

3745-2-12

Total maximum daily loads.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rule 3745-2-02 of the Administrative Code.]

(A)

- (1) Total maximum daily loads (TMDLs) shall be established, at a minimum, in accordance with the listing and priority setting process established in section 303 (d) of the act (~~as amended through January 1, 2007~~) and 40 C.F.R. 130.7 (~~effective January 1, 2007~~).
 - (2) TMDLs shall be established and implemented through a TMDL implementation plan. An implementation plan shall address attainment of applicable water quality standards, determined in accordance with paragraph (C) of rule 3745-2-04 of the Administrative Code (or as otherwise applicable in accordance with Chapter 3745-1 of the Administrative Code) for each pollutant for which a TMDL is established.
 - (3) Where a TMDL is not required by paragraph (A)(1) of this rule or it is not technically feasible to complete development of a TMDL prior to NPDES permit deadlines for a discharge to a TMDL assessment area, Ohio EPA may develop water quality based effluent limits (WQBELs) for a discharge in the absence of a TMDL pursuant to rules 3745-2-04 to 3745-2-11 of the Administrative Code.
- (B) A TMDL shall be determined as the sum of all ~~significant~~ existing or projected loads of a pollutant to the TMDL assessment area from point sources, nonpoint sources, and background sources. The sum of the loads shall not be greater than the loading capacity of the receiving water for the pollutant minus ~~the sum of~~ a specified margin of safety and any capacity reserved for future growth.
- (C) Ohio EPA shall determine the assessment area for a TMDL, considering, at a minimum, the following factors:

- (1) Area of impact;
- (2) Significance of the pollutant of concern;
- (3) Location, type, significance and interaction of pollutant sources;
- (4) Availability of information;

- (5) Treatability of pollutant and pollutant sources;
 - (6) Resources available to develop the TMDL implementation plan;
 - (7) Resources available for implementing the TMDL implementation plan;
 - (8) Coordination with other Ohio EPA programs and requirements; and
 - (9) Federal regulations and guidance regarding TMDLs.
- (D) Where an assessment and remediation plan meets the requirements of this rule and the public participation requirements applicable to TMDLs, Ohio EPA may use the assessment and remediation plan in lieu of a TMDL implementation plan. Assessment and remediation plans may include, but are not limited to, the Lake Erie lakewide management plan, remedial action plans, and water quality management plans. Any part of an assessment and remediation plan that satisfies one or more requirements under section 303 (d) of the act (~~as amended through January 1, 2007~~) or its implementing regulations may be part of a TMDL implementation plan.
- (E) A TMDL implementation plan may be based on attaining water quality standards over a period of time, with specific controls on individual sources being implemented in stages. Where implementing a TMDL implementation plan will not immediately attain water quality standards, the TMDL implementation plan shall reflect reasonable assurances that water quality standards will be attained in a reasonable period of time. Ohio EPA shall determine the reasonable period of time in which water quality standards will be met considering, at a minimum, the following factors:
- (1) Receiving water characteristics;
 - (2) Persistence, behavior and ubiquity of pollutants of concern;
 - (3) Type of remediation activities necessary;
 - (4) Available regulatory and non-regulatory controls; and
 - (5) Other requirements for attainment of water quality standards.
- (F)

- (1) Nonpoint source load allocations (LAs), for the purpose of establishing a TMDL, shall be based on at least the following information:
 - (a) Existing pollutant loadings if changes in loadings are not reasonably anticipated to occur;
 - (b) Increases in pollutant loadings that are reasonably anticipated to occur; and
 - (c) Anticipated decreases in pollutant loadings if such decreased loadings are technically feasible and are reasonably anticipated to occur within a reasonable time period as a result of implementation of best management practices or other load reduction measures.
 - (2) For LAs established on the basis of paragraph (F)(1)(c) of this rule, monitoring data shall be collected and analyzed in order to validate the TMDL's assumptions, to verify anticipated load reductions, to evaluate the effectiveness of controls being used to implement the TMDL implementation plan, and to revise the point source allocations and LAs as necessary to ensure that water quality standards will be achieved within the time-period established in the TMDL.
 - (3) For nonpoint sources considered in a TMDL ~~which~~that may affect the receiving water at stream flows at or below the stream design flows applicable under rule 3745-2-05 of the Administrative Code, LAs established in a TMDL shall be determined in accordance with rule 3745-2-05 of the Administrative Code such that water quality criteria are maintained at the design conditions.
 - (4) For nonpoint sources considered in a TMDL ~~which~~that only affect the receiving water at stream flows higher than the stream design flows ~~higher than the stream design flows~~ applicable under rule 3745-2-05 of the Administrative Code, LAs may be established using stream flows and procedures which Ohio EPA determines are appropriate for that nonpoint source and which shall ensure that applicable water quality standards will be maintained whenever that nonpoint source load occurs.
- (G) Pollutant loads allocated to point sources in a TMDL shall be used to determine wasteload allocations (WLAs) for those point sources.
- (1) If TMDLs are established in TMDL implementation plans for different segments of the same watershed and include allocations for the same pollutant for the same point source, then WLAs for that pollutant and point

source shall be consistent with the most stringent of those allocations.

- (2) For point sources considered in a TMDL ~~which that~~ discharge at stream flows at or below the stream design flows applicable under rule 3745-2-05 of the Administrative Code, WLAs shall be determined in accordance with rule 3745-2-05 of the Administrative Code such that water quality criteria are maintained at the design conditions.
 - (3) For point sources considered in a TMDL ~~which that~~ only discharge at stream flows higher than the stream design flows applicable under rule 3745-2-05 of the Administrative Code, WLAs may be established using stream flows and procedures ~~which that~~ Ohio EPA determines are appropriate for that point source and ~~which that~~ shall ensure that applicable water quality standards will be maintained whenever that point source load occurs.
 - (4) WLAs determined as part of a TMDL shall be used to determine WQBELs for that discharge in accordance with rule 3745-2-06 of the Administrative Code.
- (H) The background concentration of a pollutant for the purpose of establishing a TMDL shall be determined in accordance with paragraph (A)(3) of rule 3745-2-05 of the Administrative Code. Ohio EPA may apply alternative procedures to determine background concentrations if necessary to account for all conditions considered in the TMDL, such as, but not limited to, cases where background concentrations vary substantially with flow such that a background concentration derived in accordance with paragraph (A) of rule 3745-2-05 of the Administrative Code may not be appropriate.
- (I) The loading capacity for the purpose of establishing a TMDL shall be determined as the largest load of a pollutant that a water body can receive without violating water quality standards at any applicable site within the TMDL implementation plan assessment area (outside of applicable mixing zones). Separate loading capacities may be determined for each flow condition applicable to the TMDL. Pollutant loads for sources which only affect the receiving water at or above certain flow conditions shall be determined to maintain only the loading capacities applicable at and above those flow conditions.
- (J) Each TMDL shall include a margin of safety (MOS) sufficient to account for technical uncertainties in establishing the TMDL. The TMDL implementation plan shall describe the manner in which the MOS is determined and incorporated into the TMDL. The MOS may be provided by leaving a portion of the loading capacity unallocated or by using conservative modeling assumptions to establish WLAs and LAs.

- (K) TMDLs may include reserved allocations of loading capacity to accommodate various needs including, but not limited to, future growth, additional sources, and environmental reserves. Where such reserved allocations are not included in a TMDL, any increased loadings of the pollutant for which the TMDL, was developed that are due to a new or expanded discharge shall not be allowed unless the TMDL is revised in accordance with this rule to include an allocation for the new or expanded discharge.
- (L) TMDLs shall reflect, where appropriate and where sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones. TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife and aquatic life criteria.
- (M) Notwithstanding the exception provided for the establishment of controls on wet weather point sources in rule 3745-2-01 of the Administrative Code, TMDLs shall reflect, where appropriate and where sufficient data are available, point source and nonpoint source pollutant loads resulting from wet weather events.
- (N) TMDLs shall be based on the assumption that a pollutant does not degrade. However, Ohio EPA may take into account degradation of the pollutant if each of the following conditions is met:
- (1) Scientifically valid field studies or other relevant information demonstrate that degradation of the pollutant is expected to occur under the full range of environmental conditions expected to be encountered; and
 - (2) Scientifically valid field studies or other relevant information address other factors that affect the level of pollutants in the water column including, but not limited to, resuspension of sediments, chemical speciation, and biological and chemical transformation.
- (O) TMDLs for metals shall be determined based on the total recoverable form of that metal provided by all sources considered in that TMDL. The loading capacity for that TMDL shall be determined to maintain the total recoverable criteria applicable to that metal, with the following exceptions.
- (1) A WLA may be based on dissolved criteria in accordance with paragraph (F) of rule 3745-2-04 of the Administrative Code, provided that the WLA does not result in a total recoverable load in excess of that allocated to the point source as part of an established TMDL.

- (2) The loading capacity may be based on an effective total recoverable criteria, determined from applicable dissolved criteria in accordance with paragraph (F) of rule 3745-2-04 of the Administrative Code, provided that the dissolved metal translator applied in determination of the effective total recoverable criteria can be demonstrated to be appropriate and protective for all sources of that metal and all receiving water conditions considered in the TMDL.

Effective:

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Certification

Date

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