

Texas Water Laws and Regulations  
April 30, 2009  
Hilton Garden Inn Downtown  
500 North Interstate 35  
Austin, Texas

## Complying with Storm Water and Surface Water Management Regulations

- § Storm water management
- § Sediment and erosion control
- § Construction site water management
- § Maintaining water quality
- § Wetlands
- § Stream and flood management programs

### I. HISTORY AND STRUCTURE OF THE FEDERAL SURFACE WATER PROTECTION PROGRAM - NOW GENERALLY ADMINISTERED BY TCEQ WITH EPA OVERSIGHT

**A. Foundation of Surface Water Protection:** The federal Water Pollution Control Act, enacted in 1972 and amended by the Clean Water Act of 1977 ("CWA"), 33 U.S.C.A. §§1251 *et seq.* Groundwater is not the focus. Impetus to enactment:

- Hudson River bacteria level: 170 x safe limit
  - Cuyahoga River in Ohio caught fire
  - Potomac too polluted for swimming
1. **Stated statutory objective:** "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." *Id.* at §1251.
  2. **Statutory goals:**
    - a. eliminate discharge of pollutants to national waters by 1985
    - b. water quality goal, "wherever attainable," for protection of fish, shellfish, wildlife, and recreation by July 1, 1983
    - c. prohibit discharge of toxics in toxic amounts
    - d. use federal money for publicly owned treatment works
    - e. develop areawide waste treatment management planning
    - f. develop technology to eliminate discharge of pollutants into navigable waters, contiguous zone, and oceans through R&D
    - g. develop programs for control of **nonpoint sources of pollution** so as to meet statute's goals by control of point and nonpoint pollution.
  3. **1977 CWA amendment:** added further focus on wetlands, and added cost recovery for federal and state cleanup of spills of oil and hazardous substances (including ocean spills).
  4. **Point source pollution:** addressed by the NPDES permit program. Example: how we regulate discharge from process water industries or sewage treatment plants into surface waters.
    - a. The National Pollutant Discharge Elimination System (NPDES), created by §402 of the CWA, initially covered more than 65,000 industrial and municipal discharges, requires permits (issued for 5 years, with

renewals) for continued discharge. Since Texas is now authorized to administer the program in Texas (with EPA oversight), TCEQ administers the Texas Pollutant Discharge Elimination System or TPDES permit.

b. The NPDES permit requires industries to attain "best practicable control technology" available for each pollutant discharged. Municipalities must have at least secondary treatment of discharges. Permittees must keep records and monitor effluent.

c. Enforcement: EPA (or authorized State) may issue compliance orders or sue in federal court for penalties ranging from \$25,000/day to up to \$250,000/day and prison for "knowing endangerment" of public health. Affected citizens may also sue in federal court.

**5. Nonpoint source pollution:** handled by the stormwater<sup>1</sup> program (but note that stormwater is sometimes discharged from a "point source"). Per EPA, nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and underground water sources. Pollutants include:

- Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas;
- Oil, grease, and toxic chemicals from urban runoff and energy production;
- Sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks;
- Salt from irrigation practices and acid drainage from abandoned mines;
- Bacteria and nutrients from livestock, pet wastes, and faulty septic systems;

"Nonpoint source" may be a misnomer as storm water/surface runoff may leave a site as sheet runoff or via swales or ditches but also can be collected into stormwater pipes/drains (and delivered to city stormwater drains). TPDES General Permit No. TXR060000 (General Permit for industrial facilities that discharge "storm water associated with industrial activity") covers "Storm water and storm water runoff: rainfall runoff, snow melt runoff, surface runoff and drainage."

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<sup>1</sup> "You say 'to-may-to, and I say to-mah-to" - EPA uses the term "stormwater" in its regulatory regime. TCEQ generally refers to "storm water."

**6. CWA's evolving history:**

- a. First 15 or so years:
- (1) Focus on chemical aspects of "integrity of the Nation's waters" by regulating toxics.
  - (2) Focus on regulating point source discharges from traditional facilities – sewage plants, industrial facilities.
    - 1973: EPA issues first municipal wastewater discharge permit
    - 1973: EPA issues guidelines for new water quality standards
  - (3) Little attention to runoff from streets, construction sites, agriculture.
- b. Mid-1980's to present: Focus on addressing polluted runoff. Under §319 of the 1987 amendments to the CWA, Congress authorized states to develop and implement management programs targeting their major nonpoint sources.
- (1) Industrial stormwater
  - (2) CAFOs
  - (3) Municipal stormwater (for example, discharge from storm drains)

**7. Progress report.**

- a. As of January 1998, 25-year anniversary of CWA,<sup>2</sup>
- Annual wetland loss reduced by 75%
  - Soil erosion from cropland reduced by over 33%
  - Billions of pounds of pollutants removed from waterways.
- BUT:
- 40% of nation's surveyed waterways still too polluted for fishing and swimming
  - excess runoff of nitrogen and phosphorous contributes to algal blooms, harmful organism outbreaks like *Pfiesteria*, 6000 sq. mi. "hypoxic" (oxygen-starved) zone in Gulf.
- b. As of 2003, 61% of rivers, 55% of lakes and 49% of estuaries met safety standards.
- c. EPA reported on 3-19-09 that from 2006 to 2007, overall releases of toxics in water decreased 5%. However, EPA's proposed new rules for construction and development storm water states, "Despite substantial improvements" in the nation's water quality since the inception of the CWA, 45% of assessed river and stream miles, 47% of assessed lake acres, and 32% of assessed square miles of estuaries show impairments from a wide range of sources. Per EPA, "Improper control of stormwater discharges from construction activity is among the many contributors of sediment which is one of the major remaining water quality problems throughout the United States." Federal Register, November 28, 2008, at 72563. Furthermore, "Sediment is the leading cause of water quality

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<sup>2</sup> Source: President Clinton's State of the Union speech.

impairment for streams and rivers" and of lake and reservoir water quality impairment and wetland degradation. *Id.*

## **B. STORMWATER PROGRAM MILESTONES**

- 1987 CWA Amendments: Congress established schedule for EPA to establish regulations and issue permits for storm water discharges.
- 1990: EPA issued Storm Water Regulation Phase I, with implementation to begin in 1992, targeting municipalities over 100,000 in population, certain industrial activities, and construction projects over 5 acres. This covered about 123,000 industrial facilities (twice the number of industrial sources subject to the base NPDES program) and 220 municipalities and counties.
- 1992: EPA issued Storm Water Baseline Industrial General Permit (industrial, including construction for sites over 5 acres)
- 1995: EPA developed NPDES Storm Water Multi-Sector General Permit for Industrial Activities (not including construction)
- 1998: EPA issued Final Modification of NPDES Storm Water Multi-Sector General Permit for Industrial Activities.
- 1998: EPA reissued NPDES General Permit for Storm Water Discharges from Construction Activities.
- 1999: Storm Water Regulations Phase II, with implementation March 2003, targeting construction over 1 acre, municipalities over 10,000.
- July 1, 2003: EPA issued NPDES General Permit for Discharges for Large and Small Construction Activities.

## **II. TEXAS PERMIT PROGRAM**

**A. 9-14-98:** EPA authorized Texas to administer the NPDES program. Texas operates its TPDES program with EPA oversight. The TPDES program includes issuing, amending, terminating, monitoring, and enforcing discharge permits, as well as imposing and enforcing pretreatment requirements for discharges to publicly owned treatment works (POTWs). Texas still is not authorized to issue permits for activities associated with exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline (EPA remains the permitting authority on those facilities). *See* Memorandum of Agreement between EPA and the then Texas Natural Resource Conservation Commission or TNRCC concerning the NPDES program. For efficiency, Texas too is authorized not only to issue individual permits under Texas Water Code §26.001, but also general permits for certain categories of waste dischargers under Texas Water Code §26.040, including general stormwater permits which cover those dischargers who by submitting a Notice of Intent (NOI)<sup>3</sup> agree to comply with their requirements.

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<sup>3</sup> NOI: Notice of Intent. NOC: Notice of change as to nature or operations of the facility, or discharge characteristics. NOT: Notice of termination from dischargers.

**B. TPDES Authority:** CWA §§ 307, 318, 402 and 405 for issuing, amending, terminating, monitoring, and enforcing permits and for imposing and enforcing pretreatment requirements under Texas Water Code and Texas Administrative Code regulations.

**C. The "General Permit" approach:** for efficiency, instead of individual discharge permits, TCEQ can issue general permits authorizing discharge of waste into or adjacent to water in the state for one or more categories of waste discharge within a geographical area of the state or the entire state, Texas Water Code (TWC) §26.040. General permits must meet requirements set forth in 30 TAC §205. TCEQ has authority to issue general permits if the discharges are storm water, or if the dischargers engage in the same or substantially similar types of operations, discharge the same types of waste, and are subject to the same requirements regarding effluent limitations or operating conditions and monitoring requirements, and (catchall) a general permit is more appropriate than individual permits because of ease of enforcement and recordkeeping. Caveat: the category of discharges may not include a discharge of pollutants that will cause significant adverse effects to surface or groundwater quality.

**1. Notice requirement.** To make the general permit process work, TCEQ provides public notice about the contents of the draft general permit.

**2. How to apply:** a "qualified discharger" may obtain authorization to operate under a general permit by complying with the general permit's conditions for gaining coverage.

a. The general permit will state whether a NOI must be filed before discharge begins.

b. A discharger may not discharge under an expired general permit.

c. If the discharger submits a NOI but is not eligible, the executive director must provide notice of ineligibility. 30 TAC §205.4.

**3. What the applicant agrees to:** Like a driver's license amounts to an agreement to comply with Texas Rules of the Road – rules publicly codified—a discharger's submission of a NOI constitutes an acknowledgment that the applicant agrees to comply with all conditions of the general permit.

**4. Enforcement:** Failure to comply violates the permit, Texas Water Code and/or Texas Health & Safety Code and is grounds for civil and criminal enforcement (including requiring a permittee to apply for a TPDES individual permit).

**5. Reporting:** Noncompliance must be reported to TCEQ within 24 hours if it may endanger human health or safety or the environment (oral/fax report followed by written report within 5 working days).

**D. Available Water Quality General Permits:**

- 1. Aquaculture General Permit TX130000** (authorizes discharge of wastewater from concentrated aquatic animal production facilities, etc.).
- 2. Municipal Separate Storm Sewer System (MS4) TXR040000** (authorizes storm water discharge from certain small MS4s).
- 3. Multi-Sector General Permit TXR050000** (authorizes discharges of storm water from certain industrial activities).
- 4. Construction General Permit TXR150000** (authorizes discharges of storm water from construction activities).
- 5. Ready-Mixed Concrete Plants, Concrete Products Plants, and Associated Facilities General Permit TXG110000** (authorizes discharge of facility wastewater, contact storm water associated with this industrial activity).
- 6. Petroleum Bulk Stations and Terminals General Permit TXG340000** (authorizes discharge of facility wastewater, contact storm water, and storm water associated with industrial activities)
- 7. Hydrostatic Test Water General Permit TXG670000** (authorizes discharge of hydrostatic test waters).
- 8. Petroleum Fuel or Petroleum Substances General Permit TXG830000** (authorizes discharge of water contaminated by petroleum fuel or petroleum substances, from activities such as removal of accumulated water from utility vaults, cleanup of UST systems, etc.).
- 9. Concentrated Animal Feeding Operations (CAFO) General Permit TXG920000** (authorizes discharge by evaporation or irrigation of manure, litter and wastewater associated with CAFO).
- 10. Manure Compost General Permit WQG200000** (authorizes disposal of wastewater from livestock manure compost by evaporation or irrigation).
- 11. Quarries in the John Graves Scenic Riverway Permit TXG500000** (authorizes discharge into/adjacent to water from quarries located greater than 1 mile from a water body in a water quality protection area in the John Graves Scenic Waterway [113-mile segment of the Brazos River between Possum Kingdom Lake and Lake Granbury created by 79<sup>th</sup> Texas Legislature, establishing a pilot program to protect water quality through regulation of wastewater and storm water discharges from quarries; *see* Water Code, Ch. 26, Subch. M]).
- 12. On-site Treatment Systems Connected to Single Family Residences Located Within the San Jacinto River Basin in Harris County TXG530000** (authorizes discharges from specified on-site treatment systems).

**III. TEXAS STORMWATER PROGRAM.**

Certain storm water discharges may be authorized by a TPDES or NPDES permit (30 TAC 311.6, .16):

- storm water runoff from industrial facilities;
- storm water runoff from municipal separate storm sewer systems;
- storm water from construction activities.

**A. Industrial storm water permits.** General Permit No. TXR050000 (issued 8-14-06, updating TPDES General Permit No. TXR050000, issued 8-20-01) covers storm water associated with certain categories of industrial activity.

**1. Who's covered:** "Industrial facilities that discharge storm water associated with industrial activity," if they fall within 30 sectors of similar activities based on either Standard Industrial Classification (SIC) codes or Industrial Activity Codes, listed in Section A of the permit. Part II.A.1 of the General Permit contains requirement for additional specific SIC codes included within each of the following sectors:

- Timber Products Facilities
- Paper and Allied Products
- Chemical and Allied Products
- Asphalt Paving and Roofing Materials and Lubricants
- Glass, Clay, Cement, Concrete and Gypsum Products
- Primary Metals
- Metal Mining (Ore Mining and Dressing)
- Coal Mines and Coal Mining Related Facilities
- Oil and Gas Extraction
- Mineral Mining and Dressing
- Hazardous Waste Storage Facilities
- Landfills and Land Application Facilities [but the landfill will also need a separate TPDES discharge permit for such discharge as landfill leachate, gas collection condensate, and storm water from surface areas that have come in direct contact with solid waste at the landfill facility]
- Automobile Salvage Yards
- Scrap Recycling Facilities
- Steam Electric Generating Facilities
- Land Transportation and Warehousing
- Water Transportation
- Ship and Boat Building or Repairing Yards
- Treatment Works
- Food and Kindred Products
- Textile Mills, Apparel and other Fabric Product Manufacturing, Leather and Leather Products
- Furniture and Fixtures
- Printing and Publishing
- Rubber, Miscellaneous Plastic Products and Miscellaneous Manufacturing Industries
- Leather Tanning and Finishing
- Fabricated Metal Products

- Transportation Equipment, Industrial or Commercial Machinery
- Electronic, Electrical, Photographic and Optical Goods
- Miscellaneous Industrial Activities

2. **What's permitted:** only storm water meeting eligibility requirements, i.e. directly related to manufacturing, processing, material storage, and waste material disposal areas and similar areas where storm water can contact industrial pollutants related to the industrial activity (and no water from industrial processes [needing separate TPDES permit] or from construction [needing separate construction storm water permit]).

a. Discharge must qualify under Edwards Aquifer Recharge Zone regulations, 30 TAC 213.

b. If within 10 stream miles upstream of Edwards Aquifer recharge zone, must also submit NOI to TCEQ region.

3. **No permit is required if:**

a. Facility demonstrates it does not discharge storm water to MS4 or to surface water in the state.

b. For example: Facility recycles all storm water with no discharge into, or adjacent to, surface water in the state; or contains all storm water within property boundaries.

c. Conditional No Exposure Exclusion from Permit Requirement: operator certifies that industrial activities and materials are isolated from storm water/storm water runoff by storm resistant shelters. Certification submitted on TCEQ form. If storm water also goes to MS4, operator also submits certification to operator of the MS4. No need to isolate:

- drums and containers in good non-leaking condition;
- final products designed for outdoor use (unless water can carry them off);
- uncontaminated pallets;
- vehicles used for material handling that are adequately maintained to prevent leaking fluids.

4. **What's required:**

a. Submit Notice of Intent (NOI) and \$100 fee before commencing industrial activity that could result in discharge of storm water subject to permit requirement.

b. Develop Storm Water Pollution Prevention Plan (SWP3) before submitting NOI.

(1) Maintain SWP3 – "integrated, facility-wide approach for pollution prevention in storm water discharge - onsite and available for TCEQ inspection. If facility discharges to MS4, SWP3 must be provided to MS4 personnel on request.

(2) SWP3 must comply with Part III of General Permit, be signed by appropriate person under 30 TAC §305.44 (such as responsible corporate officer – president,



secretary, treasurer or vice-president in charge of principal business function or similar officer, or manager of facility employing more than 250 persons or with gross annual sales/expenditures

exceeding \$25 million; general partner for partnership; principal executive officer/ranking elected official for municipality), and contain required certification of accuracy.

(3) Identify discharges and discharge points and provide site map with required detail, showing flow of storm water runoff from each location on map so that final outfall where discharge leaves facility boundary is clear.

(4) Describe pollution prevention measures and controls, including good housekeeping measures, spill prevention and response measures, erosion control measures, maintenance program for structural controls, best management practices (BMPs), employee training; periodic inspections; quarterly visual monitoring of discharges from each outfall, records to be maintained.

(5) Perform annual comprehensive site compliance evaluation and records. Records should be retained at least 3 years (from date of inspection, review, sample, report, etc.) for TCEQ inspection.

c. Benchmark monitoring requirements. Benchmark monitoring must be conducted once every six months following permit issuance and must continue throughout the permit term for all facilities subject to benchmark sampling. Each covered industry sector has required parameters for benchmark monitoring, and should not exceed the benchmark value for the required parameters.

(1) Examples: Sector D, Asphalt Paving and Roofing Materials, portable asphalt plants, must monitor for TSS (total suspended solids) with a benchmark value not to exceed 100 mg/L.

(2) Within Sector J, for SIC code 1442, 1446, sand and gravel mining, facilities must monitor for Nitrate + Nitrite N (benchmark value 0.68 mg/L) and TSS (100 mg/L)..

(3) The General Permit defines the specific parameters and values within the section covering a particular sector and its family of SIC codes.

d. Identify storm water Pollution Prevention Team in SWP3 and make SWP3 readily available to team.

## **B. Construction Storm Water Permits**

**1. Coverage under TPDES General Permit TXR1500000** was renewed effective March 5, 2008. *See*

[http://www.tceq.state.tx.us/nav/permits/wq\\_construction.html](http://www.tceq.state.tx.us/nav/permits/wq_construction.html). The vast majority of discharges from construction activity nationally are covered by general permits.

**2. Who/what is covered: discharges of storm water runoff from small (1 to less than 5) and large (5 acres and up)**

**construction activities.** In addition, a TPDES General permit may cover:

a. Discharges of storm water associated with construction support activities (such as equipment staging areas, material storage yards, concrete batch plants, rock crushers, asphalt batch plants, with caveats (activities within 1 mile from boundary of permitted construction site and directly support the construction; SWP3 includes appropriate controls and measures to reduce erosion/pollutants in runoff from the construction support activities; construction support activities end when the construction activity ends);

b. Non-storm water discharges from fire-fighting, fire hydrant flushing, dust control water, air conditioning condensate, lawn watering/irrigation drainage, and water from routine washing of dust/dirt/mud from vehicles, outsides of buildings, and pavement, where no detergent/soap is used and no toxic/hazardous spills have occurred.

**3. What the General Permit does not cover:**

a. Post construction discharges. After final stabilization of a site, the Notice of Termination (NOT) should be submitted and further discharge is not authorized under the general permit.

b. Non-storm water discharges (except as expressly permitted in Part II.A)

c. Discharges to surface water that would cause a water quality standards violation or fail to protect and maintain existing uses.

d. Discharges to water-quality impaired receiving waters. If the impaired segment has a total maximum daily load (TMDL), a storm water discharge to it is not eligible for the general permit unless it is consistent with the approved TMDL.

e. Discharges unauthorized by Edwards Aquifer rules.

**WARNING:** the General Permit cannot authorize a discharge prohibited by 30 TAC Chap. 213 (Edwards Aquifer). Furthermore, in the Edwards recharge zone, **you may not start construction (initial site disturbance from clearing, grading, excavating, stockpiling fill, etc.) until the appropriate Edwards Aquifer Protection Plan has been approved by TCEQ's Edwards Aquifer Protection Program.**

**4. Individual Permits can be required:** TCEQ can always require

an application for an individual permit if it appears discharges to surface water in the state would cause or contribute to a violation of water quality standards or fail to protect and maintain existing designated uses. General Permit, Part II.C.3.

**5. What's required:**

- a. Different requirements for sites 1 to less than 5 acres, and over 5 acres.
- b. Small construction requirements (1 to less than 5 acres):
  - Prepare and implement SWP3
  - Post site notice ("Small Construction Site Notice") per Part II.E.2.
  - Submit copy of Site Notice to MS4 operator
- c. Large construction (5 acres or more disturbed)
  - Prepare and implement SWP3
  - Submit NOI to TCEQ
  - Post NOI and Site Notice
  - Submit copy of NOI to MS4 operator
  - NB: may need both primary and secondary operator to provide required notices, depending project
- d. Example: you are covered if you only grade .75 acre, second contractor is grading 2.5, and another contractor is grading 2 acres in a subdivision; all three must comply with requirements for construction disturbing 5 acres.) See requirements for "secondary operators" of construction sites under Part II.E.3. Secondary Operator Notice(s) should be posted at the site.

**6. Submit NOI.** For paper application, submit \$325 and wait 7 days before starting work; for online application, submit \$225 and start immediately.

**7. Special area overlays may exist:**

- a. Edwards Aquifer recharge zone: Specific storm water treatment requirements must be met for all projects in the Edwards Aquifer recharge zone, complying with the Edwards Aquifer Technical Guidance Manual. Water quality best management practices (BMPs) must remove 80% of the Total Suspended Solids (TSS) load and meet specific volume requirements.
- b. New discharges in the EARZ or upstream in the Contributing Zone must comply with 30 TAC Chap. 213 in addition to the general permit.
- c. Existing discharges in the EARZ, in addition to complying with the general permit, must comply with:
  - (1) all applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in storm water runoff in addition to the requirements

of the general permit, and

(2) .the Water Pollution Abatement Plan under the Edwards Aquifer Rules which may require other conditions, such as BMPs and maintenance schedules for structural storm water controls.

d. City of Austin: BMPs must also remove 80% of the TSS load.

e. Check specific city. For instance, City of Houston has specific requirements for storm water treatment.

**8. New EPA Proposed Rules for Large Construction Sites.** As directed by federal court order, on November 19, 2008, EPA released new proposed guidelines to further control pollutants from construction sites, or "Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category," Federal Register, vol. 73, No. 230. By court order, EPA must finalize these by December 1, 2009. The comment period closed February 26, 2009.

a. Background: EPA was sued by the Natural Resources Defense Council in federal court in California. The NRDC charged EPA had failed to specify effluent limitation guidelines and new source performance standards for discharges caused by the construction and development industry, as required by the Clean Water Act, section 306. Under the injunction (now affirmed by the 9th Circuit), EPA was required to promulgate effluent limitation guidelines and new source performance standards at the latest by December 1, 2009, and to meet intervening deadlines with status reports to the court. EPA states that the proposed rule would strengthen the existing regulatory program for discharges from construction sites by establishing technology-based effluent limitations guidelines and new source performance standards for the construction and development point source category. EPA estimates this proposal would "significantly reduce the amount of sediment and other pollutants discharged from construction sites." Summary, at *id.* EPA describes the proposal as establishing a "technology-based "floor" or minimum requirements on a national basis.

b. All construction sites covered by the rule must implement erosion and sediment best management practices to reduce storm water pollutants. Those covered: "all dischargers currently required to obtain a National Pollutant Discharge Elimination System (NPDES) permit pursuant to 40 CFR 122.26(b)(14)x and 122.26(b)(15)." Federal Register, November 28, 2008, Vol. 73, No. 230, at 72564. This appears to cover every discharger currently required to get a general storm water permit in Texas, which includes sites of 1 acre and larger.

- c. Active construction sites disturbing 10 acres or more of land must install a sediment basin (the minimum design and performance standards are set forth in the proposed rule).
- d. "Large sites" (30 or more acres) located in parts of the country with "high rainfall energy and with soils with significant clay content" must meet a strict numeric turbidity limit (13 nephelometric units or NTUs) for discharge.
- e. These regulations would be incorporated into existing state and local storm water requirements and would be incorporated into the NPDES (TPDES) permits. EPA states, "Today's proposed regulation would establish a numeric effluent limit for turbidity in discharges from some C&D sites. EPA envisions these turbidity effluent limits as requiring an additional layer of management practices and/or treatment above what most state and local programs are currently requiring. Permit authorities would be required to incorporate these turbidity limitations into their permits and permittees would be required to implement control measures to meet a numeric turbidity limit in discharges of stormwater from their C&D sites." Federal Register, November 28, 2008, Vol. 73, No. 230, at 72564.

**C. Storm water Permits for Municipal Separate Storm Sewer Systems (MS4s):** regulated MS4s must develop comprehensive stormwater management programs, which include regulation of discharges from construction sites, including procedures for site planning, structural and non-structural BMPs, inspection, enforcement, public outreach and education.

**1. Large and Medium MS4 Systems:** EPA remains the regulatory authority for these NPDES permits until renewal TPDES permits are issued by TCEQ. The 1990 Phase I rule required MS4s serving populations of 100,000 or more to obtain coverage under a MS4 individual permit. 40 CFR 122.26(a)(3).

**2. Small Municipal Separate Storm Sewer Systems:** The 1999 Phase II rule requires most small MS4s located in urbanized areas also to obtain storm water permit coverage. On 8-13-07 TCEQ issued TPDES General Permit No. TXR040000 to provide coverage for small MS4s. It covers a "conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains)" which is owned by a public body and designed or used for conveying storm water (and not sanitary sewage).

a. Who can use this General Permit: a small MS4 in an urbanized area.

b. A small MS4 "designated" by TCEQ.

c. Waivers from coverage:

**Waiver 1:** population less than 1000 within an urbanized area and not contributing substantially to pollutant loadings of physically interconnected MS4 regulated by the TPDES storm water program

and, if discharging a pollutant which is a cause of impairment of any water body to which the small MS4 discharges, no storm water controls are needed based on wasteload allocations that are part of an EPA-approved TMDL (total maximum daily load) for the pollutant of concern.

**Waiver 2:** population less than 10,000 and: TCEQ has evaluated all waters of the U.S. that the small MS4 discharges to; for all such waters, TCEQ has found storm water controls are not needed based on TMDL allocations; TCEQ has found that future discharges do not have potential to exceed Texas surface water quality standards.

d. Requirements include Notice of Intent (sent to TCEQ) and Storm Water Management Program (SWMP). SWMP must address eligible discharges that will reach waters of the United States.

e. SWMP must be implemented within 5 years after permit issues and reduce discharge of pollutants from MS4 "to the maximum extent practicable" and protect water quality. SWMP must include the six minimum control measures in Part III.A.1-6 of the permit:

- § Public education on storm water impacts;
- § Public involvement/participation;
- § Illicit discharge detection and elimination (including enforcement procedures);
- § Construction site storm water runoff control (MS4 operator must enforce a program to reduce pollutants in any storm water runoff to the small MS4 from construction activities resulting in land disturbance of greater than or equal to 1 acre, including program of erosion/sediment control, construction requirements for appropriate BMPs and control of waste; procedures for site plan review.
- § Post construction storm water management in new development and redevelopment for projects that disturb = or greater than 1 acre of land, including BMPs, ordinance, long term operation and maintenance of BMPs;
- § Pollution prevention/good housekeeping for municipal operations, with goal of reducing pollutant runoff from municipal operations.

#### **IV. TEXAS POINT SOURCE DISCHARGE PROGRAM**

**A. Authority:** Tex. Water Code Ch. 26, Tex. Health & Safety Code, Chs. 361 and 401. Regulations: 30 TAC §305.1 et seq.

**B. What is covered by NPDES (as delegated, the TPDES) program):** a TPDES permit is required for "discharge of pollutants from any point source to waters in the state." 30 TAC §305.1. Certain federal NPDES regulations have been incorporated by reference into TCEQ's regulations. TPDES permits are for a term not to exceed five years. See additional conditions in 30 TAC §305.127, and general regulations for monitoring, reporting, hazardous metals, and spills in 30 TAC Ch. 319.

**C.** In addition to process water and other discharges, the following specifically require TPDES permits for discharges (30 TAC §305.1):

1. **Concentrated animal feeding operations (CAFOs).** See 30 TAC Ch. 321.
2. **Concentrated aquatic animal production facilities,** 40 CFR §122.24.
3. **Discharges into aquaculture projects,** 40 CFR §122.25.
4. **Discharges from separate storm sewers,** 40 CFR §122.27.
5. **Silvicultural point sources,** 40 CFR §122.27.
6. **Treatment works treating domestic sewage** (unless otherwise permitted).

**D. Certain discharges are controlled by rule, per 30 TAC Ch. 321:**

1. **Boat sewage disposal** (30 TAC §321.1 et seq.) (forbidding discharge into certain lakes; requiring marine sanitation devices on others)
2. **Concentrated animal feeding operations** (§321.31 et seq.) (requiring individual TPDES permit for certain sensitive areas, such as sole-source surface water drinking supply coastal natural resource area, or major sole-source impairment zone, or general TPDES CAFO permit) (for the latter, see §321.36 et seq.).
3. **Meat processing** (§321.51 et seq.) (wastewater retention facility for seepage control, prohibition of unauthorized discharge).
4. **Sand and gravel washing** (§321.61) (absent permit, provide necessary retention ponds to retain process water onsite).
5. **Surface coal mining, preparation, reclamation** (§321.71 et seq.) (establishing effluent limitations for facility with valid license from Railroad Commission; permit still may be required).
6. **Shrimp industry** (§321.91) (requiring certain such facilities to obtain permit or discharge to a POTW).
7. **Motor vehicle cleaning facilities** (§321.211 et seq.) (applies only to registered facilities which are not in the service area of a POTW).
8. b(§321.251 et seq.) (prohibiting discharge of waste/wastewater from commercial livestock trailer cleaning facilities into water in the state, requiring such materials to be retained and used/disposed of on agricultural land). Commercial facility can use compliant evaporation ponds with land application. Note prohibitions for Edwards Aquifer areas..
9. **Reclaimed water production facilities** (§321.301 et seq.).

**E.** Chapter 308 contains general criteria and standards for NPDES permits (incorporated by reference into Texas regulations).

**F.** 30 TAC §305.125 contains Standard Permit Conditions which permittees must meet, including required oral report of noncompliance within 24 hours followed with a written report within 5 days. Reportable noncompliance includes unauthorized bypass, and violation of a maximum daily discharge limitation for any pollutants listed in the permit. Other standard permit conditions include inspection and entry, monitoring requirements, transfer limitations, maintenance, recordkeeping, and notification duties on changes in facilities or operations.

**V. TEXAS SURFACE WATER QUALITY STANDARDS**

**A. State policy:** "to maintain the quality of water in the state consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life, operation of existing industries, and economic development of the state; to encourage and promote development and use of regional and areawide wastewater collection, treatment and disposal systems to serve the wastewater disposal needs of the citizens of the state; and to require the use of all reasonable methods to implement this policy." 30 TAC §307.1.

**B. 30 TAC Ch. 307** contains descriptions of the waters of the state, including the site specific uses and criteria for stream segments and low-flow data for different stream segments.

**C. 30 TAC Ch. 327 regulates spill prevention and control.** This applies to discharges/spills not otherwise regulated by a permit that result in a release to the environment (but not oil entering coastal water, or oil spills of 240 barrels or less of oil for which the RRC is the on-scene coordinator; the GLO regulates such spills under the Oil Spill Prevention and Response Act of 1991, the Texas Natural Resources Code, Ch. 40, Subchs. C, D, E, F, G).

**1. Notification Requirements:** §327.3. A reportable discharge or spill is a discharge or spill of oil/petroleum product, used oil, hazardous substances, industrial solid waste, or other substances into the environment in a quantity equal to or greater than the RQ listed in §327.4. Provide notice within 24 hours (State Emergency Response Center, 1-800-832-8224) or others shown in 327.3). Include information on the facts of the spill including contact information, source, material, quantity, duration, name of surface water affected or threatened, and nature of actual or potential water pollution, as well as actions taken to contain and respond, health risks, government representatives responding, and any other significant information.



2. **Reportable Quantities:**
  - a. Hazardous substances: for land, the final RQ in 40 CFR §302.4. For water – the final RQ except if the final RQ is greater than 100 pounds, then 100 pounds.
  - b. Oil, petroleum product, used oil:
    - (1) Crude oil: into water: quantity sufficient to create a sheen.
    - (2) petroleum product and used oil: into water – quantity sufficient to create a sheen.
  - c. Industrial solid waste or other substances: 100 pounds.
3. **Actions required, §327.5:** responsible person shall immediately abate and contain the spill or discharge and cooperate fully with TCEQ and local officials, and take other actions set forth in this regulation.

**VI. WETLANDS PROTECTION: shared federal and state authority.**

**A. Corps role:** Corps of Engineers issues Section 404 permits for activities that will add dredged material to waters of the United States – potentially impacting wetlands.

**B. State role:** Texas expressly forbids TCEQ from issuing a permit for discharge of dredge/fill material to wetlands. Tex. Water Code §26.027(d). It is the federal permit which authorizes discharge of dredged and fill material into navigable waters of the United States. But TCEQ has primary responsibility for enforcing state water quality standards, which affect wetlands.

1. TCEQ stated policy is "to achieve no overall net loss of the existing wetlands resource base with respect to wetlands functions and values in the State of Texas." 30 §TAC 279.2.

2. Regulations prohibit any person from conducting any activity under a federal permit or license (including Corps permit) that may result in any discharge into or adjacent to water in the state unless the person has received certification **or waiver** under Ch. 279. 30 TAC §279.4(a), (b).

**C. State certification:** TCEQ conducts state water quality certification under Section 401 of the CWA for permit applications under Section 404 of the CWA. Discharges of material authorized by Section 404 permits must also be consistent with the state Coastal Management Program (CMP), which is the Texas approved plan under the federal Coastal Zone Management Act (CZMA), when projects occur within the coastal zone boundary. Projects that are granted 401 certification are deemed to be consistent with the CMP.

1. Process: Corps or applicant must submit request for certification. Notice of application for certification goes to numerous people (adjacent landowners, mayor and health authorities, county judge, Texas Parks and Wildlife Dept., U.S. Fish & Wildlife Service, Texas Water Development Board, National Marine Fisheries Service, EPA Reg. 6, Texas General Land Office, Secretary of Coastal Coordination Council). TCEQ executive

director is to consider all comments on the impacts of the proposed activity, 30 TAC §279.6, and may conduct a public meeting, §279.7.

2. Executive Director of TCEQ shall either review the application or waive certification. If the ED conducts a review, after the review and any public meeting held, the ED shall determine if the proposed activity will violate certain federal Clean Water Act standards (33 U.S.C. §§1311, 1312, 1313, 1316, 1317), violate applicable water quality standards, or violate any other appropriate requirement of state law. §279.9.

3. The ED shall take final action within 60 days after receiving the request for certification unless (in consultation with the Corps) shorter or longer period is reasonable. (If the state waits longer than a year to act, the federal permit may issue without state certification). **The ED shall either deny, grant, grant conditionally, or waive certification and provide notice of the action in writing.** §279.11(d). The notification shall include a statement of the basis for the ED's decision, including (if certification issues) a statement that there is reasonable assurance that the activity, if conducted in compliance with permit terms, will not violate the criteria in §279.9, or a statement of the conditions (including monitoring and reporting) necessary to assure compliance with those criteria. If certification is denied, the ED's statement must explain how the proposed activity will not satisfy one or more of the 279.9 criteria.

4. TCEQ treats applications as either Tier I or Tier II. Tier I certification is for small projects (affecting less than 3 acres of waters in the state or less than 1500 linear feet of streams). TCEQ has determined that using certain BMPs and other projects in the project sufficiently address the likelihood that water quality will be protected. These water quality certification conditions were added to the 3-12-07 issuance of Nationwide Permits (NWP), Fed. Reg., 3-12-07 Part II, Vol. 67, No. 10, pp. 2020-2095. For Tier I projects, no further 401 review is necessary if the permittee agrees to include those BMPs and requirements in their project (making them part of the Section 404 permit). Applicants desiring to use BMPs for Tier I projects must include a signed Tier I checklist with their application for an individual Section 404 permit. If the applicant checks all provisions of the checklist, no further review is necessary. If the applicant does not want to incorporate all provisions of the checklist, or wants alternatives, further individual 401 review and certification is required. The NWP checklist requires:

a. Erosion control. Disturbed areas must be stabilized to prevent sediment eroding into wetlands or water, using at least one of the following BMPs: temporary vegetation, blankets and matting, mulch, sod, erosion control compost, mulch filter berms and socks, compost filter berms and socks, interceptor swale.

b. Sedimentation Control. Before the project starts, the project area must be isolated from adjacent wetlands/water to confine sediment. At least one of the following BMPs must be maintained and stay in place until dredged material is stabilized:

sandbag berm, silt fence, triangular filter dike, brush berms, stone outlet sediment traps, sediment basins, rock berm, hay bale dike, erosion control compost, mulch filter berms and socks, compost filter berms and socks.

c. Post-construction Total Suspended Solids Controls: after construction is complete and the site is stabilized, TSS loading must be controlled by at least one of the following for certain NWP: retention/irrigation systems, extended detention basin, vegetative filter strips, constructed wetlands, wet basins, vegetation lined drainage ditches, mulch filter berms and socks, compost filter berms and socks, sedimentation chambers (in approved cases). TSS should not exceed 300 mg/L (absent specific approval).

5. Tier I review is not available for certain rare or ecologically significant wetlands which the Corps has identified in its regional conditions to the Nationwide Permits in Texas, including: pitcher plant bogs, swamps dominated by bald cypress and tupelo gums, the area of Caddo Lake in Texas designated as a Ramsar Wetland of International Importance, mangrove marshes, coastal dune swales.

6. Tier II includes any project that does not qualify for Tier II review, and involves individual certification review by TCEQ.

7. TCEQ can enforce the terms and conditions of the permit as issued by the federal agency which relate to water quality. §279.13.

## **VII. OTHER SPECIAL PROTECTIONS**

**A. Edwards Aquifer.** Under Tex. Water Code §26.401, TCEQ adopted regulations to protect the Edwards Aquifer from activities having the potential to pollute "the Edwards Aquifer and hydrologically connected surface streams," in order to protect existing and potential groundwater uses and Texas surface water quality standards. 30 TAC Ch. 213. "These rules specifically apply to the Edwards Aquifer and are not intended to be applied to any other aquifers in the state of Texas." §213.2.

**B. These rules are non-exclusive.** Stormwater requirements may also apply. 30 TAC §213.20(b). Moreover, the Edwards Aquifer Authority itself has requirements (*see* rules at <http://222.edwardsaquifer.org>).

1. EAA requires notice within 72 hours of certain reportable spills or discharges in the recharge or in the contributing zone but within 5 miles of the recharge zone, with potential to pollute the Aquifer and hydrologically connected surface streams (EAA Rules 713.400-409). Covered spills include a discharge or spill of pollutants in violation of a TCEQ permit under Tex. Water Code 26.121, oil, petroleum products, used oils, hazardous substances, industrial solid waste or other substances in a quantity equal to or greater than the reportable quantity listed in EAA Rule 713.405 in any 24-hour period (similar to TCEQ reportable quantity rule, referenced in the outline at V.B.2 above).

2. EAA requires registration of facilities storing "regulated substances" (EAA rule 713.503 (rule effective 3-21-08), for facility storing for resale or other non-residential use an aggregate quantity of more than 10,000 pounds or 1,000 gallons of regulated substances within the recharge zone, or in the contributing zone five miles up-gradient of the recharge zone or to the limit of the five-mile water quality buffer zone (with exclusions). "Regulated substances" include any hazardous substance, petroleum or petroleum product; any substance listed in 30 TAC §290.104; and any substance listed in 40 CFR §716.120. This rule does not apply to certain regulated USTs or ASTs or containers greater than 55 gallons in size. Regulated facilities must prepare and maintain a Spill Prevention and Response Plans.

C. Edwards Aquifer is "that portion of an arcuate belt of porous, waterbearing, predominantly carbonate rocks known as the Edwards (Balcones Fault Zone) Aquifer..." in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties and composed of "the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, Edwards Group, and Georgetown Formation."

1. TCEQ's Edwards rules are divided into Subchapter A ("Edwards Aquifer in Medina, Bexar, Comal, Kinney, Uvalde, Hays, Travis, and Williamson Counties"), and Subchapter B, governing the "contributing zone" to the Edwards in those counties.

2. The Edwards is mapped by TCEQ to include the "recharge zone" itself, the "contributing zone," the "transition zone," and the "contributing zone within the transition zone."

a. The **recharge zone**: "generally, that area where stratigraphic units constituting the Edwards crop out...where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards..." as shown on the official map at TCEQ and the regional offices. §213.3(27).

b. The **transition zone**: "where geologic formations crop out in proximity to and south and southeast of the recharge zone and where faults, fractures, and other geologic features present a possible avenue for recharge of surface water to the Edwards" including portions of the Del Rio Clay, Buda Limestone, Eagle Ford Group, Austin Chalk, Pecan Gap Chalk, and Anacacho Limestone as shown on the official map. §213.3(36).

c. The **contributing zone**: "area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards," "located upstream (upgradient) and generally north and northwest of the recharge zone for the following counties":

(A) all areas within Kinney County (except the area within the watershed draining to Segment 2304 of the Rio Grande Basin;

(B) all areas within Uvalde, Medina, Bexar, and Comal Counties;

(C) all areas within Hays and Travis Counties, except the area within the watersheds draining to the Colorado River above a point 1.3 miles upstream from Tom Miller Dam, Lake Austin at the confluence of Barrow Brook Cove, Segment 1403 of the Colorado River Basin; and

(D) all areas within Williamson County, except the area within the watersheds draining to the Lampasas River above the dam at Stillhouse Hollow reservoir, Segment 1216 of the Brazos River Basin. *See* map and definition at 30 TAC 213.22.

d. The **contributing zone within the transition zone** is the area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards, shown on the agency maps, and located generally south and east of the recharge zone and specifically including areas where stratigraphic units not included in the Edwards crop out at topographically higher elevations and drain to stream courses where stratigraphic units of the Edwards crop out and are mapped as recharge zone.

MORAL: check the maps carefully.

**D. Who is covered:** the owner of an existing or proposed site, including residential or commercial development, sewage collection system, or above or underground storage tank for hydrocarbons or hazardous substances, "who proposes new or additional **regulated activities**," must receive approval prior to commencement of construction. *Id.*

**E. What is required:** No person may commence construction of a **regulated activity** until an Edwards Aquifer protection plan has been filed with the appropriate regional office and reviewed and approved by the ED.

1. A "**regulated activity**" under Subchapter A for the recharge zone is defined at 30 TAC §213.3 and includes:

"any construction-related or post-construction activity on the recharge zone of the Edwards Aquifer" having the potential to pollute the Edwards and hydrologically connected surface streams, and includes (but is not limited to):

construction of buildings, utility stations and lines, roads, railroads; clearing, excavation or other activities that alter or disturb the topographic, geologic or existing recharge characteristics of a site; any installation of aboveground or underground storage tanks on the recharge or transition zone of the Edwards, or other activities with potential for contamination. (*See* §213.3(B) for excluded activities.)

2. A "**regulated activity**" under Subchapter B, governing the contributing zone, is defined at 30 TAC §213.22(6), and includes:

any construction/post-construction activity on the contributing zone that has the potential for contributing pollution to surface streams that enter the Edwards recharge zone, including construction/installation of buildings, utility stations, utility lines, USTs and ASTs, roads, highways, or railroads;

clearing, excavation or other activities which disturb topographic or existing storm water runoff;

any other activities posing a potential for contaminating storm water runoff. (See §213.22(6)(B) for what is excluded, including some agriculture, oil & gas exploration, mowing without soil disturbance, routine maintenance, fences, and construction of single-family residences on lots larger than 5 acres containing only one residence per lot.

**3. Subchapter A Applications (Recharge Zone):**

a. Notice of applications goes to affected cities, groundwater conservation districts and counties, and any person may file comments within 30 days of the date the application is mailed to the local government entities.

b. Fees range from \$500 for a single-family home on less than 5 acres to \$5000 for non-residential sites on 10 acres or more. See §213.14.

c. Edwards Aquifer Protection Plan under Subchapter A includes a water pollution abatement plan, organized sewage collection system plan, underground storage tank facility plan, aboveground storage tank facility plan, or modification or exception granted by the ED. The plan must include:

- the application,
- site location data and maps, including among other things
  - the site location shown on a copy of an official recharge zone map with quadrangle names and recharge and transition zone boundaries labeled,
  - drainage plan shown on the recharge zone map,
  - site plan showing 100-year floodplain boundaries if applicable and layout of the development at no greater than 10-foot contour intervals,
  - location of all known wells (water, oil, unplugged, abandoned),
  - location of any sensitive feature on the site,
  - drainage patterns and slopes expected after major grading,
  - surface waters (including wetlands),
  - locations where storm water discharges to a surface water or sensitive feature.
- geologic assessment illustrating and evaluating all geologic and manmade features and particularly caves, sinkholes, faults, permeable fractures, solution zones, surface streams and other sensitive features, and providing a "narrative assessment of site-

specific geology" which details the potential for fluid movement to the Edwards Aquifer, and other requirements;

- technical report describing the nature of the regulated activity and discussing anticipated waste water and storm water and factors that could affect surface water and groundwater quality, as well as describing intended major activities which will disturb the site, and the proposed BMPs and control measures to be used during and after construction.
- BMPs and measures must prevent pollution of surface water, groundwater or storm water that originates upgradient and flows across the site, and which originates on-site or flows off site, and must prevent pollutants from entering surface streams, sensitive features, or the aquifer.
- BMPs must to the maximum extent practicable maintain flow to naturally occurring sensitive features.
- See 30 TAC §213.5 for further information

**4. Subchapter B Applications (Contributing Zone):**

- a. TCEQ ED must approve (within 90 days after application is administratively complete).
- b. Application is filed with appropriate regional office and notice goes to affected cities, groundwater conservation districts, and counties. §213.23(a)(2).
- c. Fee is \$250. §213/28.
- d. Contents: application, technical report (*see* §213.24), including location map, site plan, description of regulated activity including population and impervious cover, anticipated volume and character of storm water, anticipated land disturbance, structural and nonstructural controls, slopes, discharges, receiving waters, temporary BMPs during construction (can use SWP3 from construction general permit), etc. BMPs must meet requirements of §213.5(b)(4)(D)(i). Note that BMPs and measures must prevent pollution of surface or storm water that originates upgradient and flows across, or originates on-site and flows off, the site. Construction phase erosion and sediment controls should retain sediment on site to the extent practicable and the regulation imposes sediment removal requirements and housekeeping requirements. The regulations require inspection, maintenance and repair of BMPs both during construction and permanently. Certain regulated activities are exempt from application requirements (primarily utility lines) but must still meet temporary erosion and sedimentation controls.
- e. Individual landowner constructing his/her own home is exempt from contributing zone plan application requirements if construction does not exceed 20% impervious cover.

**5. Recharge zone prohibitions:**

- waste disposal wells regulated under 30 TAC 331;

- new CAFO/feedlot operations;
  - land disposal of Class I wastes;
  - use of sewage holding tanks as part of an organized sewage collection system (but the ED may approve lift stations);
  - new municipal solid waste landfills required to comply with Type I standards defined in 30 TAC §330.41(b), (c) and (d);
  - new municipal and industrial wastewater discharges into or adjacent to waters in the state that would create additional pollutant loading.
- 6. Transition zone prohibitions:**
- waste disposal wells regulated under 30 TAC 331;
  - land disposal of Class I wastes;
  - new municipal solid waste landfills required to comply with Type I standards defined in 30 TAC §330.41(b), (c) and (d);
- 7. Some definitions:**
- a. Edwards Aquifer protection plan holder is the person responsible for complying with an approved Edwards Aquifer Protection Plan.
  - b. Commencement of construction means "initial disturbance of soils associated with clearing, grading, or excavating activities or other construction or regulated activities."



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