

EPA notes that Arizona's adopted and approved numeric water quality criteria for nutrients are based on total phosphorous and total nitrogen whereas the numeric water quality criteria for nutrients promulgated by EPA in 1976 are based on total phosphates and total nitrates. Total phosphorous and total nitrogen are more encompassing measurements of the presence of these types of nutrients than total phosphates and total nitrates, for which EPA promulgated water quality criteria in 1976, because elemental phosphorous and nitrogen can be present in different forms under different conditions (including, but not limited to, phosphates and nitrates). For this reason, EPA currently recommends adopting criteria for total phosphorous and total nitrogen. See *Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs*, EPA-822-B-00-001; *Ambient Water Quality Criteria Recommendations: Lakes and Reservoirs in Nutrient Ecoregion II*, EPA-822-B-00-007; *Ambient Water Quality Criteria Recommendations: Rivers and Streams in Nutrient Ecoregion II*, EPA 822-B-00-015; *Ambient Water Quality Criteria Recommendations: Rivers and Streams in Nutrient Ecoregion III*, EPA 822-B-00-016. Although EPA is not able to directly compare Arizona's nutrient criteria based on total phosphorous and total nitrogen with the Federally promulgated criteria based on total phosphates and total nitrates, the CWA and EPA's regulations at 40 CFR 131.11 only require that States adopt criteria that are scientifically defensible and sufficiently detailed to protect the designated uses of the waterbodies. When EPA approved these criteria, EPA determined that they met this requirement and adequately protected Arizona waters from excess nutrients (the same objective of the 1976 Federal nutrients water quality criteria). For more detailed information on EPA's analysis, see EPA's approval decisions contained in the docket for this rulemaking.

C. What Water Quality Standards Will Apply Now That EPA Is Withdrawing the Federal Nutrient Criteria in Arizona?

The goal of EPA's 1976 rulemaking in Arizona was to establish water quality criteria to protect the designated uses of Arizona surface waters. EPA withdraws federally promulgated water quality standards after the State adopts, and EPA approves, water quality standards that meet the requirements of the CWA and the implementing Federal regulations. As discussed earlier, in 1996, after approving Arizona's nutrient criteria and implementation procedures, EPA determined that Arizona's standards met the requirements of the CWA and EPA's implementing regulations and Federally promulgated nutrient criteria were no longer necessary. As a result of today's action, Arizona's numeric and narrative nutrient criteria, and the corresponding implementation procedures for the narrative criteria are the applicable nutrient criteria. Not affected by this proposal are Federal water quality standards codified at 40 CFR 131.31(b) and (c), which among other things designate fish consumption as a use for certain waters, and require implementation of a monitoring program regarding mercury's effects on wildlife. These provisions remain in effect.

Table 1 below displays the Federal numeric criteria for nutrients and the State's corresponding criteria. The waterbody segments listed in Table 1 are the waters for which the Federal numeric nutrient criteria being withdrawn today had applied. For convenience, the Federal nutrient criteria and the corresponding State nutrient criteria are listed for each water body. See 40 CFR 131.31(a). Because the Federal and State nutrient criteria are based on measurements of different parameters (*i.e.*, total phosphates and total nitrates versus total phosphorous and total nitrogen), this table does not provide a direct comparison of the Federal and State nutrient criteria but rather describes how individual waters that are currently covered by the Federal criteria for nutrients will be covered by

Arizona's water quality standards. For waterbodies or waterbody segments listed in rows 4, 8, 9, and 11, Arizona has adopted numeric nutrient water quality criteria for either total nitrogen, total phosphorus, or both. In addition to the numeric nutrient criteria in Table 1 for the listed stream segments, Arizona has adopted numeric nutrient criteria for additional stream segments not covered by the Federal nutrient criteria. Between 1976 and 1996, EPA approved Arizona's numeric nutrient criteria because the criteria were derived using sound science and are protective of the designated uses of those waters. Readers interested in viewing Arizona's numeric nutrient criteria not listed in Table 1 should consult Arizona's water quality standards (R18-11-109, 11-110, and 11-112). Arizona's water quality standards can be viewed on the EPA Office of Water Standards Repository Web site at <http://www.epa.gov/waterscience/standards/wqslibrary/>.

For waterbodies or waterbody segments where Arizona has not adopted any numeric nutrient water quality criteria to replace the Federal numeric water quality criteria for nutrients (the waters listed in rows 1, 2, 3, 5, 6, 7, and 10), only the State's narrative nutrient criteria apply. In 1996, EPA determined that the narrative nutrient criteria, in conjunction with Arizona's *Implementation Guidelines for the Narrative Nutrient Standard*, would provide the same intended level of protection as the Federal criteria by fully protecting the designated uses of these waters because they allow for consideration of site-specific water quality information. Indeed, when necessary, narrative criteria with the appropriate implementation procedures can be used to obtain quantitative measures having a greater degree of precision and site specificity than a single numeric target. EPA reviewed and approved Arizona's narrative nutrient criteria and the *Implementation Guidelines for the Narrative Nutrient Standard* as being scientifically defensible and consistent with the CWA and EPA's implementing regulations at 40 CFR 131.11.

TABLE 1.—FEDERAL NUTRIENT CRITERIA IN CFR 131.31(A) AND ARIZONA NUTRIENT CRITERIA

Water body segment	Federal criteria at 40 CFR 131.31 (mg/L) (mean/90th percentile)		Arizona criteria (mg/L) (mean/90th percentile/max)	
	Total phosphates	Total nitrates	Total phosphorus	Total nitrogen
1. Colorado River from Utah border to Willow Beach (main stem)	0.04/0.06	4/7	nnc	nnc
2. Colorado River from Willow Beach to Parker Dam (main stem)	0.06/0.10	5/—	nnc	nnc
3. Colorado River from Parker Dam to Imperial Dam (main stem)	0.08/0.12	5/7	nnc	nnc