1. 0-25 (Very Poor):

Description: Water quality in this range is very poor, indicating severe contamination and posing significant health risks. It may have high levels of pollutants and pathogens.

Home-Level Treatment: Home-level treatment may not be effective in making the water safe for consumption.

Society-Level Treatment: Comprehensive water treatment is crucial, often involving advanced filtration, chemical treatment, and disinfection. Air quality disturbances can contribute to the presence of contaminants in water, such as pollutants from industrial emissions.

AQI Implication: During air quality disturbances, the AQI for the location is likely to be high, indicating poor air quality with elevated levels of pollutants.

2. 26-50 (Poor):

Description: Water quality is poor in this range, with notable contamination. It requires substantial treatment for safe consumption.

Home-Level Treatment: Home-level treatment may involve advanced filtration or boiling to ensure safety.

Society-Level Treatment: Community water treatment is necessary, including more extensive filtration, chemical treatment, and disinfection. Air quality disturbances, such as dust and particulate matter, can indirectly affect water quality by depositing contaminants into water bodies.

AQI Implication: During air quality disturbances, the AQI for the location may still be elevated, indicating poor air quality conditions.

3. 51-69 (Fair):

Description: Water quality is fair, but it may have moderate contamination, requiring treatment at both individual and community levels.

Home-Level Treatment: Home-level treatment may include advanced filtration or UV purification for added safety.

Society-Level Treatment: Community water treatment typically involves more complex processes, such as chlorination and filtration, to improve water quality. Air quality disturbances can indirectly contribute to eutrophication, impacting water quality by depositing nutrients into water bodies.

AQI Implication: Even during air quality disturbances, the AQI may vary, but it can indicate moderately acceptable air quality with some pollution.

4. 70-89 (Good):

Description: Water quality is generally good and safe for drinking, with only minor issues.

Home-Level Treatment: Home-level treatment may include simple filtration or UV purification for added peace of mind.

Society-Level Treatment: Society-level treatment focuses on maintaining water quality and may involve conventional methods like chlorination and filtration. Air quality disturbances can indirectly affect water quality through atmospheric deposition of pollutants that may settle into water bodies.

AQI Implication: During air quality disturbances, the AQI may be within acceptable levels, indicating good air quality conditions.

5. 90-100 (Excellent):

Description: Water quality in this range is excellent, typically safe for consumption without additional treatment.

Home-Level Treatment: Home-level treatment may involve basic filtration for taste and odor improvement.

Society-Level Treatment: Community water treatment is focused on maintaining quality and ensuring minimal treatment for distribution. In cases of excellent water quality, air quality disturbances may have minimal direct influence on water quality.

AQI Implication: During air quality disturbances, the AQI is likely to remain at low levels, indicating excellent air quality conditions.