PUNE FLOOD RISK INFORMATION

Average Rainfall (mm Graph for Pune)

- Precipitation (mm)
- Average Rainfall Days

ADJOINING P.C.M.C. AREA

Pune Flood Risk Information
FLOOD RISK ANALYSIS

High-risk flood prone areas (based on last few years):

- Shantinagar slum, Vishrantwadi
- Poolachi Wadi slum, Deccan
- Anandnagar, Sinhagad Road
- Kamgar Statue slum, Shivajinagar
- Khillare Patil slum, Yerawada
- Ambil Odha slum, Dandekar Bridge
- Shivne and Uttamnagar areas
- Katraj Lake area
- Old Aundh Bridge area
- Baner and Pashan areas
- Bopodi slum area
- Kelawadi
- Hadapsar
- Warje
- Tingare Nagar
- Vitthalwadi

Other general flood affected areas (according to Pune Municipal Corporation):

- Uttam Nagar Indiar Vasahat, Shivane River side portion, Warje Tapopharm, Erandwana Khilare vasti, Pulachiwadi Deccan Gymkhana, PMT Terminal D.G. back side, Topkhana area (Shivaji Nagar), Kamgar Putala
- Wadgaon Bk. (Slum No. 14 & 15), Hingane Kh. No. 18, Hingane Alankar Police Chowky (Karvenagar), Poona Hospital (Rear side), Sitabag Colony (Narayan Peth), Ashtabhuja Mandir (Narayan Peth), Amruteshwar Mandir (Shaniwar Peth, Apte Ghat), Shaik Salla Darga (Dengale Bridge, Kasaba Peth), PMC Colony (Kasaba Peth), Barne Road (PMC Colony, Mangalwar Peth), Gadital Slum (Bhimnagar, Mangalwar Peth), Tadiwala Road Slum area, Ambil Odha adjoining area, Dattawadi and Rajendra Nagar, Kashewadi Slum near Sonawane Hospital, Indira Nagar slum (Maharshinagar)
- Kalas (Slum No. 6 & 88) slum near Odha river and nala, Aundh – Portion near old bridge & slum no. 7 near Harris Bridge slum, Sangamwadi – Shantinagar slum no. 111 (Tank Road), Indiranagar slum no. 90 (Alandi Road), Portion near Naik Island, Patil Estate slum area
- Majari Bk (Mahadev Mandir, Bhapkar Mala), Mundawa (Keshav Nagar, Datta Mandir area)
Ward-wise assessment:

Pune city has 14 administrative wards – Aundh, Kothrud, Ghole Road, Warje-Karve Nagar, Dhole Patil, Hadapsar, Nagar Road, Sangamwadi, Bhavani Peth, Kasba-Vishrambag, Sahakar Nagar, Tilak Road, Bibvewadi, Dhanakawadi

Aundh:

Mula River flows along its northern perimeter. Although the ward has few flood-prone areas, certain pockets south of the river, Ramwadi Nala, and the low-lying areas around Pashan Lake have been known to be vulnerable to flooding during heavy rains.

Kothrud:

The ward has no major water channels. The little risk of flooding is due to urban flooding of low-lying areas.

Ghole Road:

The ward has the Mutha River on its South-eastern border and Mula river on its North-eastern border, as the two rivers confluence on the eastern edge of the ward.

The risk of major flooding is relatively low, and only certain areas on the northern bank of the Mutha River and the western bank of the Mula River are likely to experience some flooding.

Warje – Karve Nagar:

The Mutha River flows along the south and southeastern boundary of the ward. Few low-lying areas and slum pockets on the northern bank of the river experience some flooding during heavy rains. The overall risk factor for the ward is very low.

Dhole Patil Road:

Mula and Mutha rivers (after their confluence) flow along the northern edge of the ward. The risk factor for the ward is low. Considerable flooding is, however, expected in some of the slum areas in the ward.

Hadapsar:

While, traditionally the risk, from floods in the ward, has been low, the Bhairoba Nala (canal) and Wadki Nala, which traverse through the ward, have lost 22.73 and 16.56 per cent of their streams in the recent past. The continuing and unchecked construction boom in these areas has thus made this are susceptible to urban flooding.
Nagar Road:

The Mula and Mutha rivers flow along the southern edge of the ward. Due to the sudden spurt of construction and development, the greater risk is again from urban flooding.

Sangamwadi:

The two rivers – Mula and Mutha – skirt around the southern and western boundaries of the ward. The area around the Patil Estate slum is prone to flooding during heavy rains.

Bhavani Peth:

The ward is part of the old city of Pune and has a high population density. There is also a large presence of slum structures. The threat of flooding is largely from urban flooding.

Kasba – Vishram Baah:

The threat of floods is low as anti-flood structures have already been constructed along the river banks, and the old occupants on the river bank have already been relocated.

Sahakar Nagar:

The risk of floods is very low.

Tilak Road:

Threat exists along the waterline of the Mutha River. While the flood line is almost 100m to the south of the normal river channel, construction has been made within the flood line, thereby accentuating the risk of flooding in these areas.

Bibvewadi & Dhanakawadi:

Low to very low risk.

Basin-wise assessment:

Over the last few years, the city has seen many flash floods, which town planners and experts blame on disappearance of natural streams and water bodies. They say that of late, the city has been witnessing floods even during medium rains, which is a cause for alarm as the city might go the Chennai way during heavy rainfall.
Geographically, the city of Pune lies in a valley with many small and medium streams meandering down its area to empty at the Mula-Mutha basin. Researchers have identified six major basins that are active in and around the city – Ramnadi, Ambil Odha, Nandusi, Bhairoba nala, Wadki nala (canal) and Wagholi nala.

**Ramnadi Basin**
Back in 2010, the tiny river of Ramnadi was in the news for the havoc its flash floods created in the Baner-Bavdhan area, leaving 11 people dead. The public outrage in its aftermath prompted authorities to say they would raze illegal encroachments as well as demarcate red and blue flood lines for the river. While majority of the encroachments were pulled down, the demarcation of red and blue flood lines (construction within these lines is not allowed) is yet to happen. Incidents of heavy rains invariably leads to flooding as the water is neither able to seep into the ground nor able to flow along the body of the river.

**Ambil Odha basin**
In June 2013, flash floods near Shindewadi on National Highway 4 washed away a woman and her child. The flash floods in this area were caused due to the closure of the waterways in the upper reaches of the rivulet, Ambil Odha, which happens to be one of the most important tributaries of the Mutha river. With 40 per cent of the first-order streams of the Ambil Odha lost forever, the researchers say, danger of flash floods in this area remains real.

**Wagholi-Kharadi basin**
The heavy rains which lashed the city towards the end of 2015 in November caused deep distress for residents of Lohegaon, Dhanori and nearby areas. Waterlogging was reported from numerous areas, causing severe damage to vehicles and property. This area, home to huge construction boom, has also seen some of the largest loss of water streams. In the Wagholi basin area, 34.78 per cent of the streams have vanished due to unplanned growth.

**Bhairoba Nala and Wadki Nala**, which traverse through Hadapsar and its neighbouring areas, have lost 22.73 and 16.56 per cent of their streams. With construction boom continuing unchecked in these areas, locals fear a Chennai-like situation here.

**Measures:**

**NDRF**, which has 10 battalions located at various places in India, played a key role in all major disaster relief operations in the country, after its formation in 2006. Each battalion of the NDRF has 18 self-contained specialist search and rescue teams of 45 personnel including engineers, technicians, electricians, dog squads and medical and paramedics team. The total strength of each battalion is 1,149. One such battalion – 5 Battalion – catering to Maharashtra and Goa region is stationed at Sudumbare, near Talegaon, in Pune district.
The state disaster management department of the Pune district collectorate, and the water resource department of Pune circle, have planned to instal sirens in areas that are located close to the rivers, to act as a cue for residents to seek shelter. This is especially for those living near the rivers of Bhima basin, which spread across Pune, Pimpri Chinchwad and the northern and eastern parts of the district.

**Emergency Services:**

PMC has also started five toll free telephone lines for disaster management: 020-25501269, 2550680/1/3/4

Mr. Ganesh Sonune (Disaster Management Officer): 020 25501262, +91 9689931511

Pune Police Control Room: 020 - 26126296, 26122880, 26208250; 100

**Fire Department:**

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<td>Fire Brigade Center P.C.M.C. (Pimpri Chinchwad)</td>
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