

# **Designation Criteria for Small MS4s**

## **EPA Region 9 and the Arizona Department of Environmental Quality**

### **I. Introduction**

EPA's final Phase II stormwater regulations (64 Fed. Reg. 68722, December 8, 1999) require that permitting authorities develop criteria for designating certain small municipal separate storm sewer systems (MS4s) for NPDES permitting (40 CFR 123.35(b)). The MS4s affected are the following:

- MS4s outside urbanized areas with a population of 10,000 or more and a population density of at least 1,000/mi<sup>2</sup>. Designation decisions for these MS4s are due by December 9, 2002. The Phase II Final Rule requires the NPDES permitting authority to develop a set of designation criteria and apply them at a minimum to MS4s meeting the aforementioned population and density levels. The final rule did not preclude the application of designation criteria to additional MS4s.
- MS4s which contribute substantial pollutant loadings through storm sewer interconnections to a regulated MS4. There is no regulatory deadline for these designations.
- MS4s for which a petition for designation is received by the permitting authority. Designation decisions are due within 180 days of receiving the petition.

The Arizona Department of Environmental Quality (ADEQ) will be the permitting authority for State of Arizona when ADEQ receives primacy for the NPDES program. EPA Region 9 will continue to issue permits for Indian lands in Arizona, Indian lands in the States of California and Nevada, and the U.S. Pacific Island territories of Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, Johnston Atoll and Wake and Midway Islands.

A list of the MS4s which meet the above population thresholds (based on the 1990 census) and which must be considered for designation is found in Appendix 7 to the final Phase II stormwater regulations. Based on the 1990 census, the city of Douglas was the only city in Arizona to meet the population and density threshold. However, based on the 2000 census, three additional MS4s are subject to designation; these MS4s are the City of Nogales, Arizona, and the Towns of Florence and Fountain Hills, Arizona.

The regulations provide a number of factors to consider in making the designations. The regulations at 40 CFR 122.35(b)(1)(i) require that the permitting authority:

“Evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts”

The regulations at 40 CFR 122.35(b)(1)(ii) also provide the following guidance:

“For determining other significant water quality impacts, EPA recommends a balanced consideration of the following designation criteria on a watershed or other local basis: discharge to sensitive waters, high growth or growth potential, high population density, contiguity to an urbanized area, significant contributor of pollutants to waters of the United States, and ineffective protection of water quality by other programs.”

### **II. Designation Criteria and associated Designated small MS4s**

- A. Various factors were evaluated for impacts to the environment and these factors were considered for all cities in Arizona. As of November 2002, factors had not been considered for their applicability to non-traditional MS4s such as schools, government complexes,

etc.. Small MS4s that will be designated for regulation under a small MS4 stormwater permit will include those small MS4s for which:

1. Receiving waters are sensitive, including
  - a. 303(d) listed waters impaired by stormwater as described in either the 303(d) or 305(b) report
  - b. 303(d) listed waters likely to be impaired by stormwater runoff because the water is already impaired by stressors that are commonly found in stormwater including sediment, oil and grease, fecal bacteria, E.coli, pesticides, nutrients and heavy metals; or
  - c. Unique waters
2. Current population size or expected population growth are likely to be significant contributors of pollutants to waters of the US, including
  - a. Small MS4s with a population greater than 10000 people according to the 2000 census
  - b. Small MS4s with a population size expected to reach more than 10000 people by 2005 based on an extrapolation of data on growth rates between the 1990 census and the 2000 census; or
3. Runoff is likely to be polluted due to any of the following concerns OR whose runoff is likely to cause a negative impact associated with any of the following concerns:
  - a. High incidence of tourism activities that cause an increase in the population and population density. A high incidence of tourism is defined by 50,000 visitors per year to nearby State Parks and/or proximity to National Monuments, wilderness areas, Forest Service lands, Natural Park Service lands or other tourist destinations.
  - b. Stormwater discharge is likely to flow into critical habitat for any plant or animal species or occur near a threatened or endangered population; important because the Phase II final rule suggests consideration of potential impacts on threatened and endangered species and critical habitat.
  - c. Small MS4 is contiguous to an urbanized area. There are 6 urbanized areas identified in AZ and all are showing signs of growth far above the national average of 13.1% (between 1990 and 2000). Phoenix-Mesa was the fastest growing metropolitan region in the country according to the 2000 Census; important qualifier because growing contiguous cities are likely to contribute to the pollutant loadings within the urbanized area.
  - d. Receiving water is used for drinking water or recreation. These waters could be reservoirs or waters where people are likely to have Partial or Full Body Contact; important to protect public health and prevent beach closures and protect recreational uses.
  - e. Receiving water is a wild and scenic river or a proposed wild and scenic river; important because these waters often harbor fragmented plant and

animal populations and are used to gage water quality from an aesthetic perspective; or

- f. Insufficient protection of water quality concerns by other programs - especially in cities along the Mexico-U.S. border where infrastructure is needed to support population stresses associated with Mexico's population. Permitting of upstream cities may also be a method to protect the health of Indian communities that may not have a large enough population to need a permit from EPA or be otherwise protected from polluted waters.

- B. As a result of the designation criteria explained in Part II.A. above, the following small MS4s are designated as regulated small MS4s and therefore, are required to apply for coverage under a stormwater permit within 180 days after receiving notification.

**Camp Verde, Cottonwood, Douglas, Fountain Hills, Lake Havasu, Nogales, Sedona and Sierra Vista**

- A. As stated in Part I, the permitting authority has the responsibility to consider designation for the cities of Douglas and Nogales and the Towns of Fountain Hills and Florence. Douglas and Nogales met all designation criteria of Part II.A., while Florence and Fountain Hills did not meet all criteria.

Fountain Hills does not discharge to a known sensitive water and therefore does not meet criteria in Part II.A.1. Other water quality concerns provide a cause to designate Fountain Hills as a regulated MS4 including: a growth rate of 127% between 1990 and 2000, proximity to sensitive species and insufficient protection of water quality concerns by other programs.

At this time, Florence will not be required to obtain a permit. Florence has a large population (17054 according to the 2000 census) however, because the MS4 is not discharging to a sensitive water or discharging in an area with any of the aforementioned environmental concerns, the permitting authority does not believe it is necessary at this time for town of Florence to obtain a permit.

- B. The table below provides further explanation of the details supporting the inclusion of the cities named above:

City	Receiving Water	Population (2000 census)	Density (2000 census)	Environmental Concerns from Part II.A.3
Camp Verde	Verde River, Beaver Creek	9451	222	b., d., e.
Cottonwood	Verde River	9179	860.3	b., d., f.
Douglas	Whitewater Draw	14312	1852.7	b., f.
Fountain Hills	washes tributary to the Verde River	20235	1113.8	b., c., f.
Lake Havasu	Lake Havasu	41938	974.4	a., b., d., f.
Nogales	Nogales Wash, East Nogales Wash	20878	1002.1	b., f.
Sedona	Oak Creek	10192	548	a., b., d.
Sierra Vista	San Pedro River	37775	246.1	a., b., d.

As can be seen from the above table, some of the designated MS4s do not meet the minimum population and population density requirements such that they must be considered for designation. However, as noted in section I, the designation criteria may be applied to more MS4s than those meeting the minimum requirements. The above table explains the environmental concerns leading to the additional designations.