepared.

Under National Air Monitoring Program (NAMP) currently **21** Air Quality Monitoring Stations are operational in 05 districts of Rajasthan state. At each station annually **104** days Air Pollutants (PM₁₀, SO₂, NO₂) level is being monitored on 24 hourly basis.

The list of NAMP stations established in 5 districts is as below:

District	Station Code	Location detail	Class of Area
Alwar	372	Regional Office, RSPCB	Residential
	373	M/s Gourav Solvex Ltd	Industrial
	219	RIICO Pump House MIA	Industrial
Jodhpur	274	RIICO, Regional Office	Industrial
	273	Sojati Gate	Residential
	376	Mahamandir Police Thana	Residential
	411	Housing Board	Residential
	413	DIC Office	Industrial
	412	Shastri Nagar	Residential
Udaipur	321	RSPCB, Regional Office MIA	Industrial
	320	Chandpur Satellite Hospital Ambamata	Residential
	294	Town Hall, Udaipur	Residential
Kota	17	RSPCB, Regional Office, Kota	Industrial
	325	M/s Samcore Glass Ltd	Industrial
	326	Municipal Corporation, Kota	Residential
Jaipur	298	RSPCB Office, Jhalana Dongari	Residential
	410	RIICO Office MIA, Jaipur	Industrial
	296	PHD Office, Ajmeri Gate	Residential
	408	Office of the District Educational Officer, Chandpol	Residential
	409	RSPCB, RO, Vidyadhar Nagar	Residential
	297	VKIA, Jaipur (Road no.-6)	Industrial

The Air Quality Index is calculated for available monitoring data of **06** consecutive years (2010 to **May** 2015). Based on the index value, Air Quality is categorized as Good, Satisfactory, Moderate, Poor, Very Poor & Severe.

District **Alwar** has 03 NAMP stations established in industrial & residential area to monitor the air quality. Station no. 219 established in Matasya industrial area (MIA) at RIICO pump house has shown **Moderate** level of air pollution for last 5 years, however in year 2013 the air quality level was found to be of **Poor** Category.

Station no. 372 established in residential area at Regional Office of Rajasthan Pollution Control Board (RSPCB) has shown **Moderate** level of air pollution for last 5 years, however in year 2013 the air quality level found to be of **Poor** Category.

Station no. 373 established in industrial area at M/s Gourav Solvex Ltd has shown **Poor** category of air quality for last 3 yrs i.e. 2010, 2013 & 2014. Rest of the years the Air quality observed to be of **Moderate** level.

In **Jodhpur** district presently 06 NAMP stations are operational at residential & industrial area of city. At all the monitoring stations the air quality level found to be **Moderate** level, however in year 2015 Station no. 273 established at Sojati Gate shown **Poor** trend of air quality.

In **Udaipur** district, 03 NAMP stations are operational at residential & industrial area of city. Station no. 321 established in industrial area has shown **Moderate** level of Air quality for last 5 consecutive years i.e. 2010 to 2014. However, in year 2015 the air quality found to be **Poor** category. Station no. 320 & 294 established in residential area has shown **Satisfactory** to **Moderate** level of Air quality in last 6 years.

In **Kota** district, 03 NAMP stations are operational at industrial & residential area of city. At all the three monitoring stations the air quality found to be of **Moderate** level for last 6 years.

Jaipur, the capital city of Rajasthan has 06 operational NAMP stations covering the industrial & residential area of city. Here, at station no. 296 (PHED office, Ajmeri gate), 409 (Regional Office, RSPCB) & 297 (Vishvkarma Industrial Area) shown **Moderate** to **Poor** air quality trend for these 6 years.

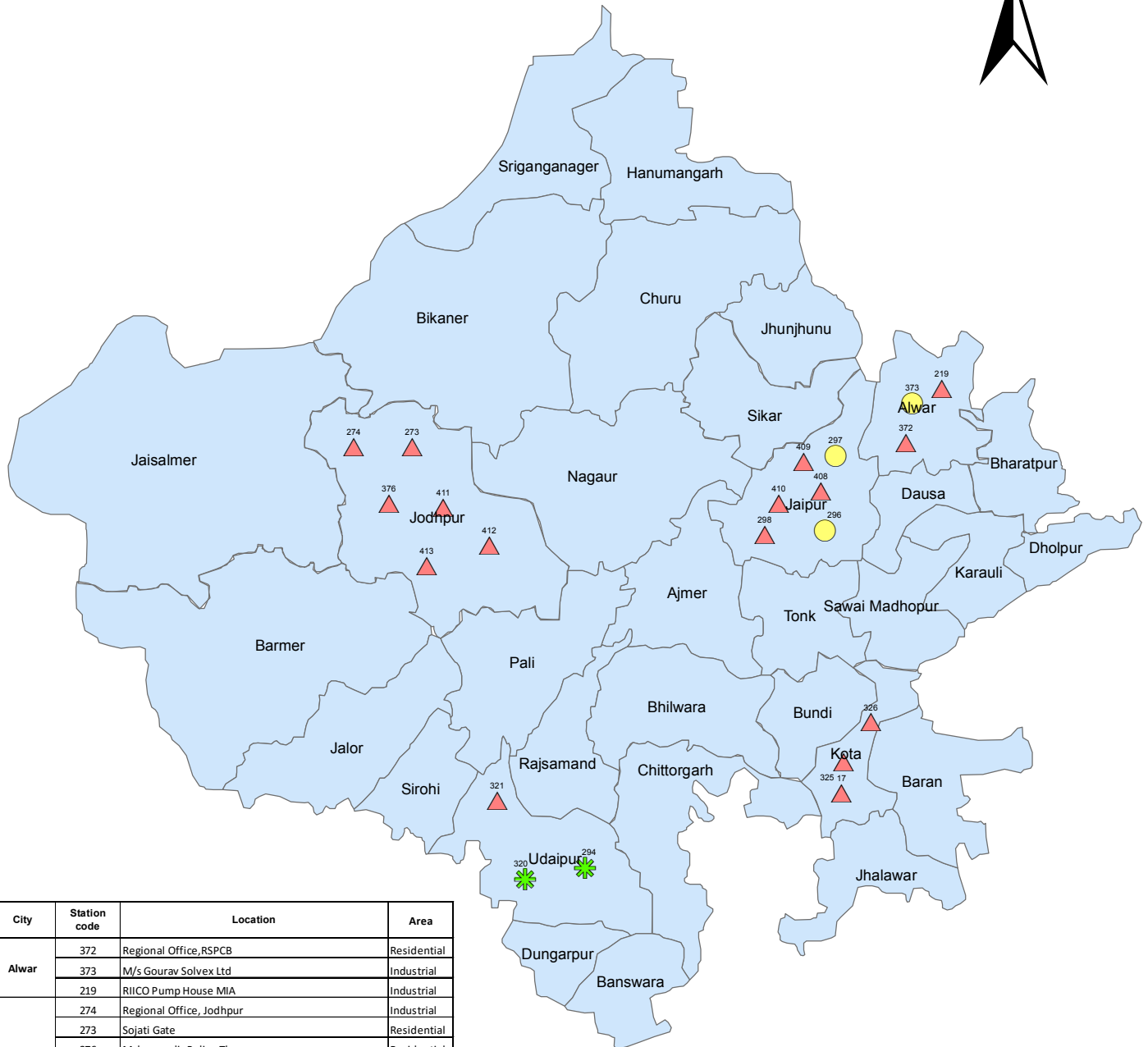
At all monitoring stations the Air quality Index (AQI) is found to be in **Moderate** category which suggests that it may cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with possibility of heart disease for Children and adults. At few stations of Alwar, Jodhpur & Jaipur the air quality index was found to be even in **Poor** category that means it may cause breathing discomfort to the people on prolonged exposure and discomfort to people with possibility of heart disease.

PM₁₀ is the prominent air pollutant at every NAMP stations of Rajasthan state. The worse quality found in year 2015 at few monitoring stations may be due to availability of **only 5 months data (upto May 2015)**. It may be possible that this quality may improve if the index calculated on the basis of annual average data.

Air Quality Index of Rajasthan




Name of City	Station Code	Location detail	Class of Area	Pollution Category in Year					
				2010	2011	2012	2013	2014	Upto May 2015
Alwar	372	Regional Office,RSPCB	Residential	Moderate	Moderate	Moderate	Poor	Moderate	Moderate
	373	Gourav Solvex Ltd	Industrial	Poor	Moderate	Moderate	Poor	Poor	Moderate
	219	RIICO Pump House MIA	Industrial	Moderate	Moderate	Moderate	Poor	Moderate	Moderate
Jodhpur	274	RIICO, Regional Office	Industrial	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	273	Sojati Gate	Residential	Moderate	Moderate	Moderate	Moderate	Moderate	Poor
	376	Mahamandir Police Thana	Residential	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	411	Housing Board	Residential	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	413	DIC Office	Industrial	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	412	Shastri Nagar	Residential	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Udaipur	321	RSPCB, Regional Office MIA	Industrial	Moderate	Moderate	Moderate	Moderate	Moderate	Poor
	320	Chandpur Sattelite Hospital Ambamata	Residential	Satisfactory	Moderate	Moderate	Moderate	Satisfactory	Moderate
	294	Town Hall, Udaipur	Residential	Satisfactory	Moderate	Moderate	Moderate	Satisfactory	Moderate
Kota	17	RSPCB, Regional Office, Kota	Industrial	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	325	Samcore Glass Ltd	Industrial	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	326	Municipal Corporation, Kota	Residential	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Jaipur	298	RSPCB Office, Jhalana Doongari	Residential	Moderate	Satisfactory	Moderate	Moderate	Satisfactory	Moderate
	410	RIICO Office MIA, Jaipur	Industrial	Moderate	Satisfactory	Moderate	Moderate	Moderate	Moderate
	296	PHD Office, Ajmeri Gate	Residential	Poor	Moderate	Moderate	Poor	Poor	Moderate
	408	Office of the District Educational Officer, Chandpole	Residential	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	409	RSPCB, RO, Vidyadhar Nagar	Residential	Moderate	Moderate	Poor	Moderate	Moderate	Poor
	297	VKIA, Jaipur (Road no.-6)	Industrial	Poor	Moderate	Moderate	Poor	Moderate	Poor

Status of NAMP Station (Rajasthan) Based on Air Quality Index Year 2010

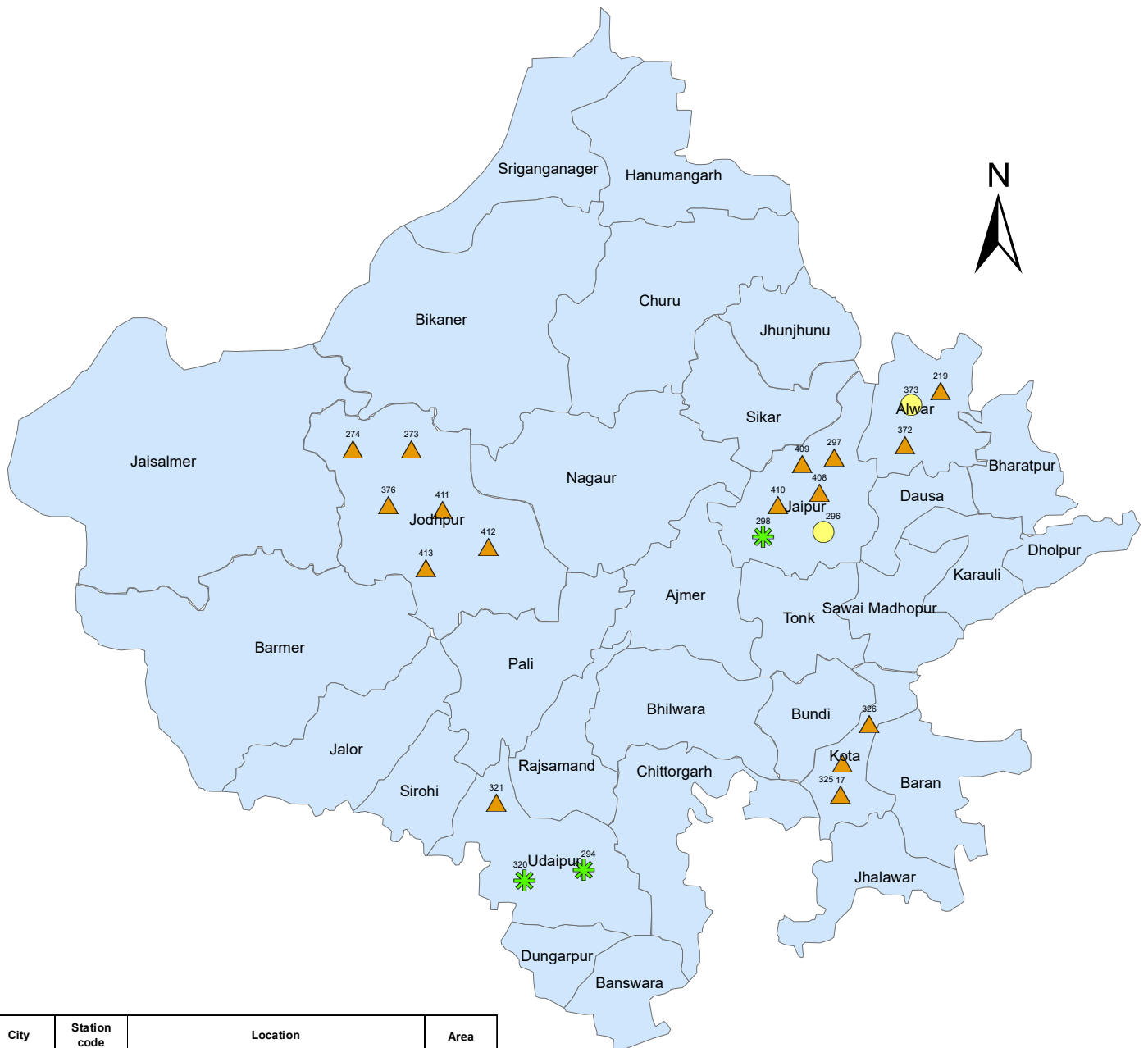


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	412	Shastri Nagar	Residential
Udaipur	321	Regional Office MIA, Udaipur	Industrial
	320	Ambamata, Udaipur (Chandpur Sattelite Hospital)	Residential
	294	Town Hall, Udaipur	Residential
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	408	Office of the District Educational Officer, Chandpole	Residential
	409	Regional Office North, RSPCB, 6/244 Vidyadhar Nagar	Residential
	297	VKIA, Jaipur (Road no.-6)	Industrial

AQI Based Pollution Categories




-  Moderate
-  Poor
-  Satisfactory

Status of NAMP Station (Rajasthan) Based on Air Quality Index Year 2014

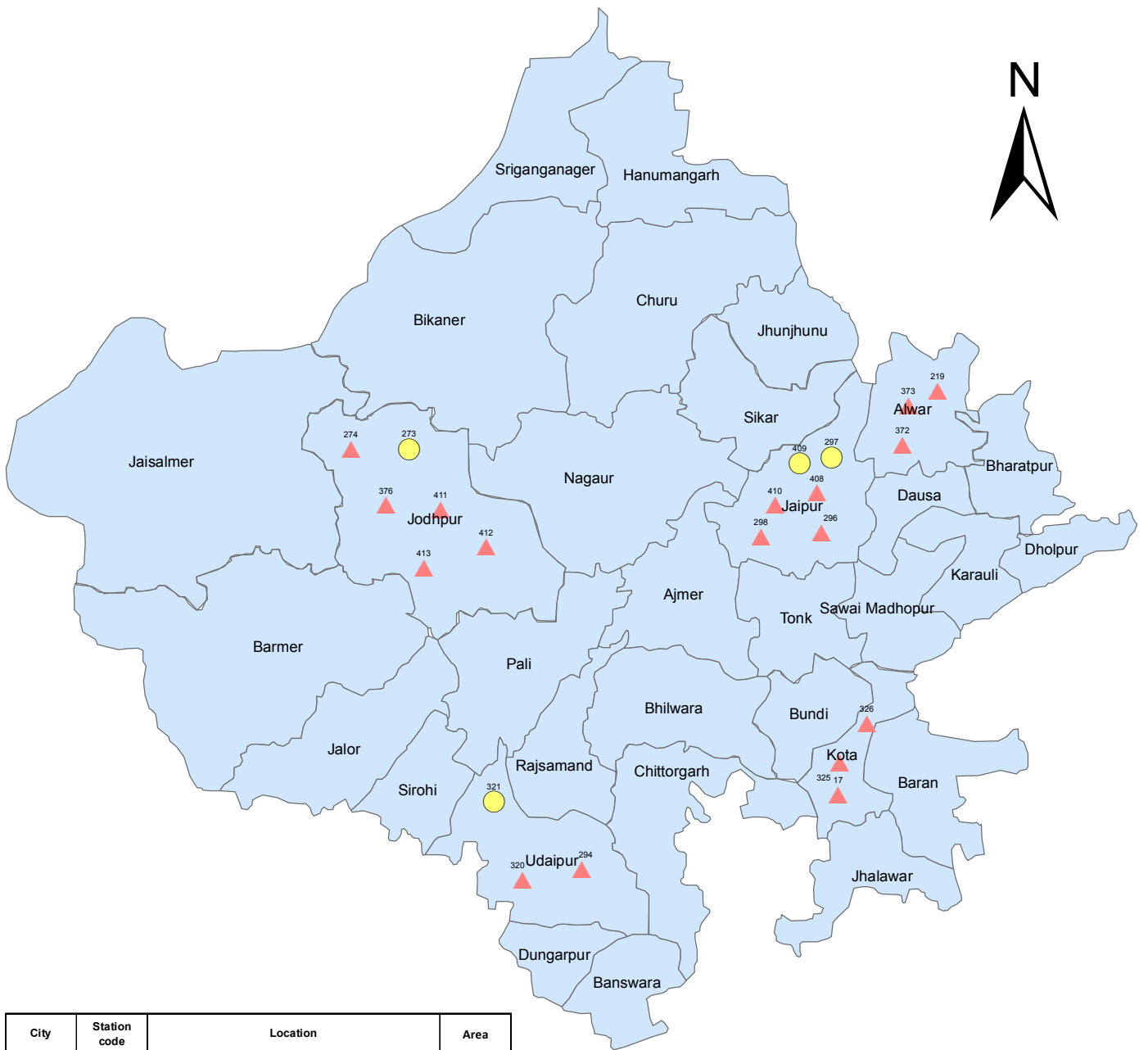


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AQI Based Pollution Categories

-  Satisfactory
-  Moderate
-  Poor

Status of NAMP Station (Rajasthan) Based on Air Quality Index Year 2015



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Jodhpur	274	Regional Office, Jodhpur	Industrial
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AQI Based Pollution Categories

- ▲ Moderate
- Poor