



TRANSPORTATION AND NATURAL RESOURCES

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December 18, 2018

Texas Commission on Environmental Quality
Stormwater & Pretreatment Team Leader (MC-148)
P.O. Box 13087
Austin, Texas 78711-3087

Re: Phase II MS4 Annual Report Transmittal for Travis County
TPDES Authorization: TXR040327

Dear Team Leader:

This letter serves to transmit the required annual report for the Texas Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer System General Permit, Authorization Number TXR040327 for Travis County, TX.

The annual report is for Year 4. The reporting period is October 01, 2017 through September 30, 2018.

A separate Notice of Change has not been submitted based on the fact that changes have not been proposed for the next permit year.

As required by the general permit, a copy of the report has been mailed to the TCEQ's regional office 11 in Austin, Texas.

Sincerely,

Cynthia McDonald, County Executive
Transportation & Natural Resources Department

Enclosure: * Annual Report Year 4 – Fourth Permit Term; including Attachments A & B

Phase II (Small) MS4 Annual Report Form

TPDES General Permit Number TXR040000

A. General Information

Authorization Number: TXR040{327}

Reporting Year (year will be either 1, 2, 3, 4, or 5): 4

Annual Reporting Year Option Selected by MS4:

Calendar Year: _____ Permit Year: _____

Fiscal Year: X Last day of fiscal year: (09/30/2018)

Reporting period beginning date: (month/date/year) 10/01/2017

Reporting period end date (month/date/year) 09/30/2018

MS4 Operator Level: 2 Name of MS4: Travis County

Contact Name: David Peyton Telephone Number: (512) 854-7686

Mailing Address: 700 Lavaca, Suite 540A, Austin, TX 78701

E-mail Address: david.peyton@traviscountytexas.gov

A copy of the annual report was submitted to the TCEQ Region YES X NO _____
Region the annual report was submitted. TCEQ Region 11

B. Status of Compliance with the MS4 GP and SWMP

1. Provide information on the status of complying with permit conditions:
(TXR040000 Part IV Section B.2.):

	Yes	No	Explain
Permittee is currently in compliance with the SWMP as submitted to and approved by the TCEQ.	X		
Permittee is currently in compliance with recordkeeping and reporting requirements.	X		
Permittee meets the eligibility requirements of the permit (e.g., TMDL requirements, Edwards Aquifer limitations, compliance history, etc.)	X		

2. Provide a general assessment of the appropriateness of the selected BMPs.

As per the rationale described in detail in the approved SWMP, the County believes all the BMPs selected and being performed are appropriate for achieving the statutory goal of reducing the discharge of pollutants to the Maximum Extent Practicable (*MEP*) over the Permit Term. These BMPs selected are consistent with, and appropriate for, the local and regional area and are the most effective and feasible BMPs for the Travis County MS4. The County now has over nine years of cumulative experience implementing the majority of these BMPs in the County MS4.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No, and explain.)
1.3 – Public Education and Outreach BMPs	1.3.1 - Grow Green Program	Yes; Information provided which affects storm water includes use of native and adapted landscape plants; landscape design; irrigation and water conservation; rain gardens; lawn, landscape, and tree care, including integrated pest management (IPM) techniques for limiting use of chemical fertilizers and pesticides.
	1.3.2 - Water Conservation and Quality Education Activities - Adult	Yes; Educates the public on ways they can become more environmentally active and conscious; Leads to a cleaner environment over time.
	1.3.3 - Water Science and Conservation Education Activities	Yes; Educates the public on ways they can become more environmentally active and conscious; Leads to a cleaner environment over time.
	1.3.4 - On-Site Sewage Facility (<i>OSSF</i>) Outreach	Yes; Educating the public on how to design and maintain their <i>OSSF</i> system; Leads to less discharges over time.
	1.3.5 - Watershed and Creek Crossing Signs	Yes; Increases public awareness of the major watersheds within Travis County for all county residents and visitors.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No, and explain.)
	1.3.6 - Construction Outreach	Yes; Educating the builders and public on the impacts that pollution in storm water run-off can have on water quality and the BMPs required for preventing and reducing pollutants in storm
	1.3.7 - Travis County Television (TCTV)	Yes; Educates the public on ways they can become more environmentally active and conscious; Leads to a cleaner environment over
	1.3.8 - SWMP Website	Yes; Educates the public on ways they can become more environmentally active and conscious; Leads to a cleaner environment over
1.6 – Public Involvement BMPs	1.6.1 - Public Notice for SWMP Activities	Yes; Provides opportunities for interested parties and stakeholders to give input and comments on SWMP activities.
	1.6.2 - Community Storm Water Initiatives	Yes; Support and participate in local and regional storm water management initiatives.
	1.6.3 - Open Space Acquisition	Yes; Sets aside permanent open space for public benefits, including water quality protection.
	1.6.4 - Household Hazardous Waste Collection	Yes; Collects household hazardous waste (non-commercial) and properly disposes of them at designated locations. Reduces illicit discharges with the incentive of a free service to the public.
	1.6.5 - Volunteer Participation Projects	Yes; Provides a variety of opportunities for community volunteer groups or individuals to participate in the implementation of SWMP control measures.
	1.6.6 - Keep Austin Beautiful	Yes; Implements various environmental and conservation participation and education

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No, and explain.)
2.3 - IDDE BMPs	2.3.1 – County IDDE Response Programs	Yes; Program to receive, respond to, and investigate illicit discharges and illegal dumping until compliance has been achieved, and the source of the illicit discharge has been eliminated.
	2.3.2 - On-Site Sewage Facility (OSSF) Permit Program	Yes; Program to review, permit, and inspect existing and new OSSF systems in the county MS4.
	2.3.3 – County-Wide Environmental Committee (CWEC)	Yes; Coordinates and supports joint local efforts to identify, enforce, and abate illegal dumping, as well as other types of illicit discharges and environmental crimes enforcement.
	2.3.4 - Regional Environmental Task Force (RETF)	Yes; Provides technical expertise, certified environmental law training, and assistance with case investigation and prosecution.
	2.3.5 – TCESD Spill Response Program	Yes; Program to respond, contain, and clean up (remediate) spills or illegal dumping of hazardous and toxic materials in and affecting the County properties and R.O.W.
	2.3.6 - Nuisance Abatement Program	Yes; Program to investigate and enforce public nuisance complaints on private property in the County MS4, including rubbish and junked
	2.3.7 – Auto Salvage Yard Program	Yes; Program to perform industrial inspections and complaint investigations of auto wrecking & salvage yards, junkyards.
	2.3.8 - Industrial Site Monitoring and Outreach	Yes; Program to monitor industrial activities in the MS4 for compliance with applicable TPDES regulations, illicit discharge prohibitions, and state industrial/municipal solid waste management requirements.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No, and explain.)
2.3 - IDDE BMPs	2.3.9 - MS4 Map	Yes; Program to maintain and update a map of the County MS4 drainage system, new drainage structures, and county owned construction
3.3 Construction and Post-Construction BMPs	3.3.1 - Environmental Review Program	Yes; Program which reviews development permit applications for potential water quality impacts to ensure compliance with construction and post-construction County Code requirements.
	3.3.2 - Environmental Inspection Program	Yes; Program to evaluate construction sites in the County MS4 to ensure compliance with County Code requirements and approved construction plans.
	3.3.3 - Employee Storm Water Certification and Training	Yes; Ensures staff whose primary job duties are related to implementing the construction storm water Code requirements are knowledgeable, trained, or certified to conduct these activities.
	3.3.4 - Development Complaint Hotline	Yes; Hotline for receipt and consideration of information submitted by the public regarding stormwater issues for follow-up.
	3.3.5 - Permanent Water Quality BMP Permit and Inspection Program	Yes; Program to ensure long-term operation and maintenance of privately-owned permanent water quality BMPs (structural controls) completed in the County MS4 as part of the TNR development permit process.
	3.3.6 - Development Permit Approval for MS4 Construction Activities	Yes; Processes, reviews, and approves development permits for all construction activities in the County MS4. Environmental review and permit screening processes for construction and post-construction are incorporated into this process.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No, and explain.)
5.3 – Pollution Prevention for County Ops BMPs	5.3.1 - Environmental, Health & Safety (EHS) Program for County Facilities	Yes; EHS program for County park/preserve, road, fleet O&M facilities and activities in the County MS4 by preventing and reducing pollutant runoff from County operation and maintenance (O&M) activities and County-owned areas in the MS4.
	5.3.2 - Employee Storm Water Pollution Prevention (SWP3) Training	Yes; Training program for TNR and County employees responsible for implementing the storm water pollution prevention and good housekeeping BMPs.
	5.3.3 – Pesticide Applicator Licensing	Yes; Provides training required by the Texas Structural Pest Control Service (SPCS) for employees performing pesticide application ensuring proper application and reducing misapplication discharges.
	5.3.4 - County Pond Inspection and Maintenance Program	Yes; Program to inspect and maintain all County-owned and operated structural storm water controls, using County staff and contracted services.
	5.3.5 - Facility Waste Management and Disposal	Yes; Program to ensure that wastes removed from the County MS4 facilities are handled, recycled, or disposed of in accordance with 30 TAC Chapters 330 or 335, as applicable, and the Travis County Waste Management Policy.
	5.3.6 - Roadside Litter Abatement	Yes; Program to respond, remove, and properly dispose of solid wastes dumped on county roadsides, including trash, debris, brush, and household items.
	5.3.7 – ESC BMPs for Maintenance Construction	Yes; Program to implement ESC measures and related storm water BMPs for TNR road, drainage, and park maintenance construction activities.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No, and explain.)
	5.3.8 - Closed Landfill Management	Yes; Program to monitor closed solid waste landfills and prevent the release of leachate.
7.3 – County Construction Activity BMPs	7.3.1 - CIP Environmental Review Program	Yes; Program to review and approve all County construction activities under this MCM implementing SWP3s to ensure compliance, as well as review and approve applicable post-construction BMPs.
	7.3.2 - CIP Environmental Inspection Program	Yes; Program to inspect and audit County construction activities implementing SWP3s to ensure compliance, as well as inspect post-construction BMPs for conformance with designed construction plans.

3. Describe progress towards reducing the discharge of pollutants to the maximum extent practicable. Summarize any information used (such as visual observation, amount of materials removed or prevented from entering the MS4, or if required monitoring data, etc.) to evaluate reductions in the discharge of pollutants.

The County made satisfactory progress towards the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP) during the Permit Year by completing all the measurable goals for the BMPs as scheduled. The County evaluates progress towards this goal primarily by the successful performance of the BMPs and measurable goals in the approved SWMP.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
1.3 – Public Education and Outreach BMPs	1.3.1 - Grow Green Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 26</i>

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
1.3 – Public Education and Outreach BMPs	1.3.2 - Water Conservation and Quality Education Activities – Adult	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 26</i>
	1.3.3 - Water Science and Conservation Education Activities - Youth	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 26</i>
	1.3.4 - On-Site Sewage Facility (OSSF) Outreach	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 26</i>
	1.3.5 - Watershed and Creek Crossing Signs	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	No, geographical information. <i>see Table 1A attached – pg. 26</i>
	1.3.6 - Construction Outreach	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 26</i>
	1.3.7 - Travis County Television (TCTV)	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 27</i>

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
1.3 – Public Education and Outreach BMPs	1.3.8 - SWMP Website	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating the public can have a direct effect on the reduction of pollutants. <i>see Table 1A attached – pg. 27</i>
1.6 – Public Involvement BMPs	1.6.1 - Public Notice for SWMP Activities	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	No; <i>see Table 1B attached – pg. 28</i>
	1.6.2 - Community Storm Water Initiatives	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; <i>see Table 1B attached – pg. 28</i>
	1.6.3 - Open Space Acquisition	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; <i>see Table 1B attached – pg. 28</i>
	1.6.4 - Household Hazardous Waste Collection	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; <i>see Table 1B attached – pg. 28</i>
	1.6.5 - Volunteer Participation Projects	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; <i>see Table 1B attached – pg. 28</i>
	1.6.6 - Keep Austin Beautiful	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; <i>see Table 1B attached – pg. 28</i>
2.3 - IDDE BMPs	2.3.1 – County IDDE Response Programs	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; <i>see Table 2 attached – pg. 29</i>

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
2.3 - IDDE BMPs	2.3.2 - On-Site Sewage Facility (OSSF) Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 29
	2.3.3 – County-Wide Environmental Committee (CWEC)	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 29
	2.3.4 - Regional Environmental Task Force (RETF)	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 29
	2.3.5 – TCESD Spill Response Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 29
	2.3.6 - Nuisance Abatement Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 29
	2.3.7 – Auto Salvage Yard Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 30
	2.3.8 - Industrial Site Monitoring and Outreach	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 30
	2.3.9 - MS4 Map	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 2 attached – pg. 30

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
3.3 Construction and Post-Construction BMPs	3.3.1 - Environmental Review Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 3-4 attached – pg. 31
	3.3.2 - Environmental Inspection Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 3-4 attached – pg. 31
	3.3.3 - Construction Storm Water Training and Certification	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 3-4 attached – pg. 32
	3.3.4 - Development Complaint Hotline	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 3-4 attached – pg. 32
	3.3.5 - Permanent Water Quality BMP Permit and Inspection Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 3-4 attached – pg. 32
	3.3.6 - Development Permit Approval for MS4 Construction Activities	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 3-4 attached – pg. 32

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
5.3 – Pollution Prevention for County Ops BMPs	5.3.1 - Environmental, Health & Safety (EHS) Program for County Facilities	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 5 attached – pg. 33
	5.3.2 - Employee Storm Water Pollution Prevention (SWP3) Training	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating County Employees has a direct effect on the reduction of pollutants. see Table 5 attached – pg. 33
	5.3.3 - Pesticide Applicator Licensing	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes, educating County Employees has a direct effect on the reduction of pollutants. see Table 5 attached – pg. 33
	5.3.4 - County Pond Inspection and Maintenance Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 5 attached – pg. 33
	5.3.5 - Facility Waste Management and Disposal	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 5 attached – pg. 33
	5.3.6 - Roadside Litter Abatement	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 5 attached – pg. 33

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No, and explain.)
5.3 – Pollution Prevention for County Ops BMPs	5.3.7 – ESC BMPs for Maintenance Construction	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 5 attached – pg. 33
	5.3.8 - Closed Landfill Management	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 5 attached – pg. 33
7.3 – County Construction Activity BMPs	7.3.1 - CIP Environmental Review Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 7 attached – pg. 34
	7.3.2 - CIP Environmental Inspection Program	<i>multiple</i>	<i>multiple</i>	<i>multiple</i>	Yes; see Table 7 attached – pg. 34

4. Provide the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals.

The County made acceptable progress implementing the SWMP during the Permit Year, with the successful completion of all measurable goals established for the Fourth Year of the Permit Term.

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved If goal was not accomplished please explain
1.3 – Public Education and Outreach BMPs	Install at least 10 Watershed and Creek Crossing Signs by Year 4	<i>Completed</i>

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved If goal was not accomplished please explain
5.3 – Pollution Prevention for County Ops BMPs	Review and revised 100% of facilities EHS plans and procedures	<i>Completed</i>
5.3 – Pollution Prevention for County Ops BMPs	Total work orders implementing temporary and/or permanent BMPs	<i>Completed</i>

C. Stormwater Data Summary

Provide a summary of all information used including any lab results (if sampling was conducted) to assess the success of the SWMP at reducing the discharge of pollutants to the MEP. For example, did the MS4 conduct visual inspections, clean the inlets, look for illicit discharge, clean streets, look for flow during dry weather, etc.? (Refer to the MS4 General Permit TXR040000 Part IV Section B.2.(b))

The Travis County MS4 began a surface water quality monitoring (SWQM) program in September, 2014. Twelve sites in the unincorporated area are now monitored routinely. Our program is intended to complement the City of Austin’s Environmental Integrity Index (EII) that involves SWQM in the city and its fringes. In other words, if Austin is monitoring certain watersheds, Travis County does not. Similar to Austin, we monitor one-half of our sites quarterly in even-numbered fiscal years and the remaining one-half in odd-numbered fiscal years.

Travis County SWQM Sites	
FY 2018 Sites (ends 9/30/18)	FY 2019 Sites (ended 9/30/19)
Deer Creek at Running Deer Road <i>(trib. Of Lake Austin)</i>	Bee Creek <i>(trib. of Lake Travis)</i> at Bee Creek Rd
Bear Creek <i>(trib. of Lake Austin)</i> at Fritz Hughes Road	Hamilton Creek <i>(trib. of Pedernales River)</i> upstream from Hamilton Pool
Cow Creek at Singleton Bend Road	Maha Creek at Maha Loop

Sandy Creek at Nameless Road	Maha Creek at Linden Road
E Fork, Lick Creek at Pedernales Canyon Trail	Wilbarger Creek at Bitting School Rd
W Fork, Lick Creek at Pedernales Canyon Trail	Wilbarger Creek at Gregg Lane

See ATTACHMENT A for table including data results for pollutants and field parameters.

The conventional pollutants are sampled and preserved in accordance with typical SWQM methods used by TCEQ. Additionally, toxins in sediment were collected from five of these locations during the reporting period. The analyses are conducted and reported by NELAC-certified laboratories.

Presently, from these particular monitoring efforts, there are insufficient data to determine if the SWMP is successful in reducing pollutants to MEP. Over time, this may prove possible. However, the ongoing data collection is helpful in:

- verifying toxins such as hazardous metals or organic constituents are not present in these waterways;
- providing a basis for placing priorities for inspection or further investigation within a watershed; and
- understanding if pollutant sources discharging to impaired assessment units (AUs) are contributing a load associated with the pollutant of concern.

D. Impaired Waterbodies

1. If applicable, explain below any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4's BMPs used to address the pollutant of concern: (Refer to MS4 General Permit TXR040000 Part IV Section B.2.(c))

The approved Travis County SWMP describes the five impaired waterbodies and their watershed areas that are located within the Travis County MS4, and the targeted Controls/BMPs Travis County is implementing to address discharges to these impaired watershed areas. These five impaired areas include portions of two watershed areas with an approved TMDL: Gilleland Creek and Walnut Creek (*SWMP Section 9.1*); and three watershed areas without an approved TMDL: Bull Creek, Lake Austin, and Slaughter Creek watersheds (*SWMP Section 9.2*). Since the Travis County SWMP was submitted, the TMDL and I-Plan for Walnut Creek were both approved by TCEQ. The TMDL was approved by the USEPA on March 18, 2015. No receiving water body in the Travis County MS4 was newly listed as

impaired on the EPA-approved 303(d) List during Year 4, and no EPA-approved TMDLs have been established during Permit Year 4.

Depressed Dissolved Oxygen – Lake Austin & Bull Creek

The targeted Controls/BMPs and Measurable Goals required in Year 4 were successfully implemented as summarized below. Travis County continued to monitor and perform field reconnaissance to assess and determine possible causes and sources of reduced DO in the affected segments of Lake Austin and Bull Creek from MS4 discharges.

BMP	Major Tasks	Measurable Goals Required Year 4	Year 4 Results (FY18)
Detection of Illicit Discharges	Compliance evaluation of facilities and activities in watershed	No. inspections, Corrective Actions accomplished. If applicable	0
Notification of illicit discharges	Document and report Sanitary Sewer overflows (SSOs) and unauthorized discharges to owner or TCEQ	No. of notifications	0
Endangered Species Management of Balcones Canyonland Preserve (BCP)	Land acquisition of parcels with Jollyville Plateau Salamander and songbird habitat in the impaired watershed; management of publicly-owned lands for natural resource protection using existing partnerships	No. acres acquired in watershed for the BCP	80.02 acres

Impaired Benthic MacrInvertebrate Community – Slaughter Creek

Travis County to date has not proposed or implemented any targeted Controls/BMPs for this waterbody in the approved SWMP because efforts to address this impairment are not prioritized under the State’s Water Quality Management Plan.

2. Describe the implementation of targeted controls if the small MS4 discharges to an impaired water body with an approved TMDL (Refer to the MS4 General permit TXR040000; Part II Section D.4.(a)):

Bacteria - Gilleland Creek. (TMDL and I-Plan Approved to Address *E. coli*).

The targeted Controls/BMPs and Measurable Goals required in Year 4 were successfully implemented as summarized below.

BMP	Major Tasks	Measurable Goals Required Year 4	Year 4 Results (FY18)
Increase Required Riparian Setbacks from New Development	Increase waterway setbacks in Gilleland Creek watershed to prevent an increase in bacteria load associated with new development. Setbacks are implemented from the centerline of each minor, intermediate, and major waterway within the Gilleland Creek watershed in Travis County jurisdiction.	No. of Development Applications and linear feet of setback area on each project/permit subject to waterway setback approved in the Travis County Gilleland Creek watershed	0
Riparian Setback Land Acquisition <i>(unscheduled in I-Plan & SWMP by Travis County)</i>	Addressing TMDL I-Plan Management Measure 2, Travis County Parks Division acquired stream corridor for open space and parks along Gilleland Creek.	Acres of stream area acquired	1667 ac <i>through Year 4</i>
Public Outreach on Pet Waste	Support existing initiatives under the Gilleland Creek TMDL I-Plan to educate the public on bagging and disposing of pet waste by placement of bags near walking trail in the Travis County NE Metro Park	Estimated number of bags dispensed to public	4,500
Incentivize OSSF Improvements OSSF and SWMP Program	Seek Commissioners Court approval of OSSF application fee waiver for proactive OSSF repairs proposed before being cited for violations.	No. of repairs completed after providing a fee waiver	0 *

Public Outreach	Update Website with incentive information and send targeted mail outs (<i>each year in years 2 – 5 to approximately 25% of OSSF owners in the watershed</i>) to describe fee waiver initiative and City of Austin cutover initiative.	No. of mail outs sent	0 *
Notification of Illicit Discharges	Upon discovery of a sewage overflow, Travis County staff trained to recognize illicit discharges will notify the owner of the wastewater collection system (<i>or the OSSF Authorized Agent, if applicable</i>) of the discharge.	No. of notifications	0

* Commissioners Court approved was delayed until Year 3 and approval for the initiative was granted on November 29, 2016. Reported to be infeasible by OSSF group. Program centered on website information and inspector response information coordination.

Bacteria – Walnut Creek. (TMDL and I-Plan Approved to Address E. coli)

The targeted Controls/BMPs and Measurable Goals required in Year 4 were successfully implemented as summarized below.

BMP	Major Tasks	Measurable Goals Required Year 4	Year 4 Results (FY18)
Incentivize OSSF Improvements	Seek Commissioners Court approval of OSSF application fee waiver for proactive OSSF repairs proposed before being cited for violations.	No. of repairs completed after providing a fee waiver	0 *
Public Outreach	Update Website with incentive information and send a targeted mail out to OSSF owners in the watershed to describe fee waiver initiative and City of Austin cutover initiative.	No. of mail outs sent	0 *
Privately Owned Permanent BMP Inspection	Travis County will implement a focused assessment of 22 PWQC structures within its jurisdiction in the Walnut Creek watershed to determine if these structures (generally, flood detention and water quality treatment impoundments) are properly operated and maintained. When not functioning or maintained properly in accordance with their design, Travis County will seek corrective action and compliance from the owner.	No. of inspections completed, NOVs issued and referred enforcement cases completed (<i>civil enforcement in the courts</i>)	43 inspections 11 NOVs issued 0 referred

Detection of Illicit Commercial/ Industrial Discharges	Travis County will implement a focused assessment of commercial and industrial facilities within its jurisdiction in the Walnut Creek watershed to determine if inappropriate sanitary waste management results in illicit discharges to its MS4.	No. inspections; Corrective Actions accomplished	0
Construction Site Sanitary Waste Management	Travis County will update its construction site inspection practices to evaluate sanitary waste management practices by construction site owners/operators	This is countywide implementation and is reported as inspection and enforcement outputs under MCM 3	NA
Increase Required Riparian Setbacks from New Development	Increase waterway setbacks in Walnut Creek watershed to prevent an increase in bacteria load associated with new development. Setbacks are implemented from the centerline of each minor, intermediate, and major waterway within the Walnut Creek watershed in Travis County jurisdiction.	No. of Development Applications and linear feet of setback area on each project/permit in the Walnut Creek Travis County watershed area which is subject to the waterway setback.	0

* Commissioners Court approval was delayed until Year 3 and approval for the initiative was granted on November 29, 2016. Reported to be infeasible by OSSF group. Program centered on website information and inspector response information coordination.

3. Report the benchmark identified by the MS4 and assessment activities (Refer to the MS4 General permit TXR040000; Part II Section D.4.(a)(6)):

N/A. Travis County did not identify the WLA as a benchmark in the SWMP, so benchmark annual reporting requirements are not applicable. Impairments for bacteria have been addressed in the approved SWMP through use of appropriate BMPs as required by Part II D. 4 (5) of the general permit.

Benchmark Parameter <i>(Ex: Total Suspended Solids)</i>	Benchmark Value	Description of additional sampling or other assessment activities	Year(s) conducted
N/A			

4. Provide an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark (Refer to the MS4 General permit TXR040000; Part II Section D.4.(a)(4)):

Benchmark Parameter	Selected BMP	Contribution to achieving Benchmark
N/A		

5. If applicable, report on focused BMPs to address impairment for bacteria (Refer to the MS4 General Permit TXR040000; Part II Section D.4.(a)(5)):

Description of bacteria-focused BMP	Comments/Discussion
<i>See summary table under item D.2 which describes BMPs for bacteria-impaired waters</i>	

6. Assess the progress to determine BMP’s effectiveness in achieving the benchmark (Refer to the MS4 General Permit TXR040000; Part II.D.4.(a)(6)):

For example, the MS4 may use the following benchmark indicators:

- number of sources identified or eliminated;
- decrease in number of illegal dumping;
- increase in illegal dumping reporting;
- number of educational opportunities conducted;
- reductions in sanitary sewer flows (SSOs)
- increase in illegal discharge detection through dry screening

Benchmark Indicator	Description/Comments
N/A	

E. Stormwater Activities

Describe stormwater activities the MS4 operator plans to undertake during the next reporting year. You may use the table below (Refer to the MS4 General Permit TXR040000 Part IV Section B.2.(d)):

The County will continue to perform the ongoing storm water BMP activities scheduled in the SWMP 5 year plan approved by TCEQ in the fiscal year which began October 1, 2018 and continues through December 30, 2018 (*Travis County Fiscal Year 2019 [FY19] = SWMP Year 5*).

MCM(s)	BMP	Stormwater Activity	Description/Comments
1.3 – Public Education and Outreach BMPs	1.3.5 – Watershed and Creek Crossing Signs	Install at least 15 Watershed and Creek Crossing Signs by Year 5	<i>To be completed in the upcoming permit year</i>
5.3 – Pollution Prevention for County Ops BMPs	5.3.7 – ESC BMPs for Maintenance Construction	Calculate and report total work orders implementing temporary and/or permanent BMPs.	<i>To be completed in the upcoming permit year</i>

F. SWMP Modifications

1. Changes have been made or are proposed to the SWMP since the NOI or the last annual report, including changes in response to TCEQ’s review.

_____Yes__X__No

G. Additional BMPs for TMDLs and I-Plans

Provide a description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans (Refer to the MS4 General permit TXR040000 Part IV Section B.2.(f)).

Travis County intends to continue implementing existing & ongoing BMPs to maintain compliance.

BMP	Description	Implementation Schedule (Start Date etc.)	Status / Completion Date (completed, in progress, not started)
N/A			

H. Additional Information

1. Is the permittee relying on another entity to satisfy some of its permit obligations? (refer to the MS4 General Permit TXR040000 Part IV Section B.2.(g))

Yes No

If 'Yes,' provide the name(s) of other entities and an explanation of their responsibilities (add more spaces or pages if needed):

Name and Explanation: The City of Austin

The City performs construction and post-construction review and inspection requirements (*MCMs 3 and 4*) in the Austin 5-mile Extra-Territorial Jurisdiction (*ETJ*) for subdivision construction under an existing jointly-adopted County Code Chapter 30 and One-Stop Shop Permit Center. Austin also performs these activities on non-subdivision construction sites in their ETJ as part of their TPDES Phase I storm water program. The City performs limited IDDE spill response in the ETJ and inspection of all commercial post-construction BMPs and most residential BMP post-construction BMPs in their ETJ. An Interlocal Agreement (*ILA*) approved in 2011 between Travis County and City of Austin for comprehensive SWMP coordination describes joint roles and responsibilities in the Austin ETJ.

Name and Explanation: The Lower Colorado River Authority (*LCRA*)

LCRA performs joint construction and post-construction plan review requirements (*MCM 3 and 4*) with Travis County in the Highland Lakes Watershed Ordinance area in western Travis County under a 2010 Interlocal Agreement between the County and LCRA.

Travis County performs the construction inspection component in this area and LCRA is responsible for the post-construction BMP inspections.

Name and Explanation: The TCEQ Edwards Aquifer Protection Program

The TCEQ, Region 11, performs construction and post-construction review and inspection requirements (*MCM 3 and 4*) on construction projects in the Barton Springs Segment of the Edwards Aquifer Recharge Zone and Edwards Aquifer Northern Segment. This program also performs these requirements on construction sites 5 acres and greater in the Barton Springs Edwards Aquifer Contributing Zone.

2.a. Is the permittee part of a group sharing a SWMP with other entities?

Yes No

2.b. If 'yes,' is this a system-wide annual report including information for all permittees?

Yes No

I. Construction Activities

1. The number of construction activities that occurred in the jurisdictional area of the MS4 (Notices of intent and site notices received; Refer to the MS4 General Permit TXR040000 Part IV Section B.2.(h))

The number and types of construction projects in the County MS4 where Travis County was not the construction site operator are listed in Table 3-4 on Page 33 under the BMP entitled "Development Permit Approval for MS4 Construction Activities".

2a. Does the permittee utilize the optional 7th MCM related to construction?

Yes No

2b. If 'yes,' then provide the following information for this permit year (refer to the MS4 General Permit TXR040000 Part IV Section B.2.(i)):

The number of municipal construction activities authorized under this general permit	7
The total number of acres disturbed for municipal construction projects	132.68

J. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (printed): Cynthia McDonald

Title: County Executive, Transportation & Natural Resources Dept. (TNR)

Signature:  Date: 21 Dec '18

Name of MS4: Travis County TNR

Note: If this is this a system-wide annual report including information for all permittees, each permittee shall sign and certify the annual report in accordance with 30 TAC §305.128 (*relating to Signatories to Reports*).

BMP BMPs and Measurable Goals – Year 4 – Tables

The Tables found on pages 27 - 39 contain the Best Management Practices, Major Tasks and Measurable Goals for the Minimum Control Measures from the approved SWMP document for Year 4, with the BMP and Measurable Goal results provided in the right-hand column. Miscellaneous significant tasks performed during the Permit Year which were not scheduled in the approved SWMP are listed at the bottom of each MCM Table as *Unscheduled Activities*, if applicable.

Table: 1A		
MCM 1.3 - Public Education and Outreach BMPs – Year 4		
BMP/ Responsible Program	Major Task Measurable Goals - Required Year 4	Year 4 Results (FY18)
1.3.1 - Grow Green Program Texas A&M AgriLife	Number of Educational program events	4
	Number of Program contacts	284
	Number of Contact hours	1988
	Number of Fact Sheets distributed	15000
	Number of Adaptive Plant guides distributed	11000
1.3.2 - Water Conservation/ Quality Education Activities- Adult Texas A&M AgriLife	Number of Educational program sessions	124
	Number of Program contacts	4438
	Number of Contact hours	8165
1.3.3 - Water Science &Conservation Education Activities-Youth Texas A&M AgriLife	Number of Educational program sessions	34
	Number of Program contacts	1825
	Number of Contact hours	4118
1.3.4 - OSSF Outreach TNR Development Services	Number of public inquiries for OSSF permits and O&M information responded to	
	Number of web site hits	7,114
	Perform outreach sessions for OSSF permits and O&M information <i>(twice per permit term)</i>	Completed (Year 2)
1.3.5 - Watershed and Creek Crossing Signs TNR SWMP	Installed watershed signs at 10 locations and 5 creek crossings as identified by SWMP plan completed in Year 1	Completed (Year 4)
1.3.6 - Construction Outreach TNR Development Services TNR SWMP	Number of responses to inquiries of construction activities through the TNR Dev Permit Center Process	Est. 2500+
	Number of non-residential applications providing Permit Checklists	258
	Number of residential applications providing Permit Checklists	3163
	Revise Development Permit Checklists	Completed (Year 2)
	Prepare guidance document describing SWP3 inspection certification and reporting requirements for construction site operators and SWP3 consultants	Completed (Year 2)
	Meet with local consultants providing SWP3 inspections to discuss Code requirements	Completed (Year 2)
	Number of new and existing SWP3 guidance documents provided to permit applicants and construction industry personnel through the TNR Permit Center and website	4 guidance docs
	Number of pre-development meetings for permit applicants with non-res projects 3 acres and greater and subdivisions 10 acres and greater	7
	Number of pre-construction meetings conducted for SWP3 <i>(non-residential permits)</i>	45
	Revise preconstruction meeting document	Completed (Year 2)

1.3.7 - Travis County TV (TCTV) Travis County TCTV Dept. TNR SWMP	Total hours broadcast each week, month, and annually; numbers and names of different programs. See ATTACHMENT B for detailed breakdown of hours and programs	739:02:24 <i>(Total Hours for Year 4)</i>
1.3.8 - SWMP Web Site Travis County ITS Dept. TNR SWMP	Number of web site hits	913

**estimated; unable to precisely account for pdf document downloads from web site*

Table: 1B
MCM 1.6 - Public Involvement BMPs – Year 4

BMP/ Responsible Program	Major Task Measurable Goals - Required Year 4	Year 4 Results (FY18)
1.6.1 - Public Notice for SWMP activities TNR SWMP	Number of County Court Agenda items	73 – Items related to Water Quality
	Number of newspaper or media notices	0
	Number of public meetings (SWMP)	0
1.6.2 - Community Storm Water Initiatives TNR SWMP and Dev Services	Meetings	Number Meetings attended Other activities participated in; milestones achieved:
	Regional Water Quality Protection Plan	7 3 employees attended
	Onion Creek and Highland Lakes FDEPs	0 Both FDEPs completed previously
	Colorado River Floodplain Coalition	0 0 employees attended
	TMDL Implementation Task Force for Gilleland Creek & I-Plan Coordination Committee for Austin TMDLs	0 Gilleland I Plan Revision (completed in Year 3)
1.6.3 - Open Space Acquisition TNR BCP	Number of floodplain acres purchased, costs	1.8 acres; \$1,552,194
	Number of BCP acres acquired by the County, costs	198.646 acres; \$8,206,262
	Number of parkland acres purchased, costs	604.254 acres; \$6,767,946
	Number of open space conservation easement (CEBP) acres, costs	425 acres, \$2,500,000
1.6.4 - Household Hazardous Waste Collection TNR NREQ	Total County financial contribution	\$135,726.52
	Number of County residents participating	3,824
	Number of outreach events	5
	Number of HHWC web page hits	143,118
1.6.5 - Volunteer Participation Projects (clean-up, restoration, tree planting, inlet markers, etc.) TNR NREQ	Number and type of community volunteer activities performed.	Lake Travis Clean-up - 734 participants - 6,460 lbs. of trash removed from Lake Travis - 4,933 lbs. of recyclable material removed from Lake Travis
	Include quantities of materials installed, waste removed, etc., if available.	
1.6.6 - Keep Austin Beautiful TNR NREQ	Total County financial contribution to support Keep Austin Beautiful	\$30,100

Table 2
MCM 2.3 – Illicit Discharge Detection and Elimination (IDDE) BMPs – Year 4

BMP/ Responsible Program	Major Task Measurable Goals - Required Year 4	Year 4 Results (FY18)
2.3.1 - County IDDE Response Programs TNR SWMP	Number of IDDE complaints/cases received & investigated, referred, resolved, and or enforced – TNR SWMP	31 received 31 investigated 00 referred 31 resolved 0 enforced
Travis County Attorney Environmental Crimes Unit (TCA ECU)	Number of IDDE complaints/cases received & investigated, referred, resolved, enforced – TCA ECU	279 cases worked 217 cases closed 96 referred to TNR R&B 164 related to IDDE
Travis County Sheriff's Office (TCSO)	Number of IDDE complaints/cases received & investigated, referred, resolved, enforced - TCSO	366 IDDE complaints investigated (pin code 3312) 20 Dump Refuse near Hwy (pin code 3306)
	Revise IDDE Response Plan Standard Operating Procedures (SOPs) for TNR.	Completed; Year 2
	Revise IDDE training materials and scope for TNR (Year 3).	Completed; Year 3
	Number of applicable TNR employees trained in IDDE as part of SWPP training in MCM 5, BMP 5.3.2 - TNR SWMP	9 Sessions 231 Employees
2.3.2 - On-Site Sewage Facility (OSSF) Permit Program TNR Dev Services	Number of OSSF permit applications reviewed	585
	Number of OSSF permit applications permitted	558
	Number of OSSF inspections	1,568
	Number of OSSF permit applications issued License to Operate	343
	Number of aerobic and commercial OSSF system maintenance contracts, monitored	6,212
	Number of complaints investigated, resolved, or referred to enforcement for improper operation and maintenance of OSSF systems or sewage discharge	98 investigated 56 resolved 02 referred
2.3.3 - County-Wide Environmental Committee (CWEC) CWEC / TNR SWMP	Number of CWEC meetings held and participated in. <i>Renamed in FY15; previously known as the Travis County Dumping Committee</i>	1 / 1
2.3.4 - Regional Environmental Task Force (RETF) RETF / TNR SWMP	Number of RETF Quarterly meetings and training sessions attended	4
	Number of County employees trained through RETF	8
	Number of No Dumping signs installed through RETF	5
2.3.5 - TCESD Spill Response Program TCESD	Number of County ROW haz-mat spills or illicit discharges responded to/resolved/referred to enforcement by TCESD	17 investigated 17 resolved 0 referred
2.3.6 - Nuisance Abatement Program Austin Public Health Dept.	Number of complaints of illegal waste disposal on private property investigated within 30 days, and resolved, or referred for legal enforcement <i>Renamed in 2016; previously known as the Austin/Travis County Health & Human Services Department (ATCHHSD)</i>	138 Investigated and resolved 0 Referred to legal enforcement

2.3.7 - Auto Salvage Yard Program Austin Public Health Dept.	Number of auto yard inspections/ complaints responded to within 30 days/ number referred for enforcement <i>Renamed in 2016; previously known as the Austin/Travis County Health & Human Services Department (ATCHHSD)</i>	21 Auto Yard Inspections 04 Referred to legal enforcement
2.3.8 – Industrial Site Monitoring and Outreach TNR SWMP	Complete industrial site inventory (<i>Once per Permit Term</i>)	Completed
	Perform site visit for storm water compliance evaluation and outreach - Number inspected annually	21 inspected
	Number of new or redeveloping industrial sites reviewed for storm water regulations, number issued County development permits	1 reviewed
	Number of industrial site complaints received, referred, investigated, resolved.	6 individual sites 2 referred 4 investigated 5 resolved
2.3.9 - MS4 Map TNR SWMP	Total number of all new drainage structures surveyed and added to MS4 Map	144
	Number of new permanent WQ BMPs & Det Ponds surveyed and added to MS4 Map	41
	Number of new outfalls surveyed and added to MS4 Map	09

**Table 3-4
MCM 3.3 – Construction Site Storm Water Runoff Control and Post-Construction
Storm Water Management BMPs – Year 4**

BMP/ Responsible Program	Major Task Measurable Goals - Required Year 4	Year 4 Results (FY18)	
3.3.1 - Environmental Review Program TNR SWMP	Outside Austin ETJ:		
	Number of subdivision preliminary plans reviewed and total reviews completed	7 prelim plans 13 reviews	
	Number of subdivision plats reviewed and total reviews completed	30 plats 34 reviews	
	Number of subdivision construction plans reviewed	33 projects 58 reviews	
	Number of site plan (<i>site development</i>) construction plans reviewed	87 projects 155 reviews	
	Number of residential permits/construction plans reviewed	11 projects 14 reviews	
	Austin ETJ:		
	Number of subdivision preliminary plans/ plats reviewed	0/0	
	Number of subdivision construction plans reviewed	21 projects 21 reviews	
	Number of site plan (<i>site development</i>) construction plans reviewed	119 projects 132 reviews	
	Number of residential permits/construction plans reviewed	12 projects 15 reviews	
	3.3.2 - Environmental Inspection Program TNR SWMP and Dev Services	Combined Travis County and Austin ETJ: (within ROW only)	
		Total site development/Utility projects, total inspections by DS	116 projects 264 inspections
Outside Austin ETJ:			
Total site development projects inspected by SWMP; total inspections		77 projects 793 inspections	
Total subdivision projects inspected by SWMP; total inspections		123 projects 371 inspections	
Total residential construction sites inspected by SWMP, total inspections		173 projects 325 inspections	
Total subdivision projects inspected by DS; total inspections		11 projects 535 inspections	
Total projects and number of inspections (<i>from 4 rows above</i>).		384 projects 2,024 inspections	
Total non-residential projects (<i>subdivision, site dev</i>) given a conditional acceptance or a Certificate of Compliance.		32	
Austin ETJ:			
Total site development projects inspected by SWMP; total inspections		18 projects 29 inspections	
Total subdivision projects inspected by SWMP, total inspections		6 projects 7 inspections	
Total residential construction sites inspected by SWMP, total inspections		13 projects 59 inspections	
Total site development projects inspected by DS; total inspections		0	
Total projects and number of inspections (<i>from 4 rows above</i>).		37 projects 95 inspections	

	Total non-residential projects (<i>subdivision, site dev</i>) given a conditional acceptance or a Certificate of Compliance.	0
3.3.3 - Employee SW Certification and Training TNR SWMP	Develop training materials for employees without certifications, as necessary	Completed (Year 2)
	Number of training sessions conducted for storm water certification	3
	Total employees trained in sessions	18
	Number of employees with new or renewed storm water certifications.	10
3.3.4 - Development Complaint Hotline TNR Dev Services	Number of inquiries concerning construction activities received & responded to	572
	Number of those inquiries concerning construction activities resolved	572
	Number of those inquiries concerning construction activities referred to legal	0
3.3.5 - Permanent WQ BMP Maintenance Permit and Inspection Program TNR SWMP	Total new BMP Maintenance Permits issued	6
	Total existing BMP Maintenance Permits on file	9
	Total existing BMP Maintenance Permits renewed.	2
	Total new permanent WQ BMPs and detention ponds added to database.	41
	Total BMPs inspected/ number of inspections.	71 BMPs 141 inspections
	Total BMPs given notice for maintenance required/referred to legal enforcement	51 NOVs Issued 0 referred to legal enforcement
	Revise County Code to require BMP owners and operators to file BMP Maintenance Plans in the real property records of the County	Completed (Year 2)
3.3.6 - Development Permit Approval for MS4 Construction Activities <i>CPOD = Common Plan of Development</i> TNR Dev Services	Outside Austin ETJ:	
	Total non-residential permits approved	62
	Total residential permits approved within a CPOD/Total submitting SWP3 Summaries	1016 / all
	Total residential permits approved not within a CPOD/ Total 1 acre or greater/Total submitting SWP3 Summaries	0
	Austin ETJ:	
	Total non-residential permits approved	88
	Total residential permits approved within a CPOD/Total submitting SWP3 Summaries	927 / all
Total residential permits approved not within a CPOD but disturbance Total 1 acre or greater/Total submitting SWP3 Summaries	0	

Table 5
MCM 5.3 – Pollution Prevention and Good Housekeeping for County Operations BMPs – Year 4

BMP/ Responsible Program	Major Task Measurable Goals - Required Year 4	Year 4 Results (FY18)
5.3.1 - Environmental Health and Safety (EHS) Program for County Facilities TNR SWMP	Number of County facilities with EHS Plans inspected	10
	Total EHS Plan facilities in substantial EHS compliance	10
	Total compliance inspections	10
	Revise EHS facility inventory	<i>Completed (Year 2)</i>
	Review and revise 50% of facilities, EHS Plans, and EHS procedures. (Year 3)	<i>Completed (Year 3)</i>
5.3.2 - Employee SWPPP Training TNR SWMP	Review, and revise contracts for County O&M activities to ensure required EHS standards for MCM 5 are included. (Year 3)	<i>Completed (Year 3)</i>
	Number of O&M employees trained.	9 sessions 231 trained
5.3.3 - Pesticide Applicator Licensing TNR NREQ	Number of TNR O&M employees certified, re-certified, and taking CEUs (Non-Commercial Certified Applicator Licensing)	11
5.3.4 - County Pond Inspection and Maintenance Program TNR SWMP	Number of County-owned ponds and PWQCs. <i>Note: Permanent BMPs renamed as Permanent Water Quality Controls (PWQCs)</i>	82
	Maintenance improvements to County-owned PWQCs	164
5.3.5 - Facility Waste Management and Disposal TNR NREQ Facilities Management	Fleet waste oil recycled/disposed, gallons	5,390 gal
	Fleet used oil filters recycled/disposed, number	15 drums
	Fleet used anti-freeze recycled/disposed, gallons	450
	Fleet used tires recycled/disposed, lbs.	173,720 lbs.
	Fleet used lead-acid batteries recycled/disposed, number	655
	Municipal solid waste disposed, East Service Center, tons (Facilities Management)	115.2 cy
	Municipal solid waste disposed, West Service Center, tons (Facilities Management)	345.6 cy
5.3.6 - Roadside Litter Abatement TNR Road Maint.	Number of miles of roadsides cleaned	3,566.61 miles
	Number of work orders performed	1,698 performed
	Cubic yards waste disposed of at landfill	7,883 cy
5.3.7 - ESC BMPs for Maintenance Construction (WOs following adopted ESC BMP criteria) TNR Road Maint.	Total work orders performed in Program 4105 – Reconstruction	13
	Total work orders performed in Program 4111 – Level-up	58
	Total work orders performed in Program 4120 - Drainage,	250
	Total Road, Park, BCP work orders/projects inspected; total inspections Performed by SWMP staff TNR SWMP	17 projects 21 inspections
5.3.8 - Closed Landfill Management TNR NREQ	Prepare/complete Annual Closed Landfill Status Report for County Auditor.	<i>Completed (Year 2)</i>
	Hwy 290 East Closed Landfill - Total gallons of leachate disposed of to the Austin wastewater system	2,971,062

Table 7
MCM 7.3 – Authorization for County Construction Activities BMPs – Year 4

BMP/ Responsible Program	Major Task Measurable Goals - Required Year 4	Year 4 Results (FY18)
7.3.1 - CIP Environmental Review Program TNR SWMP	Total CIP projects reviewed for SWP3s and PWQCs and approved	15
	Total CIP projects authorized for construction by County CSN	7
	Total disturbed acreage for the CIP projects authorized, above	132.68
7.3.2 - CIP Environmental Inspection Program TNR CIP and SWMP	Total certified SWP3 Inspection Reports prepared for CIPs	153 total
	Total CIP SWP3 Audit Inspections	15
	Total CIP projects completed/finaled in compliance	5
	Total Permanent Water Quality Controls (PWQCs) and detention ponds accepted for County maintenance	5

**Table 9.1.1
BMPs for Water Quality Impaired Waters with an Approved TMDL – Bacteria
Gilleland Creek – Year 4**

BMP/ Responsible Program	Major Tasks	Measurable Goals Required Year 4	Year 4 Results (FY18)
Increase Required Riparian Setbacks from New Development TNR SWMP	Increase waterway setbacks in Gilleland Creek watershed to prevent an increase in bacteria load associated with new development. Setbacks are implemented from the centerline of each minor, intermediate, and major waterway within the Gilleland Creek watershed in Travis County jurisdiction.	No. of Development Applications and linear feet of setback area on each project/permit subject to waterway setback approved in the Travis County Gilleland Creek watershed	0
Public Outreach on Pet Waste TNR SWMP	Support existing initiatives under the Gilleland Creek TMDL I-Plan to educate the public on bagging and disposing of pet waste by placement of bags near walking trail in the Travis County NE Metro Park	Estimated number of bags dispensed to public	Est. at 4,500
Incentivize OSSF Improvements OSSF and SWMP Program TNR DEV Services and SWMP	Seek Commissioners Court approval of OSSF application fee waiver for proactive OSSF repairs proposed before being cited for violations.	No. of repairs completed after providing a fee waiver	0
Public Outreach TNR DEV Services	Update Website with incentive information and send targeted mail outs (<i>each year in years 2 – 5 to approximately 25% of OSSF owners in the watershed</i>) to describe fee waiver initiative and City of Austin cutover initiative.	No. of mail outs sent	0
Notification of Illicit Discharges TNR DEV Services	Upon discovery of a sewage overflow, Travis County staff trained to recognize illicit discharges will notify the owner of the wastewater collection system (<i>or the OSSF Authorized Agent, if applicable</i>) of the discharge.	No. of notifications	0

* Commissioners Court approval was delayed until Year 3 and approval for the initiative was granted on November 29, 2016. Reported to be infeasible by OSSF group. Program centered on website information and inspector response information coordination.

**Unscheduled TMDL Implementation Activities
Year 4**

Addressing TMDL I-Plan Management Measure 2, Travis County Parks Division acquired 1667 acres (thru Year 4) of stream corridor for open space and parks along Gilleland Creek.

**Table 9.1.2
BMPs for Water Quality Impaired Waters with an Approved TMDL – Bacteria
Walnut Creek – Year 4**

BMP/ Responsible Program	Major Tasks	Measurable Goals Required Year 4	Year 4 Results (FY18)
Incentivize OSSF Improvements TNR DEV Services	Seek Commissioners Court approval of OSSF application fee waiver for proactive OSSF repairs proposed before being cited for violations.	No. of repairs completed after providing a fee waiver	0*
Public Outreach TNR OSSF	Update Website with incentive information and send a targeted mail out to OSSF owners in the watershed to describe fee waiver initiative and City of Austin cutover initiative.	No. of mail outs sent	0*
Privately Owned Permanent BMP Inspection TNR SWMP	Travis County will implement a focused assessment of 22 privately-owned permanent water quality control (PWQC) structures within its jurisdiction in the Walnut Creek watershed to determine if these structures (generally, flood detention and water quality treatment impoundments) are properly operated and maintained. When not functioning or maintained properly in accordance with their design, Travis County will seek corrective action and compliance from the owner.	No. Inspections, Corrective Actions accomplished	43 inspections 11 NOVs issued 0 referred
Detection of Illicit Commercial/ Industrial Discharges TNR SWMP	Travis County will implement a focused assessment of commercial and industrial facilities within its jurisdiction in the Walnut Creek watershed to determine if inappropriate sanitary waste management results in illicit discharges to its MS4.	No. Inspections; Corrective Actions accomplished	0
Construction Site Sanitary Waste Management	Travis County will update its construction site inspection practices to evaluate sanitary waste management practices by construction site owners/operators	This is countywide implementation and is reported as inspection and enforcement outputs under MCM 3	NA
Increase Required Riparian Setbacks from New Development TNR SWMP	Increase waterway setbacks in Walnut Creek watershed to prevent an increase in bacteria load associated with new development. Setbacks are implemented from the centerline of each minor, intermediate, and major waterway within the Walnut Creek watershed in Travis County jurisdiction.	No. of Development Applications and linear feet of setback area on each project/permit in the Walnut Creek Travis County watershed area which is subject to the waterway setback.	0

* Commissioners Court approval was delayed until Year 3 and approval for the initiative was granted on November 29, 2016. Reported to be infeasible by OSSF group. Program centered on website information and inspector response information coordination.

**Table 9.2.1
BMPs for Water Quality Impaired Waters without a TMDL – Dissolved Oxygen
Bull Creek & Lake Austin – Year 4**

BMP/ Responsible Program	Major Tasks	Measurable Goals Required Year 4	Year 4 Results (FY18)
Detection of Illicit Discharges TNR SWMP	Compliance evaluation of facilities and activities in watershed	No. inspections, Corrective Actions accomplished. If applicable	0
Notification of illicit discharges TNR SWMP	Document and report Sanitary Sewer overflows (SSOs) and unauthorized discharges to owner or TCEQ,	No. of notifications	0
Endangered Species Management of Balcones Canyonland Preserve (BCP) TNR SWMP	Land acquisition of parcels with Jollyville Plateau Salamander and songbird habitat in the impaired watershed; management of publicly-owned lands for natural resource protection using existing partnerships	No. acres acquired in watershed for the BCP	80.02 acres

ATTACHMENT A

Travis County Surface Water Quality Monitoring SWMP Year 4 (FY 2018)

Site Number	Sample Location	Date Collected	Time Collected	Flow Severity	Temperature (degr. Celsius)	pH (standard units)	Dissolved Oxygen mg/l	Conductivity umhos/cm	Chlorine residual, mg/l (test strip)	TSS mg/L SM2540D	Turbidity NTUs	Chloride mg/L E300.00 Anions	Sulfate mg/l E300.00 Anions	TDS mg/L SM2540C	Alkalinity mg/L SM2320B	Nitrogen, Ammonia (as N) E350.1	Nitrate/Nitrite mg/L SM4500-NO3-H	Nitrogen, Kjeldahl, Total E351.2	Phosphorus, Total mg/L E365.4	Chlorophyll-a ug/L E445.0	Pheophytin-A ug/L E445.0	E. Coli MPN SM9223, IDEXX
#1224	Beer W @ Fritz Hughes	1/10/2018	12:45	3	12.28	8.11	10.40	694.00	0.00	<1.00	2.37	43.10	85.50	419.00	228	<0.020	0.2590	1.151	<0.020	<0.500	<0.500	10.80
#1224	Beer W @ Fritz Hughes	4/3/2018	12:45	3	18.98	8.08	8.64	691.00	0.00	<1.00	2.78	50.10	64.70	392.00	125	<0.020	0.3190	0.134	0.09	0.69	<0.500	21.90
#1224	Beer W @ Fritz Hughes	7/19/2018	13:00	2	25.55	7.96	6.18	596.00	0.00	2.00	3.47	34.80	76.10	451.00	241	<0.020	1.2900	<0.20	<0.020	<1.00	<1.00	16.90
#1224	Beer W @ Fritz Hughes	10/30/2018	12:40	5	20.01	8.12	8.65	2235.00	0.00	3.00	4.16	45.60	52.70	378.00	245	0.0271	0.7090	0.240	<0.020	<1.00	<1.00	36.90
#13556	Bg Sandy @ Nameless Rd	4/3/2018	9:30	3	13.17	8.33	8.21	501.00	0.00	2.30	2.50	15.10	16.20	261.00	280	<0.020	<0.020	0.143	<0.020	<0.500	<0.500	14.60
#13556	Bg Sandy @ Nameless Rd	7/19/2018	9:30	2	25.29	7.75	4.46	591.00	0.00	12.00	2.58	17.70	17.20	271.00	129	<0.020	0.0231	0.126	<0.020	0.835	<0.500	42.80
#13557	Bg Sandy @ Nameless Rd	1/10/2018	9:30	5	19.98	7.79	8.60	591.00	0.00	<1.00	4.48	14.20	18.20	335.00	267	0.0259	0.6690	0.380	0.04	<0.500	<0.500	62.40
#13556	Bg Sandy @ Nameless Rd	10/30/2018	10:00	3	9.87	8.22	10.66	415.00	0.00	<1.00	1.81	13.20	21.60	207.00	183	0.0849	<0.020	0.115	<0.020	<1.00	<1.00	23.50
#13557	Cow Creek @ Singleton Bend	7/19/2018	9:45	3	20.76	8.15	7.88	498.00	0.00	1.00	4.80	12.00	27.50	235.00	95	<0.020	<0.020	0.152	<0.020	7.68	<0.500	21.60
#13557	Cow Creek @ Singleton Bend	10/30/2018	10:15	2	28.83	8.03	7.45	490.00	0.00	<1.0	2.77	12.40	20.50	263.00	200	<0.020	<0.020	<0.20	<0.020	1.87	3.01	27.80
#13560	Lick E @ Pedernales Canyon	1/10/2018	11:00	1	20.15	8.07	8.07	907.00	0.00	2.10	3.65	82.20	43.80	438.00	143	<0.020	0.9910	0.477	<0.020	<0.500	<0.500	108.10
#13560	Lick E @ Pedernales Canyon	4/3/2018	11:00	2	20.15	8.07	8.07	907.00	0.00	2.10	3.65	82.20	43.80	438.00	143	<0.020	0.9910	0.477	<0.020	<0.500	<0.500	108.10
#13559	Lick W @ Pedernales Canyon	1/10/2018	11:00	1	20.15	8.07	8.07	907.00	0.00	2.10	3.65	82.20	43.80	438.00	143	<0.020	0.9910	0.477	<0.020	<0.500	<0.500	108.10
#13559	Lick W @ Pedernales Canyon	4/3/2018	11:00	1	20.15	8.07	8.07	907.00	0.00	2.10	3.65	82.20	43.80	438.00	143	<0.020	0.9910	0.477	<0.020	<0.500	<0.500	108.10
#13559	Lick W @ Pedernales Canyon	1/19/2018	11:30	5	20.54	8.00	7.83	1283.00	0.00	2.00	3.14	12.50	15.20	285.00	216	0.0235	0.1700	<0.200	0.027	<0.500	<0.500	111.20
#1316	Running Deer @ Running Deer Tr	1/10/2018	12:45	2	13.26	8.02	10.97	401.00	0.00	1.80	2.46	42.90	44.90	374.00	234	<0.020	1.8910	0.128	<0.020	<0.500	<0.500	56.60
#1316	Running Deer @ Running Deer Tr	4/3/2018	12:45	2	19.67	7.88	8.48	696.00	0.00	1.31	2.87	43.10	46.50	357.00	158	<0.020	2.1900	0.454	<0.020	<0.500	<0.500	128.60
#1316	Running Deer @ Running Deer Tr	7/17/2018	12:39	3	27.20	7.84	3.65	200.00	0.00	22.00	3.14	12.40	30.40	351.00	310	<0.020	1.9800	<0.20	<0.020	<0.500	<0.500	128.60
#1316	Running Deer @ Running Deer Tr	10/30/2018	12:15	5	20.09	8.00	8.51	1003.00	0.00	<1.0	3.70	12.50	46.40	432.00	335	0.0295	0.4300	0.240	<0.020	<0.500	<0.500	57.50

NS - Not Sampled
 NM - Not Measured
 Beginning 2017, add total Phosphorus to ortho-Phosphate to align with COA
 Flow Sever (p) = 1 - None
 2 - Low
 3 - Normal
 4 - Flood
 5 - High
 6 - Dry

ATTACHMENT B
TCTV Program Info for SWMP Public Education BMP – Year 4

Monthly Breakdown of TCTV Broadcasts: **weeks run from Wed-Mon; Tues optional*

October 2017

- Total number of individual long topics – 425
- Total number of individual public broadcast announcements - 1075
- Total number of all programs broadcast - 1500
- Week 1 - 04:17:50
- Week 2 - 15:39:57
- Week 3 - 14:37:16
- Week 4 - 15:00:38
- Week 5 - 13:51:45
- Total hours broadcast - 63:27:26

November 2017

- Total number of individual long topics – 192
- Total number of individual public broadcast announcements - 566
- Total number of all programs broadcast - 758
- Week 1 - 14:25:23
- Week 2 - 14:09:25
- Week 3 - 14:35:27
- Week 4 - 18:36:51
- Week 5 - 05:39:56
- Total hours broadcast - 67:27:02

December 2017

- Total number of individual long topics - 219
- Total number of individual public broadcast announcements - 467
- Total number of all programs broadcast - 686
- Week 1 - 09:32:39
- Week 2 - 14:50:15
- Week 3 - 13:54:37
- Week 4 - 14:36:18
- Week 5 - 07:57:53
- Total hours broadcast – 60:51:42

January 2018

- Total number of individual long topics - 536
- Total number of individual public broadcast announcements - 964
- Total number of all programs broadcast - 1500
- Week 1 - 05:27:02
- Week 2 - 13:13:40
- Week 3 - 15:17:39
- Week 4 - 13:40:00
- Week 5 - 14:13:41
- Week 6 - 02:09:09

- Total hours broadcast - 64:01:11

-

February 2018

- Total number of individual long topics - 173
- Total number of individual public broadcast announcements - 561
- Total number of all programs broadcast - 734
- Week 1 - 11:29:30
- Week 2 - 12:26:59
- Week 3 - 12:11:18
- Week 4 - 10:22:30
- Week 5 - 02:24:01
- Total hours broadcast - 48:54:18

March 2018

- Total number of individual long topics - 282
- Total number of individual public broadcast announcements - 886
- Total number of all programs broadcast - 1168
- Week 1 - 11:06:49
- Week 2 - 14:00:19
- Week 3 - 20:20:30
- Week 4 - 13:47:44
- Week 5 - 11:38:41
- Total hours broadcast - 70:54:03

April 2018

- Total number of individual long topics - 395
- Total number of individual public broadcast announcements- 827
- Total number of all programs broadcast - 1222
- Week 1 - 04:54:16
- Week 2 - 16:12:58
- Week 3 - 11:59:24
- Week 4 - 12:15:55
- Week 5 - 11:36:33
- Total hours broadcast - 56:59:06

May 2018

- Total number of individual long topics - 488
- Total number of individual public broadcast announcements - 1026
- Total number of all programs broadcast - 1514
- Week 1 - 01:01:15
- Week 2 - 14:56:15
- Week 3 - 16:18:11
- Week 4 - 16:55:38
- Week 5 - 13:58:42
- Week 6 - 03:59:16
- Total hours broadcast - 67:09:17

June 2018

- Total number of individual long topics - 252
- Total number of individual public broadcast announcements - 740
- Total number of all programs broadcast - 992
- Week 1 - 12:04:59
- Week 2 - 23:15:31
- Week 3 - 22:36:37
- Week 4 - 13:53:14
- Week 5 - 10:14:48
- Total hours broadcast - 82:05:09

July 2018

- Total number of individual long topics - 268
- Total number of individual public broadcast announcements - 650
- Total number of all programs broadcast - 918
- Week 1- 04:18:36
- Week 2- 14:13:35
- Week 3- 14:44:06
- Week 4- 14:39:38
- Week 5- 09:44:00
- Total hours broadcast - 57:39:55

August 2018

- Total number of individual long topics - 453
- Total number of individual public broadcast announcements - 687
- Total number of all programs broadcast - 1140
- Week 1 - 13:37:35
- Week 2 - 08:58:00
- Week 3 - 11:36:00
- Week 4 - 11:44:08
- Week 5 - 06:36:19
- Total hours broadcast – 52:32:02

September 2018

- Total number of individual long topics - 174
- Total number of individual public broadcast announcements - 573
- Total number of all programs broadcast - 747
- Week 1 - 07:14:00
- Week 2 - 13:58:14
- Week 3 - 12:09:03
- Week 4 - 04:00:11
- Week 5 -09:43:45
- Total hours broadcast - 47:05:13

ANNUAL YEAR 4 TOTALS:

Total number of individual long topics broadcast – 3,857

Total number of individual short public broadcast announcements – 9,022

Total number of video broadcasts (*long + short topics*) – 12,879

Total hours broadcast- 739:06:24

TCTV Broadcast Program Summary for SWMP Public Education BMP Year 4:

LONG VIDEOS

EPA Videos:

- **Reduce Runoff: Slow it Down, Spread it Out, Soak it In:**
 - o Reduce Runoff (8:39) - Discusses green techniques on how to make our society more sustainable.
 - o River Smart Homes (11:56) - Getting smart about runoff in Washington, D.C.- riverfront homeowners implement environmentally friendly landscaping practices to save historic rivers.
 - o Building Green (10:56) - A success story in Philadelphia- embracing green techniques to infiltrate, capture and treat storm water on site.

Weather Channel/ EPA Video:

- **After the Storm** (28:00) - Three case studies focus on the interconnections between our water supplies, water quality, and the economic vitality and quality of life in our communities.

City of Laredo/ EPA Videos:

- **Inspector McCloud's Stormwater Adventures:**
 - o *English Version* (22:30) - Inspector McCloud and his crew save the day by stopping pollution that is threatening the Rio Grande. This video covers general facts about how pollution and runoff affect water quality.
 - o *Spanish Version* (22:30) –

LCRA Videos:

- **Pointless Pollution: America's Water Crisis** (27:40) – ½ hour documentary hosted by Walter Cronkite on the problems posed to the nation's water supply by nonpoint-source pollution. One segment includes Lake Travis.
- **A Run Unto the Sea: The Adventures of the Abilene Boys** (56:57) – 1 hour documentary hosted by Walter Cronkite on 'The Abilene Boys', 3 retired men who recreated in 1990 a canoe trip they had taken down the Colorado River in the 30's.
- **The Water Never Got This High Before** (12:10) – A look at the Colorado River's historical tendency for catastrophic floods.
- **Clean Water: It Starts With You** (12:15) – Tips on how you can reduce the amount of pollution in storm water runoff.
- **Ready for the Next Flood** (17:00) – An inside look at LCRA's flood-management operations.
- **Blind Man's Vision** (4:53) – A brief look at Adam Johnson, who conceived the idea for what would become Buchanan Dam.
- **Innovative Storm Water Runoff Practices** (7:00) – Examines innovative storm water runoff practices.
- **Providing Water for Central Texas** (3:09) - Explains how Lakes in Austin get water and how its distributed

- **Three Ways to Prepare for a Flood (3:15)** - Explains what LCRA does and what residents should do in a flood
- **Be Prepared for Severe Weather (1:33)** - Warns citizens to be prepared for severe weather and tips on what to do during severe weather
- **Water Smart Videos (x12)**
 - o *Use Mulch and Save Water (2:13)* - How adding mulch and compost can help save water, cut your water bill, and keep your lawn and plants healthier.
 - o *Mulch Improves Your Soil (1:58)* - How mulch and compost keep weeds at bay, improves your soil and makes your once-a-week watering more efficient.
 - o *Test Your Irrigation System (2:07)* - Demonstration on how testing your irrigation system is easy- how to install a new battery, check for broken nozzles and inspect your rain sensor.
 - o *Cycle and Soak Irrigation (1:11)* - How the "cycle and soak" method reduces water runoff and allows soil to absorb more water more efficiently.
 - o *Replace Riser Seal (2:02)* - How to repair a leaking rotor and replace riser seals to have a more efficient irrigation system.
 - o *Repair Drip Tubing (2:15)* - How to repair leaks in drip tubing so drip irrigation can be the most efficient use of supplemental water.
 - o *Install Drip Irrigation (1:44)* - Learn how to convert your automated irrigation system to a drip irrigation system to save water and money when watering your garden.
 - o *Domestic Use Program (2:22)* - LCRA water customers, including domestic use customers, are on a maximum once-a-week watering schedule because of the severe drought.
 - o *Lagos Vista Saves Water (2:37)* - The City of Lago Vista is laying pipe under the Highland Lakes Golf Course with the help of a cost-share grant from LCRA.
 - o *Marble Falls Saves Water (2:24)* – The City of Marble Falls uses recycled wastewater on four of its public parks with help from the Lower Colorado River Authority's cost-share program.
 - o *Hidden Falls Saves Water (2:27)* - LCRA's cost-share program helps Hidden Falls Golf Club reduce water use by 5 percent or almost 3.3 million gallons a year.
 - o *Cedar Park Saves Water (1:49)* - The City of Cedar Park is now using non-potable water to keep the turf green at the Brushy Creek Sports Complex.

Texas Parks & Wildlife Videos:

- **Texas, The State of Water (58:00)** – Examines the present state of Texas’ water sources (aquifers, rivers, and bays), and the growing demand put on those sources.
- **Texas, The State of Water: Finding a Balance (56:46)** – Explores the growing demand for water, the impact that growth will have on Texas, and how the steps we take will impact Texas’ people, wildlife and economic vitality.
 - o **Dealing with the Drought (Special Feature) (11:49)** – How Corpus Christi is working to secure water for the future.
 - o **Prescription to Burn (Special Feature) (9:20)** – Examining fire as an important tool to manage and restore natural landscapes.
 - o **Diggin’ School (Special Feature) (9:00)** – School children learn to construct a ‘Wildscape’ using native plants that require little watering.
 - o **Forests of the River Bottom (Special Feature) (14:49)** – Examination of how natural flooding cycles are an integral part of the bottomland hardwood forests.
- **Texas, The State of Flowing Water (57:00)** – Explores the importance of water for people and wildlife, examines the threat facing Texas’ water and how to protect it, and outlines steps people can take to avoid water shortages.

- **Texas, The State of Springs** (58:00) - Explores the decline of Texas' natural springs, issues that effect spring flow, and what can be done to save these resources.
 - o **In Land We Trust** (Special Feature) (10:25) – The growing land trust movement offers new hope for threatened farm and ranch lands.
 - o **Policing Pollution** (Special Feature) (9:39) – Game wardens work to keep our water and air clean.
 - o **Last of the Bayous** (Special Feature) (9:45) – Chronicles the natural beauty of the Clear Creek area and its ecological significance.
 - o **Restoring Galveston Bay** (Special Feature) (8:25) – Challenges of reversing damage inflicted on Galveston Bay and its marshes.

Water Education Foundation Video:

- **Storm Water Management- Turning Runoff into a Resource** (20:00) – Explains the problem with polluted storm water, and steps that can be taken to prevent such pollution and turn it into a water resource.

City of Boulder, Colorado Video:

- **H2O Jo Takes a Ride Through the Storm Drain** (7:58)- This video is part of Colorado's Keep It Clean campaign and features H2O Jo and Flo and their resounding message "Keep it clean, cause we are all downstream!". It reinforces common messages that inform the public on ways to protect our water resources.

'Heal the Bay' Video:

- **Majestic Plastic Bag** (3:59)- This is a mockumentary that is narrated by Academy Award winner Jeremy Irons and tracks the "migration" of a plastic bag from a grocery store parking lot to the "Great Pacific Garbage Patch" in the Pacific Ocean.

Excal Visual Videos:

- **IDDE, A Grate Concern- English & Spanish Versions (x6):** These presentations are focused on fully understanding the problem of illicit discharge and what can be done within the community to reduce it.
 - o Condensed version, works when there is limited time
 - English (2:02)
 - Spanish (2:38)
 - o Good for short speaker presentations for young audiences
 - English (5:38)
 - Spanish (7:02)
 - o Similar message in more depth
 - English (10:36)
 - Spanish (13:20)

City of Austin Videos:

- **Austin Underground** (4 chapters totaling 26:43) - Designed to provide viewers with a 'virtual field trip' into the Barton Springs Edwards Aquifer.
 - o *Geology* (8:03) - Explores the passage of water over land to the recharge zone into critical environmental features including fractures, sinkholes, and caves. It also examines the dissolution of karst limestone.
 - o *Hydrogeology* (5:24) - Explores the underground flow of water through the cave/ aquifer system by means of dye trace studies, and the re-emergence of groundwater at local springs, particularly Barton Springs.
 - o *Salamander* (4:18) - Studies the aquifer and the springs as a habitat for aquatic species, including the Austin Blind Salamander and the endangered Barton Springs Salamander.
 - o *Threats/ Solutions* (8:58) - Explores threats to the aquifer (non-point source pollution).
- **Watershed Protection Ordinance (8 short videos):** (16:11)
 - o *Erosion Hazard Zone* (01:43) - Explains the hazards of erosion such as damage to homes, and how to relieve erosion issues (English).
 - o *La Zona de Peligro de Erosión* (02:41) - Explains the hazards of erosion such as damage to homes, and how to relieve erosion issues (Spanish).
 - o *Headwater Stream Protection* (01:26) - Explains what a headwater stream is and why it is sensitive (English).
 - o *La Protección de Cabeceras* (02:24) - Explains what a headwater stream is and why it is sensitive (Spanish).
 - o *Preserving Healthy Floodplains* (01:30) - Benefits of maintaining a naturally functioning floodplain (English).
 - o *Preservar Zonas Inundables Naturales* (02:31) - Benefits of maintaining a naturally functioning floodplain (Spanish).
 - o *Redevelopment Exception* (01:41) - Explains the history of ordinances in Austin and current ordinances regarding developments (English).
 - o *Excepción para Reurbanización* (02:15) - Explains the history of ordinances in Austin and current ordinances regarding developments (Spanish).

- **Earth School Kids: Protecting Austin's Water Quality** (08:28) Kids explore how their actions on the land affect water quality and what they can do to help keep the water clean.

- **Climate Change in Austin** (02:30) - Explains the actions the City of Austin is taking to address climate impacts, and what you can do to help.

Texas Commission on Environmental Quality (TCEQ) Videos:

- **Building a Rain Barrel** (07:01) - How to build a homemade rain barrel for rain harvesting.
- **How to Start Composting in Your Own Backyard** (04:49) - How to compost at home and how this practice can reduce the amount of waste that goes to our landfills.
- **Take Care of Texas- New Program Successes** (02:54) - Discusses the goals and successes of the 'Take Care of Texas' campaign.

- **Simple Way to Take Care of Texas** (03:03) - Discusses the population growth in Texas and how this will impact air quality, the demand for water, landfill space, and electricity. It also discusses simple steps we can take to help address these issues now.
- **Take Care of Texas, It's the Only One We've Got!** (02:46) - Discusses the goals and successes of the 'Take Care of Texas' campaign.

NCTCOG E&D Videos:

- **Stormwater to Drinking Water** (6:08) – Explains the cycle of water, issues with water pollution, and why we should take care of water.
- **Freddy the Fish Teaches about Stormwater** (4:28) – Children cartoon that explains how water gets to creeks/ lakes and why we should not pollute/ litter.
- **How to Spot and Report Stormwater Pollution** (7:06) – Shows what sorts of contamination to look out for when reporting illicit discharge.

Iowa Public Television Videos:

- **Explore More Series** (2 videos totaling 58:27)
 - o *Water Quality* (29:04) – Examines the threat pollutants have on water quality, and challenges the viewers to make a difference.
 - o *Working Landscapes* (29:23) – Examines working landscapes as a way of sustaining our fragile ecosystems.

Total Number of Long Videos- 73

PUBLIC BROADCAST ANNOUNCEMENTS

Excal Visual:

- **IDDE, A Grate Concern (x4)**
 - o English and Spanish versions (00:30)
 - o English and Spanish versions (00:60)

City of Austin

- **Grow Green Program (x4)**
 - o Watershed Protection (00:15)
 - o Jamboree TV (00:15)
 - o Dan D. Lion TV (00:15)
 - o Professor Dung Beetle TV (00:15)
- **Scoop the Poop (00:30)**
- **An Intro to Barton Springs Salamanders (00:30)**
- **Let's Can it Austin (00:30)**
- **Illegal Dumping (00:30)**
- **Illegal Dumping Spanish (01:30)**
- **Austin Water Utility Willie Nelson Drought (00:30)**

TCEQ

- **Take Care of Texas Kevin Fowler (00:30)**
- **Take Care of Rick Trevino English (00:30)**
- **Take Care of Rick Trevino Spanish (00:30)**
- **Take Care of Texas Water Conservation: Drop in the Bucket (00:30)**

Keep Austin Beautiful/ Ad Council

- **I Want to be Recycled (1:00)**
- **I Want to be a Bench (1:47)**

Total Number of Public Announcements - 20

TOTAL NUMBER OF VIDEOS - 93