



## NOTICE OF MEETING OF THE GOVERNING BODY OF THE CITY OF BURNET

Notice is hereby given that a **Regular Council Meeting** will be held by the governing body of the above named City on the **14<sup>th</sup> day of February, 2017** at **6:00 p.m.** in the Council Chambers, Burnet Municipal Airport, 2402 S. Water, Burnet, at which time the following subjects will be discussed, to-wit:

This notice is posted pursuant to the Texas Government Code, Chapter §551-Open Meetings.

**CALL TO ORDER:**

**INVOCATION:**

**PLEDGE OF ALLEGIANCE:**

**PLEDGE TO TEXAS FLAG:**

**1. PUBLIC RECOGNITION/SPECIAL REPORTS:** None.

**2. CONSENT AGENDA ITEMS:**

*(All of the following items on the Consent Agenda are considered to be self-explanatory by the Council and will be enacted with one motion. There will be no separate discussion of these items unless a Council Member, staff member or citizen requests removal of the item from the consent agenda for the purpose of discussion. For removal of an item, a request must be made to the Council when the Consent Agenda is opened for Council Action.)*

2.1) Approval of the January 24, 2017 Regular Council Meeting minutes

**3. PUBLIC HEARING:** None.

**4. ACTION ITEMS:**

4.1) Discuss and consider action: Approve and authorize City Manager to sign a Wholesale Metering agreement between LCRA and the City of Burnet: G. Courtney

4.2) Discuss and consider action: Appointments to the City of Burnet Historic Board: M. Lewis

4.3) Discuss and consider action: Authorize staff to enter into a vendor agreement with Opportunities for Williamson and Burnet County for the purpose of a Comprehensive Energy Assistance Program: P. Langford

4.4) Discuss and consider action: FIRST READING OF AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF BURNET, TEXAS CHAPTER 98, SUBDIVISIONS BY ADOPTING ARTICLE VIII, NON-POINT SOURCE POLLUTION; ADOPTING NPS TECHNICAL MANUAL; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALER CLAUSE; PROVIDING AN EFFECTIVE DATE; AND FINDING PROPER NOTICE OF MEETING: M. Lewis

4.5) Discuss and consider action: An inter-local agreement between the City of Burnet and the Lower Colorado River Authority granting the City of Burnet authority to administer Nonpoint Source Pollution regulations within that portion of the City located within the Lake Travis Watershed: M. Lewis

## **5. REPORTS:**

5.1) Addendum to the City Council Agenda: Department and Committee Reports/Briefings: The City Council may or may not receive a briefing dependent upon activity or change in status regarding the matter. The listing is provided to give notice to the public that a briefing to the Council on any or all subjects may occur.

5.1(E.2) Quarterly School Resource Officer Report: P. Nelson

5.1(E.3) Annual Racial Profiling Report: P. Nelson

## **6. REQUESTS FROM COUNCIL FOR FUTURE REPORTS:**

## **7. ADJOURN:**

Dated this 10<sup>th</sup>, day, of February, 2017

**CITY OF BURNET**

**GARY WIDEMAN, MAYOR**

I, the undersigned authority, do hereby certify that the above NOTICE OF MEETING of the governing body of the above named City, BURNET, is a true and correct copy of said NOTICE and that I posted a true and correct copy of said NOTICE on the bulletin board, in the City Hall of said City, BURNET, TEXAS, a place convenient and readily accessible to the general public at all times, and said NOTICE was posted on February 10, 2017, at or before 5 o'clock p.m. and remained posted continuously for at least 72 hours preceding the scheduled time of said Meeting.





Kelly Dix, City Secretary

**NOTICE OF ASSISTANCE AT THE PUBLIC MEETINGS:**

*The City Council Chamber is wheelchair accessible. Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services, such as interpreters for persons who are deaf or hearing impaired, readers, or large print, are requested to contact the City Secretary's office (512.756.6093) at least two working days prior to the meeting. Requests for information may be faxed to the City Secretary at 512.756.8560.*

**RIGHT TO ENTER INTO EXECUTIVE SESSION:**

*The City Council for the City of Burnet reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by Texas Government Code Sections 551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices) and 551.087 (Economic Development).*



STATE OF TEXAS        {}  
COUNTY OF BURNET    {}  
CITY OF BURNET        {}

## ITEM 2.1

On this the 24<sup>th</sup> day of January 2017, the City Council of the City of Burnet convened in Regular Session, at 6:00 p.m., at the regular meeting place thereof with the following members present, to-wit:

Mayor                        Gary Wideman  
Council Members        Danny Lester, Philip Thurman, Joyce Laudenschlager  
                                 Paul Farmer, Tres Clinton  
Absent                        Mary Jane Shanes  
City Manager                David Vaughn  
Deputy City Secretary    Kelly Dix

Guests: Jonny Simons, Mark Lewis, Gene Courtney, Evan Milliorn, Leslie Baugh, Andrew Scott, Craig Lindholm, Ed Hollicky, Alan Burdell, Patricia Langford, James B. Wilson, Doug Fipps, Amber Holley, Hanna Kadow, Crista Bromley, Mark Lunsford, Daniel Conn, Delaney Kelley, Mark Ingram

CALL TO ORDER: The meeting was called to order by Mayor Wideman, at 6:00 p.m.

INVOCATION: Council Member Paul Farmer

PLEDGE OF ALLEGIANCE: Council Member Joyce Laudenschlager

PLEDGE TO TEXAS FLAG: Council Member Joyce Laudenschlager

### PUBLIC RECOGNITION/SPECIAL REPORTS:

Chamber of Commerce Report: Mark Lunsford, Chamber Board member informed the Council that the Christmas Festival profited with a 15 % increase in revenue. The Chamber is looking for donations of photos of the community and citizens. The Chamber Banquet is scheduled for Saturday February 11<sup>th</sup> at the Community Center. Tickets are available at the Chamber office. Bluebonnet Festival plans are underway.

### CONSENT AGENDA ITEMS:

*(All of the following items on the Consent Agenda are considered to be self-explanatory by the Council and will be enacted with one motion. There will be no separate discussion of these items unless a Council Member, staff member or citizen requests removal of the item from the consent agenda for the purpose of discussion. For removal of an item, a request must be made to the Council when the Consent Agenda is opened for Council Action.)*

### Approval of the January 10, 2017 Regular Council Meeting minutes

Council Member Philip Thurman moved to approve the consent agenda as presented. Council Member Danny Lester seconded, and the motion carried unanimously.

### CONVENE TO EXECUTIVE SESSION:

Council Member Philip Thurman made a motion to convene to Executive Session at 6:11 p.m. Council Member Joyce Laudenschlager seconded, the motion carried unanimously.

Executive Session: The Council reserves the right to enter into closed session in accordance with the provision of the Open Meetings Act, Texas Government Code, Chapter 551, Subsection §551.071-consultation with Attorney regarding the EPA Groundwater Plume: D. Vaughn

Executive Session: The Council reserves the right to enter into closed session in accordance with the provision of the Open Meetings Act, Texas Government Code, Chapter 551, Subsection 551.072; Deliberations Regarding Real Property: pertaining to thirteen acres of land on the corner of Westfall and Cemetery Streets, owned by the City of Burnet: D. Vaughn

RECONVENE TO REGULAR SESSION FOR POSSIBLE ACTION: Council Member Philip Thurman made a motion to reconvene to regular session at 7:02 p.m. Council Member Joyce Laudenschlager seconded, the motion carried unanimously.

Discuss and consider action: Regarding an EPA Access Agreement: D. Vaughn: Council Member

Philip Thurman made a motion to authorize the City Manager to execute and EPA Access Agreement. Council Member Joyce Laudenschlager seconded, the motion carried unanimously.

Discuss and consider action: Regarding a Letter of intent with Langley Homes for the development of the thirteen acres of land on the corner of Westfall and Cemetery Streets, owned by the City of Burnet: D. Vaughn: Council Member Philip Thurman made a motion to authorize the City Manager to execute a Letter of Intent with Langley Homes for the development of the thirteen acres of land on the corner of Westfall and Cemetery Streets, owned by the City of Burnet.

Discuss and consider action: SECOND AND FINAL READING OF AN ORDINANCE AMENDING ORDINANCE NO. 2012-06 BY ASSIGNING TOWNHOMES—DISTRICT R-2A ZONING TO LOTS 1 AND 2, LUNA PARK ADDITION; PROVIDING A REPEALER CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE: M. Lewis: Council Member Paul Farmer made a motion to approve Ordinance 2017-01 as presented. Council Member Tres Clinton seconded. The motion carried unanimously.

Discuss and consider action: A RESOLUTION OF THE CITY OF BURNET, TEXAS, ORDERING A GENERAL ELECTION TO BE HELD ON MAY 6, 2017, TO ELECT A MAYOR AND THREE CITY COUNCIL MEMBERS; ESTABLISHING THE ELECTION PROCEDURE; AND PROVIDING FOR RELATED MATTERS: K. Dix

UNA RESOLUCIÓN DE LA CIUDAD DE BURNET, TEXAS, ORDENANDO UNA ELECCIÓN GENERAL A LLEVARSE A CABO EL 9 DE MAYO DE 2015, PARA ELEGIR EL ALCALDE Y TRES MIEMBROS DEL CONSEJO (CONCEJALES); ESTABLECIENDO LOS PROCEDIMIENTOS PARA LA ELECCIÓN; Y PROVEYENDO OTROS ASUNTOS RELACIONADOS. Mayor Gary Wideman made a motion to approve Resolution R2017-01 as presented. Council Member Philip Thurman seconded, the motion carried unanimously.

Discuss and consider action: A RESOLUTION ADOPTING THE CITY OF BURNET, TX, INVESTMENT POLICY AND NAMING THE INVESTMENT OFFICERS: P. Langford: Council Member Joyce Laudenschlager made a motion to approve Resolution R2017-03 as presented. Council Member Philip Thurman seconded, the motion carried unanimously.

Discuss and consider action: Golf Course bunker renovation bids: D Fipps: Council Member Danny Lester made a motion to award the bid for the Golf Course Bunker Renovations Project to Fleetwood Service, Inc. Council member Philip Thurman seconded, the motion carried unanimously.

Discuss and consider action: Authorize the City Manager to designate the use of collected fines in the Child Safety Fund: M. Ingram: Council Member Tres Clinton made a motion to authorize the City Manager to designate the use of collected fines in the Child Safety Fund. Council Member Paul Farmer seconded, the motion carried unanimously.

Discuss and consider action: Appoint members to the Burnet Zoning Board of Adjustments: K. Dix: Council member Philip Thurman made a motion to appoint Joy Taylor, Dale Myers, Linda Frietag and Kim Winkler to the Burnet Board of Adjustments. Council Member Joyce Laudenschlager seconded the motion carried unanimously.

Discuss and consider action: Planning and Zoning Commission Board Appointments: K. Dix: Council Member Paul Farmer made a motion to appoint Don "Craig" Lindholm, Gregory Waldron, Tommy Gaut and Herve Derek Fortin to the City of Burnet Planning and Zoning Committee. Council Member Joyce Laudenschlager seconded, the motion carried unanimously.

REPORTS: Addendum to the City Council Agenda: Department and Committee Reports/Briefings: The City Council may or may not receive a briefing dependent upon activity or change in status

regarding the matter. The listing is provided to give notice to the public that a briefing to the Council on any or all subjects may occur.

December 2016 Financial Report: C. Maxwell: Director of Budget and Special Projects, Connie Maxwell reviewed the December 2016 Financial Report with Council. A recap was covered of the fund balances, revenues and expenses. All funds are doing well.

REQUESTS FROM COUNCIL FOR FUTURE REPORTS: None.

ADJOURN: There being no further business a motion to adjourn was made by Council Member Joyce Laudenschlager at 7:25 p.m., seconded by Council Member Tres Clinton. The motion carried unanimously.

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Gary Wideman, Mayor

ATTEST:

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Kelly Dix, City Secretary



## Electric Department

### ITEM 4.1

Gene Courtney  
Energy Service Manager  
(512)-756-2402  
gcourtney@cityofburnet.com

### Agenda Item Brief

<b>Meeting Date:</b>	February 14, 2017
<b>Agenda Item:</b>	Discuss and consider action: Approve and authorize City Manager to sign a Wholesale Metering agreement between LCRA and the City of Burnet: G. Courtney
<b>Background:</b>	The City of Burnet purchases its wholesale power from LCRA which requires LCRA to own and operate a wholesale meter at the substation that registers the electric consumption of the city.
<b>Information:</b>	In the 2041 wholesale power contract there is no agreement that states the city will allow LCRA to measure, and bill the amount of electricity used by the city by a meter installed, owned, and operated by LCRA at the Burnet Substation.
<b>Fiscal Impact:</b>	NONE
<b>Recommendation:</b>	A motion to approve the metering agreement with LCRA, as presented.

## WHOLESALE METERING SERVICE AGREEMENT

This Wholesale Metering Service Agreement ("Agreement") is made and entered into this 14<sup>th</sup> day of February, 2017, ("Effective Date") by the LCRA Transmission Services Corporation ("LCRA TSC") an Electric Reliability Council of Texas ("ERCOT") transmission service provider, and city of Burnet ("Burnet" or "Customer") an ERCOT transmission and/or distribution service provider each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties".

WHEREAS, Section 10 of the ERCOT Nodal Protocols states that Transmission and Distribution Service Providers are responsible for supplying ERCOT with meter data associated with Non Opt-In Entity ("NOIE") points of delivery;

WHEREAS, LCRA TSC is registered with ERCOT as a Transmission Service Provider with DUNS number 0432268854000 and Customer is a NOIE registered with ERCOT as a Transmission and Distribution Service Provider with DUNS number 0746121514000;

WHEREAS, LCRA TSC is currently designated as the ERCOT Meter Reading Entity for Burnet through the Burnet NOIE Meter Point Registration Form on file with ERCOT as of April 2001.

WHEREAS, LCRA TSC has installed revenue quality metering and is currently providing metering service and supplying ERCOT with certain meter data associated with Customer's NOIE points of delivery in accordance with the LCRA TSC Wholesale Metering Service Tariff ("Tariff");

WHEREAS, LCRA TSC's Wholesale Metering Service is also provided to LCRA TSC transformation service customers to determine the billing demand for each transformation service point of interconnection;

WHEREAS, Customer may have in the future additional points of delivery or transformation service and desires LCRA TSC to continue to function as the meter reading entity for Customer's NOIE points of delivery in accordance with this Agreement; and

WHEREAS, LCRA TSC and Customer shall identify through this Agreement the Customer's specific Wholesale Metering Service Points and conditions associated with LCRA TSC's provision of Wholesale Metering Service to Customer.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the Parties agree as follows:

1. **Definitions** - For the purpose of this Agreement, the following terms shall have the meanings given as follows:



- a. ERCOT Nodal Protocols or “Protocols” shall mean the Electric Reliability Council of Texas Nodal Market Protocols as amended through August 18, 2016 and approved by the PUCT in docket numbers 23220, 23802 and 24770 and any subsidiary documents adopted or incorporated thereto by ERCOT as well as any subsequent amendments or supplements to the Protocols.
- b. ERCOT-Polled Settlement Meter or “EPS” meter shall mean a meter as defined in Section: 2 Definition and Acronyms of the ERCOT Protocols.
- c. LCRA TSC Wholesale Metering Service Tariff shall mean the tariff as approved by the PUCT in Docket No. 39891.
- d. LCRA TSC Wholesale Transformation Service Tariff shall mean the tariff as approved by the PUCT in Docket No. 39891.
- e. Meter Reading Entity or “MRE” shall mean an entity as defined in Section: 2 Definition and Acronyms of the ERCOT Protocols.
- f. Non Opt-In Entity or “NOIE” shall mean an electric cooperative or municipally owned utility that does not offer Customer Choice as defined as defined in Section: 2 Definition and Acronyms of the ERCOT Protocols.
- g. Public Utility Commission of Texas or “PUCT” shall mean the Texas state agency described in Chapter 12 of the Public Utility Regulatory Act, Title II of the Texas Utilities Code, as amended September 1, 2015.
- h. Qualified Scheduling Entity or “QSE” shall mean an entity as defined in Section: 2 Definition and Acronyms of the ERCOT Protocols.
- i. Resource shall mean an entity as defined in Section: 2 Definition and Acronyms of the ERCOT Protocols.
- j. Resource ID or “RID” shall mean a unique identifier for a Resource as defined by Section: 2 Definition and Acronyms of the ERCOT Protocols
- k. Transmission and/or Distribution Service Provider or “TDSP” shall have the meaning as defined in Section 2 of the ERCOT Protocols.
- l. Transmission Service Provider or “TSP” shall have the meaning as defined in Section 2 of the ERCOT Protocols.
- m. VEE interval data shall mean data from an Interval Data Recorder as those terms are defined in Section: 2 Definition and Acronyms of the ERCOT Protocols and Section 10: Metering, Paragraph 10.11.3 (1) of the Protocols.

n. Wholesale Metering Service shall mean the measurement, recording, translation and/or reporting of electric power and energy flow at Wholesale Metering Service Points as identified in Exhibits A and B hereto.

o. Wholesale Metering Service Points shall mean those locations in Customer's electric system identified in Exhibit A hereto where metering data will be measured and processed by LCRA TSC.

2. **Establishment of Wholesale Metering Service** – LCRA TSC will provide Wholesale Metering Service at locations specified in the Wholesale Metering Service Point List ("List") attached to this Agreement as Exhibit A and as it may be amended from time to time. Exhibit A also identifies the meter data processing LCRA TSC shall perform for each Wholesale Metering Service Point on the List in accordance with the technical considerations described in Exhibit B.

3. **Term and Termination** –

a. This Agreement becomes effective on the Effective Date and continues in effect for a period of one (1) year. It shall renew automatically each year thereafter until either party terminates the Agreement.

b. At any time Customer may terminate at will and for convenience subject to the applicability of any Early Removal Fee.

c. The Parties may terminate this Agreement by mutual agreement.

d. LCRA TSC may terminate this Agreement if it no longer has a Wholesale Metering Tariff approved by the PUCT.

e. Customer may terminate a specific Wholesale Metering Service Point upon 90 days written notice to LCRA TSC. Provided however, that Wholesale Metering Service Point(s) where LCRA TSC provides transformation service cannot be terminated without concurrent termination of transformation service at that point.

f. Termination of any Wholesale Metering Service Point, for any reason, shall be subject to any applicable Early Removal Fees as described below. This Agreement shall automatically terminate if and when all Wholesale Metering Service Points have been terminated.

4. **Establishing and Terminating Wholesale Metering Service Points** –

a. Customer shall provide a minimum of six (6) months prior notice when a Wholesale Metering Service Point is to be added to this Agreement and installed by LCRA TSC. Changes to Wholesale Metering Service Points, such as transformer changeouts, voltage conversions, feeder additions, potential transformer or current transformer replacements, shall be planned and/or communicated to LCRA TSC with a

minimum of six (6) months lead time or next business day if an emergency situation arises.

b. Upon termination of this Agreement or a specific Wholesale Metering Service Point, each individual Wholesale Metering Service Point that has been in service less than five (5) years will be assessed an early removal fee (Early Removal Fee) computed as a lump sum payment calculated as a proration of the monthly meter service fee multiplied by the difference between sixty (60) months and the number of months each individual Wholesale Metering Service Point has actually been in service. For example; a Wholesale Metering Service Point installed 48 months before this Agreement or that specific Wholesale Metering Service Point terminates would have an early removal time remaining of 12 months and would be assessed an Early Removal Fee of the then current monthly meter service charge multiplied by 12.

c. Upon termination of this Agreement or a specific Wholesale Metering Service Point, Customer shall have the first right to purchase LCRA TSC's equipment at LCRA TSC's net book value (the original cost of the equipment, less accumulated depreciation) at the Wholesale Metering Service Points on the List that do not affect other customers and where LCRA TSC does not provide wholesale transformation service pursuant to LCRA TSC's Wholesale Transformation Tariff. If Customer does purchase LCRA TSC's equipment at a Wholesale Metering Service Point then the Early Removal Fee will not apply to that Wholesale Metering Service Point.

5. **Service Charge** – Wholesale Metering Service is provided, and the charge for this service is determined, in accordance with LCRA TSC's Wholesale Metering Service Tariff or its successor, as it may from time-to-time be fixed and approved by the PUCT. LCRA TSC shall invoice Customer monthly for the specific Wholesale Metering Service Points actually in service during the past month; and, during the first month of service, the service charge will be pro-rated to the number of days the point is actually in service. A Wholesale Metering Service Point is determined to be in service when LCRA TSC has installed and activated its metering equipment for that point and begins reading and processing the meter data. At its sole discretion, LCRA TSC may grant a grace period of up to 90 days to initiate charges when Customer facilities being metered are delayed. LCRA TSC shall invoice Customer for any applicable Early Removal Fees within 90 days of termination of the Wholesale Metering Service Point.

6. **Payment of Monthly Invoices –**

a. Burnet shall pay LCRA TSC at the address shown in LCRA TSC's Accounts Receivable system the amount due within thirty (30) days after receipt of such invoice. In the event that payment in full is not timely made, interest shall accrue on the unpaid balance at the rate prescribed by the "Prompt Payment Act", Chapter 2251, Vernon's Tex. Gov't Code, as amended, 2003, until paid in full.

b. Burnet reserves the right to review LCRA TSC's invoices, and to audit and examine at any reasonable time the books and records of LCRA TSC to the extent necessary to verify the accuracy of any statement, charge, computation or invoice made under the Agreement, and to recover any overcharges paid by it.

c. Burnet's obligations under this Agreement are payable only and solely from funds appropriated and available for the purpose of this purchase. Lack of funds shall render this Agreement null and void to the extent that funds are not available. Burnet agrees that it shall not request services for which funds have not been appropriated and are not available.

7. **Metering Equipment –**

a. LCRA TSC shall design, construct, operate and maintain wholesale meter packages that utilize metering accuracy instrument transformers, whether supplied by LCRA TSC or Customer, as shown on LCRA TSC prints, and interval data recorder (IDR) meters that meet all requirements of the ERCOT Nodal Protocol Section 10, the Settlement Metering Operating Guide (SMOG) and the ERCOT Nodal Operating Guides. LCRA TSC shall have the right to install on Customer's premises, metering equipment, communications equipment, and related appurtenances as required by LCRA TSC to provide a Wholesale Metering Service Point. Customer shall allow LCRA TSC to utilize Customer's available communications infrastructure, as determined by Customer, to the extent necessary for carrying out this Agreement and without cost to LCRA TSC.

b. Any equipment installed by LCRA TSC is and shall remain the property of LCRA TSC and LCRA TSC shall be entitled to remove such equipment at the termination of this Agreement unless equipment is otherwise purchased by Customer. LCRA TSC shall be entitled to abandon in place certain current transformers, switches, cables, conduits, etc. if the Customer and LCRA TSC determine that removal of LCRA TSC's equipment would place a significant burden on Customer's distribution delivery service (outages); and under such conditions Customer would take responsibility for future removal and salvage without accounting of those items at its discretion and expense.

c. Customer hereby grants LCRA TSC license and permission to enter upon the premises and easements of Customer for the purpose of performing the work or any other activities associated with or contemplated by this Agreement, subject to Customer's physical security access practices and procedures. Customer shall have the right to witness an audit or test carried out by the LCRA TSC for Wholesale Metering Service Points on the List.

8. **Customer Supplied Information –** Customer shall supply LCRA TSC with Customer owned power transformer parameters, thirty (30) days prior to energization of each new or replaced power transformer for which LCRA TSC provides metering service, in order for LCRA TSC to apply, as appropriate, transformer loss compensation to meter data before submitting data to ERCOT.

9. **Notices and Contact Information –** Notices of an administrative nature, including but not limited to a notice of termination or a request for amendment, shall be forwarded to the designees listed below for each Party and shall be deemed properly given if delivered in writing by email, telefax or hard copy delivery to the following, as appropriate:

**City of Burnet:**

Attn: Gene Courtney  
Energy Manager  
P.O. Box 1369  
1001 Buchanan Drive  
Burnet, TX 78611

E-mail: [gcourtney@cityofburnet.com](mailto:gcourtney@cityofburnet.com)

**LCRA TSC:**

Attn: Sergio Garza  
Vice President, Transmission Design and Protection  
P.O. Box 220  
Austin, TX 78767-0220

E-mail: [sergio.garza@lcra.org](mailto:sergio.garza@lcra.org)

**10. INDEMNIFICATION – TO THE EXTENT PERMITTED BY THE TEXAS CONSTITUTION AND LAWS OF THE STATE OF TEXAS, LCRA TSC SHALL INDEMNIFY AND HOLD BURNET, AND ITS OFFICERS, DIRECTORS, AGENTS, EMPLOYEES AND OFFICIALS, HARMLESS FROM AND AGAINST ALL LIABILITY, DAMAGES, CLAIMS, DEMANDS AND JUDGMENTS ARISING OUT OF OR CONCERNING DAMAGE TO OR LOSS OF THE USE OF THE PROPERTY ANY PERSON OR PARTY, OR OUT OF THE DEATH, BODILY INJURY, ILLNESS, DISEASE, WORKERS' COMPENSATION OR LOSS OF SERVICES OF ANY PERSON, AND ANY OTHER COST, LOSS OR EXPENSE BURNET MAY INCUR AS A RESULT OF THE NEGLIGENCE OR WILLFUL MISCONDUCT BY THE LCRA TSC, OR ITS AGENTS OR EMPLOYEES, IN THE PERFORMANCE OF THE WHOLESALE METERING SERVICES UNDER THIS AGREEMENT. ANY OBLIGATIONS OF BURNET UNDER THIS CLAUSE OR UNDER ANY OTHER PART OF THIS AGREEMENT ARE PAYABLE SOLELY FROM AND TO THE EXTENT OF THE REVENUES OF THE ELECTRIC UTILITY SYSTEM OF BURNET AND NOT FROM ANY FUNDS RAISED OR TO BE RAISED BY TAXATION OR FROM ANY OTHER REVENUES OF THE CITY OF BURNET TEXAS. THIS CLAUSE DOES NOT CREATE AN ENCUMBRANCE, PLEDGE, OR LIEN ON BURNET'S ELECTRIC UTILITY SYSTEM REVENUES. LIKEWISE, TO THE EXTENT PERMITTED BY THE TEXAS CONSTITUTION AND LAWS OF THE STATE OF TEXAS, BURNET SHALL INDEMNIFY AND HOLD HARMLESS FROM ALL CLAIMS AND LIABILITIES AS SET FORTH ABOVE, LCRA TSC, ITS OFFICERS, DIRECTORS, AGENTS, EMPLOYEES AND OFFICIALS, WHICH MAY RESULT FROM THE NEGLIGENCE OR WILLFUL MISCONDUCT OF BURNET, OR ITS AGENTS OR ITS AGENTS AND EMPLOYEES IN CONNECTION WITH THE WHOLESALE METERING SERVICES.**

**11. Other Terms and Conditions –**

- a. Each Party shall notify the other party prior to any changes to their ERCOT registration status or NOIE status that may affect this Agreement.



- b. LCRA TSC will allow read-only access to its meters for Customer and Customer's QSE after execution of separate letter agreement in the form of Exhibit C or its replacement as prepared by LCRA TSC.
- c. Upon request, LCRA TSC shall provide an email(s) to Customer containing the latest VEE interval data, but LCRA TSC will not send such data directly to Customer's QSE.
- d. LCRA TSC retains the right to determine which metering points are EPS meter sites versus TDSP read points.
- e. Generation/Resource EPS meter sites and NOIE bi-directional EPS meter sites are not covered by this Agreement, except as described in Exhibit B where LCRA TSC provides virtual delivery points.
- f. For Resources connected at distribution voltage, it is Customer's responsibility to work with the Resource for interconnection / resource registration; and LCRA TSC may provide Wholesale Metering Service (meter package installation, RID assignment and meter point registration, data processing, and data submittal) per this Agreement with Customer being charged for meter service, but LCRA TSC shall not be required to provide service directly to any such third party Resource.
- g. This Agreement constitutes the entire understanding of the Parties relating to the subject matter of the Agreement; and there shall be no modification or waiver of the Agreement except by writing signed by the Party asserted to be bound thereby.
- h. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns; provided, however, that neither Party may assign this Agreement or subcontract the performance of Wholesale Metering Services under the Agreement, in whole or part without the prior written consent of the other Party which consent shall not be unreasonably withheld.
- i. No failure or delay on the part of a Party to exercise any right or remedy shall operate as a waiver of such right or remedy, nor shall any single or partial exercise of any right or remedy preclude any further or other exercise of any such right or remedy. All rights and remedies under this Agreement are cumulative and shall not be considered exclusive of any other rights or remedies provided by law.
- j. If any section or part of this Agreement is declared invalid by any Court of competent jurisdiction, the Court's decree shall not affect the remainder of this Agreement, and the remainder of the Agreement shall remain in full force and effect with the deletion of the part declared invalid.
- k. The Parties agree and intend that all disputes which may arise from, out of, under or respecting the terms and conditions of this Agreement, or concerning the rights or obligations of the Parties under the Agreement, or respecting any performance or failure of performance by

either Party under the Agreement, shall be governed by the laws of the State of Texas, with primary jurisdiction and venue at the PUCT.

l. The Parties signing this Agreement warrant that they are the representatives of their entities and that they have been duly authorized to enter into this Agreement.

IN WITNESS THEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized representatives in two (2) counterparts, each of which shall constitute an original.

**CITY OF BURNET**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**LCRA TRANSMISSION SERVICES CORPORATION**

By: \_\_\_\_\_  
Sergio Garza, P.E.

Title: LCRA Vice President, Transmission Design  
and Protection

Date: \_\_\_\_\_

**Exhibit A**  
**WHOLESALE METERING SERVICE POINT LIST**

Wholesale Invoice Delivery Point if Different than Substation	Substation Name	Substation Number	Recorder ID	LCRA TSC as ERCOT MRE?	ESI-ID / RID	Transformation Service from LCRA TSC?	Virtual Delivery Point?	In-Service Date	Termination Date	Comments
	BURNET	109	036BURN210	YES	1002559036BURN210	YES	NO	market open		

## **Exhibit B**

### **Technical Considerations for Meter data Processing Reference ERCOT Nodal Protocols for Definitions**

**a) Where LCRA TSC is the ERCOT Meter Reading Entity (MRE) –**

For Wholesale Metering Service Points on the List with LCRA TSC as the ERCOT Meter Reading Entity (MRE), LCRA TSC shall determine an ESI-ID or RID, as applicable. The ESI-ID or RID shall be registered with ERCOT on the Customer's NOIE Meter Point Registration Form and the Parties shall each receive an electronic copy of that ERCOT registration. LCRA TSC shall provide ERCOT with settlement quality meter data for each ESI-ID and RID and shall ensure that, at a minimum, the validation, editing, and estimation (VEE) of meter data will be conducted in accordance with ERCOT Nodal Protocols and that all data is submitted in accordance with the ERCOT Nodal Protocols including requirements of the Texas Standard Electronic Transaction (TX SET) electronic data interchange. LCRA TSC will endeavor to submit Customer's settlement meter data prior to ERCOT initial settlement.

**b) Where LCRA TSC Provides Transformation Service –**

For Wholesale Metering Service Points on the List identified as transformation service points, meter data is used internally for LCRA TSC invoicing for transformation service. This does not require LCRA TSC to be the MRE. This does not require Customer to be a NOIE, but rather a transformation service customer of LCRA TSC.

**c) Where LCRA TSC provides virtual delivery points –**

For Wholesale Metering Service Points on the List identified as virtual delivery points, net load meter data is submitted to Customer and may or may not be sent to ERCOT, as appropriate. For example, virtual delivery points are derived from ERCOT Polled Settlement (EPS) metering sites where the net load from the EPS metering is assigned to Customer's NOIE load.

**d) Where LCRA TSC provides meter data to ERCOT for validation of ERS telemetry and response –**

For Wholesale Metering Service Points on the List identified as ERS (Emergency Response Service), LCRA TSC will submit settlement quality 15 minute interval meter data to ERCOT using TX SET transactions no later than 35 days after the end of a month. LCRA TSC will assign the ESI-ID for the TX SET transaction and provide this information to the entity registering the resource for their RARF submittal to ERCOT. This is not a settlement ESI-ID for Customer's NOIE and ERCOT will determine if the point is to be listed on Customer's NOIE Meter Point Registration Form. The purpose of this meter data is for validation of telemetry and response for a registered resource which will provide market services to ERCOT.

## Exhibit C

### Form of Letter Agreement

Dear Sirs:

LCRA Transmission Services Corporation (LCRA TSC) has received the request by CUSTOMER to permit read-only access to the QSE for LCRA TSC meters on the CUSTOMER loads at the delivery points shown below. LCRA TSC, as the meter reading entity for CUSTOMER, maintains meters at these CUSTOMER non-opt in entity (NOIE) load delivery points for the purpose of providing settlement quality interval meter data to ERCOT in accordance with LCRA TSC's Wholesale Metering Service tariff, and is in agreement to permit QSE to dial-up and read the meters with the following understanding and terms of agreement:

1. This arrangement is applicable to the following recorder IDs:
  - a. Burnet sub: yyyyyy
  - b. Burnet sub: yyyyyy
2. The QSE will be given by LCRA TSC a read-only password and MV-90 meter information for QSE's use to interrogate the above listed meters and QSE agrees that they will not share the meter access information with any other company. QSE may be required to establish a dial-up phone circuit in order to access meter.
3. QSE will provide contact information in the space below for a technical contact for receiving and verifying the meter access information.
4. The raw meter data is to be used by QSE "as-is" without warranty or representation by LCRA TSC of its validity or appropriate use for any intended purpose. LCRA TSC normally performs validation, editing, and estimation (VEE) on the raw meter data and sends the VEE interval data to ERCOT and to CUSTOMER, however, QSE desires to access the meter data directly from the meter and accepts the condition of the meter data "as-is".
5. The meters may not always be available for QSE to access due to communication problems, hardware problems, or software problems, and QSE accepts these risks without fault or responsibility to LCRA TSC for any immediate relief. LCRA TSC will also be accessing these same meters in order to provide the settlement quality interval meter data to ERCOT and will address any and all problems with access to the meters through LCRA TSC's internal processes.
6. QSE agrees to avoid accessing these meters between mid-night and 3:00 am due to that time slot being made available solely for access by LCRA TSC. Should conflicts with meter access arise, LCRA TSC may designate a different time for QSE to access the meters.
7. The term of this agreement is through [DATE], however, LCRA TSC may revoke this access at its sole discretion at any time with written or verbal notification to CUSTOMER and QSE.

CUSTOMER Consent:

Signature: \_\_\_\_\_ *FUTURE* \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Date: \_\_\_\_\_

QSE Consent:

Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Date: \_\_\_\_\_

QSE Technical Contact Information:

Name: \_\_\_\_\_  
Email: \_\_\_\_\_

Phone Number: \_\_\_\_\_





## Development Services

## ITEM 4.2

Mark Lewis  
Development Services Director  
mlewis@cityofburnet.com  
(512)-715-3215

### Agenda Item Brief

**Meeting Date:** February 14, 2017

**Agenda Item:** Discuss and consider action: Appointments to the City of Burnet Historic Board: M. Lewis

**Background:** The City of Burnet Historic Board has been in a non-operational mode for some time. Several of the members had resigned and staff was tasked with reviewing the ordinance governing the board.

A comprehensive review of the Historic Board Ordinance has been completed.

Below is the section of the ordinance that pertains to filling positions on the Board.

Ordinance number 2016-19, **Sec. 22-235:**

**Establishment, Composition and Officers.**

The Board shall consist of five members; one of which shall be a member of the City of Burnet staff; one shall be a member of the City Council or a City staff member appointed in their stead, and three at-large members. The at-large members shall be appointed by the City Council. For the initial terms, two at-large directors shall serve two year terms and one shall serve a one-year term after which all terms for at-large members shall be two years. In the event a director leaves prior to the expiration of his/her term, the City Council shall appoint a director to fill the un-expired term.

**Information:** Staff is requesting the following appointments to the Historic Board:

Renee Riddell and Toshia Lowe previously served on the board. Renee Riddell has requested re-appointment. Toshia Lowe has resigned leaving her seat and one other to be filled.

Applications for the two vacant seats have been received from Carole Goble, Tommye Potts and Jeff Townsend. Council will need to appoint two at-large positions for the two vacant seats, one seat for a one year term and the other for a two year term. The re-appointment of Renee Riddell will be for a two year term.

Council will also need to appoint a member of the City of Burnet staff and one member of the City Council or a City staff member appointed in their stead. The City Manager recommends appointment of Mark Lewis, Director of Development Services as the Staff member and if a Council Member is unable to serve on the Board, appointment of Kelly Dix is recommended.

**Fiscal Impact:** None.

**Recommendation:** To be determined by Council



## CITY OF BURNET

P. O. Box 1369  
1001 Buchanan Drive  
Burnet, Texas 78611  
Phone: 512-756-6093 Fax: 512-756-8560

### COMMUNITY SERVICE APPLICATION

I am interested in serving on the following City of Burnet Board or Commission:

☐ Economic Development  
☐ Corporation Board  
☒ Historic Board  
☐ Board of Adjustments and Appeals

☐ Planning & Zoning Commission  
☐ Airport Advisory Board  
☐ Charter Review Committee

Name: Jeff Townsend Email: jtown562003@gmail.com

Home Address: 1012 N. Boundary; Burnet, 78611 DOB: 10-28-1944

Home Phone: 512-297-5604 Business Phone: SAME

Resident of Burnet for 7 (seven) years. Voter Registration No.: 464-68-4915

Occupation: Teacher

Education (Optional): BA-1963; MA-1974

Special knowledge or experience applicable to City board or commission function:

- |  |  |
|--|--|
| <input type="checkbox"/> Banking/Finance         | <input type="checkbox"/> Business Development                |
| <input type="checkbox"/> Building/Construction   | <input type="checkbox"/> Promotion/Marketing                 |
| <input type="checkbox"/> Real Estate/Development | <input type="checkbox"/> Manufacturing/Industrial Operations |
| <input type="checkbox"/> Industrial Training     | <input type="checkbox"/> Law/Contract Administration         |

Do you serve on any other board/commission at this time: If so, please list:

No

Other information (professional and/or community activities):

currently teach for Cen. TX College; Worked with Historical Archives at Texas Tech; Published monograph on History of Rainmaking - 1975

I have attended one or more meetings of the board or commission for which I have applied. ☐ Yes  
☒ No

Date: 1-25-2017 Signature: Jeff A. Townsend

RETURN COMPLETED FORM TO THE CITY SECRETARY'S OFFICE



## CITY OF BURNET

P. O. Box 1369  
1001 Buchanan Drive  
Burnet, Texas 78611  
Phone: 512-756-6093 Fax: 512-756-8560

### COMMUNITY SERVICE APPLICATION

I am interested in serving on the following City of Burnet Board or Commission:

☐ Economic Development  
Corporation Board  
☒ City of Burnet Historical Board  
☐ Board of Adjustments  
☐ Charter Review Committee

☐ Parks & Recreation Advisory Board  
☐ Planning & Zoning Commission  
☐ Airport Advisory Board  
☐ Ethics Board  
☐ Other \_\_\_\_\_

Name: Carole A. Goble Email: cgoble@austin.rr.com  
Home & Mailing Address: 503 South Main DOB: 5-23-1932  
Home Phone: 512 588 0910 Business Phone: \_\_\_\_\_

(For Planning and Zoning or Board of Adjustment applicants only): Resident of Burnet for \_\_\_\_\_ years. Registered Voter of the City of Burnet? Yes \_\_\_\_\_ No \_\_\_\_\_

Occupation: \_\_\_\_\_

Education (Optional): \_\_\_\_\_

Special knowledge or experience applicable to City board or commission function: \_\_\_\_\_

☐ Banking/Finance

☐ Building/Construction

☐ Real Estate/Development

☐ Industrial Training

☒ Business Development

☒ Promotion/Marketing

☐ Manufacturing/Industrial Operations

☐ Law/Contract Administration

☒ Other owned my own business.

Do you serve on any other board/commission at this time: If so, please list:

Burnet County Historical Commission and Burnet County Heritage Society.

Other information (professional and/or community activities):

American Legion Aux. Post 609, Bertram Tx.

I have attended one or more meetings of the board or commission for which I have applied. ☒ Yes \_\_\_\_\_ No

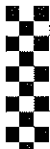
How many times \_\_\_\_\_ in the past \_\_\_\_\_ months. I served on this board for 2 terms.

This application is the only information considered for appointments by the City Council.

PLEASE, RETURN THIS COMPLETED FORM TO THE CITY SECRETARY'S OFFICE

Carole A. Goble  
Signature

10-5-2016  
Date



# CITY OF BURNET

P. O. Box 1369  
1001 Buchanan Drive  
Burnet, Texas 78611  
Phone: 512-756-6093 Fax: 512-756-8560

## COMMUNITY SERVICE APPLICATION

I am interested in serving on the following City of Burnet Board or Commission:

- ☐ Economic Development
- ☒ Corporation Board
- ☒ City of Burnet Historical Board
- ☐ Board of Adjustments
- ☐ Charter Review Committee

- ☐ Parks & Recreation Advisory Board
- ☐ Planning & Zoning Commission
- ☐ Airport Advisory Board
- ☐ Ethics Board
- ☐ Other \_\_\_\_\_

Name: Tommye Dorbandt Potts Email: dorbandt1849@gmail.com  
 Home & Mailing Address: 310 W WASHINGTON, BURNET, TX. 78611  
 Home Phone: 512-756-2690 Business Phone: \_\_\_\_\_

(For Planning and Zoning or Board of Adjustment applicants only): Resident of Burnet for \_\_\_\_\_ years. Registered Voter of the City of Burnet? Yes \_\_\_\_\_ No \_\_\_\_\_

Occupation: RANCHER

Education (Optional): \_\_\_\_\_

Special knowledge or experience applicable to City board or commission function:

MEMBER OF BURNET COUNTY HISTORICAL COMMISSION  
BURNET COUNTY HERITAGE SOCIETY

- |  |  |
|--|--|
| <input type="checkbox"/> Banking/Finance         | <input type="checkbox"/> Business Development                |
| <input type="checkbox"/> Building/Construction   | <input type="checkbox"/> Promotion/Marketing                 |
| <input type="checkbox"/> Real Estate/Development | <input type="checkbox"/> Manufacturing/Industrial Operations |
| <input type="checkbox"/> Industrial Training     | <input type="checkbox"/> Law/Contract Administration         |

☒ Other HISTORICAL RESEARCH

Do you serve on any other board/commission at this time: If so, please list:

Other information (professional and/or community activities):

TEXAS OPEN MEETINGS ACT CERTIFICATION.  
2014 TEXAS ENDANGERED PROPERTIES- APPLICATION AND AWARD  
1986- TEXAS HISTORICAL MARKER- MARY MOUNT BARN- APPLIC  
 I have attended one or more meetings of the board or commission for which I have applied. ☒ Yes \_\_\_\_\_ No \_\_\_\_\_  
 How many times \_\_\_\_\_ in the past \_\_\_\_\_ months. ATTENDED JULY 2014

This application is the only information considered for appointments by the City Council.  
PLEASE, RETURN THIS COMPLETED FORM TO THE CITY SECRETARY'S OFFICE

J D Potts  
Signature

12-10-2015  
Date

9/1/16 confirmed





## Finance Department

## ITEM 4.3

Patricia Langford  
Director of Finance  
(512)-715-3205  
plangford@cityofburnet.com

### Agenda Item Brief

<b>Meeting Date:</b>	February 14, 2017
<b>Agenda Item:</b>	Discuss and consider action: Authorize staff to enter into a vendor agreement with Opportunities for Williamson Burnet County for the purpose of a Comprehensive Energy Assistance Program: P. Langford
<b>Background:</b>	<p>The Opportunities for Williamson Burnet County provides energy assistance to low-income qualified clients through a Comprehensive Energy Assistance Program (CEAP) that is funded by the Low-Income Home Energy Assistance Program.</p> <p>City of Burnet residents who qualify for low income assistance can apply to WBCO for a grant to assist them with payment of their energy bill.</p>
<b>Information:</b>	The contract with Opportunities for Williamson Burnet County is renewed every two years. There have been no changes to the contract since the last renewal.
<b>Fiscal Impact:</b>	Opportunities for Williamson Burnet County client assistance grants received for calendar year 2016 were in the amount of \$33,106.20.
<b>Recommendation:</b>	Staff recommends approval of the vendor agreement with Opportunities for Williamson Burnet County for the Comprehensive Energy Assistance Program.



**FAX TRANSMITTAL**

DATE: 01/11/2017  
TO: City of Burnet  
FAX NUMBER: 512.756.8560  
FROM: Mandy Weaver  
Williamson County Community Services  
512/255-2202  
512/763.1411 (fax)

RE: Vendor agreement 2017

NUMBER OF PAGES IN THIS FAX **5** INCLUDING COVER PAGE.

MESSAGE: Please look over vendor agreement, sign and fax back to 512.763.1411.  
Should you have any questions please contact Kori, at 512.255.2202.

**NOTE:** IF THIS FAX TRANSMITTAL IS NOT LEGIBLE, OR IS NOT RECEIVED IN ITS ENTIRETY, PLEASE CALL SENDER AT (512) 255-2202.

---

Authorized Vendor Signature

---

Date

---

Typed Name of Authorized Signature

---

Title

---

Vendor (Area Code) Telephone Number

---

Vendor Email Address

---

*Diana Phillips*  
Authorized Agency Signature

---

*January 6, 2017*  
Date

---

Diana Phillips

---

Executive Director

---

Typed Name of Authorized Signature

---

Title

---

512 763 1400

---

Agency (Area Code) Telephone Number

## **VENDOR AGREEMENT COMPREHENSIVE ENERGY ASSISTANCE PROGRAM**

The purpose of the Comprehensive Energy Assistance Program ("CEAP") funded from the Low-Income Home Energy Assistance Program ("LIHEAP") grant is to maintain an energy supply to heat and cool the residences of eligible low-income clients.

The Energy Services provider, (or "Vendor,") agrees to honor the purpose of the CEAP grant and to accept pledges of payment from CEAP agencies only for certified customers to whom Vendor continues to provide energy services. The Energy Assistance Provider, (or "Agency,") agrees to make payments only for eligible low-income clients.

This vendor agreement is by and between:

Opportunities for Williamson and Burnet Counties and

Energy Assistance Provider (Agency)

City of Burnet

(Vendor)

Vendor and Agency agree to assist customers in the following counties: Williamson and Burnet Counties

This agreement shall be effective from the 26th day of October 2016 for a period not to exceed two years from the effective date. Either party may terminate this agreement by written notice. Such written notice of termination shall not affect any obligation by either party incurred prior to the receipt of such notice. Notice shall be sent via certified mail with return receipt requested.

City of Burnet

(Vendor Name)

PO Box 1369 Burnet, Texas 78611

(Vendor Mailing Address)

Opportunities for Williamson and Burnet Counties

(Agency Name)

604 High Tech Drive, Georgetown Texas 78626

(Agency Mailing Address)

The Agency named above represents and warrants to Vendor that it is a subrecipient of the Texas Department of Housing and Community Affairs ("TDHCA") and as such is authorized and has received funding from the TDHCA to provide bill payment assistance service for eligible low-income households.

The Vendor named above represents and warrants that it will apply any payments received from Agency to the account of the customer that the Agency has determined to be eligible under the CEAP guidelines and such is a "Certified Customer".

**Vendor will, with reference to a Certified Customer:**

- Extend the CEAP applicant's energy service for up to five business days while the Agency determines whether the CEAP applicant is eligible pursuant to the CEAP guidelines.
- Upon accepting pledge from Agency for Certified Customer, continue or restore energy service to Certified Customer with no increases in charges, service charges or other charges affecting the total cost of the bill, except as allowed by the stated tariff cost registered with the Public Utility Commission "PUC" and/or Texas Railroad Commission.
- In the event the full past due balance is not paid by the Agency, the Certified Customer must pay the remaining balance on or before the disconnect date stated in the customer's Disconnect Notice required by PUC regulations in order to avoid disconnection or be eligible for reconnection. Nothing in this agreement requires the Vendor to reconnect the customer upon receipt of a pledge that does not cover the full past due balance or if the customer has already been disconnected by the time the pledge is received by the Vendor.
- Invoice the Certified Customer in accordance with Vendor's normal billing practices.
- Upon verbal or written request from Agency, provide at no cost to the Agency the Certified Customer's billing and usage history for previous twelve months, or available history plus monthly estimates if less than twelve months of billing history and usage is available. Vendor will transmit such billing history via electronic mail or facsimile as soon as possible, but no later than forty-eight hours following the request.
- Work with Agency and Certified Customer to explore the feasibility of offering flexible payment arrangements that may include, without limitation, waiving security deposits, reconnect fees, application fees, and all other fees whenever possible;
- Not discriminate against Certified Customer in price or services, including the availability of deferred payment plans, level or average payment plans, discount, budget, advance payment or other credit plans.
- Not refuse to provide energy service or otherwise discriminate in the marketing and provision of energy service to any Certified Customer because of race, creed, color, national origin, ancestry, sex, marital status, lawful source of income, level of income, disability, financial status, location of customer in an economically distressed geographic area, or qualification for low-income or energy-efficiency services.



- Allow Agency forty-five days from the date of the pledge to forward payment to the Vendor. Vendor agrees not to consider the portion of the Certified Customer's account to be paid by the Agency delinquent if said payment is received within the above mentioned forty-five day period and Vendor is provided with a verbal or signed pledge from the Agency within forty-five days of identifying a Certified Customer.
- Not interrupt service if Certified Customer is eligible under PUC regulations and enters into an agreement with the Vendor concerning how the Certified Customer will pay the balance owed Vendor and the Certified Customer is meeting the obligation under such agreement.

**The Agency will:**

- Obtain written permission for Agency to request and have access to customer information, including confidential or personal account information, credit and payment history, from customers seeking Agency's assistance. Social Security numbers are not required for the CEAP program and may not be disclosed to Agency.
- Provide to Vendor, at Vendor's request, customer's written permission for Agency's access to customer information as stated above.
- Not provide pledges on behalf of a Certified Customer to Vendor without having adequate funds to pay such pledge.
- Pay pledges within forty-five days of making pledge to Vendor.
- Determine if a customer is a Certified Customer within five days of contacting Vendor.
- Provide Vendor a list of names, telephone numbers and e-mail addresses of Agency staff designated to make pledges on behalf of the Agency and Certified Clients, if requested from Vendor.

The terms of any confidential transaction under this agreement or any other information exchanged by the Agency and Vendor relating to any transaction shall not be disclosed to any person not employed or retained by the Agency or Vendor, their affiliates, or brokers, except to the extent disclosure is 1) required by law; 2) necessary to disclose to the other party in connection with a dispute between the parties; 3) otherwise permitted by written consent of the other party; 4) required by guarantors to be disclosed; 5) information which must be disclosed to a third party to transmit energy; 6) to meet reliability council, regulatory, administrative, judicial, governmental, or regulated commodity exchange requirements where necessary; or 7) of information which was or is hereafter in the public domain (except by breach of this Agreement).



## Development Services

### ITEM 4.4

Mark S. Lewis  
Development Services Director  
(512)-715-3215  
mlewis@cityofburnet.com

## Agenda Item Brief

**Meeting Date:** February 14, 2017

**Agenda Item:** Discuss and consider action: AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF BURNET, TEXAS CHAPTER 98, SUBDIVISIONS BY ADOPTING ARTICLE VIII, NON-POINT SOURCE POLLUTION; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALER CLAUSE; PROVIDING AN EFFECTIVE DATE; AND FINDING PROPER NOTICE OF MEETING: M. Lewis

**Background:** On November 8, 2016, City Council approved a first reading of a Nonpoint Source Pollution (NPS) control ordinance. Although the ordinance attached to this item brief is substantially the same as the one previously approved, staff is asking that City Council consider it at a new first reading.

**Information:** Reasons for requesting a new first reading are as follow:

The initial ordinance iteration, by design, was virtually identical to the City of Marble Falls NPS ordinance. In the time since that November first reading, staff, working with the Lower Colorado River Authority (LCRA) and our City Attorneys, has reviewed and somewhat revised the ordinance. While the document remains largely faithful to the Marble Falls model, two of the revisions are substantive.

In the initial ordinance, Section 98-91 – Scope of Authority extended the ordinance’s authority to all portions of the City and the ETJ located within the Lake Travis Watershed.

- The ordinance, as revised, leaves ETJ regulation of NPS under LCRA’s jurisdiction. Within the ETJ, the scope of LCRA’s jurisdiction remains limited to that portion of the ETJ that lies in the Lake Travis Watershed.

In its initial form, Ordinance Section 98-106 followed the Marble Falls model by requiring that all NPS control related measures be reviewed by the Planning and Zoning Commission and then forward to City Council for final approval or denial.

- NPS control is based on technical design standards that can be adequately administered at a staff level. Leaving review and approval to staff will facilitate a more efficient turnaround of requests while still providing adequate protections to the public health and safety.

Other minor changes to the ordinance have largely consisted of ensuring that the document as a whole is consistent with the two revisions outlined above.

Staff is continuing to work with LCRA and the City Attorney on a couple other ordinance provisions. Chief among these is the variance request process. Our goal regarding variance requests is to ensure that the procedure is as efficient as possible while still providing for both due process and adequate protection of public health and safety.

When next presented to City Council, staff will ensure there is a clear outlining of any differences between the attached ordinance and the document presented for final reading.

**Fiscal Impact:** None

**Recommendation:** Approve the first reading of the ordinance 2017-02, establishing NPS pollution management regulations.

## **ORDINANCE 2017-02**

**AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF BURNET, TEXAS CHAPTER 98, SUBDIVISIONS BY ADOPTING ARTICLE VIII, NON-POINT SOURCE POLLUTION; ADOPTING NPS TECHNICAL MANUAL; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALER CLAUSE; PROVIDING AN EFFECTIVE DATE; AND FINDING PROPER NOTICE OF MEETING.**

**WHEREAS**, the City Council of the City of Burnet, Texas (the "City") seeks to provide for the health, safety and welfare of its citizens; and

**WHEREAS**, the Council finds that the drainage ways and creeks of the City are subject to the potential for periodic pollution which may result in the loss of life and property, health and safety hazards, disruption of commerce and governmental services and extraordinary public expenditures for pollution reduction and protection, all of which adversely affect the public health, safety and general welfare; and

**WHEREAS**, the Council seeks to protect the drainage ways, creeks, rivers, and lake areas of the City from non-point source pollution; and

**WHEREAS**, the City has the authority to regulate non-point source pollution ("NPS") within the City's corporate limits pursuant to Texas Local Government Code Chapters 51, 212, 401, and 402, the Texas Water Code Chapters 7 and 26, and sections 2.01 and 2.05 of the City Charter; and

**WHEREAS**, the Council seeks to amend that portion of the City Code of Ordinances relating to non-point source pollution and add a new Article related to the regulation of non-point source pollution control;

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF BURNET, TEXAS:**

**Section 1.** Findings: The foregoing recitals are hereby found to be true and correct and are hereby adopted by the City Council and made a part hereof for all purposes as findings of fact.

**Section 2.** Sec. 98-41 Repealed and replaced: Section 98-41, Drainage improvements of Code of Ordinances Chapter 98, Article IV is hereby repealed in its entirety and replaced by a new Sec. 98-41 as follows:

**Sec. 98-41 Storm water collection and conveyance systems.**

(a) *Required Permits and Authorizations.* Unless otherwise exempt under the terms of this chapter, all property owners subject to these land use regulations shall obtain all

permits or authorizations required herein.

- (b) *System design requirements.* Drainage improvements shall be designed so as to not cause damage to other property, shall accommodate Runoff from the upstream drainage area in its anticipated maximum "build-out" condition, and shall be designed in accordance with the most recently adopted Drainage Criteria Manual to prevent overloading the capacity of the downstream drainage system. The City may require the phasing of development, the use of control methods such as retention or detention, or the construction of off-site drainage improvements in order to mitigate the impact of the proposed development. No storm water collection system shall be constructed unless it is designed in accordance with the Drainage Criteria Manual by a licensed professional engineer, and unless it is reviewed and approved by the City Engineer. All plans submitted to the City shall include a layout of the drainage system together with supporting calculations for the design of the system.
- (c) All Erosion and Sedimentation controls shall conform to the Non-point Source Pollution Control Technical Manual (the "NPS Technical Manual"), as amended, a copy of which is on file at the City.
- (d) No person, individual, partnership, firm or corporation shall deepen, widen, Fill, reclaim, reroute or change the course or location of any existing ditch, channel, stream or drainage-way without first obtaining written permission of the City Engineer and any other applicable agency (such as FEMA or the U.S. Army Corps of Engineers) having jurisdiction. The City Engineer may, at his or her discretion, require preparation and submission of a FEMA or flood study for a proposed development if there are concerns regarding storm drainage on the subject property or upstream or downstream from the subject property. The costs of such study, if required, shall be borne by the Developer.
- (e) In order to help reduce storm water Runoff, and resulting Erosion, Sedimentation and conveyance of non-point source Pollutants, the layout of the street network, lots and building sites shall, to the greatest extent possible, be sited and aligned along natural contour lines, and shall minimize the amount of cut and Fill on Slopes in order to minimize the amount of land area that is disturbed during construction.
- (f) No concentrated surface cross-street flow (i.e., perpendicular to traffic flow) of storm water Runoff shall be allowed unless approved by the City Engineer. When and if such drainage flow is allowed, it must be across a concrete street (i.e., valley gutter) and as approved by the City Engineer.
- (g) All storm water treatment facilities shall be designed using materials and techniques as established in the NPS Technical Manual, which is adopted by reference, incorporated for all purposes herein, and as may be amended from time to time; or as may be required by the City Engineer.

*Section 3. Sec. 98-65 established: A new Sec. 98-65 "Storm drainage and Water Quality Controls" is hereby established as follows:*

*Sec. 98-65. Storm drainage and Water Quality Controls.*

- (a) An adequate storm Sewer system, consisting of inlets, pipes and other underground Structures with approved outlets, as outlined in Drainage Criteria Manual, shall be designed where Runoff of storm water and the prevention of Erosion cannot be accomplished satisfactorily by surface drainage facilities. Areas subject to flood conditions or inadvertent storm water retention, such as standing or pooling water, as established by the City Engineer, will not be considered for development until adequate drainage has been provided. In no case shall storm water drainage be diverted artificially to adjacent properties or across roadways. No storm water drainage will be permitted to flow from one lot or piece of property onto another under separate ownership unless such drainage does not harm, damage, or otherwise pose an inconvenience to the other properties, and is specifically approved by the City Engineer, and the necessary off-site drainage Easement is procured on the affected property(s).
- (b) The criteria for use in designing Water Quality Control Structures, and other Best Management Practices ("BMPs") for non-point source pollution control shall conform to Chapter 98 – Subdivisions and Article VIII – Non-point Source Pollution of the Code.
- (c) The Developer shall ensure that all drainage improvements within public Easements or Rights-of-Way are functioning properly prior to the expiration of the maintenance bond. The Developer shall be responsible for removing any significant build-up of Sediment or debris from drainage improvements, with the exception of backlot and side lot drainage Swales, at the eleventh month of the second year for the required two year maintenance bond for the applicable facilities. The City shall inspect the improvements to determine any maintenance or correction of deficiencies at the conclusion of this period.
- (d) Water Quality Control Structures, retention and detention facilities, and BMPs for non-point source pollution control permitted by the City under Chapter 98 of this Code shall be maintained and inspected in accordance with Chapter 98 of this Code, and any permits or authorizations issued thereunder.

**Section 4. Sec. 98-66 established: A new Sec. 98-66 "Appendix D to Chapter 98 – SUBDIVISIONS, said Appendix D, titled Non-Point Source Pollution, is hereby established as follows:**

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## **CHAPTER 98 – APPENDIX D: NON-POINT SOURCE POLLUTION CONTROL**

### **ARTICLE 1. GENERAL PROVISIONS**

#### **Sec. 98-90 Authority**

This chapter is promulgated under the authority of sections 2.01 and 2.05 of the Charter of Burnet, Texas, Texas Local Government Code Chapters 51, 212, 401, and 402, and Texas Water Code Chapters 7 and 26.

#### **Sec. 98-91 Scope of Authority and Jurisdiction**

This chapter shall apply to all territory within those portions of the City of Burnet, Texas located within the Lake Travis Watershed. Any person proposing to develop land or improve property within the jurisdiction of the City is subject to the provisions of this chapter. This chapter is also applicable to individual building Structures, subdivisions, excavation and Fill operations, and similar activities.

#### **Sec. 98-92 Findings of Fact**

The drainage ways and creeks of the City of Burnet, Texas, are subject to the potential for periodic pollution and Erosion which may result in the loss of life and property, health and safety hazards, disruption of commerce and governmental services and extraordinary public expenditures for pollution reduction and protection, all of which adversely affect the public health, safety and general welfare.

- (1) All Watersheds within the City's jurisdiction are undergoing development or are facing development pressure, which if not properly regulated can adversely impact Stormwater quality.
- (2) All Watersheds within the City's jurisdiction, and especially those with abrupt topography, sparse vegetation, and thin and/or easily disturbed soil, are vulnerable to degradation resulting from development activities.
- (3) The development of land causes large quantities of soil to be displaced and transported to downstream locations. This soil displacement can create significant soil Erosion, degradation of the water quality, and Sedimentation problems. Erosion is a dangerous activity in that it contaminates water supplies and water resources. A buildup of Sediment degrades water quality, destroys valuable environmental resources and clogs watercourses and storm drains.
- (4) The continued economic growth of the City is dependent on adequate quality and quantity of water, a pleasing natural environment, and recreational opportunities in close proximity to the City.
- (5) Specifically, creek and floodplain areas in the City are valuable resources to

the citizens of City in that they provide recreational opportunities, improve the aesthetics of the community, convey Stormwater Runoff and filter water Pollutants.

- (6) If Watersheds within the City's jurisdiction are not developed in a sensitive and innovative manner, their water resources, natural environment, and recreational characteristics will be irreparably damaged. As valuable resources, creeks and floodplains warrant protection.
- (7) The City Council is desirous of adopting appropriate development rules and regulations for the purpose of protecting the water quality of the Watersheds within its jurisdiction.

### **Sec. 98-93 Statement of Purpose**

Non-point source pollution control management policies shall govern the planning, design, construction, operation and maintenance of drainage, Erosion, and Water Quality Control facilities within the City. This chapter sets forth the minimum requirements necessary to provide and maintain a safe, efficient and effective non-point source pollution control system within the City and to establish the various public and private responsibilities for the provision thereof. Further, it is the purpose of this chapter to:

- (1) Protect human life, health and property;
- (2) Minimize the expenditure of public money for building and maintaining non-point source pollution control projects and cleaning Sediments out of storm drains, streets, sidewalks and watercourses;
- (3) Help maintain a stable tax base and preserve land values;
- (4) Preserve the natural beauty and aesthetics of the community;
- (5) Control and manage the quality of Stormwater Runoff, the Sediment load in that Runoff, from points and surfaces within subdivisions;
- (6) Establish a reasonable standard of design and performance for development which prevents Erosion and Sediment damage and which reduces the Pollutant loading to streams, ponds and other watercourses.

#### *Sec. 98-94 Lands to which this Chapter Applies*

This chapter shall apply to all areas of land within those portions of the incorporated limits of the City located within the Lake Travis Watershed.

#### *Sec. 98-95 NPS Technical Manual*

This chapter is designed to require an accompanying Non-point Source Pollution Control Ordinance Technical Manual (NPS Technical Manual), which describes in detail the technical requirements to be used to comply with the provisions contained in this chapter. The criteria specified in the latest edition of the NPS Technical Manual, whether adopted in part or in whole, shall become part of the official non-point source pollution management plan for the City. Although the intention of this manual is to establish uniform design practices, it neither replaces the need for engineering judgment nor precludes the use of information not presented. Other accepted engineering procedures may be used to conduct hydrologic and hydraulic studies if approved by the City Engineer. The NPS Technical Manual is maintained and available for inspection at the City Offices.

## **Sec. 98-96 through 98-99 [Reserved]**

### *ARTICLE 2. DEFINITIONS*

Unless a provision explicitly states otherwise, the following terms and phrases, as used in this chapter, shall have the meanings herein after designated.

*Applicant:* A person who submits an Application for approval required by this chapter. The Applicant shall be the Owner of the property subject to this chapter acting in person or by and through the owner's authorized representative. Documentation evidencing ownership of the property and the authority of the authorized agent shall be submitted as required by the City Manager.

*Application:* A written request for an approval required by this chapter.

*Best Management Practices (BMP):* Schedules of activities, prohibitions of practices, maintenance procedures, management practices, infiltration BMPs, Erosion controls, vegetation practices, Stormwater and overland flow controls, retention, Water Quality Controls, and treatment facilities designed to prevent, reduce, or treat the Discharge the non-point source pollution into or adjacent to the Stormwater Drainage System or water in the state.

*Bond:* Any form of a surety bond in an amount and form satisfactory to the City.

*Buffer Zone:* Vegetated area adjacent to a natural creek, swale, or Critical Environmental Feature that is to remain undisturbed and free of Impervious Cover to the largest extent practicable (as determined by the City).

*Business Day:* Monday, Tuesday, Wednesday, Thursday, or Friday, except legal holidays observed by the City.

*City:* The City of Burnet, Texas.

*City Manager:* The person holding the position of City Manager, as appointed by the City Council. For the purposes of this chapter, the City Manager may appoint, in writing, a designee to act on his or her behalf.

*City Engineer:* Such professional engineer or firm of licensed professional consulting engineers that has been specifically employed by the City to assist in engineering-related matters.

*Code:* City of Burnet Code of Ordinances as amended from time to time.

*Commencement of Construction:* The disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

*Contractor:* Any person, other than the owner, engaging in land development activities on land located within the City's jurisdiction.

*Contributing On-site Drainage Area:* The portion of a site that contributes Stormwater Runoff to a common point of interest.

*Critical Environmental Feature:* Features determined to be of critical importance to the maintenance of water quality, including groundwater recharge areas, springs, natural wetlands, caves, and highly erodible natural features.

*Developer:* A person who owns a tract of land and who is engaged in clearing, grubbing, filling, mining, excavating, grading, installing streets and utilities or otherwise preparing that tract of land for the eventual division into one or more lots on which building(s) or other Structure(s) will be constructed or placed.

*Development:* All land modification activity, including the construction of building, roads, paved storage areas, and parking lots. "Development" also includes any land disturbing construction activities or human-made change of the land surface, including clearing of vegetative cover, excavating, filling and grading, mining, and dredging, and the deposit of refuse, waste or Fill. Care and maintenance of lawns, gardens, and trees; minimal clearing (ten feet (10') wide) for surveying and testing; and agricultural activities are excluded from this definition.

*Discharge:* Any addition or introduction of any Pollutant, Stormwater, or any other substance whatsoever into the Stormwater Drainage System or into waters of the United States or waters in the State.

*Discharger:* Any person, who causes, allows, permits, or is otherwise responsible for, a Discharge, including, without limitation, any Operator of a construction site or industrial Facility.

*Disturbance of Land or Disturbed Land:* Construction activities or human-made change of the land surface, including clearing of vegetative cover, excavating, filling and



grading, mining, and dredging, and the deposit of refuse, waste or Fill, except for care and maintenance of lawns, gardens, and trees, minimal clearing (ten feet (10') wide) for surveying and testing, and agricultural activities.

*Domestic Sewage:* Human excrement, gray water from home clothes washing, bathing, showers, dishwashing, and food preparation, other wastewater from household drains, and waterborne waste normally discharged from the sanitary conveniences of dwellings, including single-family homes, apartment houses and hotels, office buildings, factories, and institutions, that are free from Industrial Waste.

*Drainage Criteria Manual:* A technical manual containing a description of drainage policies and required methods of hydraulic and hydrologic design and analysis to be used within the City and its area of Extraterritorial Jurisdiction.

*Easement:* An area of restricted use on private property upon which the City or a public utility, or both, shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, and/or other improvements or growths which in any way will endanger or interfere with the construction, maintenance or efficiency of its respective systems within said Easements. The City and public utilities shall, at all times, have the right to ingress and egress to and from and upon Easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or part of their respective systems without the necessity at any time of procuring of permission of anyone.

*Erosion:* The detachment and movement of soil, Sediment, or rock fragments by wind, water, ice or gravity.

*ETJ:* The extraterritorial jurisdiction of the City as established by Texas Local Government Code Chapter 42.

*Extremely Hazardous Substance:* Any substance listed in the Appendices to 40 CFR Part 355, Emergency Planning and Notification.

*Facility:* Any building, Structure, installation, process, or activity from which there is or may be Discharge of a Pollutant.

*Fertilizer:* A solid or non-solid substance or compound that contains an essential plant nutrient element in a form available to plants that is used primarily for its essential plant nutrient element content in promoting or stimulating growth of a plant or improving the quality of a crop, or a mixture of one or more fertilizers. The term does not include the excreta of an animal, plant remains, or a mixture of those substances, for which no claim of essential plant nutrients is made.

*Fill:* The manmade deposition and compaction of material that will effect elevation.

*Harmful Quantity:* The amount of any substance that will cause pollution of water in the state.

*Hazardous Household Waste (HHW):* Any material generated in a household (including single and multiple residences, hotels, motels, bunk houses, ranger stations, crew quarters, camp grounds, picnic grounds, and day use recreational areas) by a consumer which, except for the exclusion provided in 40 CFR §261.4(b)(1), would be classified as a Hazardous Waste under 40 CFR Part 261.

*Hazardous Substance:* Any substance listed in Table 302.4 of 40 CFR Part 302.

*Hazardous Waste:* Any substance identified or listed as a Hazardous Waste by the EPA pursuant to 40 CFR Part 261.

*Herbicide:* A substance or mixture of substances used to destroy a plant or to inhibit plant growth.

*Impervious Cover:* All man-made improvements that prevent the infiltration of water into the natural soil, or prevent the migration of the infiltration as base flow, including but not limited to, roads, pavements, and driveways, parking areas, buildings, pedestrian walkways and sidewalks, concrete, asphalt, masonry, surfaces areas, and paving stone surfaced areas, swimming pool water surface area, densely compacted natural soils or Fills which result in a coefficient of permeability less than  $1 \times 10^{-6}$  cm/sec., all existing man-made impervious surfaces prior to Development, water quality and Stormwater detention basins lined with impermeable materials, Stormwater drainage conveyance Structures lined with impermeable materials, interlocking or "permeable pavers," fifty percent (50%) of the horizontal surface area of an uncovered deck that has drainage spaces between the deck boards that is located over a pervious surface. Impervious Cover does not include naturally occurring impervious features, such as rock out crops, landscaped areas and areas remaining in their natural state, Water Quality Controls and Stormwater detention basins not lined with impermeable materials, and Stormwater drainage conveyance Structures not lined with impermeable materials. A Developer shall not be required to provide BMP's to accommodate runoff from impervious surfaces, such as existing roads, adjacent to the Development that were not constructed as part of an earlier phase of the Development.

*Industrial Waste:* Any waterborne liquid or solid substance that results from any process of industry, manufacturing, mining, production, trade, or business.

*Landowner:* Any person holding title to or having an interest in land.

*Land User:* Any person operating, leasing, renting, or having made other arrangements with the Landowner by which the Landowner authorizes use of his or her land.

*Larger Common Plan of Development:* Development that is or will be completed in separate stages, in separate phases, or in combination with other construction activities and is identified by documentation that identifies the scope of the project including such things as plats, blueprints, marketing plans, contracts, building permits, public notice or hearing, or zoning requests.

*Licensed Professional Engineer (LPE), Professional Engineer (PE):* A person who has been duly licensed and registered by the State Board of Registration for Professional Engineers to engage in the practice of engineering in the State of Texas.

*Natural Creek or Swales:* A well-defined natural drainage path capable of conveying Stormwater Runoff.

*New Construction:* Structures for which the "Start of Construction" commenced on or after the date of adoption of this chapter by the City Council.

*NPS Pollution Controls and Best Management Practices (BMPs):* Schedules of activities, prohibitions of practices, maintenance procedures, management practices, infiltration BMPs, Erosion controls, vegetation practices, Stormwater and overland flow controls, retention, Water Quality Controls, and treatment facilities designed to prevent, reduce, or treat the Discharge the non-point source pollution into or adjacent to the Stormwater Drainage System or water in the state.

*Oil:* Any kind of oil in any form, including, but not limited to, petroleum, fuel oil, crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure, sludge, oil refuse, and oil mixed with waste.

*Operator:* The person or persons who, either individually or taken together, meet the following two criteria: (1) they have operational control over the Facility specifications, including the ability to make modifications in specifications; and (2) they have the day-to-day operational control over those activities at the Facility necessary to ensure compliance with pollution prevention requirements and any permit conditions.

*Owner:* The person who owns a Facility or part of a Facility or a lessee.

*Permanent Stabilization:* Installation of approved permanent measures to prevent Erosion with a minimum of 80% coverage of perennial vegetation over pervious areas.

*Permittee:* A Landowner or Land User who is undertaking land Development activities pursuant to a permit or authorization granted according to the provisions of this chapter.

*Pesticide:* A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, as these terms are defined in Section 76.001 of the Texas Agriculture Code.

*Petroleum Product:* A petroleum product that is obtained from distilling and processing crude oil and that is capable of being used as a fuel for the propulsion of a motor vehicle or aircraft, including motor gasoline, gasohol; other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel. The term does not include naphtha-type jet fuel, kerosene-type jet fuel, or a petroleum product destined for use in chemical manufacturing or feedstock of that manufacturing.

*Petroleum Storage Tank (PST):* Any one or combination of aboveground or underground storage tanks that contain Petroleum Products and any connecting underground pipes.

*Pollutant:* Dredged spoil, Solid Waste, incinerator residue, Sewage, garbage, Sewage sludge, filtered backwash, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into or adjacent to water.

*Pollution:* The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any Water in the State that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

*Primary Treatment:* The permanent BMPs designed to have substantial removal of the increase in Pollutant loads due to the Development or Redevelopment of a site.

*Redevelopment:* Any rebuilding, renovation, remodeling, reconstruction, Revision, or replat of an existing development.

*Release:* Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into or adjacent to the Stormwater Drainage System or the water in the state.

*Revision:* Any amendments to a previously approved project.

*Right-of-Way:* A parcel of land occupied or intended to be occupied by a street or alley. Where appropriate, "Right-of-Way" may include other facilities and utilities such as sidewalks; railroad crossings; electrical, communication, Oil and/or gas facilities; water, wastewater and drainage facilities; or for any other special use. The use of Right-of-Way shall also include parkways and medians outside of the paved portion of the street.

*Rubbish:* Non-putrescible Solid Waste, excluding ashes, which consists of (A) combustible waste materials, including paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; or (B) noncombustible waste materials, including glass, crockery, tin cans, aluminum cans, metal furniture,

and similar materials that do not burn at ordinary incinerator temperatures (1600 to 1800 degrees Fahrenheit).

*Runoff:* That portion of rainfall, melted snow, melted sleet, melted hail, irrigation, or drainage that flows across ground surface and reaches the water in the state, storm drain, or storm Sewer.

*Sanitary Sewer (or Sewer):* The system of pipes, conduits, and other conveyances which carry Industrial Waste and Domestic Sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, to a sewage treatment plant (and to which Stormwater, surface water, and groundwater are not intentionally admitted).

*Secondary Treatment:* Any additional permanent BMPs necessary to meet performance standards not achieved by the Primary Treatment for a site.

*Sediment:* Solid soil material, both mineral and organic, that is being moved or has been moved from its original site by wind, gravity, flowing water or ice and including those materials sometimes also referred to as "silt" or "sand."

*Sedimentation:* Deposit of detached soil particles.

*Septic Tank Waste:* Any Domestic Sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

*Service Station:* Any retail establishment engaged in the business of selling fuel for motor vehicles that is dispensed from stationary storage tanks.

*Sewage (or Sanitary Sewage):* The Domestic Sewage and Industrial Waste that is discharged into a Sanitary Sewer system and passes through the Sanitary Sewer system to a sewage treatment plant for treatment.

*Sheet Flow:* The flow of water in a thin layer over the ground surface.

*Site:* The property boundaries of a development, including the limits of construction for any offsite improvements.

*Slope:* A measure of change in vertical elevation with respect to horizontal distance between two defined points.

*Solid Waste:* Any garbage, Rubbish, refuse, sludge from a waste treatment plant, water supply treatment plant, or air Pollution control Facility, and other discarded material, including, solid, liquid, semi-solid, or contained gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations, and from community and institutional activities.

*Start of Construction:* The date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a Structure on a Site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation.

*Steep Slope:* Slope with a grade in excess of twenty percent (20%),

*Stormwater:* Any moisture that falls from the atmosphere in a discrete storm event, including snow, sleet, rain, and hail.

*Stormwater Drainage System:* A conveyance or system of conveyances including roads with drainage systems, catch basins, curbs, gutters, ditches, man-made channels, or storm drains designed or used for collecting or conveying storm water.

*Structure:* A walled and roofed building, including a gas or liquid storage tank, which is principally above ground, as well as a manufactured home. When used in the context of Stormwater, the term means drainage improvement, such as dams, levees, bridges, culverts, head walls, or flumes.

*Used Oil or Used Motor Oil:* Any oil that has been refined from crude oil or a synthetic oil that, as a result of use, storage, or handling, has become unsuitable for its original purpose because of impurities or the loss of original properties but that may be suitable for further use and is recyclable in compliance with state and federal law.

*Vegetative Cover:* The cover over a land's surface area with plant life.

*Water in the State (or Water):* Any groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all water courses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

*Water Quality Control:* A Structure, system, or feature that provides water quality benefits by treating Stormwater Runoff.

*Water Quality Standard:* The designation of a body or segment of surface Water in the State for desirable uses and the narrative and numerical criteria deemed by the state to be necessary to protect those uses, as specified in Chapter 307 of Title 30 of the Texas Administrative Code.

*Watershed:* The total area contributing Runoff to a stream or drainage system.

*Yard Waste:* Leaves, grass clippings, yard and garden debris, and brush that results from landscaping maintenance and land-clearing operations.

*1-Year, 3-Hour Storm Event:* A rainfall event over a 3 hour period as defined in the Drainage Criteria Manual. The 1-year, 3-hour rainfall distribution can be found in Drainage Criteria Manual.

## **ARTICLE 3. NON-POINT SOURCE POLLUTION CONTROL MEASURES**

### **Sec. 98-101 Non-point Source Pollution Control Management Prohibitions**

- (1) Except as authorized by permit or this Code, no person shall introduce or cause to be introduced into or adjacent to the Stormwater Drainage System or Water in the State any Discharge that is not composed entirely of Stormwater.
- (2) Except as authorized by permit or this Code, no person shall introduce or cause to be introduced into or adjacent to the Stormwater Drainage System or Water in the State any Discharge that causes or contributes to causing the City to violate a water quality standard.
- (3) Except as authorized by permit or this Code, no person shall dump, spill, leak, pump, pour, emit, empty, Discharge, leach, dispose, or otherwise introduce or cause, allow, or permit to be introduced any of the following substances into or adjacent to the Stormwater Drainage System or water in the state:
  - a. Any Used Motor Oil, antifreeze, or any other motor vehicle fluid;
  - b. Any Industrial Waste or Hazardous Waste, including hazardous household waste;
  - c. Any Domestic Sewage or Septic Tank Waste, grease trap waste, or grit trap waste;
  - d. Any garbage, Rubbish, or Yard Waste;
  - e. Any wastewater from:
    - (i) a commercial carwash Facility; from any vehicle washing, cleaning, or maintenance at any new or used automobile or other vehicle dealership, rental agency, body shop, repair shop, or maintenance Facility; or from any washing, cleaning, or maintenance of any business or commercial or public service vehicle, including a truck, bus, or heavy equipment, by a business or public entity that operates more than two such vehicles;



- (ii) from the washing, cleaning, de-icing, or other maintenance of aircraft;
  - (iii) a commercial mobile power washer or from the washing or other cleaning of a building exterior that contains any soap, detergent, degreaser, solvent, or any other harmful cleaning substance;
  - (iv) commercial floor, rug, or carpet cleaning;
  - (v) the wash down or other cleaning of pavement that contains any Harmful Quantity of soap, detergent, solvent, degreaser, emulsifier, dispersant, or any other harmful cleaning substance; or any wastewater from the wash-down or other cleaning of any pavement where any spill, leak, or other release of oil, motor fuel, or other petroleum or Hazardous Substance has occurred, unless all harmful quantities of such Released material have been previously removed;
- f. Any effluent from a cooling tower, condenser, compressor, emissions scrubber, emissions filter, or the blowdown from a boiler;
- g. Any ready-mixed concrete, mortar, ceramic, or asphalt base material or hydromulch material, or from the cleaning of commercial vehicles or equipment containing, or used in transporting or applying, such material;
- h. Any Runoff or wash down water from any animal pen, kennel, or fowl or livestock containment area;
- i. Any filter backwash from a swimming pool, or fountain, or spa;
- j. Any swimming pool water containing any Harmful Quantity of chlorine, muriatic acid or other chemical used in the treatment or disinfection of the swimming pool water or in pool cleaning;
- k. Any Discharge from water line disinfection by superchlorination or other means if it contains any Harmful Quantity of chlorine or any other chemical used in line disinfection;
- l. Any fire protection water containing Oil or Hazardous Substances or materials. This prohibition does not apply to Discharges or flow from firefighting by the Fire Department;
- m. Any water from a water curtain in a spray room used for painting vehicles or equipment;

- n. Any contaminated Runoff from a vehicle wrecking yard;
  - o. Any substance or material that will damage, block, or clog the Stormwater Drainage System; or
  - p. Any Release from a Petroleum Storage Tank (PST), or any leachate or Runoff from soil contaminated by a leaking PST, or any Discharge of pumped, confined, or treated wastewater from the remediation of any such PST Release, unless the Discharge complies with all state and federal standards and requirements.
- (4) Except as authorized by permit or this Code, no person shall introduce or cause to be introduced into or adjacent to the Stormwater Drainage System or Water in the State any Harmful Quantity of Sediment, silt, earth, soil, or other material associated with clearing, grading, excavation or other construction activities, or associated with land filling or other placement or disposal of soil, rock, or other earth materials, in excess of what could be retained on Site or captured by employing Sediment and Erosion control measures to the maximum extent practicable.
- (5) Except as authorized by a permit or other approval issued by the Texas Commission on Environmental Quality or authorized agent under Texas Water Code Chapter 26 or Texas Health and Safety Code Chapter 366, no person shall connect a line conveying Sanitary Sewage, domestic or industrial, to the Stormwater Drainage System, or allow such a connection to continue.
- (6) Except as authorized by permit or this Code, no person shall cause or allow any pavement wash water from a Service Station to be discharged into or adjacent to the Stormwater Drainage System or water in the state. No permit is required for existing Service Stations on the effective date of this chapter. However, wash water from existing Service Stations and new Service Stations shall pass through a properly functioning and maintained, grease, Oil, and sand interceptor before discharge into or adjacent to the Stormwater Drainage System or water in the state.

#### **Sec. 98-102 Regulation of Pesticides, Herbicides, and Fertilizers.**

- (1) Any sale, distribution, application, labeling, manufacture, transportation, storage, or disposal of a Pesticide, Herbicide, or Fertilizer must comply fully with all state and federal statutes and regulations including, without limitation, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and all federal regulations promulgated pursuant to FIFRA; Chapters 63 and 76 of the Texas Agriculture Code and all state regulations promulgated pursuant thereto; and any other state or federal requirement.

- (2) Any license, permit, registration, certification, or evidence of financial responsibility required by state or federal law for sale, distribution, application, manufacturer, transportation, storage, or disposal of a Pesticide, Herbicide or Fertilizer must be presented to the City and any City law enforcement officer for examination upon request.
- (3) No person shall use or cause to be used any Pesticide or Herbicide contrary to any directions for use on any labeling required by state or federal statute or regulation.
- (4) No person shall use or cause to be used any Pesticide, Herbicide, or Fertilizer in any manner that the person knows, or reasonably should know, is likely to cause, or does cause, a Harmful Quantity of the Pesticide, Herbicide, or Fertilizer to enter the Stormwater Drainage System or water in the state.
- (5) No person shall dispose of, discard, store, or transport a Pesticide, Herbicide, or Fertilizer, or a Pesticide, Herbicide, or Fertilizer container, in a manner that the person knows, or reasonably should know, is likely to cause, or does cause, a Harmful Quantity of the Pesticide, Herbicide, or Fertilizer to enter the Stormwater Drainage System or water in the state.
- (6) If provided with a display notice containing the provisions of this subsection, pertaining to the regulation of Pesticides, Herbicides, and Fertilizers, or a reasonable description thereof, and the information that any user of the product may obtain further information from the City, any person selling Pesticides, Herbicides, or Fertilizers at retail or wholesale shall post the notice prominently where it may be read by purchasers of the product.

*Sec. 98-103      Used Oil Regulation*

- (1) No person shall:
  - a. Discharge Used Oil into or adjacent to the Stormwater Drainage System, water in the state, or a Sewer, drainage system, septic tank, surface water, groundwater, or water course;
  - b. Knowingly mix or commingle Used Oil with Solid Waste that is to be disposed of in a landfill or knowingly directly dispose of Used Oil on land or in a landfill;
  - c. Apply Used Oil to a road or land for dust suppression, weed abatement, or other similar use that introduces Used Oil into the environment.
- (2) All businesses that change motor oil for the public, municipal waste landfills, and fire stations shall serve as public Used Oil collection centers as provided by state statute.

- (3) A retail dealer who annually sells directly to the public Oil in containers for use off-premises shall post in a prominent place a sign informing the public that improper disposal of Used Oil is prohibited by law. The sign shall prominently display the toll-free telephone number of the state Used Oil information center.

*Sec. 98-104 Impervious Cover*

- (1) This section applies to all new development, re-development, and construction for which a construction or development plat, Site plan, or NPS Site plan is required, or a building permit is, or will be, required. This section applies regardless if the development is exempt under Section 98-105. Although certain percentages of Impervious Cover are designated in this section, nothing in this section shall release a person from meeting other zoning and land use regulations in this Code.
- (2) Unless increases are permitted by the use of Impervious Cover allowances, the Impervious Cover shall not exceed the allowances required by chapter 118 of this Code, or, if chapter 118 does not specifically limit the Impervious Cover for a particular type of land use, then the Impervious Cover shall not exceed the following:
  - a. 85% of the total area of the Site for industrial sites;
  - b. 80% of the total area of the Site for commercial sites;
  - c. 75% of the total area of the Site for multi-family sites; and 50% of the total area of the Site for residential subdivisions.
- (3) Subsection (2) of this section does not apply to the H – Historical Overlay District, which is exempt from the Impervious Cover limitations.
- (4) No Impervious Cover shall be constructed within a water quality Buffer Zone, downstream of a Water Quality Control, or within areas designated for on-site irrigation for treated wastewater effluent disposal.
- (5) Impervious Cover Allowances:
  - a. Isolation of Roof Runoff, Rainwater Collection, and Irrigation: If approved by the City, the maximum Impervious Cover limit may be increased by up to five (5) percentage points if roof runoff or rainwater is isolated, treated, and used for irrigation. The roof runoff or rainwater must comply with the Pollutant removal performance standards in Section 98-111.

b. Use of Mitigation Land

- (i) For each three (3) acres of land (transferring tract) that the Applicant leaves undeveloped or undisturbed and that is not included in an Impervious Cover calculation, the Applicant may transfer up to one (1) acre of land (receiving tract) for Impervious Cover, but in no case shall the maximum Impervious Cover limit be increased by more than ten (10) percentage points.
- (ii) Both the transferring and receiving tracts used in the Impervious Cover allowances shall be located within the corporate limits of the City.
- (iii) The transferring tract shall not include a water quality Buffer Zone or Critical Environmental Feature.
- (iv) The receiving tract shall comply with the Water Quality Control standards of this chapter.
- (v) The transferring and the receiving tracts shall be concurrently platted and must transfer development intensity at that time.
- (vi) The use of mitigation land and the increase in Impervious Cover limits shall be noted on the plats of the transferring and receiving tracts.
- (vii) A restrictive covenant that runs with the transferring tract and describes the use of mitigation land shall be filed in the deed records upon approval by the City of the restrictive covenant.

## **ARTICLE 4. NPS POLLUTION CONTROL AUTHORIZATIONS**

### **Sec. 98-105 Projects Exempt from Article 4**

The following projects are exempt from the requirements of this Article:

- (1) Single-family Residences. New construction of a single-family residence on a single-family lot which is not part of a subdivision.
- (2) Existing Development. Existing development on the effective date of this chapter. If, however, improvements, additions, or Revisions to the approved plans are made after the effective date of this chapter that require a Site plan, building permit, or any type of plat, then the Landowner or Land User must obtain NPS Pollution Control authorization.

- (3) Final Plats. Landowners or Land Users developing Sites for which final plats have been approved by City before the effective date of the Lower Colorado River Authority (LCRA) Upper Highland Lakes Nonpoint Source Pollution Control Ordinance, effective on June 1 1992, as amended and succeeded by the LCRA Highland Lakes Watershed Ordinance.
- (4) Utility Maintenance. Routine maintenance and installation of utility lines.
- (5) Developments of One Acre or Less. Developments or Redevelopments of one acre or less that are not part of a larger common plan of development
- (6) Previously Permitted Developments. Developments or Redevelopments that have already been issued a permit by the Lower Colorado River Authority as of the effective date of this ordinance shall remain subject to said permit unless the Developer chooses to file a new permit application with the City.

## **106 Non-Point Source Pollution Control Approval**

- (1) Authorized Activities- NPS Pollution Control Authorization Required
  - a. An authorization by ordinance or an Non-Point Source (NPS) Pollution Control authorization shall be required for all development, re-development, or other construction that causes, may cause, or has the potential to cause the discharge of Stormwater, NPS Pollution, or other Pollutant listed in section 98-101 into or adjacent to the Stormwater Drainage System or water in the state. No Landowner or Land User subject to this chapter may commence or conduct construction or development within the City without first obtaining an NPS Pollution Control authorization from the City. At the time the Landowner or Land User controlling or using the Site and desiring to undertake construction or development subject to this chapter, the Landowner or Land User shall pay all applicable fees required by this chapter and provide the required information for an NPS Pollution Control authorization with the Landowner's or Land User's Site plan or construction or development plat. By submitting a Site plan or plat, the Applicant is authorizing City to enter the Site to obtain information required to review and provide approval for the NPS Pollution Control measures.
  - b. Except as otherwise provided by this chapter, all development, re-development, or other construction that is required to obtain an authorization by ordinance or an NPS Pollution Control authorization shall ensure all the required NPS Pollution Controls and BMPs comply with the performance standards prescribed in section 98-111.
- (2) Activities Authorized by Ordinance

- a. Except as provided by subsections (c). and (d). of this section and if the development is not exempt under Section 98-105, the following list of projects are eligible for authorization by ordinance:
  - (i) 1 Acre or Less of Impervious Cover with 5 acres or Less of Disturbance of Land: Developments or Redevelopments with one (1) acre or less of Impervious Cover with five (5) acres or less of disturbance of land.
  - (ii) 20 Percent or Less of Overall Impervious: Cover for the Site: Developments or Redevelopments with twenty (20) percent or less of overall Impervious Cover for the Site.
- b. Requirements for Projects Authorized by Ordinance. To qualify for an authorization by ordinance, the projects listed in subsection (2)a. of this section shall comply with the following:
  - (i) Submit a written notice to the City at the same time the request is made for a construction or development plat, or Site plan approval, or if no plat or Site plan is required, fourteen (14) Business Days before the Commencement of Construction that contains the following information:
    - (a) name of the Landowner;
    - (b) location of address of the property;
    - (c) name of development, if applicable;
    - (d) contact information for owner, engineer, and Contractor as applicable;
    - (e) type of project or development;
    - (f) basis for exemption from NPS requirements;
    - (g) amount of Impervious Cover expected as a result of the project;
    - (h) certification of compliance with the non-point source Pollution control requirements, as set forth in this chapter and NPS Technical Manual;
    - (i) dated signature of owner's or owners' authorized representative;



- (ii) Comply with all applicable TPDES and EPA Stormwater requirements.
  - (iii) Submit to the City all documents submitted to the TCEQ or EPA.
  - (iv) Comply with guidelines and BMPs set forth in the NPS Technical Manual for controlling Erosion, Sedimentation and non-point source pollution in a manner and to a level consistent with this Chapter and the NPS Technical Manual.
  - (v) For developments or Redevelopments for which the construction of a permanent BMP, other than vegetative filter strips and infiltration trenches, is required, submit a maintenance plan to the City at least fourteen (14) days prior to the commencement of construction of the permanent BMP.
- c. Projects listed in section 98-106(2) shall comply with all other applicable chapters in the Code, or other applicable ordinances adopted by the City from time to time.
- d. If the City, after receipt of the notice required by b. of this subsection, determines that the project as proposed will not meet the performance standards described in Section 98-111 of this Code and will cause the water quality to degrade, the City may require the Landowner or Land User to obtain an individual NPS Pollution Control authorization or an Operating Permit.

(3) Processing of NPS Pollution Control authorizations

- a. Submittals. Landowners and Land Users who must obtain NPS Pollution Control authorization shall submit the required information in accordance with this chapter and the NPS Technical Manual.
- b. Review of NPS Pollution Control Information.
  - (i) Construction and Development Plats. If a person is required to obtain a construction or development plat, the person shall submit the information required for an NPS Pollution Control authorization along with, and at the same time the construction or development plat is submitted to the City in accordance with chapter 118 of the City's Code of Ordinances. The City shall review the NPS Pollution Control information in conjunction with the review of applications for construction or development plats.

- (ii) Site Plan Reviews. If a person is not required to obtain a construction or development plat but is required to obtain Site plan approval under Chapter 98 of this Code, the person shall submit the information required for an NPS Pollution Control authorization along with and at the same time the Site plan Application is submitted to the City in accordance with chapter 118 of the City's Code of Ordinances. The City shall review the NPS Pollution Control information in conjunction with the review of applications for Site plans.
- (iii) NPS Site Plan Reviews: If no construction or development plat is required and if no Site plan is otherwise required but the person is required by this Chapter to obtain NPS Pollution Control authorization, the person shall submit the information required for an NPS Pollution Control authorization in the form of an NPS Site Plan. The NPS Site Plan shall be submitted for the total area of the Site. The NPS Site Plan shall include:
  - (a) Name and address of the Owner and Applicant.
  - (b) Address and legal description of the property.
  - (c) If the Applicant is not the legal Landowner of the property, a statement that the Applicant is the authorized agent of the Landowner.
  - (d) A brief description of the proposed use.
  - (e) A Site plan, drawn to scale and sufficiently dimensioned as required, showing the following:
    - 1. The date, scale, North arrow, title, name of Owner and name of person preparing the Site plan.
    - 2. The location and dimensions of boundary lines, Easements and required yards and setbacks.
    - 3. A scale drawing of location and intended use of proposed and existing Site improvements and proposed and existing Impervious Cover, including parking and loading areas, pedestrian and vehicular access, landscaped areas, and utility or services areas.
    - 4. A scale drawing of location and description of all

Water Quality Control and Erosion control BMPs as required by this Chapter and the NPS Technical Manual.

5. A Site inventory analysis including a scale drawing showing major existing vegetation, natural watercourses, creeks or bodies of water and an analysis of planned changes in such natural features as a result of the development. This shall include a delineation of any flood prone areas.
6. For Sites with an average Slope greater than ten (10) percent, a plan showing existing and proposed topography and grading and proposed Erosion control measures.
7. Any other information that may be necessary to review the Application for compliance with this Chapter and the NPS Technical Manual.

- (f) Any applicable fee established by the City Council.
- (g) If the Site plan does not include the required information, the City may request additional information or return the Application as incomplete.

c. Approval Process and Procedures:

- (i) Approvals in Conjunction with Construction and Development Plats and Site Plans:
  - (a) For NPS Pollution Control applications submitted in conjunction with a construction or development plat or a Site plan required by chapter 118 of this Code, approval of the NPS Pollution Control measures shall occur at the same time and in conjunction with Site plan approvals.
- (i) Approvals of NPS Site Plans: The procedure for approval of an NPS Site Plan and NPS Pollution Control measures is as follows:
  - (a) Review for administrative completeness: Within ten (10) days after an application for approval of an NPS Site Plan is filed with the City, the City shall determine if the application is complete. If the application is not complete, the City may return to the Applicant the incomplete application or provide the Applicant with additional time to

submit the required information. The review period specified by paragraph (b) below, does not start until a completed application is filed.

- (b) Review for approval: Following a determination that an application for NPS site plan approval is administratively complete; the City shall approve, approve subject to conditions, or disapprove the application. The City shall provide written notice to the Applicant stating such approval, approval with conditions, or disapproval. The notice shall list any and all conditions of approval, or provide a comprehensive list of reasons for disapproval.
- (c) Effect of disapproval: Following an initial disapproval of an application for NPS site plan, the Applicant, within sixty (60) days of said disapproval, and without imposition of additional application or review fees, may submit a revised application to the City. Revised applications will be processed in accordance with the provisions of paragraphs (a) and (b) above. A revised application submitted more than sixty (60) days following disapproval shall be considered a new application and will be subject to fees as provided for in Section 98-113.
- (c) Review and evaluation criteria. The City shall review and evaluate NPS site plans to ensure conformance with applicable regulations and standards established by this Chapter and the NPS Technical Manual.
- (d) Modification of site plan. The City may require modification of an NPS site plan as a prerequisite for approval to ensure compliance with this Chapter and the NPS Technical Manual.
- (e) Expiration of approval.
  - 1. NPS Site plan approval shall lapse and shall become void two (2) years after the date on which such approval became effective, unless
    - (a) prior to the expiration of two (2) years construction is commenced and diligently; or

(b) a longer time is specifically establishes as a condition of approval;

(c) NPS Site Plan approval is extended for an addition period of ninety (90) days based on a written request filed with the City on a date prior to expiration of the NPS Site Plan approval.

2.

- (f) New applications. Following the denial or revocation of an NPS Site plan review application, no Application for an NPS Site plan review for the same or substantially the same Site plan on the same or substantially the same Site shall be filed within sixty (60) days from the date of denial or revocation. Any such Application filed will be returned to the Applicant as an incomplete application.
- d. Fees. The fees and charges required to process NPS Pollution Control authorizations shall be as shown in this Code.
- e. Fiscal Security. Proof of fiscal security shall be provided with the NPS Pollution Control authorization. Fiscal security shall be provided in accordance with the requirements in Section 98-125.
- f. Conditions. In addition to Site specific conditions that may be required to comply with the technical standards set forth in the NPS Technical Manual, all permits or NPS Pollution Control authorizations shall require the Permittee to:
  - (i) Notify the City within forty-eight (48) hours before commencing any development;
  - (ii) Obtain a permit or authorization amendment from City prior to modifying the approved NPS pollution controls and BMPs; however, no permit or authorization amendment is required for minor field adjustments of temporary Erosion controls;
  - (iii) Install all NPS pollution controls and BMPs as identified in the approved permit or authorization and ensure those NPS pollution controls and BMPs comply with the applicable performance standards prescribed in section 98-111 or other standard for which a variance has been granted;
  - (iv) Comply with the requirements of this chapter regarding

maintenance plans;

- (v) Repair any siltation or Erosion damage resulting from development;
- (vi) Inspect all temporary Erosion and Sedimentation controls after each rain of one-half inch (0.5") or more, and at least once each week, and make needed repairs;
- (vii) Allow the City to enter the Site for the purpose of inspecting compliance with the permit or authorization, or for performing any work necessary to bring the Site into compliance with the permit or authorization;
- (viii) Designate a location on the Site for the posting of notices;
- (ix) Keep a copy of the permit or authorization and all development plans on the Site or with the Permittee's designated representative;
- (x) Upon completion of development, the Permittee's registered professional engineer shall certify in writing to the City that the NPS pollution controls and BMPs were constructed and maintained in accordance with the permit or authorization conditions and this chapter;
- (xi) Promptly notify the City in writing of any change in the name, address, or telephone number of the Permittee;
- (xii) Assign the NPS Pollution Control authorization and all rights and obligations associated therewith to the land owner, Operator, Property Owners' Association or other entity as applicable, upon completion of construction of the development if the permit or authorization is not already in the name of the entity responsible for the BMPs.
- (xiii) Pay all fees associated with the approval of the NPS Pollution Control measures at the time of submittal;
- (xiv) Perform all activities in accordance with the federal, state or local laws or ordinances;
- (xv) Indemnify and hold the City and its authorized agents and its authorized consultants harmless from any and all claims, demands, damages, actions, costs and charges to which the City

may become subject and which the City may have to pay by reason of injury to any person or property, or loss of life, or loss of property, resulting from, or in any way connected with the Permittee's actions under this NPS Pollution Control authorization.

- (xvi) No work is authorized that is not directly addressed in the permit Application submitted to the City.
  - (xvii) Nothing in the permit is intended to amend or alter any legal rights or benefits previously granted to or vested in the City.
  - (xviii) Any terms and conditions reached between the City and the Applicant.
- g. Approval of authorization. The City will issue a NPS Pollution Control authorization upon the Applicant's submission of a complete permit application, payment of the Application fee, the City's approval of the NPS Pollution Control measure, and approval of the plat or Site plan, as applicable.
  - h. Duration. Except as provided in Subsections (3) and (5) of this section, NPS Pollution Control authorization shall be valid for the life of the Site development permit or the building permit for the development.
  - i. Termination for Nonuse. An NPS Pollution Control authorization will be terminated by the City should the building permit or the Site development permit be terminated. Commencement of development means clearing the Site and performing initial or rough grading of the improvements. If the City terminates a permit for nonuse and the fiscal security is still in effect, the City may call on the Permittee's security in order to provide Permanent Stabilization of the Site.
- (4) Enforcement. Failure to comply with the provisions of an NPS Pollution Control authorization is a violation of this Code.

*Sec. 98-107      Operating Permit*

- (1) General Requirements. Except for projects listed and authorized under section 98-106(2) of this Code, the owners or Operators of all new Water Quality Controls for residential and non-residential development must obtain an Operating Permit. The Application for the Operating Permit shall be filed concurrently with the Application for the NPS Pollution Control authorization. The Owner or Operator is responsible for the proper operation and maintenance of the control and for Operating Permit renewal. The first Operating Permit will be issued by the City upon:

- a. The completion of construction, if applicable;
  - b. Inspection of the control by the City after review of the maintenance plan accompanying the design engineer's concurrence letter of the completion of construction;
  - c. Final inspection approval by the City;
  - d. The issuance of a certificate of compliance or a certificate of occupancy by the City, if applicable; and
  - e. Payment of any required fees.
- (2) Operating Permit Procedures. All Water Quality Controls shall be maintained in accordance with this chapter, the permit, and the NPS Technical Manual, and in accordance with section 98-117 of this Code, each permitted control will be inspected from time to time by the City to confirm that proper maintenance, as described in the maintenance plan, has occurred prior to renewal of the permit. An Operating Permit shall be required for developed Sites with existing Water Quality Control only when new development or re-development occurs.
- (3) Operating Permit Information Requirements. The permit Application shall include the following components and must be submitted to the City with the Site plan for New Construction, or not later than thirty (30) calendar days prior to the renewal date shown on an existing permit:
- a. Name and address of the development;
  - b. Name, title and business phone number of the Owner or Operator;
  - c. Single point of contact name, phone number, and fax number;
  - d. Mailing address of the Owner or Operator;
  - e. Site plan number on file with the City for the control;
  - f. Previous Operating Permit;
  - g. Signature block for City approval;
  - h. Special conditions required by restrictive covenant, or by agreement at a condition of City approval;
  - i. Maintenance records and date of last maintenance;
  - j. Name of Contractor who performed the required maintenance;



- k. Results of required maintenance, including actions take, materials removal, disposal location, components replaced;
  - l. Evidence of fiscal security, if applicable;
  - m. Types of BMPs being used.
- (4) Permit Duration. Any Operating Permit issued by the City shall be issued as either a one (1) year, or five (5) year permit.
- (5) Operating Permit Renewal
- a. It is the responsibility of the Permittee to apply to the City for renewal of the permit no later than thirty (30) calendar days before the existing permit expires. The Application must be accompanied by payment of the appropriate renewal fee, updated information concerning ownership or Facility operation and enforcement status. Upon receipt of all information and fees, including a favorable inspection and maintenance report, the City will renew the permit for a period of five (5) years.
  - b. Any repair work or modifications of a control not specified in the maintenance plan shall require the Permittee's engineer's concurrence letter, prior to renewal of the permit.
  - c. Permit renewal will be withheld if there is pending enforcement action against the Permittee based on any violations of water quality regulations at the Site.
- (6) Permit Transfer. The transfer of the Operating Permit shall require the completion of a new permit application, and must be submitted not later than thirty (30) calendar days after transfer of ownership or operation of the control.
- (7) Enforcement. Failure to comply with the provisions of the Operating Permit is a violation of this Code.

#### **Sec. 98-108 Required Plans**

All plans required by the NPS Technical Manual shall be submitted for review and approval along with the required information necessary for authorization of any NPS Pollution Control measures. Any required plans shall be incorporated into any permits or authorizations issued by the City.

#### **Sec. 98-109 Maintenance Requirements**

- (1) Maintenance Required. All Water Quality Control measures and their appurtenances shall be maintained by the Permittee or subsequent Landowner(s) or Land User(s) pursuant to an approved maintenance plan. The City may require the Permittee and subsequent Landowner(s) or Land Users to post fiscal security in a manner described in section 98-118 for the purpose of maintaining all Water Quality Controls required by this chapter. Landowners and Land Users may elect to form a Maintenance Association (MA) in accordance with this section prior to the issuance of an Operating Permit. All MAs must post fiscal security or create a maintenance fund for the purpose of maintaining all Water Quality Controls required by this chapter. The duties and responsibilities of an MA may be performed by a Homeowners' Association, Property Owners' Association, or like entity if it meets the requirements of this section of this chapter. The maintenance of all BMPs shall be in accordance with the NPS Pollution Control authorization or Operating Permit and the approved maintenance plan.
- (2) Requirements for MA's. The Applicant must submit to the City the approved articles of association for the MA, as well as a map showing the boundaries of its jurisdiction. The MA must have the following general powers which are reflected in the articles of association:
  - a. Own and convey property;
  - b. Operate and maintain common property, specifically the Water Quality Controls;
  - c. Establish rules and regulations;
  - d. Assess member maintenance fees and enforce said assessments;
  - e. Sue and be sued;
  - f. Contract for services to provide operation and maintenance;
  - g. If the MA is a homeowners' association, it must have as members all the homeowners, lot owners, property owners, or unit owners;
  - h. The MA shall exist in perpetuity; however, if the MA is dissolved the articles of association must provide that the property consisting of the Water Quality Controls shall be conveyed to the City; and
  - i. It shall be clearly stated in the chapters of association of the MA that:
    - (i) It is the responsibility of the MA to operate and maintain the Water Quality Controls;

- (ii) The water quality controls are owned by the MA or described therein as common property;
  - (iii) There is a method of assessing and collecting the assessment for operation and maintenance of the Water Quality Controls; and
  - (iv) Any amendment that would affect the Water Quality Controls must be approved by the City.
- (3) Phased Projects. If an MA is proposed for a project which will be developed in phases and subsequent phases will utilize the Water Quality Controls, the MA must have the ability to accept future phases into the MA.

#### **Sec. 98-110 Texas Pollutant Discharge Elimination System (TPDES) Notice of Intent and Stormwater Pollution Prevention Plan**

Any Owner or Operator who intends to obtain coverage as an Owner or Operator for Stormwater Discharges from a construction Site under the TPDES General Permit for Stormwater Discharges From Construction Sites shall submit a signed copy of its Notice of Intent (NOI) and the Stormwater Pollution Prevention Plan (SWPPP) to the City Engineer at least fourteen (14) days prior to the commencement of construction. The Owner or Operator shall make the SWPPP and any modifications thereto available to the City upon request.

#### **Sec. 98-111 NPS Pollution Control and BMP Performance Standards and Design Requirements**

- (1) All Development and Redevelopment required is to obtain an authorization by ordinance or an NPS Pollution Control authorization under Section 98-111(2) or (3) shall utilize NPS pollution controls and BMPs to treat Stormwater Runoff. All NPS pollution controls and BMPs required by this chapter shall be designed in accordance with the NPS Technical Manual and by a Professional Engineer. All NPS pollution controls and BMPs shall meet the performance standards and design requirements prescribed by this section.
- (2) Water Quality Volume: All NPS pollution controls and BMPs shall be designed and sized based on water quality volume calculated using the methods prescribed in the NPS Technical Manual. The minimum volume of Stormwater Runoff for Water Quality Control shall be based on the 1-Year, 3-Hour Storm Event for the Contributing On-site Drainage Area.
- (3) Sites in excess of ten (10) acres: The BMPs for Sites of ten (10) or more acres shall be designed to achieve an annual removal rate of 70% or more for the

increase of Total Suspended Solids (TSS) and increase in Total Phosphorus (TP) resulting from the development or Redevelopment. Primary and Secondary Treatment methods may be used to achieve these removal rates.

(4) Overland Flow Controls

- a. To the maximum extent practical, all roof runoff from non-residential buildings shall have down spouts disconnected from the Site Stormwater Drainage System.
- b. To the maximum extent practical, all Stormwater drainage shall be treated using overland flow methods to a vegetated buffer. The vegetated buffer shall be designed in accordance with the NPS Technical Manual.
- c. Drainage patterns shall be designed to the maximum extent practical to prevent Erosion, maintain and recharge of local seeps and springs, and attenuate the harm of contaminants collected and transported by Stormwater. Overland Sheet Flow and natural drainage features and patterns shall be maintained to the maximum extent practical, depending on volumes and velocities of Runoff for the development, as opposed to concentrating flows in storm Sewers and drainage ditches.
- d. Construction of enclosed storm sewers and impervious channel linings are permitted only when the City, on the basis of competent engineering evidence from the Applicant, concludes that such storm sewers or impervious linings are protective of water quality.
- e. If storm sewers are deemed necessary as specified above, the Applicant shall design the Stormwater Drainage System to mitigate its impact on water quality by using structural devices or other methods to prevent Erosion and dissipate Discharges from outlets wherever practicable, and by directing Discharges to maximize overland flow through buffer zones or grass lined Swales.
- f. Overland flow facilities for the Stormwater Drainage System shall be designed in accordance with the criteria of the Drainage Criteria Technical Manual.

(5) Infiltration: To the maximum extent practical, Water Quality Controls shall be designed to restore the infiltration capacity of pre-development conditions. Infiltration BMPs shall be designed in accordance with the NPS Technical Manual.

(6) Steep Slopes

- a. Erosion control and Water Quality Control BMPs shall be designed in accordance with the NPS Technical Manual.
- b. A cut or Fill with a finished gradient steeper than thirty-three percent (33%) shall be stabilized in accordance with the NPS Technical Manual.

(7) Vegetation

- a. To the maximum extent practical, landscape shall be preserved in its natural state and shall comply with the requirements of the zoning ordinance of the City.
- b. To the maximum extent practical, xeriscape and low maintenance vegetation shall be included in all non-residential development and shall be provided in accordance with the NPS Technical Manual.
- c. To the maximum extent practical, the use of Herbicides, Pesticides and Fertilizers shall be minimized.
- d. If Pesticides and Fertilizers will be used, a Pesticide and Fertilizer management plan shall be submitted providing information regarding proper use, storage, and disposal of Pesticides and Fertilizers. The plan shall indicate likely Pesticides and Fertilizers to be used. The plan shall include two lists of Pesticides and Fertilizers: (1) those which, due to their chemical characteristics, potentially contribute significantly to water quality degradation; (2) those which, due to the chemical characteristics, potentially would result in minimal water quality degradation.
- e. An Integrated Pest Management (IPM) Plan shall be submitted in accordance with the NPS Technical Manual.
- f. Vegetative BMPs, such as vegetative filter strips, shall be designed in accordance with the NPS Technical Manual.

(8) Water Quality Controls (WQC)

- a. Water Quality Controls (WQC) are required for residential and non-residential developments and re-developments. Water Quality Controls shall be sized for the on-site contributing drainage area that contains development if the new development or re-development contains Impervious Cover.
- b. The volume of Runoff (water quality volume) to be captured, isolated, and treated by each WQC shall be as required in subsection (2) of this section. Each WQC shall be sized for the Contributing On-site Drainage

Area only to that WQC.

- c. Vegetated filter strips shall be used to the maximum extent practicable for the treatment of Stormwater Runoff.
- d. Developed areas requiring treatment shall include the on-site contributing drainage area with:
  - (i) areas of Impervious Cover;
  - (ii) lawns using Pesticides, Herbicides or Fertilizers;
  - (iii) landscaping using Pesticides, Herbicides or Fertilizers;
  - (iv) gardens using Pesticides, Herbicides or Fertilizers;
  - (v) golf courses and play fields using Pesticides, Herbicides or Fertilizers;
  - (vi) areas of on-site spray irrigation with wastewater effluent.
- e. The following areas shall not require water quality treatment:
  - (i) The full area of existing natural areas or restored natural areas which are restricted from development and Pesticides, Herbicide, or Fertilizer Application through a plat note or restrictive covenant and the Runoff from which is routed around the WQC. The Runoff from natural areas which blend with the Runoff from the developed areas shall be included in the water quality volume calculations.
  - (ii) The full area of the WQC Structure.
  - (iii) Swimming pools which do not discharge its filter backwash into the Stormwater Drainage System or water in the state.
  - (iv) Impervious surface areas used for Stormwater collection and on-Site irrigation.
  - (v) The full area of off-Site drainage areas.
- f. Removal efficiencies for WQC's shall be as established in the NPS Technical Manual.
- g. The design of WQC's shall be in accordance with the NPS Technical Manual.

(9) Erosion Control Requirements

- a. All temporary and permanent Erosion and Sedimentation control BMPs shall comply with the NPS Technical Manual.
- b. Peak Runoff Rate: The peak Runoff rate for the 1-Year, 3-Hour Storm Event under developed conditions shall not exceed the peak Runoff rate for the 1- Year, 3-Hour Storm Event under pre-development conditions, unless otherwise noted in the NPS Technical Manual. Peak Runoff rate calculations shall comply with the criteria given in the NPS Technical Manual and the Drainage Criteria Manual.
- c. The Site for which temporary or permanent Erosion and Sediment control BMPs may be required include any off-Site burrow, spoil, and staging areas, as well as any other land disturbed related to the project.

(10) Isolation of Roof Runoff and Irrigation: If roof runoff is isolated from the Site Stormwater collection system and is used for irrigation, the system shall comply with the following requirements:

- a. The system shall comply with the Pollutant removal requirements of subsection (2) of this section;
- b. No reduction in the water quality volume will be allowed as a result of choosing this method of pollution reduction;
- c. Roof Runoff shall be collected and routed to a separate storage area distinct from that which collects and treats other Stormwater Runoff;
- d. The roof runoff system shall provide for the collection of no less than the required water quality volume. Harvesting and storage of additional Runoff in excess of the minimum required water quality volume for on-site irrigation is allowable;
- e. Roof Runoff in excess of the minimum required water quality volume may be routed to detention facilities or discharged to a Water Quality Control;
- f. The system shall be designed to accept the water quality volume within seventy-two (72) hours after the end of the rainfall event and to detain and treat the water quality volume in accordance with the Water Quality Control requirements of this chapter. For the purpose of this requirement, individual storm events shall be separated by seventy-two (72) hours with no more than a trace of rainfall; and

- g. The collected water may be used to irrigate landscaped or natural areas on the Site. Irrigation systems shall be designed in accordance with standard irrigation practices considering such factors as soil type Slope, and vegetation and must be approved by the City.

#### **Sec. 98-112 Water Quality Buffer Zones**

- (1) Water quality buffer zones (WQBZ) of 15 feet are required along natural creeks and Swales with overall contributing drainage areas of 25 acres or more within the corporate limits of the City. A WQBZ of 85 feet is established around all Critical Environmental Features inside the corporate limits of the City.
- (2) All development activities, including temporary construction activities and landscaping activities, shall be restricted from the WQBZ, except the following development activities may be allowed if approved by the City:
  - a. Roadway and driveway crossings (as close to perpendicular as practical);
  - b. Hike and bike trails in accordance with the Comprehensive Plan;
  - c. Maintenance and restoration of natural vegetation;
  - d. Water Quality Control monitoring devices;
  - e. Removal of trash, debris, Pollutants;
  - f. Utilities, as subject to the restrictions of subsection (3) of this section;
  - g. Fences that do not obstruct flood flows;
  - h. Public and private parks and open space, with development in the parks and open space limited to hiking, jogging, or walking trails, and excludes stables and corrals for animals;
  - i. Private drives to allow access to property not otherwise accessible;
  - j. Structural WQC's (only when unavoidable as deemed by the City).
- (3) All utilities, other than wastewater utilities, shall be located outside the WQBZ except for crossings. Wastewater lift stations shall be located



outside the WQBZ. On-site wastewater disposal system shall be located outside the WQBZ. Wastewater trunk lines and lateral lines shall be located outside the WQBZ to the maximum extent practical except for crossings. All wastewater trunk lines located in the WQBZ shall meet design standards and construction specifications of testing to a zero (0) leakage allowable.

- (4) All Water Quality Control Discharges and Stormwater Discharges onto a WQBZ shall have diffused Sheet Flow.

## **ARTICLE 5: ADMINISTRATIVE PROVISIONS**

*Sec. 98-113      Charges and Fees*

- (1) The City hereby adopts reasonable fees for reimbursement of costs of implementing its non-point source pollution prevention management program and the cost of implementing this chapter, which costs may include, but not be limited to, the following:
  - a. Fees for monitoring, inspections, and surveillance including the cost of collecting and analyzing Discharges and reviewing monitoring reports submitted by Dischargers;
  - b. Fees for spill and Release reports and responding to spills and Releases of Oil, hazardous and Extremely Hazardous Substances, and other Pollutants;
  - c. Application and review fees for permits;
  - d. Application and review fees for submittals associated with the concept plan, preliminary plat, Site plan, construction drawings for public improvements, and final plats;
  - e. Re-Application and re-review fees;
  - f. Inspection fees;
  - g. General consultation fee with the Applicant and with the City concerning the Applicant's development; and
  - h. Other fees as the City may deem necessary to carry out the requirements contained in this chapter. These fees relate solely to the matters covered by this chapter and are separate from all other fees, fines, and penalties chargeable by the City.
- (2) Fees and charges shall be as follows:

	Exempt Projects See Sec. 98-105	Activities Authorized by Ordinance See Sec. 98-106(2)	NPS Pollution Control Authorizations See Sec. 98-106(3)
Individual Single-family residence	No fee		
All other exempt projects	\$250		
NPS Review of non-exempt projects including preliminary plats, final plats, Site development plans and utility projects		\$250 administrative processing fee + City Engineer review fee (Minimum \$200)	\$250 administrative processing fee + City Engineer review fee (Minimum \$200)
2 <sup>nd</sup> & each subsequent resubmittal any plans undergoing City of Burnet NPS review		\$250 administrative processing fee + City Engineer review fee (Minimum \$200)	\$250 administrative processing fee + City Engineer review fee (Minimum \$200)
1-year BMP Operating Permit		\$300	\$300
5-year BMP Operating Permit			
Variance Request	\$250 administrative processing fee + City Engineer review fee (Minimum \$200)	\$1,200 \$250 administrative processing fee + City Engineer review fee (Minimum \$200)	\$1,200 \$250 administrative processing fee + City Engineer review fee (Minimum \$200)

Sec. 98-114 Variances

- (1) General. Where the City Engineer recommends, and the City Council finds, that undue hardships will result from strict compliance with a certain provision(s) of this chapter, or where the purposes of these regulations may be served to a greater extent by an alternative proposal, it may approve a variance from portions of these regulations so that substantial justice may be done and the public

interest is secured, provided that the variance shall not have the effect of nullifying the intent and the purpose of these regulations, and further provided that the City Council shall not approve a variance unless it shall make finding based upon the evidence presented to it in each specific case that:

- a. Granting the variance will not be detrimental to the public safety, health or welfare, and will not be injurious to other property or to the owners of other property, and the variance will not prevent the orderly development or use of other property in the vicinity;
- b. The conditions upon which the request for a variance is based are unique to the property for which the variance is sought, and are not applicable generally to other property;
- c. Because of the particular physical surroundings, shape or topographical conditions of the specific property involved, a particular hardship to the property Owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations is carried out;
- d. The variance will not in any manner vary the provisions of the zoning, land use, or subdivision ordinances, or the comprehensive plan or any other adopted plans or ordinances of the City.
- e. An alternate design will generally achieve the same result or intent as the standards and regulations prescribed herein.

Such findings of the City Council, together with the specific facts upon which such findings are based, shall be incorporated into the official minutes of the City Council at which a variance is considered. A variance from any provision of this chapter may be granted only when in harmony with the general purpose and intent of this chapter so that the public health, safety and welfare may be secured and substantial justice done. Pecuniary hardship to the Developer, standing alone, shall not be deemed to constitute undue hardship.

- (2) Conditions. In approving a variance, the City Council may require such conditions as will, in its judgments, secure substantially the purpose described in Section 98-93.

(3) Procedures:

- a. A petition for a variance shall be submitted in writing by the Applicant before the required Application or submittal is submitted for the City Council's consideration . The petition shall fully state the grounds for the application, and all of the facts relied upon by the petitioner.
- b. The City shall provide the variance request to LCRA for comment prior to Council action in accordance with the interlocal agreement between the City of Burnet and the LCRA.
- b. Where a hardship is identified pursuant to this chapter which requires issuance of a variance from a provision in this chapter, the City Council may approve a variance from the provision in this chapter in conjunction. A variance from this chapter shall receive final approval provided that no new information or reasonable alternative plan exists which, at the determination of the City Council, voids the need for a variance. All variances shall have final approval or disapproval by the City Council. The City Council may impose conditions on the granting of a variance, if said conditions are found to be necessary to meet the general purpose and intent of this chapter. Any variance recommended for denial by the City Engineer shall require a three-fourths (3/4) majority for approval by the City Council.

Sec. 98-115

*Release Reporting and Cleanup*

- (1) The person in charge of any Facility, vehicle, or other source of any spilling, leaking, pumping, pouring, emitting, emptying, discharging, escaping, leaching, dumping, disposing, or any other Release of any of the following quantities of any of the following substances that may flow, leach, enter, or otherwise be introduced into or adjacent to the Stormwater Drainage System or water in the state, shall immediately telephone and notify the City concerning the incident:
  - a. An amount equal to or in excess of a reportable quantity of any Hazardous Substance, as established under 40 CFR Part 302;
  - b. An amount equal to or in excess of a reportable quantity of any Extremely Hazardous Substance, as established under 40 CFR Part 355;
  - c. An amount of Oil that leaves a film or sheen upon or discoloration of the surface of the water or an adjoining shoreline, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon an adjoining shoreline; or

- d. Any Harmful Quantity of any Pollutant.
- (2) The immediate notification required by this chapter shall include the following information:
- a. The identity or chemical name of the substance released, and whether the substance is an Extremely Hazardous Substance;
  - b. The exact location of the Release, including any known name of the waters involved or threatened and any other environmental media affected;
  - c. The time and duration (thus far) of the Release;
  - d. An estimate of the quantity and concentration (if known) of the substance Released;
  - e. The source of the Release;
  - f. Any known or anticipated health risks associated with the Release and, where appropriate, advice regarding medical attention that may be necessary for exposed individuals (Material Safety Data Sheet reports);
  - g. Any precautions that should be taken as a result of the Release;
  - h. Any steps that have been taken to contain and clean up the Released material and minimize its impacts; and
  - i. The names and telephone numbers of the person or persons to be contacted for further information.
- (3) Within fifteen (15) days following such Release, the responsible person in charge of the Facility, vehicle, or other source of the Release shall, unless waived by the City Council, submit a written report containing each of the items of information specified above in this chapter, as well as the following additional information:
- a. The ultimate duration, concentration, and quantity of the Release;
  - b. All actions taken to respond to, contain, and clean up the Released substances, and all precautions taken to minimize the impacts;
  - c. Any known or anticipated acute or chronic health risks associated with the Release;

- d. Where appropriate, advice regarding medical attention necessary for exposed individuals;
  - e. The identity of any governmental/private sector representatives responding to the Release; and
  - f. The measures taken or to be taken by the responsible person(s) to prevent similar future occurrences.
- (4) The notifications required by this chapter shall not relieve the responsible person of any expense, loss, damage, or other liability which may be incurred as a result of the Release, including any liability for damage to the City, to natural resources, or to any other person or property; nor shall such notification relieve the responsible person of any fine, penalty, or other liability which may be imposed pursuant to this chapter or to state or federal law.
- (5) Any person responsible for any Release as described in this chapter shall comply with all state, federal, and any other local law requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the Release.
- (6) Any person responsible for a Release described in this chapter shall reimburse the City for any cost incurred by the City in responding to the Release.

#### **Sec. 98-116 Access for Maintenance and Monitoring**

To provide necessary access for maintenance and monitoring, Water Quality Controls must be contained within a water quality Easement or restricted, platted lot. The Easement documents shall note that water quality restrictions exist on the property or Easement and that any alternative use or alteration must be approved by the City. Also, an access Easement with suitable means of ingress and egress for construction equipment shall be provided to access the designated water quality Easement.

#### *Sec. 98-117 Compliance Monitoring - Right of Entry and Inspection*

- (1) **Right of Entry During Construction.** Any Owner who has filed a notice under Section 98-106, an NPS Pollution Control authorization or Operating Permit Application or has received an NPS Pollution Control authorization or Operating Permit under this chapter shall allow entry by the City on the Site for the purposes of inspection and monitoring. Employees and agents of the City Manager are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions related to water quality and

administration of this chapter. They shall notify the Owner or his designated agent prior to entering the Site for inspection purposes.

- a. **Predevelopment Inspection.** After the issuance of any authorization or permit required under this Chapter, but before the installation of permanent Erosion and Sedimentation controls and before development commences, the Applicant shall provide a written request to the City for an inspection of the temporary Erosion controls and Water Quality Controls. This predevelopment inspection will be attended by the City's designated representative who will determine whether the temporary Erosion and Sedimentation controls and Water Quality Controls will be in compliance with the NPS Pollution Control authorization or Operating Permit. If the City does not conduct the predevelopment inspection within five (5) Business Days of receipt of the request for inspection, the Applicant may proceed with development.
- b. **Inspections During Development.** During development, the City will inspect the Site to ensure that temporary and permanent Erosion controls are being maintained and that the permanent NPS pollution controls and BMPs are being constructed in accordance with the requirements of this chapter.
- c. **Final Inspection.** Upon completion of development, the City will conduct a final inspection of the NPS pollution controls and BMPs used. This final development inspection must be attended by the Permittee; the City's designated representative, the design engineer, Contractor, and field engineer. The City's representative will determine whether the NPS pollution controls are in compliance with the NPS Pollution Control authorization or Operating Permit.
- d. **Permittee shall confirm that Water Quality Controls are constructed in conformance with the approved design by providing a concurrence letter certified by the Permittee's design engineer.**
- e. **The Permittee's fiscal security for construction of temporary and permanent NPS pollution controls and BMPs will be released in accordance with Section 98-118.**

(2) **Right of Entry and Periodic Inspection of Completed Projects.**

- a. **The City shall have the right to enter the premises of any Site discharging Stormwater to the Stormwater Drainage System, to**

Water Quality Controls, or to Water in the State to determine if the Permittee or Discharger is complying with all requirements of this chapter, and with any state or federal discharge permit, limitation, or requirement. Permittees or Dischargers shall allow the City ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and for the performance of any additional duties. Permittees or Dischargers shall make available to the City, upon request, any SWPPPs, operating permits, Site development permits, construction permits, modifications thereto, self-inspection reports, monitoring records, compliance evaluations, NOI's, and any other records, reports, and other documents related to compliance with this chapter and with any state or federal discharge permit.

- (i) Where the Owner has security measures in force which require proper identification and clearance before entry into its premises, the Permittee or Discharger shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, the City will be permitted to enter without delay for the purposes of performing his/her responsibilities.
- (ii) The City may require any Owner whose property discharges into or adjacent to the Stormwater Drainage System or Water in the State or any Permittee to conduct specified sampling, testing, analysis, and other monitoring of its Stormwater Discharges, and may specify the frequency and parameters of any such required monitoring.
- (iii) The City may require the Owner or Permittee to install monitoring equipment as necessary at the Discharger's expense. The Facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the Permittee or Discharger at its own expense. All devices used to measure Stormwater flow and quality shall be calibrated to ensure their accuracy.
- (iv) Any temporary or permanent obstruction to safe and easy access to the Facility to be inspected and/or sampled shall be promptly removed by the Permittee or Discharger at the written or verbal request of the City and shall not be replaced. The costs of clearing such access shall be borne by the owner.
- (v) Unreasonable delaying or denying access by the City to the Permittee's Discharger's premises shall be a violation of this



chapter.

- b. City will inspect facilities authorized under this Chapter from time to time to confirm that proper maintenance of the facilities and to ensure compliance with the authorization. City will inspect the facilities at least once every two years.

*Sec. 98-118      Fiscal Security*

- (1) This section applies to Owners and Developers of all developments, re-developments, and other construction that are required to obtain NPS Pollution Control authorization, as described in Section 98-106(3), or an Operating Permit, as described in Section 98-107.
- (2) Fiscal security shall be provided by the Owner or Developer for the construction of temporary Erosion and Sedimentation controls and for Water Quality Controls, under the following considerations:
  - a. Fiscal security shall be provided if the development is single-family subdivision, or multi-family residential or non-residential development regardless if a plat is required; and
  - b. Fiscal security shall be provided for New Construction of controls and for re-development modifications to existing controls; and
  - c. Fiscal security shall be provided if the Application to construct or modify the controls under a Site plan is submitted to the City after the development Application is submitted to the City for the City's approval of the final plat.
- (3) Fiscal security shall be provided to the City in order to obtain NPS Pollution Control authorization.
- (4) The amount of the fiscal security shall be determined and certified by the Developer's engineer's and shall be equal to the full construction cost of the temporary controls and 100 percent of the re-vegetation of the entire Site of the proposed project.
- (5) The City may require fiscal security for permanent Erosion and Sedimentation controls and for Water Quality Controls in order to obtain an Operating Permit if the Applicant has violated its NPS Control approval, or if the permanent controls are in close proximity to a Critical Environmental Feature.
- (6) Fiscal security for the controls shall be in the form of cash escrow or a cashier's check or money order in the specified amount. If authorized by

the City, a performance bond or a letter of credit may be considered by the City, as security for the construction of the controls. The issuer of any surety bond and letter of credit shall be subject to the approval of the City.

- a. Performance Bond. If the City Manager authorizes the Developer to post a performance bond as security for its promises contained in the improvement agreement, the performance bond shall comply with the following requirements:
  - (i) All performance bonds must be in the forms acceptable to the City Manager and the city attorney; and
  - (ii) All performance bonds must be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury; and
  - (iii) All performance bonds must be signed by an agent accompanied by a certified copy of the authority to act; and
  - (iv) All performance bonds shall be obtained from surety or insurance companies that are duly licensed or authorized in the State of Texas to issue performance bonds for the limits and coverage required.

If the surety on any performance bond furnished by the Owner is declared to be bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or the surety ceases to meet the requirements to be listed in Circular 570, the Owner shall within twenty (20) calendar days thereafter substitute another performance bond and surety, both of which must be acceptable to the City.

- b. Letter of Credit. If the City Manager authorizes the Developer to post a letter of credit as security, the letter of credit shall:
  - (i) Be irrevocable; and
  - (ii) Be for a term sufficient to cover the completion, and warranty periods, but in no event less than two (2) years; and
  - (iii) Required only that the City present the issuer with a sight draft and a certificate signed by an authorized representative of the

City certifying to the City's right to draw funds under the letter of credit.

- (7) Upon acceptance by the City of all required construction of the controls, the City will authorize a reduction in the security to ten percent (10%) of the original amount of the security if the property Owner is not in violation of the permit requirements. The remaining security shall be security for the owner's covenant to maintain the required controls and to warrant that the improvements are free from defects for two (2) years thereafter.

*Sec. 98-119 Supplemental Enforcement Action*

- (1) **Performance Bonds.** The City may, by written notice, order any Owner or Operator of a source of pollution Discharge associated with construction or industrial activity to file a satisfactory bond, payable to the City, in a sum not to exceed a value determined by the City to be necessary to achieve consistent compliance with this chapter, any order issued hereunder, or any required BMP. The City may deny approval of any building permit, grading permit, subdivision plat, Site development plan, or any other City permit or approval necessary to commence or continue construction or any industrial activity at the Site, or to assume occupancy, until such a performance bond has been filed.
- (2) **Liability Insurance.** The City may, by written notice, order any Owner or Operator of a source of Stormwater Discharge associated with construction or industrial activity to submit proof that it has obtained liability insurance, or other financial assurance, in an amount not to exceed a value determined by the City, that is sufficient to remediate, restore, and abate any damage to the Stormwater Drainage System, the water in the state, or any other aspect of the environment that is caused by the Discharge.

*Sec. 98-120 Stop Orders*

Whenever any work is being done contrary to the provisions of this chapter, the City Manager may order the work stopped by notice in writing (referred to as a "Stop Work Order") served on any persons engaged in the doing or causing such work to be done. The stop work order shall be posted on the property adjacent to the activity in question, and any such person shall forthwith stop work until authorized by the building official to proceed with the work.

*Sec. 98-2-121 Permit or Authorization Revocation*

A violation of this chapter shall authorize the City Manager to cancel any permit or authorization depending in whole or in part on any approval under this chapter. If a permit or authorization is canceled, no further work shall be done on the project made

the subject of the permit or authorization until the violation has been cured and new submittals under this chapter, as required by the City Manager, have been made and approved in accordance with the provisions of this chapter and a new permit or authorization has been issued. Permanent Stabilization of the Site shall immediately be required, and the City may fund the establishment of Permanent Stabilization through the fiscal security provided in accordance with this Chapter.

*Sec. 98-122 Denial of Approvals and Permits*

A violation of this chapter shall authorize the City Manager to deny any other approvals or permits sought by the person violating this chapter under this Code.

*Sec. 98-123 Penalties and Injunctive Relief*

Any person violating this chapter, upon conviction, is punishable by a fine in accordance with the general penalty provision found in Section 98-70 of this Code. Any person violating this chapter is subject to suit for injunctive relief, civil penalties, as well as prosecution for criminal violations.

**SECTION V. PROVIDING FOR A SAVINGS CLAUSE.** The repeal of any ordinance or part of ordinances effectuated by the enactment of this ordinance shall not be construed as abandoning any action now pending under or by virtue of such ordinance or as discontinuing, abating, modifying or altering any penalty accruing or to accrue, or as affecting any rights of the City under any section or provisions of any ordinances at the time of passage of this ordinance.

**SECTION VI. SEVERABILITY CLAUSE.** If any provision, section, sentence, clause or phrase of this ordinance, or the Application of the same to any person or set of circumstances is for any reason held to be unconstitutional, void, invalid, or unenforceable, the validity of the remaining portions of this ordinance or its Application to other persons or sets of circumstances shall not be affected thereby, it being the intent of the City Council in adopting, and of the Mayor in approving this ordinance, that no portion thereof or provision or regulation contained herein shall be come inoperative or fail by reason of any unconstitutionality or invalidity of any portion, provision or regulation.

**SECTION VII. REPEALER CLAUSE.** The provisions of this ordinance shall be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein, provided, however, that all prior ordinances or parts of ordinances inconsistent or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent that such inconsistency is apparent. This ordinance shall not be construed to require or allow any act that is prohibited by any other ordinance.

**SECTION VIII. EFFECTIVE DATE.** This ordinance shall take effect immediately from and after its passage and publication as may be required by governing law.

**SECTION IX. NOTICE AND MEETING CLAUSE.** It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

**PASSED AND APPROVED** on First Reading this 14<sup>th</sup> day of February, 2017.

**FINALLY PASSED AND APPROVED** on this 28<sup>th</sup> day of February, 2017.

**ATTEST:**

**CITY OF BURNET, TEXAS**

\_\_\_\_\_  
Kelly Dix, City Secretary

\_\_\_\_\_  
Gary Wideman, Mayor

# THE CITY OF BURNET



## NONPOINT-SOURCE POLLUTION CONTROL ORDINANCE TECHNICAL MANUAL

*EFFECTIVE TBD*

FIRST EDITION

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## **1. Introduction**

The City of Burnet considers it an advantage to protect its natural water resources. Nonpoint-Source Pollution (NPS) carried by stormwater runoff is considered a cause of degradation in water quality. Land development is considered a source of nonpoint-source pollution. This Technical Manual (TM) presents measures to provide for the protection of water quality for the City of Burnet. The following sections describe the process and requirements for implementing stormwater management for developments located within the jurisdiction of the City of Burnet Nonpoint-Source Pollution Control Ordinance.

## **2. Site Planning**

In many cases sites have been planned before considering potential methods of stormwater treatment. This historical procedure could be problematic when implementing the requirements as set forth in this Ordinance. Consequently, familiarization with the requirements of this Technical Manual should precede any conceptual planning or layout work for a subdivision or other development project.

### **2.1 Stream Buffers**

Natural buffer areas adjacent to streams and natural drainage ways play an important role in maintaining predevelopment water quality. The riparian vegetation stabilizes stream channels and floodplain areas, reducing erosion. In addition, they provide an area to filter overland flow from adjacent development. Consequently, all streams should have an undisturbed native vegetation buffer on each side as follows:

- Natural streams or swales draining 30 acres or greater should have a minimum buffer of 15 feet from the point at which the water surface elevation for the 1-year, 3-hour design storm meets natural ground. If the water surface elevation is not evaluated, then the top of the existing cut bank shall be used to delineate the beginning of the buffer. Buffer areas should have slopes of 12% or less. Instances where slopes for the proposed buffer areas exceed 12% must be specifically accepted on a case by case basis by the City Engineer
- Natural streams or swales draining less than 30 acres shall be evaluated on a case by case basis to determine the impact on water quality.

Figure 2-1 shows a typical buffer zone schematic.



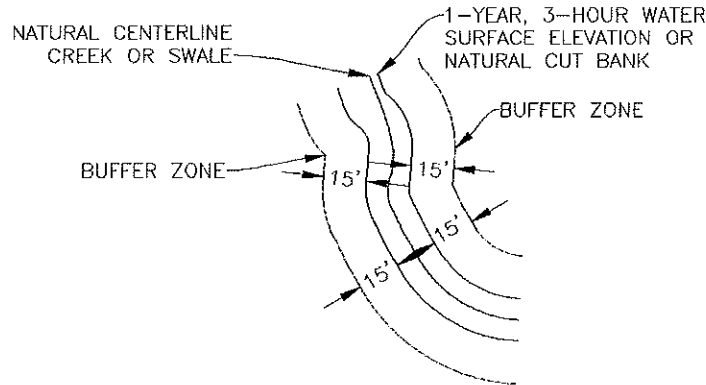


Figure 2-1 Typical buffer zone schematic

Site plans submitted to the City of Burnet for review must show the location of all stream buffers in addition to the plan elements required to reasonably assess the water quality of stormwater runoff from the site.

Buffer zones should generally remain free of construction, development, or other alterations, although stormwater treatment systems can be constructed there if the natural drainage to the site is less than 128 acres and an alternative location is not possible. The number of roadways crossing through the buffer zones should be minimized and constructed only when necessary, such as when a significant portion of the site can only be reached by crossing a buffer zone.

Other alterations within buffer zones could include utility crossings (only if necessary), fences, low impact parks, and open space. Roadways and utilities crossings should be approximately perpendicular to the buffer zone. Low impact park development within the buffer zone should be limited to trails, picnic facilities, and similar construction that do not significantly alter the existing vegetation. Parking lots and roads significantly alter existing vegetation and are not considered low impact. Neither golf course development nor wastewater effluent irrigation shall take place in the buffer zone.

### **3. Temporary and Permanent Erosion and Sedimentation Controls**

Earthen disturbance that occurs during construction activities allows for the transportation of sediment through natural drainage paths having a detrimental affect on water quality. Due to the relative ease in displacement of disturbed earthen material during a rainfall event, steps must be taken to prevent sediment from leaving the site. As a result, temporary erosion and sedimentation control measures are incorporated into this Technical Manual to maintain acceptable water quality conditions.

#### **3.1 Stormwater Pollution Prevention Plan (SWPPP)**

The City of Burnet NPS Pollution Control Ordinance requires that a Stormwater Pollution Prevention Plan be prepared and submitted to the City Engineer for approval. The SWPPP shall be signed and sealed by a licensed Professional Engineer. Submittal information shall include all information necessary to determine the adequacy of proposed temporary erosion and sedimentation controls for the site. At minimum, the following information shall be submitted for review:

- SWPPP to an appropriate scale with existing site topography, proposed improvements, limits of construction, temporary erosion and sedimentation controls, construction equipment storage areas, sequence of construction, required creek and swale buffers, and permanent site stabilization requirements
- Temporary erosion and sedimentation control details and specifications
- Existing and proposed drainage patterns

If the City Engineer determines that additional information is necessary to complete the review for the SWPPP, then the applicant shall be notified.

When construction operations are ready to commence, all temporary erosion and sedimentation controls must be in place prior to any earthen disturbances on the site. An up-to-date copy of the SWPPP shall be readily available on site at all times during construction activity. If it is determined by the City Manager that the temporary erosion and sedimentation controls are insufficient, or are not effectively serving their intended purpose, then immediate measures shall be taken to correct the problem(s). It shall be the responsibility of the developer and/or contractor that these measures are implemented, as appropriate.

Table 3-1 is a list of approved temporary erosion and sedimentation controls along with selection criteria for each.

<b>Table 3-1 Guidelines for Selection of Temporary Erosion and Sedimentation Controls</b>				
<b>Control Type</b>	<b>Application</b>	<b>Drainage Area</b>	<b>Slope</b>	<b>Spacing</b>

Silt Fence (Interior)	Areas of sheet flow or very minor channel flow	2 acres	< 20%	200 ft
Silt Fence (Perimeter)	Downslope borders of site; upslope border if necessary to divert offsite drainage	N/A	N/A	200 ft
Triangular Filter Dike	Areas within site requiring frequent vehicular access	1 acre	< 10%	N/A
Rock Berm	Drainage swales and ditches within and below site	5 acres	< 30%	150 ft
High Service Rock Berm	Near critical features, high flow areas within and below site	5 acres	< 30%	150 ft
Inlet Protection	Storm sewer inlets receiving drainage	N/A	N/A	N/A
Sediment Basin	Appropriate for large disturbed areas	5-100 acres	N/A	N/A
Construction Exit	Should be used at all designated access points	N/A	N/A	N/A
Concrete Washout	Use on all concrete pouring operations	N/A	N/A	N/A

### 3.2 Temporary Erosion and Sedimentation Controls Requirements

#### A Silt Fence

##### 1. Materials

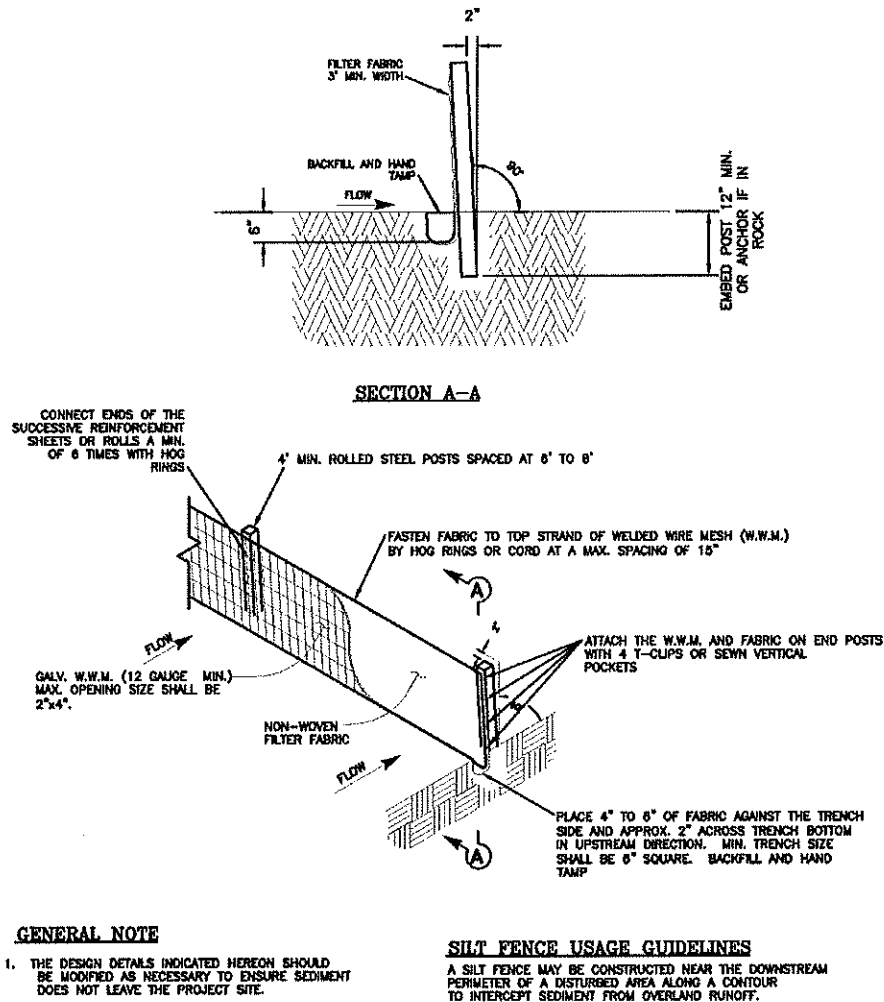
- Silt fence material shall be polypropylene, polyethylene, or polyamide woven or non-woven fabric
- Filter fabric width shall be 36 inches with a minimum unit weight of 4 oz/yd<sup>2</sup>, ultraviolet stability in excess of 70%, and maximum apparent opening size of U.S. Sieve No. 30
- Fence posts shall be made of hot rolled steel, a minimum of 4 feet long with Tee or Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 lbs/ft<sup>2</sup>
- Woven wire backing shall be used to support the filter fabric and shall be galvanized 2" x 4" welded wire, 12 gauge minimum

##### 2. Installation

- Locate silt fencing down gradient of disturbance area, following the contour as closely as possible

- Steel posts used to support the fence should be driven a minimum of 1 foot into the ground and spaced a maximum of 8 feet on center
- Turn ends of silt fence upstream in areas where flow concentrates and at the ends of silt fence lines
- Silt fence fabric skirt must be buried to a depth of 6 inches or fastened to the ground so as to prevent runoff from flowing under the fence

Figure 3-1 shows typical installation requirements for silt fencing.



**Figure 3-1 Typical installation requirements for silt fencing**

## A Triangular Filter Dikes

### 1. Materials

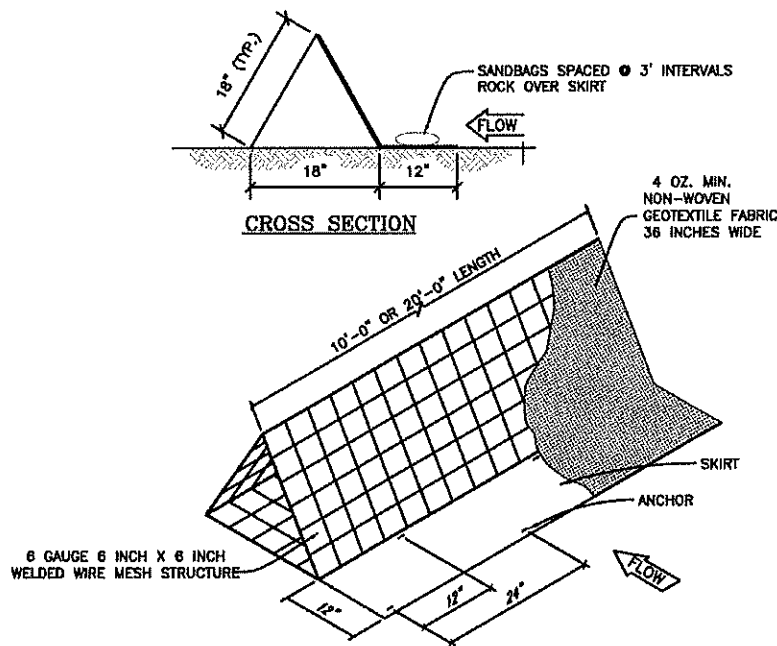
- Silt fence material shall be non-woven filter fabric
- Filter fabric width shall be 36 inches with a minimum unit weight of 4 oz/yd<sup>2</sup>

- The dike structure shall be 6 gauge 6" x 6" wire mesh shaped into triangular form with 18" sides
- The sand bag material shall be polypropylene, polyethylene, polyamide, or cotton burlap woven fabric
- Filter fabric shall have a minimum unit weight of 4 oz/yd<sup>2</sup>, mullen burst strength in excess of 300 psi and ultraviolet stability in excess of 70 percent
- The bag shall have a length of 24-30" with a width of 16-18" and a thickness of 6-8"
- The sandbags shall be filled with coarse grade sand and free of deleterious material
- The sand shall be capable of passing through a No. 10 Sieve
- The filled bag should have an approximate weight of 40 pounds and be sealed by staples or tied with cord

## 2. Installation

- Locate filter dike parallel to the contours with adjacent ends abutting one another
- Filter fabric shall overlap adjacent filter dikes at junctions
- Place sandbags on 3 foot intervals to fasten filter dike to the ground

Figure 3-2 shows typical installation requirements for triangular filter dikes.



#### INSTALLATION:

- LAYOUT THE FILTER DIKE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE THE FILTER DIKE SECTIONS ONE AT A TIME, WITH THE SKIRT ON THE UPHILL SIDE TOWARDS THE DIRECTION OF FLOW, ANCHORING EACH SECTION TO THE GROUND BEFORE THE NEXT SECTION IS PLACED.
- SANDBAGS SHOULD BE PLACED ON 3' CENTERS BETWEEN ANCHORS.
- SECURELY FASTEN THE SKIRT FROM ONE SECTION OF FILTER DIKE TO THE NEXT.
- FILTER DIKES MUST MAINTAIN CONTINUOUS CONTACT WITH THE GROUND.
- AFTER THE SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHOULD BE REMOVED. SILT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

#### INSPECTION AND MAINTENANCE GUIDELINES:

- INSPECTION SHOULD BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- INSPECT AND REALIGN BERMS AS NEEDED TO PREVENT GAPS BETWEEN THE SECTIONS.
- ACCUMULATED SILT SHOULD BE REMOVED AFTER EACH RAINFALL EVENT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

**Figure 3-2 Typical installation requirements for triangular filter dikes**

## A Rock Berm

### 1. Materials

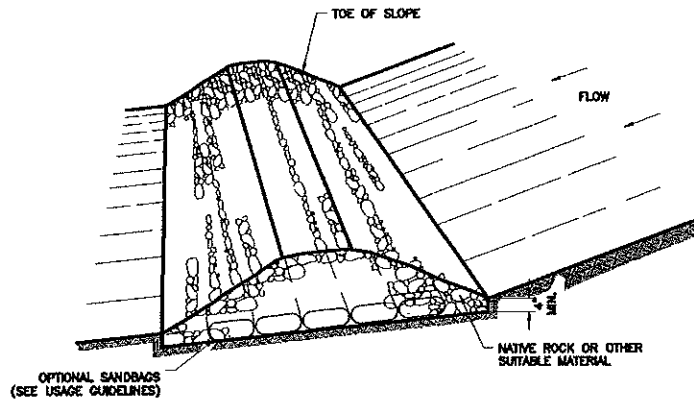
- Woven wire sheathing used to secure the berm shall have a minimum wire diameter of 20 gauge galvanized with a maximum opening of 1"
- 3-5" diameter aggregate shall be used where high velocities are not anticipated
- 5-8" diameter aggregate shall be used where high velocities are expected

### 2. Installation

- Locate woven wire sheathing perpendicular to the flow line
- Place aggregate along the sheathing to a minimum height of 18"
- Wrap the sheathing around the aggregate and secure the ends with tie wire (ends should overlap a minimum of 2")

- Verify stability of berm by walking across it (if the berm moves when walked on, then it needs to be better stabilized)

Figure 3-3 shows typical installation requirements for rock berms.



#### GENERAL NOTES

1. IF SHOWN ON THE PLANS OR AS REQUIRED TO PREVENT OFF-SITE SEDIMENTATION, BERMS SHALL BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. THE ROCK BERMS DIMENSIONS SHALL BE AS INDICATED ON THE DETAIL SHEETS.
3. SIDE SLOPES TO BE 2:1 OR FLATTER.
4. MAINTAIN A MIN. OF 1' BETWEEN TOP OF ROCK BERMS WEIR AND TOP OF EMBANKMENT FOR BERMS.
5. BERMS SHALL BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
6. ROCK BERMS TYPE 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT & SLOPE SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
7. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.
8. FLOW OUTLET SHOULD BE ON A STABILIZED AREA (VEGETATION, ROCK, ETC.)
9. THE DESIGN DETAILS INDICATED HEREON SHOULD BE MODIFIED AS NECESSARY TO ENSURE SEDIMENT DOES NOT LEAVE THE PROJECT SITE.

ROCK BERMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM UNDISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW.

**TYPE 1 (18" HIGH WITH NO WIRE MESH):** TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES, AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 SHOULD NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROX. 8 FT/SEC OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS SHOULD BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS A RESULT OF ROUTINE INSPECTIONS

**TYPE 2 (18" HIGH WITH WIRE MESH):** TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

**TYPE 3 (36" HIGH WITH WIRE MESH):** TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

**TYPE 4 (SACK GABIONS):** TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

Figure 3-3 Typical installation requirements for rock berms  
(Type 1 or 2)

## A High Service Rock Berm

### 1. Materials

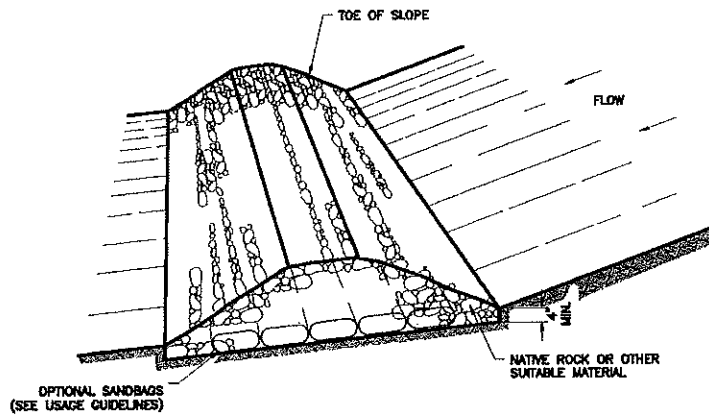
- Silt fence shall be non-woven fabric 36 inches in width with a minimum unit weight of 4 oz/yd<sup>2</sup>
- Fence posts shall be made of hot rolled steel, a minimum of 4 feet long with Tee or Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 lbs/ft<sup>2</sup>
- Woven wire backing used to support the filter fabric shall be galvanized 2" x 4" welded wire, 12 gauge minimum
- Woven wire sheathing used to secure the berm shall have a minimum wire diameter of 20 gauge galvanized with a maximum opening of 1"
- 3-5" diameter aggregate shall be used where high velocities are not anticipated
- 5-8" diameter aggregate shall be used where high velocities are expected

## 2. Installation

- Locate woven wire sheathing perpendicular to the flow line
- Install silt fence along the center of the berm
- Place aggregate along the sheathing to a minimum height of 24"
- Wrap the sheathing around the aggregate and secure the ends with tie wire (ends should overlap a minimum of 2")
- The high service rock berm may be removed only after the site is stabilized

Figure 3-4 shows typical installation requirements for high service rock berms.





#### **GENERAL NOTES**

1. IF SHOWN ON THE PLANS OR AS REQUIRED TO PREVENT OFF-SITE SEDIMENTATION, BERMS SHALL BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. THE ROCK BERMS DIMENSIONS SHALL BE AS INDICATED ON THE DETAIL SHEETS. SIDE SLOPES TO BE 2:1 OR FLATTER.
3. MAINTAIN A MIN. OF 1' BETWEEN TOP OF ROCK BERMS WEIR AND TOP OF EMBANKMENT FOR BERMS.
4. BERMS SHALL BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
5. ROCK BERMS TYPE 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT & SLOPE SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
6. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.
7. FLOW OUTLET SHOULD BE ON A STABILIZED AREA (VEGETATION, ROCK, ETC.)
8. THE DESIGN DETAILS INDICATED HEREON SHOULD BE MODIFIED AS NECESSARY TO ENSURE SEDIMENT DOES NOT LEAVE THE PROJECT SITE.

ROCK BERMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM UNDISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW.

**TYPE 1 (18" HIGH WITH NO WIRE MESH):** TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES, AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 SHOULD NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROX. 8 FT/SEC OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS SHOULD BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS A RESULT OF ROUTINE INSPECTIONS

**TYPE 2 (18" HIGH WITH WIRE MESH):** TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

**TYPE 3 (36" HIGH WITH WIRE MESH):** TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

**TYPE 4 (SACK GABIONS):** TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

**Figure 3-4 Typical installation requirements for high service rock berms**

**(Type 3 or 4)**

#### **A Inlet Protection**

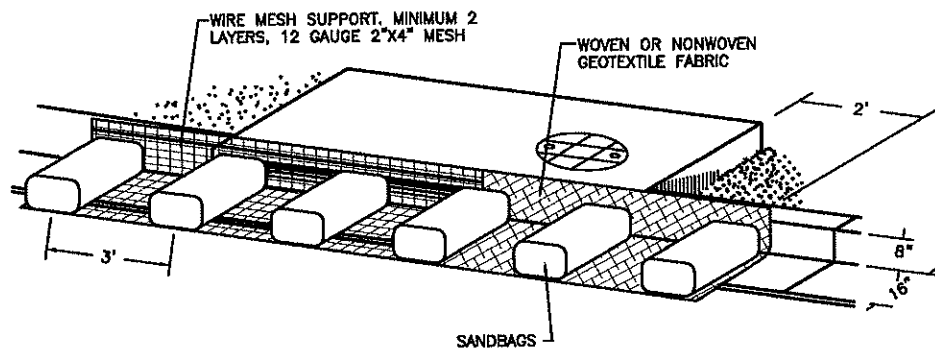
##### **1. Materials**

- Filter fabric width shall be non-woven with a minimum unit weight of 4 oz/yd<sup>2</sup>
- Woven wire backing used to support the filter fabric shall be galvanized 2" x 4" welded wire, 12 gauge minimum
- The sand bag material shall be polypropylene, polyethylene, polyamide, or cotton burlap woven fabric

- Filter fabric shall have a minimum unit weight of 4 oz/yd<sup>2</sup>, mullen burst strength in excess of 300 psi and ultraviolet stability in excess of 70 percent
- The bag shall have a length of 24-30" with a width of 16-18" and a thickness of 6-8"
- The sandbags shall be filled with coarse grade sand and free of deleterious material
- The sand shall be capable of passing through a No. 10 Sieve
- The filled bag should have an approximate weight of 40 pounds and be sealed by staples or tied with cord

## 2. Installation

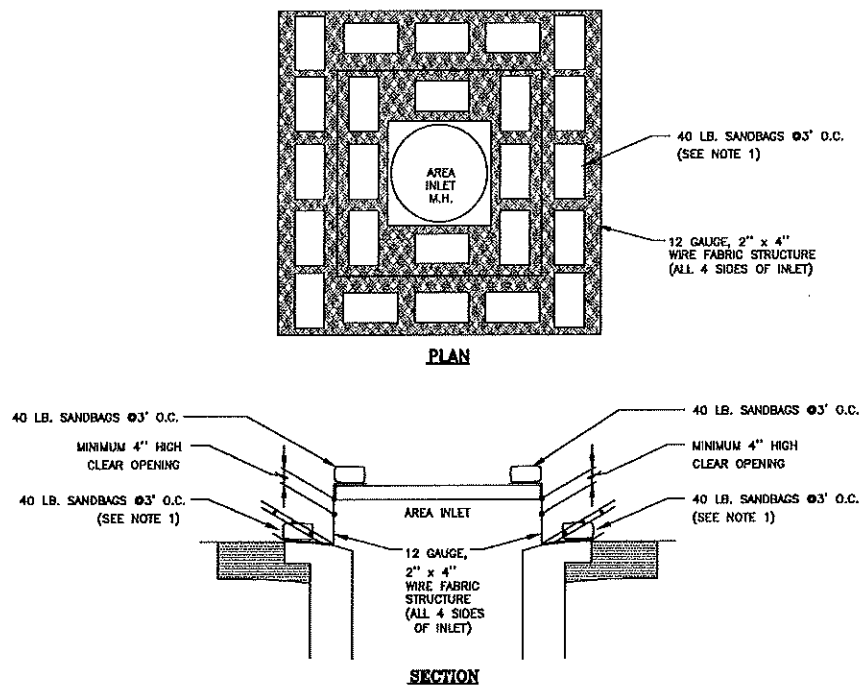
See figures 3-5 and 3-6 for typical installation guidelines for curb inlet and area/grate inlet protection.



### NOTES:

1. WHEN A SANDBAG IS FILLED WITH MATERIAL, THE OPEN END OF THE SANDBAG SHOULD BE STAPLED OR TIED WITH NYLON OR POLY CHORD.
2. INLET PROTECTION SHALL BE PLACED OVER THE MOUTH OF THE INLET WITH A 2 FOOT OVERLAP ON EITHER SIDE.
3. THE FABRIC COVER AND SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE.
4. THE SKIRT SHALL BE WEIGHTED WITH ONE MINIMUM 18"x24"x6" SANDBAG EVERY 3 FEET.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF FOUR INCHES, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
7. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE INLET PROTECTION AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN NOTE 6 ABOVE.

**Figure 3-5 Typical installation guidelines for curb inlet protection**



#### NOTES:

1. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1" X 4" BOARD SECURED WITH CONCRETE NAILS 3' O.C. NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH SURFACE OF GUTTER.
2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
4. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

**Figure 3-6 Typical installation guidelines for area/grate inlet protection**

## A Sediment Basin

### 1. Materials

- Suitable outfall structure(s) as approved by the City Engineer

### 2. Design Requirements

- Side slopes of basins shall not exceed 3:1
- Basins shall be graded to drain to the outfall structure(s)
- Basins and outfall structure(s) shall be sized to pass the 10-year design storm
- A 48 hour drawdown time is required to effectively detain the 1-year 3 hour storm event

3. Required submittal information for sediment basins to be submitted to the City Engineer for review:

- Contributing drainage area
- Design flow rates and sizing calculations
- Details for outfall structure(s)
- Other information and details required to reasonably construct the sediment basin as determined by the City Engineer

A Construction Exit

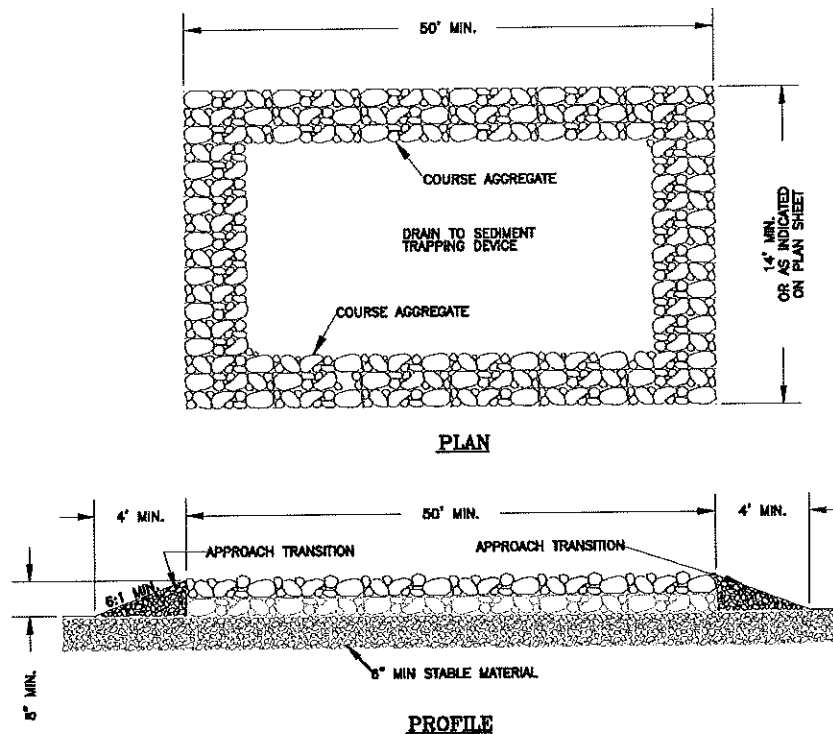
1. Materials

- Aggregate shall consist of 4" to 8" diameter washed stone

2. Installation

- Avoid areas with steep slopes
- Clear vegetation and other objectionable material from foundation area
- Grade back to site (where possible), otherwise install a 6" tall rock berm on the downstream side
- Install aggregate to a minimum thickness of 8"
- The construction exit shall be the full width of the proposed roadway, or a minimum of 12 feet if no roadway is proposed
- The construction exit shall be a minimum of 50 feet in length
- Install culvert pipe as necessary to maintain proper drainage for existing roadway

Figure 3-7 shows typical installation requirements for construction exits.



#### GENERAL NOTES

1. THE LENGTH OF THE ROCK CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITION SHOULD BE NO STEEPER THAN 6:1.
4. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW FOR POSITIVE DRAINAGE.
5. THE DESIGN DETAILS INDICATED HEREON SHOULD BE MODIFIED AS NECESSARY TO ENSURE SEDIMENT DOES NOT LEAVE PROJECT SITE.

**Figure 3-7 Typical installation requirements for construction exits**

#### A Concrete Washout

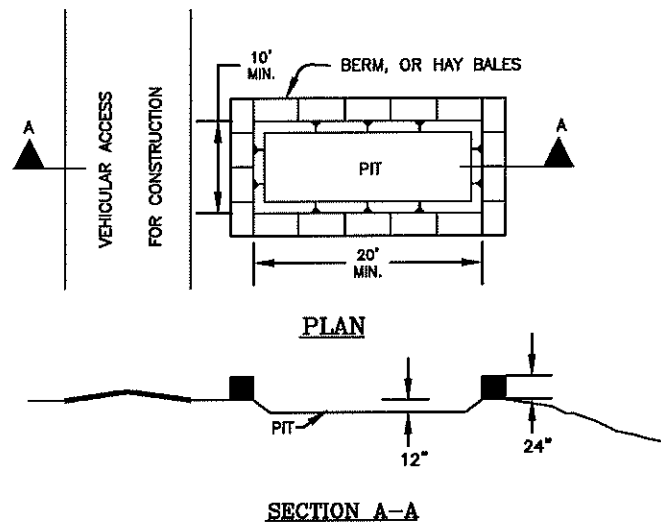
##### 1. Materials

- Standard hay bales or 24" tall earthen berms shall be used

##### 2. Installation

- Excavate pit to a depth of 12" with a minimum width of 10 feet and a minimum length of 20 feet
- Establish hay bales or 24" tall earthen berms around the bank of the excavated pit

Figure 3-8 shows typical installation requirements for concrete washouts.



**GENERAL NOTES:**

1. DETAIL ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
2. IF HAY BALES ARE USED, THEY SHALL BE PLACED IN ACCORDANCE WITH DETAILS SHOWN ON EXHIBIT FOR HAY BALES.
3. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
4. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

**Figure 3-8 Typical installation requirements for concrete washouts**

### 3.3 Buffer Zone Crossings

When roadway, utility, or other disturbance activities located in buffer zones are necessary, special accommodations must be made to protect these environmentally sensitive areas.

#### B. General Considerations

- Buffer zone crossings should be made as close to perpendicular to the flow line of the drainage way as practical
- If baseflow exists, temporary diversion or pumping techniques may be required during construction as is necessary to prevent displacement of sediment and obstruction of flow through the channel. Adequacy of design shall be determined by the City Engineer
- If pumping is required, discharges shall be released downstream of the construction area but upstream of erosion control measures; if velocities have potential for inducing erosion, or discharge is in an area that is susceptible to erosion, then energy

dissipating devices shall be implemented with aggregate 6" in diameter and buried to a depth of 12"

- The construction area shall be kept free of surface and ground water
- Energy dissipaters, flow spreaders, and appropriate stabilization procedures shall be implemented as necessary to limit erosion potential

#### B. Utility Crossings and Excavation

- Prior to any disturbance activities, install two high service rock berms at 100 foot spacing across the channel downstream of the disturbance area. The first berm should be located approximately 100 feet downstream of the disturbance area. Alternative measures may be required due to property constraints. The City Engineer shall determine the adequacy of proposed alternative methods.
- After completion of activities (or at end of work day) install silt fence along disturbance area parallel to the flow line of the channel at 25 foot spacing.
- All excess excavated material must be removed from the channel and buffer zone at the end of the work day.

### 3.4 Permanent Erosion Controls

#### A. Vegetation

- All vegetation work shall comply with TxDOT standard specification item numbers 160, 162, 164, 166, and 168
- All areas disturbed by construction shall be permanently stabilized with perennial vegetation
- Cellulose fiber or paper mulch used for erosion control shall be applied at a rate of 2,500 pounds per acre
- The seedbed shall be maintained in a condition favorable for the growth of grass
- It is recommended that the seedbed receive at least one-half inch of water per week
- Stabilization measures shall be initiated as soon as practicable, but no more than 14 days after construction activity has temporarily or permanently ceased
- Where construction activity on a portion of a site has temporarily ceased, and earth disturbing activities will resume within 21 days, that area does not require temporary stabilization
- Sod can be used as an immediate manner to stabilize a disturbed area
- Seeding activities shall consist of broadcast seeding or hydro-mulching
- Hydro-mulch shall consist of either wood or paper mulch and be applied at a rate of 2,500 pounds per acre. Fertilizer of the 13-13-13 analysis shall be included in the mixture at the manufacturer's recommended rate. Each bag of seed shall comply with the requirements of the Texas Seed Law including the labeling requirements for showing pure live seed (pls = purity x germination)
- Recommended seeding requirements and applicable dates are as follows:
  - a. January 16 – May 15: 1 pound per 1,000 ft<sup>2</sup> of hulled Bermuda Grass
  - b. May 16 – September 15: 1 pound per 1,000 ft<sup>2</sup> of hulled Bermuda Grass and 2 pounds per 1,000 ft<sup>2</sup> of Fox Tail Millet
  - c. September 16 – January 15: 1 pound per 1,000 ft<sup>2</sup> of unhulled Bermuda Grass and 3 pounds per 1,000 ft<sup>2</sup> of wheat (red, winter) or oats

- Fertilizer for seeding activities shall be of an 15-15-15 analysis and applied at a rate of 1 to 1.5 pounds per 1,000 ft<sup>2</sup> (45-65 pounds per acre)
- Mulch type used shall be hay, straw, or mulch applied at a rate of 45 pounds per 1,000 ft<sup>2</sup> with a soil tackifier at a rate of 1.4 pounds per 1,000 ft<sup>2</sup>
- The planted area shall be irrigated or sprinkled at 10 day intervals for the first 2 months to sufficiently soak the soil to a depth of 6", but not so as to erode the topsoil (rainfall occurrences of 0.5" or more shall postpone the watering for one week)
- Restoration shall be accepted when the grass has reached a height of 1.5" with 80% coverage and no bare areas in excess of 16 ft<sup>2</sup>

#### B. Other Permanent Erosion Controls

Areas with high potential for erosion such as channels, culverts, storm sewer outlets, etc. shall be protected against erosion with appropriate energy dissipating devices, flow spreading devices, erosion control matting, rock riprap, etc. The City of Burnet most recently adopted Drainage Criteria Manual provides some direction on when additional erosion protection is necessary. Geotechnical reports may be required in some instances to evaluate soil conditions. The adequacy of erosion protection shall be subject to review by the City Engineer.

### 4. Permanent BMP Implementation

This section describes the configuration, sizing, and design guidelines of permanent Best Management Practices (BMPs) to meet the requirements of the City of Burnet NPS Pollution Control Ordinance.

Permanent BMP submittal requirements:

- Location map
- Slopes map for proposed flow through type devices (vegetated filter strips)
- Vegetative cover map
- Location, sizing calculations, and description of all proposed permanent BMPs

#### 4.1 Water Quality BMP Sizing

Permanent water quality BMP's are required for all new development or redevelopment, providing that one of the conditions for exemption cannot be met as outlined in Sec. 98-110 under the heading: "Projects Exempt from Article 4."

**Step  
1:  
Calc  
ulate**

#### Impervious Cover

Imperviousness is the percent, or decimal fraction, of the total site area covered by the sum of roads, parking lots, sidewalks, rooftops and other impermeable surfaces. Roof areas directed to rainwater harvesting systems are exempt from the treatment requirement. Table 4-1 shows the relation between lot size and impervious cover. When calculating the impervious area of a residential development, use the values from Table 4-1, unless the actual future impervious cover is known.

**Table 4-1 Impervious Cover Assumptions for Residential Tracts**



Lot Size	Assumed Impervious Cover (ft <sup>2</sup> )
> 3 acres	10,000
Between 1 and 3 acres	7,000
Between 15,000 ft <sup>2</sup> and 1 acre	5,000
Between 10,000 and 15,000 ft <sup>2</sup>	3,500
<10,000 ft <sup>2</sup>	2,500

## Step 2: Determine Drainage Area to BMP

Contributing on site drainage areas shall be determined using existing and proposed topography. Topography to be used for on site design must include at a minimum 2-foot contour intervals based on current survey information. Offsite contributing drainage areas shall not be required to be treated, but flows shall be diverted to largest extent practical. Offsite contributing drainage areas, when applicable, must be accounted for in drainage and water quality outfall structure sizing. Minimum contour intervals for offsite drainage areas are 20 feet (USGS maps are allowable).

## Step 3: Select an Appropriate BMP

Select an appropriate BMP or series of BMPs for the site. BMPs should be chosen based on contributing drainage area to the BMP, as well as based on the required pollutant removal requirements.

Sites with 10 acres or less of total on site area, and that are not part of a larger common plan of development, shall require the use of at least one BMP for each on site drainage area provided that the sizing and design criteria as outlined later in this manual are met.

Sites with total areas in excess of 10 acres, shall require a higher standard for pollutant removal than for smaller sites. For sites in excess of 10 acres, BMPs that can achieve an annual removal rate of 70% or more for the increase in Total Suspended Solids (TSS) and increase in Total Phosphorus (TP) due to development or redevelopment shall require treatment by at least one BMP provided that all sizing and design criteria are met for that BMP in accordance with this manual. In the event that a single BMP cannot achieve the abovementioned removal rates for sites in excess of 10 acres, then treatment with additional BMP(s) shall be required. Pollutant removal efficiencies and allowable contributing drainage areas for each approved BMP are listed in Table 4-2.

Table 4-2 Approved BMPs, Pollutant Removal Efficiencies, and Recommended Contributing Drainage Areas			
BMP	TSS Removal (%)	TP Removal (%)	Contributing Drainage Area Limits
Retention/Irrigation	90	90	Less than 128 acres
Wet Basins	83	58	20 to 128 acres
Constructed Wetlands	83	58	20 to 128 acres
Sand Filters	80	55	Less than 20 acres
Bioretention	80	72	Less than 10 acres
Vegetated Filter Strips	85	70	Less than 3 acres
Extended Detention	68	45	5 to 128 acres

Basin			
Infiltration Trench	90	90	* Downstream of BMP

\* Note: Infiltration Trenches must be designed as offline BMPs.

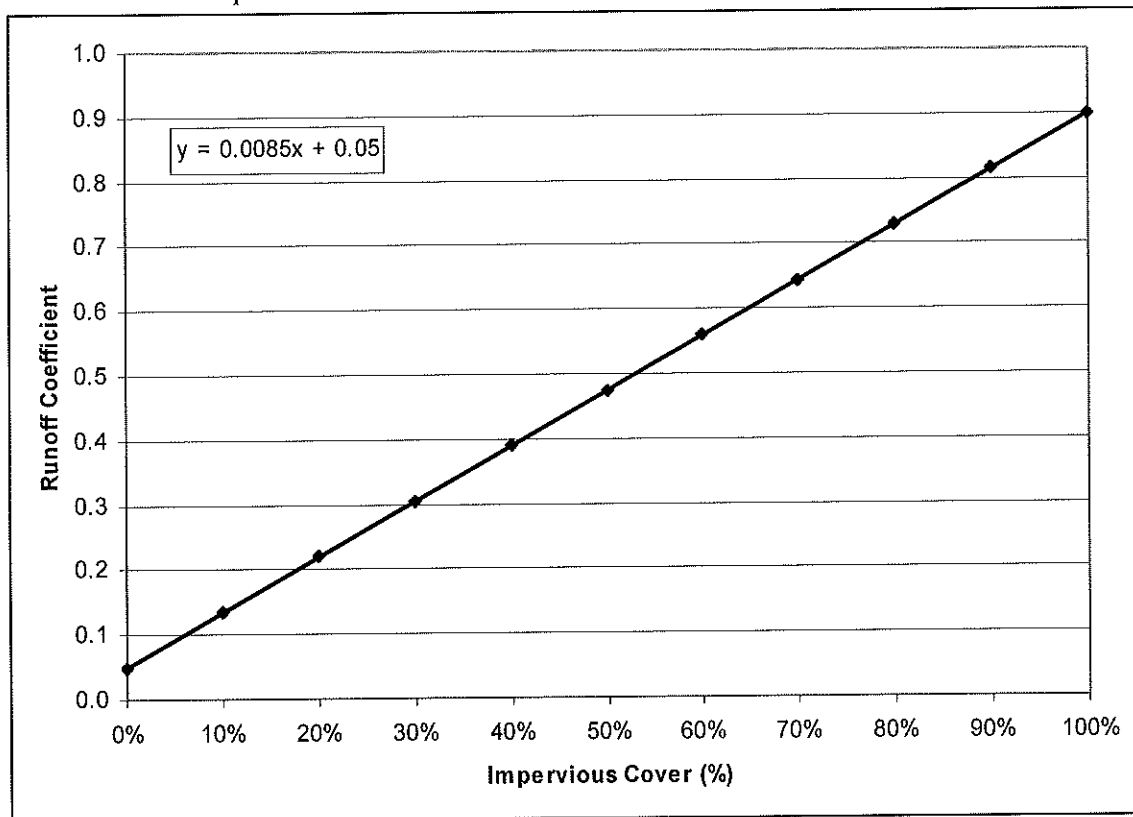
#### Step 4: Calculate Runoff Coefficient

Based on the impervious cover calculated for each drainage area contributing to each of the BMPs installed at the site, calculate the runoff coefficient using equation 4.1 or figure 4-1.

**Equation 4.1**  $R_v = 0.05 + 0.0085(IC)$

Where:

IC = Percent impervious cover



**Figure 4-1 Relationship Between Runoff Coefficient and Impervious Cover**

#### Step 5: Calculate Water Quality Volume

This step calculates the required Water Quality Volume (WQV) for each regulated area. Correlations between WQV and BMP sizing are addressed later in this manual. The WQV is calculated using equation 4.2:

**Equation 4.2**  $WQV = \text{Runoff Coefficient} \times \text{Area} \times 43,560 \times 1.93 / 12$

Where:

WQV = Water quality volume (ft<sup>3</sup>)

R<sub>v</sub> = Runoff Coefficient determined in Step 4 (in.)

Area = Site area contributing to the BMP (ac)

1.93 = Rainfall Depth for 1-Year, 3-Hour Rainfall Event

## Step 6: BMP Sizing

After determining the appropriate BMP(s) for each on site drainage area, and calculating the WQV, use Tables 4-3, 4-4 and 4-5 to establish the sizing criteria for each BMP. Additional BMP design criteria are included in section 4.2. Table 4-3 gives BMP sizing criteria based on WQV for sites with a total area of 10 acres or less. Table 4-4 corresponds to single BMP sizing criteria for sites in excess of 10 acres. Table 4-5 gives primary and secondary BMP sizing criteria for sites in excess of 10 acres.

Table 4-3 Stand Alone BMP Sizing Criteria for Sites of 10 Total Acres or Less		
BMP	BMP Sizing (ft <sup>3</sup> )	Sediment Forebay (ft <sup>3</sup> )
Retention/Irrigation	WQV x 1.55	WQV x 0.2
Wet Basins	WQV x 1.05	See "Wet Basins"
Constructed Wetlands	WQV x 1.05	See "Constructed Wetlands"
Sand Filters	* D x WQV / 18	WQV x 1.05
Bioretention	WQV x 1.05	WQV x 0.2
Vegetated Filter Strips	WQV / 0.44	N/A
Extended Detention Basin	WQV x 1.05	WQV x 0.2

\*Note: D = Depth of pond over the sand filter

Table 4-4 Stand Alone BMP Sizing Criteria for Sites Greater Than 10 Total Acres		
BMP	BMP Sizing (ft <sup>3</sup> )	Sediment Forebay (ft <sup>3</sup> )
Retention/Irrigation	WQV x 1.55	WQV x 0.2
Bioretention	WQV x 1.05	WQV x 0.2
Vegetated Filter Strips	WQV / 0.44	N/A

Table 4-5 Dual BMP Sizing Criteria for Sites Greater Than 10 Total Acres					
Primary BMP	Secondary BMP Sizing				
	Vegetated Filter Strip Upgradient (ft <sup>2</sup> )	Vegetated Filter Strip Downgradient (ft <sup>2</sup> )	Bioretention (ft <sup>3</sup> )	Infiltration Trench (ft <sup>2</sup> )	Infiltration Trench/Vegetated Filter Strip Combo
Wet Basins	WQV x	WQV x 0.26	WQV x	WQV x	WQV x 0.0043

	0.69		0.029	0.023	
Sand Filters	$WQV \times 0.77$	$WQV \times 0.3$	$WQV \times 0.033$	$WQV \times 0.023$	$WQV \times 0.0045$
Extended Detention Basin	$WQV \times 1.05$	$WQV \times 0.4$	$WQV \times 0.044$	$WQV \times 0.03$	$WQV \times 0.006$

Note: Refer to Table 4-3 for sediment forebay sizing and primary BMP sizing.

For infiltration trench/vegetated filter strip combo, trench must be a minimum of 8 ft<sup>2</sup> in cross-sectional area and the strip must be a minimum of 30 ft in width.

## 4.2 BMP Design Criteria

Some of the methods of implementation of permanent BMPs described in this section include regrading and reshaping existing watershed surfaces, modifying drainage channels, and in some cases, construction of control structures and/or berms. In many cases, the facilities required for implementation of permanent BMPs will be constructed in areas where there may be conflict with existing drainage patterns. All constructed facilities associated with the implementation of permanent BMPs are subject to the same restrictions as other planned structures. That is, the addition of the permanent BMPs must not produce any adverse impact on existing drainage systems or patterns outside the property boundaries or easement lines of the proposed site. Adverse impact includes, but is not limited to:

- Increase in runoff from a developed property
- Concentration of flow
- Blockage of flow (backwater effects)
- Change in existing flow patterns, including redirection or diversion of flow
- Placement of fill in the flood plain (The volume of a raised berm and all water ponded behind the raised berm has the same effect on displacement of flood storage as placement of earthen fill of equal volume.)
- Placement of structures in the floodway

Obviously, the BMP structure(s) may produce any or a combination of the above listed effects in the immediate vicinity of the constructed facilities; however, all adverse impacts must be completely mitigated within the confines of the property lines of the site (including easements).

This section gives general design requirements for each of the approved BMPs. All pond bottoms, side slopes, and earthen embankments shall be designed and constructed to be independently stable and compacted to 95% of optimum density. Side slopes for earthen embankments shall not be steeper than 3' horizontal to 1' vertical (3:1) without appropriate erosion protection measures. All slopes in excess of 3:1 shall be stabilized with erosion control matting, rock riprap, retaining walls, or other methods as approved by the City Engineer. All earthen BMPs shall be permanently stabilized with perennial vegetation to a minimum coverage of 80% with no bare areas exceeding 16 ft<sup>2</sup>.

### A. BMP Design Requirements

#### 1. General Basin Requirements

- A minimum of 1 foot of freeboard is required above the proposed maximum water surface elevation of the basin

## 2. Sediment Forebays

- If required, sediment forebays shall be sized in accordance with the General Requirements for each approved BMP
- Sediment forebays shall maintain a minimum length to width ratio of 1:1
- Sediment forebays shall be separated from the remainder of the BMP by rock gabion mattresses or loose rock riprap (dependant on flow rates)
- Acceptable aggregate diameters for rock gabion mattresses and loose rock riprap is 4" to 8"

## 3. Flow Splitting Devices and Outfall Structures

- All flow splitting devices, outfall structures, or other drainage structures associated with a proposed BMP shall be designed in accordance with the City of Burnet most recently adopted Drainage Criteria Manual.

## 4. Flow Spreading Devices

- Flow spreading devices shall be required for basin discharges to establish sheet flow for the 1-year, 3-hour storm event. Sheet flow is defined to have a depth of flow of 0.2 feet or less and a velocity of 1 foot per second or less. This can be approximated using the following relationship:

$$L = 5 \times Q_{1\text{-year, 3-hour developed}}$$

Where: L = Length of spreader in the direction of flow (ft)  
 $Q_{1\text{-year, 3-hour developed}}$  = Peak discharge for the 1-year, 3-hour storm event under proposed conditions (cfs, see section 6 for rainfall data)

## B. Retention/Irrigation

### 1. General Requirements

- The required volume of the pond is the WQV + 55% to account for reductions in volume due to deposition of solids and to protect against streambank erosion
- A fixed vertical marker shall be installed in the basin to indicate sediment accumulation
- A pump, wet well, and irrigation system must be designed to distribute the water quality volume (systems should be designed similarly to wastewater effluent irrigation systems)
- If the basin is to be designed as an offline pond, then a flow splitting device shall be required.
- The irrigation schedule shall insure complete drawdown of the water quality volume within 72 hours, however, irrigation is not permitted within 12 hours of the completion of a rainfall event (effective time allowed for distribution of the water quality volume is consequently 60 hours)

- Irrigation areas must be pervious with slopes of 12% or less to receive credit
- The minimum required irrigation area is calculated by equation 4.8:

**Equation 4.8**

$$A = \frac{12 \times V}{T \times \gamma}$$

Where:

A = Area required for irrigation (ft<sup>2</sup>)  
 V = Water quality volume (ft<sup>3</sup>)  
 T = Period of active irrigation (60 hr)  
 γ = Soil permeability (in/hr)

2. Soil permeability information should be obtained from the most recent county soil survey or from testing information (if available); if no information is submitted, an assumed value of 0.1 in/hr shall be assumed

**C. Wet Basins**

**1. General Requirements**

- The required volume of the pond is the WQV + 5% to account for reductions in volume due to deposition of solids
- The volume of the permanent pool shall be greater than or equal to the water quality volume
- A sediment forebay shall be sized to contain 20% of the permanent pool volume and be at least 3 feet deep
- The sediment forebay shall be separated from the rest of the permanent pool by a gabion or loose riprap wall
- The pond should be narrowest at the inlet and widest at the outlet, with a minimum length to width ratio of 2.0
- An aquatic bench 10 feet wide from the perimeter of the permanent pool and no more than 18" below normal depth is required
- All permanent pools with a depth of 4 feet or more shall require a safety bench with a minimum width of 10 feet from the water surface elevation of the maximum pool elevation and with a maximum allowable slope of 3%
- A fixed vertical marker shall be installed in the forebay to measure sediment accumulation
- The low flow orifice outfall shall be sized to a minimum diameter of 4" and shall discharge the water quality volume over a period of 40-48 hours
- The facility shall require a separate drain pipe with a manual valve to allow for draining of the facility for maintenance purposes
- If the basin is to be designed as an offline pond, then a flow splitting device shall be required.
- Some of the appropriate wetland species for warm weather climates along with planting guidelines are listed in Tables 4-6 through 4-10 below

- A pond buffer zone of 25 feet that extends outward from the maximum water surface elevation is required
- The permanent pool shall not exceed 8 feet in depth and should average 4-6 feet deep
- The pond must maintain a permanent pool, therefore a 12" clay, or approved alternative, impermeable liner and a constant source of water must be provided for in order to maintain the facilities condition as a wet basin

<b>Table 4-6 Appropriate Bulrush Species</b>		
<b>Bulrush</b>	<b>Water Depth</b>	<b>Notes</b>
<i>Scirpus validus</i> , Bulrush	1-3'	8' tall evergreen, resists cattail encroachment
<i>Scirpus californicus</i> , Bulrush	1-3'	8' tall evergreen, resists cattail encroachment
<i>Scirpus americanus</i> , Three-square Bulrush	2-6"	2-4' tall, with 3 distinct edges

Note: Bulrush species should be installed in clumps with individual plants spaced approximately 3 to 4 feet on center. At least 2 species should be used.

<b>Table 4-7 Appropriate Marsh Species</b>		
<b>Marsh Diversity</b>	<b>Water Depth</b>	<b>Notes</b>
<i>Cyperus ochraeus</i> , Flatsedge	2-6"	1-2' tall, clump-forming, common to central Texas
<i>Dichromena colorata</i> , White-topped Sedge	2-6"	1-2' tall, white bracts during warm season
<i>Echinodorus rostratus</i> , Burhead	3"-1'	1-2' tall, annual, heart-shaped leaves, flower similar to arrowhead
<i>Eleocharis quadrangulata</i> , Four-square Spikerush	6"-1'	1-2' tall, colonizes, inhabits deeper water than other Spikerushes
<i>Iris Pseudacorus</i> , Yellow Flag Iris	1-2'	3-4' tall, can be invasive, dense growth, yellow flowers
<i>Juncus effusus</i> , Soft Rush	6"-1'	3-4' tall, forms a tight clump, evergreen, very attractive
<i>Justicia Americana</i> , Water Willow	2-6"	2-3' tall, common, white flowers, herbaceous, colonizes
<i>Marsilea macropoda</i> , Water Clover	2-6"	Looks like floating four-leaf clover, endemic to Texas
<i>Najas guadalupensis</i> , Water-Naiad	1-4'	Submergent, valuable to fish and wildlife
<i>Pontederia cordata</i> , Pickerelweed	2"-1'	3' tall, colonizes, cosmopolitan, purple flowers
<i>Rhynchospora corniculata</i> , Horned-rush	2-6"	2-3' tall, brass-colored flowers in May

Note: Marsh species should be installed in clumps in shallow water, with individual plants spaced approximately 3 feet on center. At least 2 species should be used.

<b>Table 4-8 Appropriate Spikerush Species</b>		
<b>Spikerush</b>	<b>Water Depth</b>	<b>Notes</b>
<i>Eleocharis montevidensis</i> , Spikerush	0-6"	1' tall, rhizomatous, reduces erosion at the pond edge

Eleocharis macrostachys, Spikerush	0-6"	1' tall, rhizomatous, reduces erosion at the pond edge
Eleocharis quadrangulata, Spikerush	3"-1'	2-2.5' tall, rhizomatous, can accommodate deeper water, 4-angled

Note: Spikerush species should be installed at or near the water's edge, with individual plants spaced approximately 3 to 6 feet on center. At least 2 species should be used.

<b>Table 4-9 Appropriate Arrowhead Species</b>		
<b>Arrowhead</b>	<b>Water Depth</b>	<b>Notes</b>
Sagittaria latifolia, Arrowhead	2"-1'	2' height, wildlife value, white flowers, proven water quality performer

Note: Arrowhead species should be installed in clumps in shallow water, with individual plants spaced approximately 3 feet on center.

<b>Table 4-10 Appropriate Aquatic Species</b>		
<b>Aquatics</b>	<b>Water Depth</b>	<b>Notes</b>
Cabomba caroliniana, Fanwort	1-4'	Approximately 6' length underwater, submergent
Ceratophyllum spp., Coon-tail	1-4'	Maximum 8' length, tolerant of turbidity and water fluctuation, wildlife food
Nymphaea odorata, Fanwort	6"-2'	A native, reliably hardy, floating-leaved aquatic, with white flowers
Potamogeton pectinatus, Sago Pondweed	8"-3'	Colonizes quickly, valuable to fish and wildlife; floating-leaved aquatic

Note: Floating-leaved aquatic species are rooted in the sediment of the pond, and have leaves that float on the water, providing shade which limits the potential for algae growth. At least 2 species should be used.

## 2. Considerations

- Stocking the facility with Gambusia affinis (mosquito fish) to a minimum initial density of 200 individuals per surface acre should be considered to minimize problems with mosquitoes
- The performance and appearance of the facility may be improved by providing aeration of the permanent pool

## D. Constructed Wetlands

### 1. General Requirements

- The design requirements are the same for constructed wetlands as for wet basins with the exception of the following items
- A minimum 10 foot wide flat area around the perimeter of the facility is required
- Where possible, a 30 foot wide landscaped buffer shall surround the entire facility
- The permanent pool should comprise 30-50% of the pond's surface area and should range between 2-4 feet in depth



- The remaining wetland zone should make up 50-70% of the pond's surface area and range from 6-12" in depth
- The basin should be designed as an offline pond with a flow splitting device so as to isolate the WQV
- The depth of any designated micropools shall not exceed 4 feet

#### E. Sand Filters

##### 1. General Requirements

- The required volume of the sedimentation forebay in the pond is the WQV + 5% to account for reductions in volume due to deposition of solids
- The total required pond volume is  $(WQV \times 1.05) + (\text{Depth of pond over sand filter} \times WQV / 18)$
- The depth of water in the sedimentation basin when full should be no less than 2 feet and no more than 8 feet
- A fixed vertical marker shall be installed in the sedimentation basin to indicate sediment accumulation
- The minimum average surface area for the filtration basin is calculated by equation 4.9:

**Equation 4.9**

$$A_f = \frac{WQV}{18}$$

Where:

$A_f$  = Minimum surface area for the filtration basin (ft<sup>2</sup>)  
WQV = Water Quality Volume (ft<sup>3</sup>)

- The sand filter consists of 18" of sand over 6" of gravel separated by a permeable geotextile fabric
- Minimum 4" SCH. 40 PVC pipe, with perforations spaced 6" apart or less, located beneath the gravel layer is used to drain the capture volume
- The underdrain piping shall consist of a collector pipe and at least 2 lateral branch pipes, each minimum 4" SCH. 40 PVC
- The pipes shall maintain a minimum slope of 0.5% with the laterals spaced at a maximum of 10 feet
- Each underdrain pipe shall require a cleanout that is accessible when the basin is completely full
- If the pond is designed as offline, then a flow-splitting device shall be incorporated into the design of the sedimentation basin.
- Energy dissipation at the inlet to the sedimentation basin is required so as to produce uniform distribution and reduced flow velocities
- The outflow structure from the sedimentation chamber shall consist of a concrete wall or a rock gabion (if rock gabion is used, aggregate shall be a minimum of 4" in diameter)
- The sand filter shall be protected against erosion via splash pad, riprap, etc. from the flows released from the upstream sedimentation basin
- The overall sand filtration BMP shall be designed to drawdown in 40-48 hours

## F. Bioretention

### 1. General Requirements

- The required volume of the pond is the WQV + 5% to account for reductions in volume due to deposition of solids
- A sediment forebay shall be sized to contain 20% of the of the water quality volume
- The sediment forebay shall be separated from the rest of the facility by a gabion or loose riprap wall
- A fixed vertical marker shall be installed in the sedimentation basin to indicate sediment accumulation
- The bottom of the facility shall be graded out to be as flat as possible to allow for uniform ponding and infiltration
- Due to the dependence on infiltration for this BMP, soil permeability information should be obtained from the most recent county soil survey or from soil testing information (if available); if no information is submitted, an assumed value of 0.1 in/hr shall be assumed
- Infiltration rates of less than 1 in/hr shall require underdrain piping wrapped in geotextile fabric in a gravel bedding material
- If underdrain piping is necessary, a minimum pipe diameter of 6" and a minimum slope of 0.5% is allowed; a cleanout shall be required for all underdrain pipes that is accessible when the basin is completely full
- The water depth above the soil media shall not exceed 12" unless a sand filter overflow is included in the design; if a sand filter overflow is implemented, then a water depth of 24" over the soil media and 12" over the sand filter is acceptable
- If a sand filter overflow is used, it must be separated from the remainder of the facility with a concrete wall or a rock gabion (if rock gabion is used, aggregate shall be a minimum of 4" in diameter)
- The area of the sand filter overflow (if included) shall be sized by dividing the water quality volume by 18 ( $\text{Area} = \text{WQV}/18$ )
- The minimum thickness of the sand filter overflow (if included) is 18" with 2-3" of topsoil and the remainder of the subsurface material being comprised of sand
- The filtration media shall require an overall minimum depth of 30" consisting of 18-24" of soil mixture over 6-12" of sand
- Install soil in 8-12" lifts to protect against excessive settlement (lifts are not to be compacted)

## G. Vegetated Filter Strips

### 1. General Requirements

- Sheet flow is required across the filter strip as defined in Flow Spreading Devices under the Basin Design Requirements heading (flow spreading devices shall be required as necessary)

- Areas with slopes up to 12% shall be given full credit as a filter strip
- Areas with slopes in excess of 12%, but less than 20% shall receive a 25% credit as a filter strip
- Areas with slopes that exceed 20% will receive no credit as a filter strip
- The minimum allowable flow length in the direction of flow shall be 12 feet as measured perpendicular to the contours
- Vegetated filter strips shall require a soil depth of at least 4" with a minimum vegetative coverage of 80% with no bare areas exceeding 16 ft<sup>2</sup>

## H. Extended Detention Basin

### 1. General Requirements

- The required volume of the pond is the WQV + 5% to account for reductions in volume due to deposition of solids
- The ratio of flow path length (distance between inlet and outfall) to the average width in the basin should be at least 2:1
- A sediment forebay sized to approximately 20% of the water quality volume is required (known as Stage I)
- The sediment forebay shall be separated from the rest of the facility by a gabion or loose riprap wall
- The basin depth for Stage I should range from 2-5 feet
- A fixed vertical marker shall be installed in the sediment forebay to indicate sediment accumulation
- Stage II of the pond is required to contain vegetation adaptable to periodic inundation
- A rock-lined low flow channel with a longitudinal slope of 1-5% is required to connect Stage I to Stage II of the basin
- The lateral slope of Stage I toward the low flow channel should have a slope of approximately 1-1.5%
- The bottom of Stage II should range from 1.5-3 feet below that of Stage I
- Energy dissipation and flow spreading is required at the inlet to the basin
- The outfall structure(s) shall be designed so as to allow for complete drawdown of the water quality volume in 40-48 hours
- If the pond is designed as offline, then a flow-splitting device shall be incorporated into the design of the sedimentation basin.

## I. Infiltration Trench

### 1. General Requirements

- Infiltration trenches must be the second BMP in series located downstream of the water quality basin
- Due to the dependence on infiltration for this BMP, soil permeability information should be obtained from the most recent county soil survey or from soil testing

information (if available); if no information is submitted, an assumed permeability of 0.1 inches per hour shall be used

- Acceptable infiltration rates range from 0.3-5.0 inches per hour
- A minimum of 3 feet of soil separation is required between the basin invert and the bedrock and the high water table
- Trench sizing is based on the type of structural BMP upstream as indicated below:

$$\begin{aligned} \text{Wet Basin:} & \quad V_{IT} = WQV \times 0.023 \times (1 - VR\%) \\ \text{Sand Filter:} & \quad V_{IT} = WQV \times 0.023 \times (1 - VR\%) \\ \text{Extended Detention:} & \quad V_{IT} = WQV \times 0.03 \times (1 - VR\%) \end{aligned}$$

Where:  $V_{IT}$  = Required volume for infiltration trench (ft<sup>3</sup>)  
 $WQV$  = Required Water Quality Volume (ft<sup>3</sup>)  
 $VR\%$  = Volume reduction % (See Table 4-11)

<b>Table 4-11 Soil Permeability Allowances</b>	
<b>k (inches/hour)</b>	<b>Infiltration Trench Volume Reduction</b>
0.4	0%
0.6	24%
0.8	39%
1.0	49%
1.2	56%
1.4	62%
1.6	65%

- The ratio of infiltration volume to infiltration surface area ( $V_{IT}/A_I$ ) should be no greater than 1.0
- The trench shall be no greater than 8 feet in depth
- Infiltration trenches in parallel shall be separated by a distance of twice the trench depth
- An overflow shall be provided for parallel to a contour with erosion protection as necessary
- Trench backfill shall consist of 1.5-3 inch washed bank run gravel aggregate with no fines material
- A top filter layer consisting of 3 inch thick pea gravel or coarse sand is required
- Filter fabric is required on the bottom, sides, and below the top filter layer
- Two observation wells are required with 6" perforated schedule 40 PVC

#### J. Alternative BMPs

Any proposed BMPs not discussed in this Technical Manual must be approved by the City Engineer prior to implementation. Approval will be subject to review of the submitted information and shall be comprised of objective, reliable, and verifiable data that indicates that the TSS removal requirements will be met. All such BMPs, if approved, shall require that a monitoring program be initiated for the first year after installation is complete. All monitoring expenses shall be paid for by the developer.

1. Additional submittal requirements for alternative BMPs:

- Documentation of mechanism(s) by which TSS is removed
- Documentation and/or discussion of potential causes of poor performance or failure of the BMP
- Key design specifications or considerations
- Specific installation requirements
- Specific maintenance requirements
- Data in support of declared TSS removal efficiencies
- Detailed monitoring plan to assess TSS removal

## 5. Measures to Protect Streambanks

Increases in sediment and other pollutants in waterways are often caused by the accelerated rate of channel erosion due to the increase in rate and volume of stormwater runoff from impervious cover associated with development. To reduce the rate of channel erosion, stormwater runoff must be controlled. This section outlines regulation requirements for stormwater runoff rates.

In accordance with the City of Burnet most recently adopted Drainage Criteria Manual, detention requirements for flood control purposes may be required whether BMPs are required or not. In addition to detention requirements as set forth by the most recently adopted City of Burnet Drainage Criteria Manual, streambank erosion control requirements are set forth in this manual. In an effort to prevent erosion of natural and man-made drainage swales, the design criteria for BMPs in this manual incorporates infiltration and releasing of stormwater over an extended period of time for the 1-year, 3-hour rainfall event. The design requirements as specified in this manual and the City of Burnet most recently adopted Drainage Criteria Manual must be upheld simultaneously for all applicable projects in order to prevent adverse impacts from both a water quality and quantity standpoint. All such information must be submitted to the City Engineer for review and approval.

Existing and proposed developed condition runoff volumes and flow rates shall be estimated using Rational Method, TR-55, HEC-1, HEC-HMS or approved equivalent methods as outlined in the City of Burnet most recently adopted Drainage Criteria Manual. The use of appropriate hydrologic and hydraulic modeling techniques and software should be chosen and its acceptability will be reviewed on case by case basis.

## 6. Rainfall Data

Table 6-1 below gives the average annual rainfall depth for the 1-year, 3-hour storm event (Source: 2006 Lower Colorado River Authority Highland Lakes Watershed Ordinance Water Quality Management Technical Manual).

<b>Table 6-1 Average Annual Rainfall Events</b>
<b>1-Year, 3-Hour</b>
1.93

Table 6-2 lists the runoff coefficients to be used when performing hydrologic analysis using the Rational Method for the 1-year, 3-hour storm event (Source: 2006 Lower Colorado River Authority Highland Lakes Watershed Ordinance Water Quality Management Technical Manual).

<b>Table 6-2 Rational Method Runoff Coefficients</b>	
	<b>1-Year, 3-Hour</b>
<b>Streets</b>	
Asphaltic	0.69
Concrete	0.75
<b>Drives and Walks</b> (Concrete)	0.75
<b>Roofs</b>	0.75
<b>Lawns, Sandy Soil</b>	
Flat, 0-2%	0.05
Average, 2-7%	0.10
Steep, 7+%	0.14
<b>Lawns, Clay Soil</b>	
Flat, 0-2%	0.15
Average, 2-7%	0.18
Steep, 7+%	0.25
<b>Undeveloped Woodlands and Pastureland, Sandy Soil</b>	
Flat, 0-2%	0.10
Average, 2-7%	0.16
Steep, 7+%	0.25
<b>Undeveloped Woodlands and Pastureland, Clay Soil</b>	
Flat, 0-2%	0.25
Average, 2-7%	0.32
Steep, 7+%	0.41

Table 6-3 provides the rainfall intensities to be used when performing hydrologic analysis for the 1-year, 3-hour storm event (Source: 2006 Lower Colorado River Authority Highland Lakes Watershed Ordinance Water Quality Management Technical Manual).

<b>Table 6-3 Rainfall Intensity Values</b>	
	<b>1-Year, 3-Hour</b>
<b>T<sub>c</sub></b>	<b>(in/hr)</b>
5	5.5
10	4.3
15	3.7
30	2.6
60	1.65

Table 6-4 on the following page presents the 1-year, 3-hour design storm rainfall distribution cumulative values to be applied for hydrologic modeling of a drainage area (Source: 2006 Lower Colorado River Authority Highland Lakes Watershed Ordinance Water Quality Management Technical Manual).

<b>Table 6-4 Design Storm Rainfall Distribution Cumulative Values</b>	
<b>Time (min.)</b>	<b>1-Year, 3-Hour</b>
5	0.006
10	0.012
15	0.019
20	0.026
25	0.034
30	0.043
35	0.053
40	0.064
45	0.077
50	0.092
55	0.110
60	0.134
65	0.166
70	0.212
75	0.287
80	0.384
85	0.542
90	0.802

95	1.262
100	1.462
105	1.587
110	1.688
115	1.746
120	1.784
125	1.811
130	1.832
135	1.849
140	1.863
145	1.875
150	1.885
155	1.894
160	1.902
165	1.910
170	1.917
175	1.924
180	1.930

As an alternative to the tabulated intensities and depths provided by LCRA, the designer may determine rainfall intensities for the 1-year, 3-hour storm with the rational method using Equation 6.1 as defined in the current City of Burnet Drainage Criteria Manual.

**Equation 6.1**

$$I_1 = \frac{135.827}{(T_c + 20.232)^{1.010}}$$

Where:

$I_1$  = Rainfall Intensity for the 1-Year, 3-Hour Storm Event (in/hr)  
 $T_c$  = Time of Concentration (min.)

For Structural BMPs, the configuration of stormwater treatment and detention facilities is at the design engineer's discretion as to whether one or two components shall be required. The required water quality volume as calculated according to the methodology in Section 4 is directed to a capture and treat device. If the capture and treat device is to be constructed as offline, then the runoff in excess of the water quality volume is bypassed to the detention facility for peak runoff control as necessary. On the other hand, a combination water quality and detention facility can be incorporated into a capture and treat device with the appropriate outlet configuration to provide the required peak control.

## 7. Maintenance Requirements

A maintenance plan developed by the design engineer must be submitted for review by the City Engineer. At minimum, the following information shall be included:

- Specification of routine and non-routine maintenance activities to be performed



- A schedule for maintenance activities
- Provision for access to the site by the City of Burnet and any of their designated representatives
- Name(s) and contact information for the party(ies) responsible for maintaining the BMPs
- The maintenance plan is required to be signed and dated by the party(ies) responsible for maintenance.

## 8. References

Lower Colorado River Authority, 1998, *Nonpoint Source Pollution Control Technical Manual*, Austin, Texas.

Lower Colorado River Authority, 2006, *Highland Lakes Watershed Ordinance Water Quality Management Technical Manual*, Austin, Texas.

Texas Commission on Environmental Quality, 2005, *Optional Enhanced Measures for the Protection of Water Quality in the Edwards Aquifer*

Texas Commission on Environmental Quality, 1999, *Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices*, RG-348

Texas Commission on Environmental Quality, 2003, *TPDES General*





## Development Services

### ITEM 4.5

Mark S. Lewis  
Development Services Director  
(512)-715-3215  
mlewis@cityofburnet.com

## Agenda Item Brief

**Meeting Date:** February 14, 2017

**Agenda Item:** Discuss and Consider Action: An inter-local agreement between the City of Burnet and the Lower Colorado River Authority granting the City of Burnet authority to administer Nonpoint Source Pollution regulations within that portion of the City located within the Lake Travis Watershed: M. Lewis

**Background:** The City, in cooperation with the Lower Colorado River Authority (LCRA), has been developing an ordinance that will regulate Nonpoint Source Pollution (NPS) in that portion of the City located within the Lake Travis Watershed. NPS regulation is currently administered by LCRA.

The inter-local agreement attached to this report establishes the parameters within which, the City will assume responsibility for administering NPS regulations established by the proposed ordinance.

**Information:** Key points of the agreement are as follows:

- The scope of the agreement is limited to the portions of the City and its ETJ located within the Lake Travis Watershed.
- Within the City, LCRA retains permitting and regulatory authority over NPS related Dredge and Fill, and Quarry/Mine operations.
- Within the ETJ, LCRA retains all of its present NPS related permitting and regulatory authority.
- The agreement establishes the parameters for cooperation between the City and LCRA in the matter of variance requests.
- Except for changes to review/permitting fees, the City agrees to provide LCRA with notice of any proposed

amendment to City NPS regulations, at least 30-days prior to City Council taking final action on that amendment.

- LCRA agrees to provide the City with notice at least 30-days prior to enactment of any amendments to its Highland Lakes Watershed Ordinance.
- The inter-local is established as a one-year agreement that automatically renews on an annual basis.
- The inter-local establishes a procedure for termination of the agreement by either party.
- The inter-local commits both parties to good faith cooperation in matters of NPS regulation.
- Copies of the proposed City NPS ordinance and City Nonpoint Source Pollution Control Ordinance Technical Manual are incorporated as components of the inter-local agreement

**Fiscal Impact:** None

**Recommendation:** Approve the attached "Inter-local Agreement Between the Lower Colorado River Authority and City of Burnet, Texas."

**Inter-local Agreement  
Between the Lower Colorado River Authority  
And  
City of Burnet, Texas**

**THIS AGREEMENT** is made and entered into pursuant to the Inter-local Cooperation Act, Texas Government Code Chapter 791, by and between the Lower Colorado River Authority ("LCRA"), a conservation and reclamation district created pursuant to Article 16, Section 59 of the Constitution of the State of Texas, and the City of Burnet, Texas ("the City"), a political subdivision of the State of Texas, for the purpose of coordinating policies and programs which will preserve and protect water quality within the City limits and Lake Travis.

**WITNESSETH**

WHEREAS, LCRA and the City are committed to preserving and protecting the water quality of the creeks and Lake Travis; and

WHEREAS, the Board of Directors of the LCRA adopted the Lake Travis Nonpoint Source Pollution Control Ordinance, effective on February 1, 1990, and the Upper Highland Lakes Nonpoint Source Pollution Control Ordinance, effective on June 1, 1992 (collectively, the NPS Ordinances); and

WHEREAS, on the 16<sup>th</sup> day of November, 2005, the Board of Directors of LCRA combined the NPS Ordinances into, and adopted, the Highland Lakes Watershed Ordinance ("LCRA Ordinance"), the successor ordinance, effective on February 1<sup>st</sup>, 2006, and, most recently amended on February 19, 2014, which establishes certain requirements for managing Non-Point Source Pollution ("NPS") in the Highland Lakes region, including the Lake Travis watershed in Burnet County; and

WHEREAS, the City of Burnet intends to adopt a development ordinance ("City Ordinance") that is agreed to by the City and LCRA, is significantly similar to the version attached hereto and which will apply within those portions of the City located within the Lake Travis watershed, and

WHEREAS, the City Ordinance establishes certain requirements for managing NPS within those portions of the City located within the Lake Travis watershed.

NOW, THEREFORE, the LOWER COLORADO RIVER AUTHORITY AND THE CITY agree as follows:

**I. JURISDICTIONAL AGREEMENT**

The City and the LCRA agrees as follows:

1. Purpose. The purpose of this Agreement is to memorialize the understanding of the Parties as to the administration of NPS regulations within those portions of the corporate limits of the City that overlap the LCRA's regulatory jurisdiction.
2. Regulatory Authority. Except for the Dredge and Fill, and Quarry/Mine requirements of the LCRA Ordinance, NPS regulations (whether under the LCRA Ordinance or the City Ordinance) shall be administered as follows:
  - a. Within the City's Corporate Limits. Except as otherwise provided for herein, the City shall administer NPS regulations within those areas of the City that are located within the Lake Travis watershed. Permit applications shall be reviewed under the City Ordinance, unless the applicant validly claims that a preexisting permit provides a statutory right to have the permit application reviewed under the LCRA Ordinance, in which case the permit application shall be so reviewed.
  - b. Within the City's extraterritorial jurisdiction. The LCRA Ordinance shall remain in full force and effect, and shall be administered by the LCRA, within those portions of the City's extraterritorial jurisdiction overlapping the Lake Travis watershed.
  - c. Dredge and Fill, and Quarry/Mine requirements. The Dredge and Fill, and Quarry/Mine requirements of the LCRA Ordinance shall remain in full force and effect.
  - d. Nothing herein shall be construed to extend the authority or jurisdiction of the LCRA Ordinance or the City Ordinance beyond the limits of the Lake Travis Watershed.

## **II. CITY RESPONSIBILITIES**

1. Variances. In the event that an applicant seeks a variance from either the City Ordinance or the LCRA Ordinance, as the case may be, the City shall so advise the LCRA, and LCRA shall render its opinion within five (5) business days of such advisement. In the event LCRA needs more than five (5) business days to evaluate such request, LCRA may request additional time. Granting of such extension shall solely be in the City's discretion. Provided the opinion is timely received, the City shall consider the LCRA's opinion before making a final decision on the variance request.
2. The City shall provide LCRA thirty (30) days' advance written notice for LCRA to review and comment on any proposed amendments to the City Ordinance prior to final approval by the City Council. This provision shall not apply to the City's fee schedule.

## **III. LCRA RESPONSIBILITIES**

1. LCRA shall administer the Dredge and Fill, and Quarry/Mine requirements of the LCRA Ordinance within those portions of the City that overlap the Lake Travis watershed.
2. LCRA shall administer the LCRA Ordinance within those portions of the City's extraterritorial jurisdiction that overlap the Lake Travis watershed.
3. LCRA will coordinate with the City in reviewing building and development permit applications that have requested a variance to the City Ordinance or the LCRA Ordinance that the City is administering pursuant to paragraph I.2.a. LCRA may provide input on the variance pursuant to paragraph II. 1 above. .
4. LCRA will provide thirty (30) days' advance written notice to the City, prior to final approval by the LCRA Board, of any proposed amendments to the LCRA Highland Lakes Watershed Ordinance.

#### **IV. MISCELLANEOUS**

1. The City and LCRA shall meet as necessary to coordinate the above responsibilities.
2. The City and the LCRA understand that the LCRA staff is evaluating specific provisions of the LCRA Ordinance. The City and LCRA further understand that should the City fail to amend the City Ordinance to provide protection equivalent to the LCRA Ordinance, as amended from time to time, LCRA, at its sole discretion, may terminate this agreement as provided for herein.
3. The term of this agreement shall be for the remainder of the calendar year in which it was executed and shall be automatically renewed from year to year unless terminated by either party following thirty (30) days' advance written notice. LCRA, as its sole remedy in the event the City breaches the agreement, may terminate this Agreement following thirty (30) days' advance written notice if LCRA determines the City no longer provides management of NPS that is equal to or greater than that provided by the LCRA Highland Lakes Watershed Ordinance.
4. This Agreement represents the entire and integrated agreement between the City and LCRA and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the City and LCRA. No official, employee, agent, or representative of the City or LCRA has any authority; either express or implied, to amend this Agreement, except by such express authority as may be granted by the governing bodies of the City and LCRA.
5. If the final judgment of a court of competent jurisdiction invalidates any part of this Agreement, then the remaining parts shall be enforced, to the extent possible, consistent with the intent of the parties as evidenced by this Agreement.

6. Regardless of the actual drafter, this Agreement shall, in the event of dispute over its meaning or application, be interpreted fairly and reasonably, and neither more strongly for or against either party.
7. Any notice of termination to be given hereunder by either party to the other pursuant to Paragraph IV. 3 shall be in writing and may be effected by personal delivery or registered or certified mail, return receipt requested, addressed to the proper party, at the following address:

LCRA: Phil Wilson, General Manager  
LCRA  
P.O. Box 220  
Austin, Texas 78767

With Copy to: Erik Harris, Water Quality Protection  
LCRA  
P.O. Box 220  
Austin, Texas 78767

City of Burnet: City Manager  
City of Burnet  
P. O. Box 1369  
Burnet, Texas 78611

With Copy to: Director of Development Services  
City of Burnet  
P. O. Box 1369  
Burnet, Texas 78611

Each party may change the address for notice to it by giving notice of such change in accordance with the provisions in this paragraph.

Any other notice, reporting, or information exchange between the Parties shall be provided by United States mail, personal delivery, e-mail, or facsimile to the appropriate persons identified by each Party in Paragraph IV.

8. This agreement shall be effective on April 1, 2017.
9. The signatories hereby acknowledge that this agreement is duly authorized by the governing bodies of LCRA and the City.



**LOWER COLORADO RIVER AUTHORITY**

Date Approved: \_\_\_\_\_

By: \_\_\_\_\_  
Phil Wilson [Date]

THE STATE OF TEXAS       §  
                                     §  
COUNTY OF TRAVIS       §

Before me, \_\_\_\_\_, a notary public, on this day personally appeared Phil Wilson, LCRA General Manager, known to me to be the person whose name is subscribed above and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office on this the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

\_\_\_\_\_  
Notary Public Signature

**CITY OF BURNET**

Date Approved: \_\_\_\_\_

By: \_\_\_\_\_  
David Vaughn [Date]

THE STATE OF TEXAS       §  
                                     §  
COUNTY OF BURNET       §

Before me, \_\_\_\_\_, a notary public, on this day personally appeared David Vaughn, City Manager for the City of Burnet, known to me to be the person whose name is subscribed above and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office on this the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

---

Notary Public Signature

# Racial Profiling Report | Tier one

<b>Agency Name:</b>	Burnet Police Department
<b>Reporting Date:</b>	01/23/2017
<b>TCOLE Agency Number:</b>	053201
<b>Chief Administrator:</b>	Paul Nelson
<b>Agency Contact Information:</b>	
<b>Phone:</b>	5127566404
<b>Email:</b>	pnelson@cityofburnet.com
<b>Mailing Address:</b>	PO Box 1369 Burnet Tx 78611

This Agency claims partial racial profiling report exemption because:

Our vehicles that conduct motor vehicle stops are equipped with video and audio equipment and we maintain videos for 90 days.

Certification to This Report 2.132 (Tier 1), Partial Exemption

Article 2.132(b) CCP Law Enforcement Policy on Racial Profiling

Burnet Police Department has adopted a detailed written policy on racial profiling. Our policy:

- 1.) clearly defines acts constituting racial profiling;
- 2.) strictly prohibits peace officers employed by the Burnet Police Department from engaging in racial profiling;
- 3.) implements a process by which an individual may file a complaint with the Burnet Police Department if the individual believes that a peace officer employed by the Burnet Police Department has engaged in racial profiling with respect to the individual;
- 4.) provides public education relating to the agency's complaint process;
- 5.) requires appropriate corrective action to be taken against a peace officer employed by the Burnet Police Department who, after an investigation, is shown to have engaged in racial profiling in violation of the Burnet Police Department's policy adopted under this article;
- 6.) require collection of information relating to motor vehicle stops in which a citation is issued and to arrests made as a result of those stops, including information relating to:

**Burnet Police Department Motor Vehicle Racial Profiling Information**

Total stops: 2653

Number of motor vehicle stops

Citation only: 2653

Arrest only: 0

Both: 0

Race or ethnicity

African: 88

Asian: 16

Caucasian: 2027

Hispanic: 469

Middle eastern: 11

Native american: 42

Was race known ethnicity known prior to stop?

Yes: 43

No: 2610

Was a search conducted

Yes: 11

No: 2642

Was search consented?

Yes: 11

No: 0

Submitted electronically to the



The Texas Commission on Law Enforcement

Filed Date....: 1/01/2016 - 12/31/2016

## PD POLICE DEPARTMENT

## Totals for Agency

Number of Cases for Agency.....: 2,653  
 Number of Violations for Agency.....: 1,118  
 Number of Warnings for Agency.....: 1,704  
 Number of Cases with no name.....: 0  
 Number of Cases non-officer initiated: 0

Race	KPr	Sex	Cases	Warn	Search		P/C	Arst	Viol	Status			Res
					None	Cons				Gity	Dism	Pend	
Caucasian	19	M	1206	804	1193	8	2	1	471	188	125	158	423
	14	F	818	567	816	1	0	0	283	116	69	98	336
	0	U	3	3	3	0	0	0	0	0	0	0	2
African	2	M	67	38	67	0	0	0	31	18	6	7	19
	0	F	21	14	21	0	0	0	10	0	4	6	9
	0	U	0	0	0	0	0	0	0	0	0	0	0
Hispanic	3	M	302	140	298	2	1	0	203	104	22	77	101
	5	F	167	89	166	0	1	0	98	37	15	46	74
	0	U	0	0	0	0	0	0	0	0	0	0	0
Asian	0	M	10	5	10	0	0	0	5	1	1	3	5
	0	F	6	3	6	0	0	0	3	1	2	0	0
	0	U	0	0	0	0	0	0	0	0	0	0	0
Amer. Ind	0	M	0	0	0	0	0	0	0	0	0	0	0
	0	F	0	0	0	0	0	0	0	0	0	0	0
	0	U	0	0	0	0	0	0	0	0	0	0	0
Mid East	0	M	9	4	9	0	0	0	6	3	0	3	1
	0	F	2	2	2	0	0	0	0	0	0	0	1
	0	U	0	0	0	0	0	0	0	0	0	0	0
Other	0	M	6	3	6	0	0	0	5	1	1	3	0
	0	F	4	2	4	0	0	0	2	0	0	2	1
	0	U	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	M	1	0	1	0	0	0	1	0	0	1	0
	0	F	0	0	0	0	0	0	0	0	0	0	0
	0	U	31	30	31	0	0	0	0	0	0	0	5

**ITEM 5.1(E.2)**

[illegible]

Burnet Police Department  
**School Resource Officer Stats**  
 2016-2017 School Year

Offense	HIGH SCHOOL			MIDDLE SCHOOL			ELEMENTARY			PJ RICHEY			QUEST		
	Aug	Sep	Oct	Aug	Sep	Oct	Aug	Sep	Oct	Aug	Sep	Oct	Aug	Sep	Oct
Assault	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Theft	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Disorderly Conduct	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0
POM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poss Dang Drug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POCS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Disturbance	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Disruption Of Class	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0
Prohibited Weapons	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abandoned Vehicle	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Suspicious Vehicle	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0
Suspicious Activity	0	2	3	0	1	0	0	0	0	0	0	0	0	0	0
MIP School Property	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
MIC School Property	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0
Possession Tobacco	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Assist Principals	1	5	1	2	5	2	0	0	0	0	0	0	1	1	0
Special Event	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Choices Talk	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Assist Canine Unit	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Assist Outside Agency	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Accidents School Prop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disruption Transportation	0	1	0	2	2	1	0	0	0	0	0	0	0	0	0
Found Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terr. Threat	0	1	1	1	1	4	0	0	0	0	0	0	0	0	0
Harassment	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Criminal Trespassing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alarm	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Trespass Warnings	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Student Leaving Campas	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0
Reckless Driver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Possible Child Abuse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burglary of Campus	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Criminal Mischief	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Bomb Threat	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Follow-up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assist Student Teacher	0	1	0	0	3	1	0	0	0	0	0	1	0	0	0
Shattered Dreams	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911 Call/Hang-up	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0
EMS Calls	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Animal Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Intoxication	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0
Assist Teacher	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0
Welfare Check	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Fire Alarm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental Health Issues	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>1</b>	<b>19</b>	<b>23</b>	<b>8</b>	<b>33</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>

Burnet Police Department  
School Resource Officer Stats  
2016-2017 School Year

Offense	HIGH SCHOOL			MIDDLE SCHOOL			ELEMENTARY			RJ RICHEY			QUEST		
	Nov	Dec	Jan	Nov	Dec	Jan	Nov	Dec	Jan	Nov	Dec	Jan	Nov	Dec	Jan
	2nd			2nd			2nd			2nd			2nd		
Assault	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Theft	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Disorderly Conduct	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
POM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Poss Dang Drug	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
POCS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disturbance	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0
Disruption Of Class	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Prohibited Weapons	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abandoned Vehicle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Suspicious Vehicle	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
Suspicious Activity	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
MIP School Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIC School Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Possession Tobacco	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Assist Principals	0	1	2	3	2	0	0	0	0	0	0	1	1	1	0
Special Event	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Choices Talk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assist Canine Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assist Outside Agency	0	2	1	1	1	0	1	0	0	0	0	0	0	1	0
Accidents School Prop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disruption Transportation	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0
Found Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terr. Threat	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Harassment	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Criminal Trespassing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alarm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trespass Warnings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Student Leaving Campas	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Reckless Driver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Possible Child Abuse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burglary of Campus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Criminal Mischief	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bomb Threat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Follow-up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assist Student Teacher	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Shattered Dreams	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911 Call/ Hang-up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMS Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animal Call	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Public Intoxication	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assist Teacher	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Welfare Check	1	1	0	1	1	1	0	0	0	1	1	2	0	0	0
Fire Alarm	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Mental Health Issues	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<b>TOTAL</b>	<b>5</b>	<b>16</b>	<b>9</b>	<b>17</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>3</b>



Burnet Police Department  
**School Resource Officer Stats**  
2016-2017 School Year

Offense	YTD	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Assault	7	2	5	0	0	7
Theft	3	1	2	0	0	3
Disorderly Conduct	5	4	1	0	0	5
POM	2	0	2	0	0	2
Poss Dang Drug	1	0	1	0	0	1
POCS	1	1	0	0	0	1
Disturbance	5	1	4	0	0	5
Disruption Of Class	7	4	3	0	0	7
Prohibited Weapons	0	0	0	0	0	0
Abandoned Vehicle	2	2	0	0	0	2
Suspicious Vehicle	8	5	3	0	0	8
Suspicious Activity	8	6	2	0	0	8
MIP School Property	3	3	0	0	0	3
MIC School Property	4	4	0	0	0	4
Possession Tobacco	3	2	1	0	0	3
Assist Principals	29	18	11	0	0	29
Special Event	0	0	0	0	0	0
Right Choices Talk	1	1	0	0	0	1
Assist Canine Unit	2	2	0	0	0	2
Assist Outside Agency	9	2	7	0	0	9
Accidents School Prop	0	0	0	0	0	0
Disruption Transportation	9	6	3	0	0	9
Found Property	0	0	0	0	0	0
Terr. Threat	9	8	1	0	0	9
Harassment	4	1	3	0	0	4
Criminal Trespassing	0	0	0	0	0	0
Alarm	1	1	0	0	0	1
Trespass Warnings	1	1	0	0	0	1
Student Leaving Campus	12	6	6	0	0	12
Reckless Driver	0	0	0	0	0	0
Possible Child Abuse	0	0	0	0	0	0
Burglary of Campus	1	1	0	0	0	1
Criminal Mischief	2	1	1	0	0	2
Bomb Threat	1	1	0	0	0	1
Follow-up	0	0	0	0	0	0
Assist Student Teacher	7	6	1	0	0	7
Shattered Dreams	0	0	0	0	0	0
911 Call/Hang-up	4	4	0	0	0	4
EMS Calls	1	1	0	0	0	1
Animal Call	1	0	1	0	0	1
Public Intoxication	3	3	0	0	0	3
Assist Teacher	6	6	1	0	0	6
Welfare Check	12	3	9	0	0	12
Fire Alarm	3	0	3	0	0	3
Mental Health Issues	3	0	3	0	0	3
Other	2	1	1	0	0	2
<b>TOTAL</b>	<b>182</b>	<b>107</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>182</b>