

To: Honorable Mayor and City Councilors
From: Michael Spurgeon, City Manager
Date: January 26, 2018
Re: Notes to Council

1. STAFF REPORTS / ITEMS REQUIRING IMMEDIATE ATTENTION

- General Services Department Monthly Report – December 2017
- Parks & Recreation Department Monthly Report – December 2017
- Tulsa’s Future Regional Economic Development Report – December 2017
- Staff Memo – Update on Ecology and Environmental Partnership with BAPS

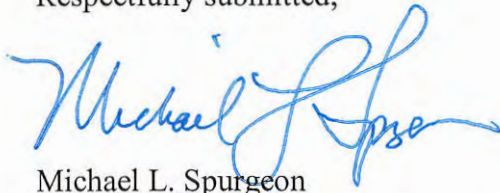
2. GENERAL CORRESPONDENCE / NOTIFICATION

- Press Release – New K-9 Officer Joins BAPD
- Press Release – Mayor Thurmond Attends “Mayors’ Day” White House Meetings

3. SPECIAL EVENTS / ACTIVITIES

- Beekeeping Event Report
- Spring Garden Prep Event Report

Respectfully submitted,



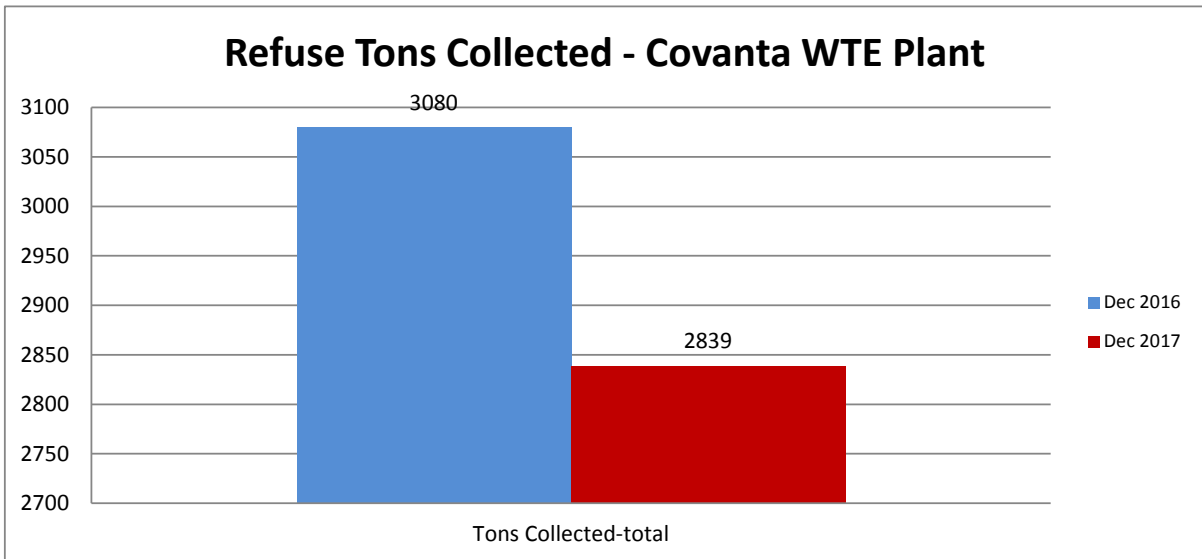
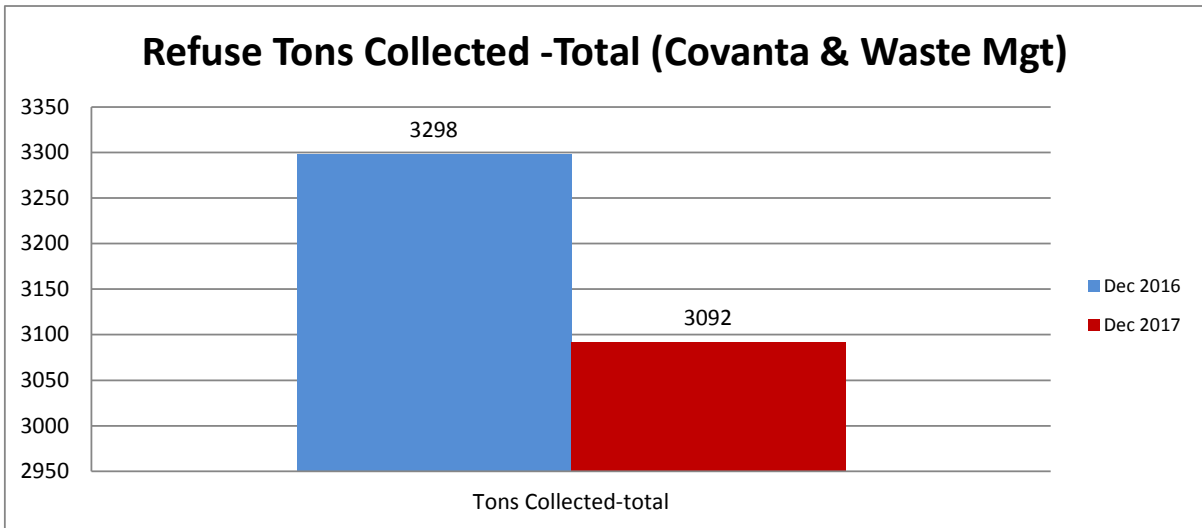
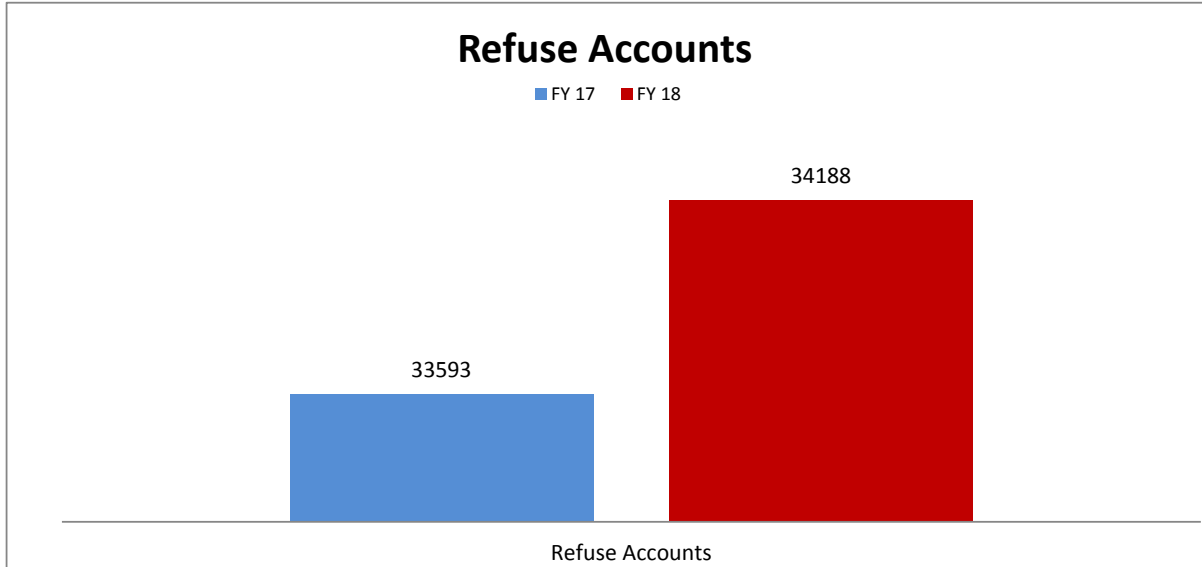
Michael L. Spurgeon

jmh
Attachments

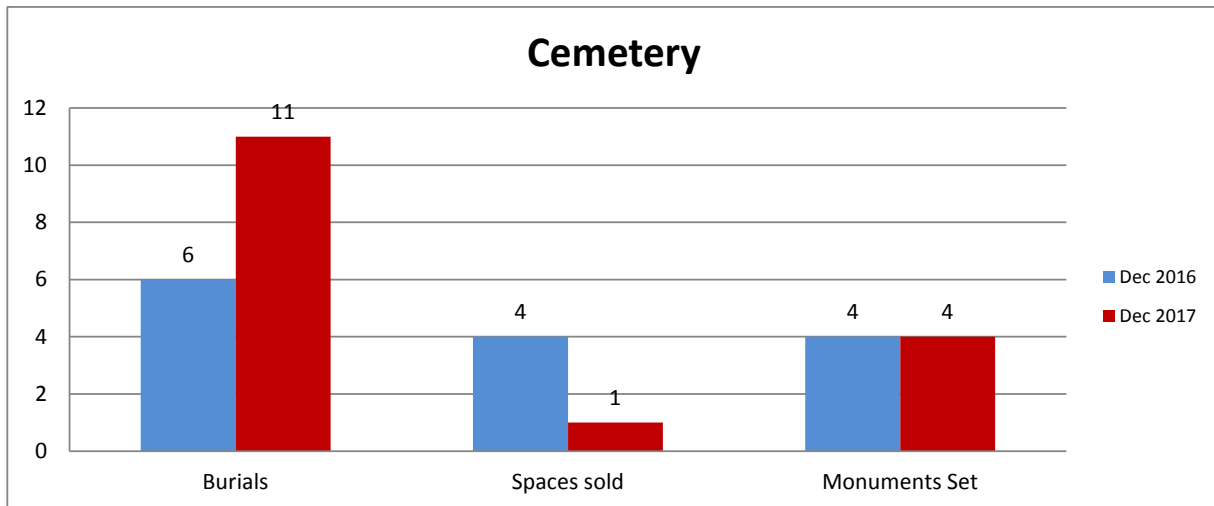
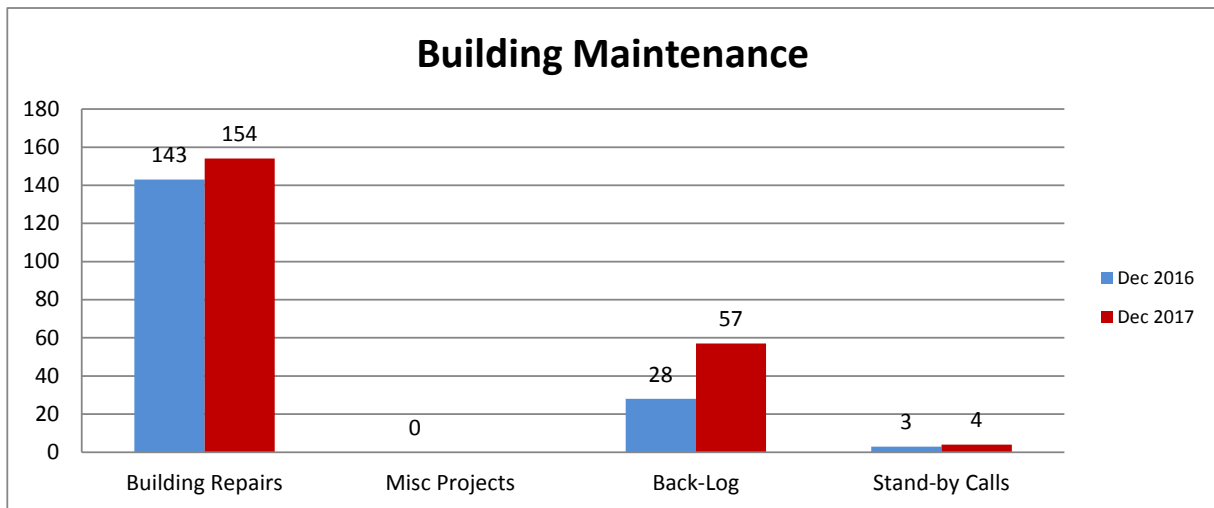
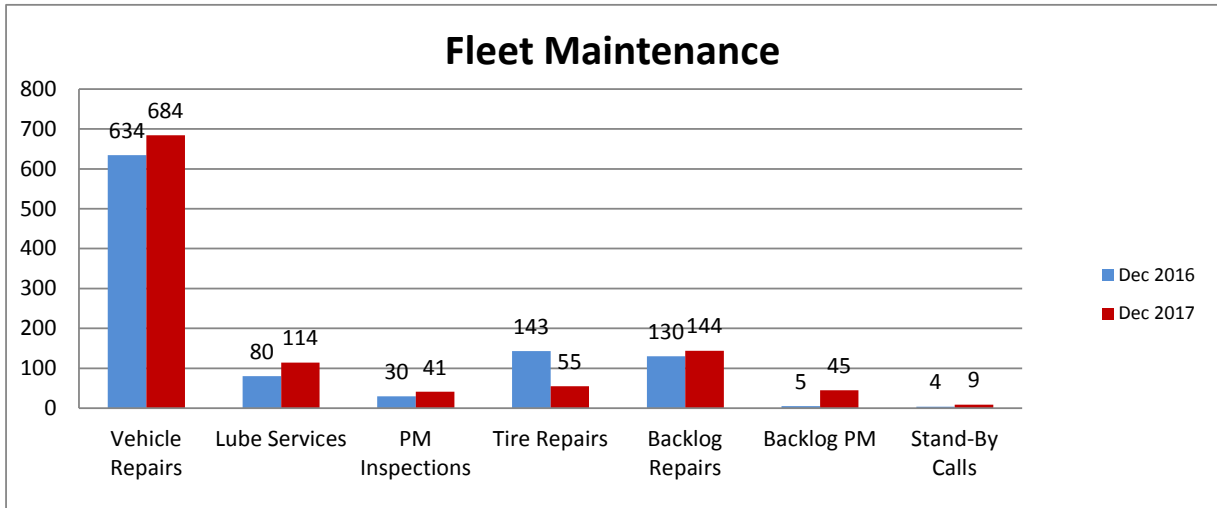
1. STAFF REPORTS / ITEMS REQUIRING IMMEDIATE ATTENTION



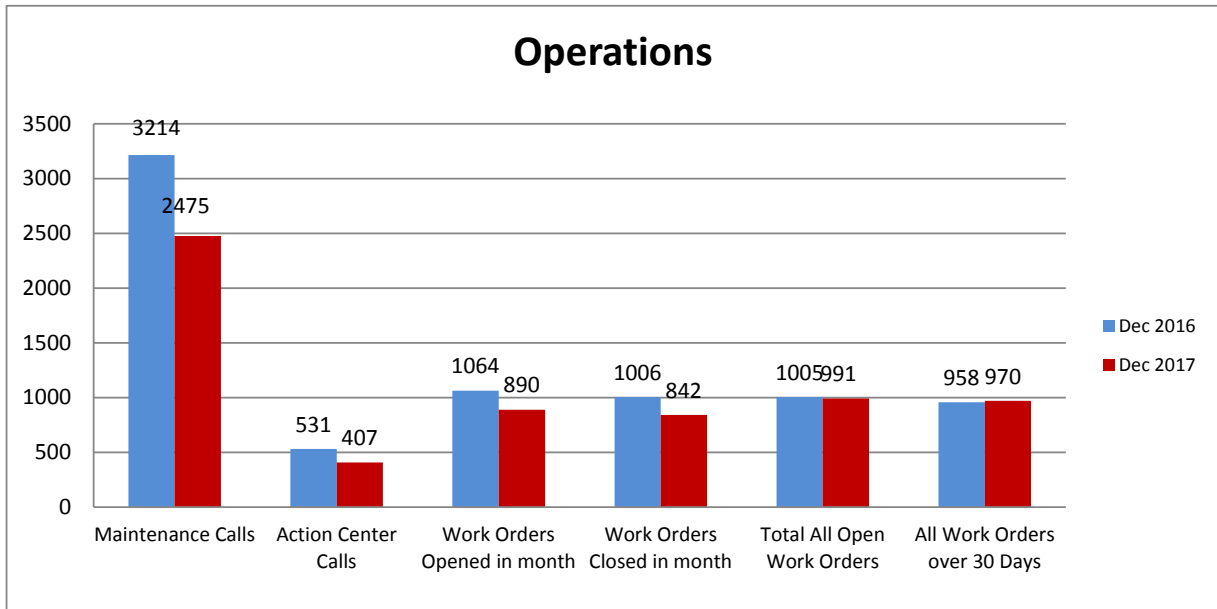
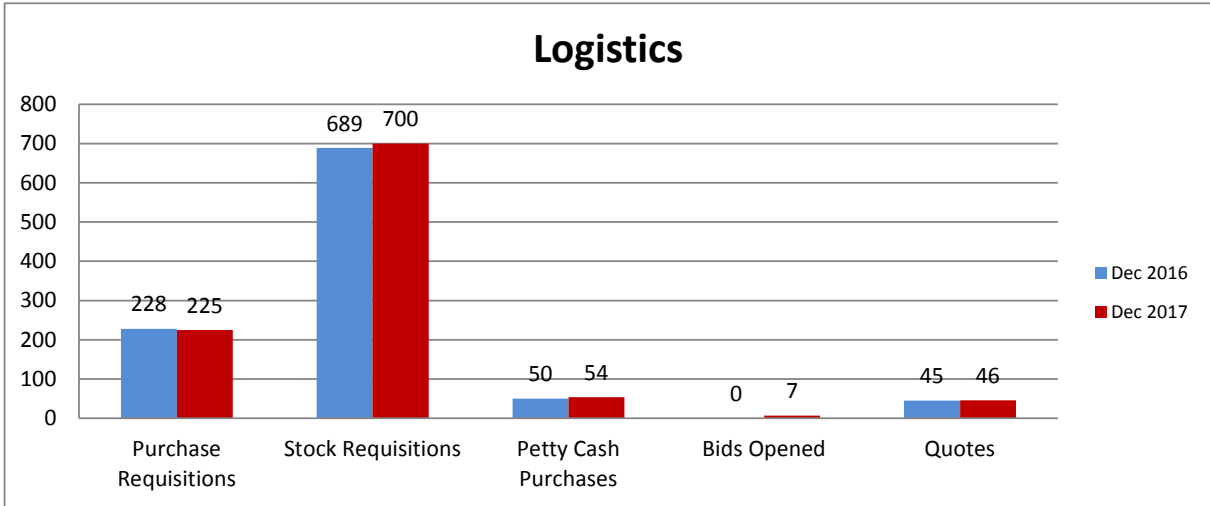
General Services Monthly Report, December 2017



General Services Monthly Report, December 2017



General Services Monthly Report, December 2017



To: Kenneth Schwab, Assistant City Manager - Operations

From: Scott Esmond, Parks and Recreation Director



CC: Jennifer Hooks, Crickett Moore

Date: January 18, 2018

Re: December 2017 Monthly Report

Please find enclosed the December 2017 Monthly Report for the Parks and Recreation Department.

Please contact Scott Esmond if you have any questions at x7442.

Encl: December 2017 Monthly Report



Parks and Recreation Department December 2017 Monthly Report

DIRECTOR - PARKS AND RECREATION

- No report.

BATTLE CREEK GOLF CLUB (BCGC)

GENERAL

- December was a decent month until colder weather arrived December 22nd through December 31st. Total rounds were 1,320 and exceeded 1,245 budgeted rounds by 75; even with only having 51 total rounds for the last 10 days of December. BCGC had 12 days with 10 or fewer rounds due to inclement weather.
- Managers working on departmental budgets for Fiscal Year 2018/2019. Preliminary budgets due to the City of Broken Arrow by the end of January 2018.

GOLF OPERATIONS

- BCGC provided all team members with a nice Christmas gift to show appreciation for all the hard work over the last year in making BCGC Tulsa's Premier Public Golf Course.
- BCGC ran holiday promotions to generate revenue throughout December as well as providing members and patrons a great value on holiday shopping. A gift card promotion ran from the last week of November through the end of December which offered an additional 10% value on gift card purchases of \$50 or more. This promotion has been a huge success the last two years.
- Titleist offered free personalization on golf ball orders throughout the holiday season.
- Combination of offers provided by BCGC gave patrons and Tulsans a great way to shop local and support BCGC and the City of Broken Arrow.

COURSE MAINTENANCE

- BCGC had a total of 1.3 inches of rainfall. Temperatures ranged from the mid to upper 70's for highs and as low as single digits for overnight lows.
- The maintenance team accomplished many tasks this month to improve or continue to provide excellent playing conditions of the golf course. These tasks included:
 - Irrigation repairs as needed.

- Began annual maintenance of equipment.
 - Sprayed greens with fungicide.
 - Began to excavate drainage ditches on course as needed.
 - Flushed all green drains.
 - Trimmed all fence lines and pond edges of tree suckers.
- December, continue preventative maintenance to all equipment for 2018 mowing season, excavate drainage ditches as needed, continue irrigation repairs as needed, spray greens as needed, spray the course with post-emergent herbicide to control winter weeds, and spray entire course with pre-emergent herbicide to prevent weeds during growing season.

MONTHLY SUMMARY

- December rounds were 75 more total rounds to budget and 180 more than last year.

December Rounds	Budgeted	Prior Year	Actual
PUBLIC ROUNDS	150	147	143
TOURNAMENT	0	0	0
MEMBER	700	653	772
BATTLE CARD	125	129	113
TWILIGHT	75	38	105
MISC.	70	65	55
MEMBER GUEST	125	108	132
TOTAL ROUNDS	1,245	1,140	1,320

MONTHLY GROSS REVENUE

- December total revenue was \$61,883 for the month, which was \$921 more than budgeted revenues.

	December Budget	December Prior Year	December Actual
DUES & FEES	23,000	23,296	24,979
GREEN FEES	13,559	12,067	14,097
CART FEES	4,492	3,778	4,486
MERCHANDISE	7,781	5,874	7,347
OTHER GOLF COURSE SERVICES	2,650	1,860	1,611
FOOD & BEVERAGES	9,480	8,272	9,363
TOTAL REVENUE	60,962	55,147	61,883

BANQUET FACILITY USAGE REPORT

December	Event	\$
8	Company Event/Party	995.00
9	Company Event/Party	\$1,500.00

10	Wedding Reception	795.00
13	Christmas Party	0
16	Company Event/Party	595.00
22	Company Event/Party	450.00
29	Wedding Reception	995.00
	Total Banquet Revenue	\$ 5,330.00

BANQUET

- Preparing for Tulsa's Wedding Show; largest wedding show of the year in January 2018.
- Planning to attend a wedding show in March 2018 to be held at the Hard Rock Casino Event Center.

GRILL

- Decorated for Christmas.

SPECIAL EVENTS DIVISION

COMMUNITY EVENT MANAGER

- Attended weekly staff meetings.
- Received, processed, and reviewed several applications for events.
- Attended Ruts N Guts event.
- Attended Civitans Christmas Parade.
- Researched and continued working on Fiscal Year 2018-2019 budgeting items.
- Prepared for, planned, and attended Special Events Committee meetings.
- Hosted and attended Parks and Recreation Department's Christmas Luncheon held at the Events Park Office.
- Attended Parks and Recreation Department Capital meeting.
- Attended Broken Arrow Wine Walk in the Rose District.
- Attended City of Broken Arrow University (COBA-U) class.
- Updated current Rose District Farmers Market application and guidelines. Created new Rose District Farmers Market Craft Vendor application to distinguish between produce vendors and craft vendors. This will increase accuracy for the Rose District Farmers Market guidelines compliance.

- Attended Quality of Life 2018 proposed bond meeting.
- Attended Audio Training meeting for the Rose District music.
- Prepared tracking for events taking place in 2018.
- Attended Rudolph Run event with 1,400 runners.
- Met with event organizer for ScotFestival to discuss plans for possible 2018 event.
- Continued planning events, music, and special classes for the Rose District Farmers Market 2018 season. Tentatively planned April 7th, 2018 as Opening Day.
- Met with Keep Broken Arrow Beautiful (KBAB) to discuss plans for weeklong series of small events leading up to the Rose Festival on May 5th, 2018.

RECREATION DIVISION

RECREATION MANAGER

- Attended Preliminary Concept Design meeting regarding possible Broken Arrow Senior Center Annex.
- Attended Sales Tax Capital Improvement (STCI) projects hearing.
- Attended Special Events Committee meetings.
- Attended Parks and Recreation Director's interviews with two Full-Time Recreation Assistant candidates.
- Attended Quality of Life proposed 2018 bond meeting.
- Attended meeting regarding personnel budget requests for Parks and Recreation Department.
- Oversaw several facilities throughout December.
- Conducted monthly Center Supervisor meeting.

CENTRAL PARK COMMUNITY CENTER

- Logged visitors for December were 1,468 which is an increase of 26 compared to November.
- Center Supervisor and one Part-Time Recreation Assistant attended the Annual City of Broken Arrow Employee Service Awards and Holiday Banquet held at Stoney Creek Conference Center.
- Center Supervisor met with Nienhuis Center Supervisor to review Full-Time Recreation Assistant applications. Also, attended Full-Time Recreation Assistant interviews.

- Center Supervisor attended Parks and Recreation Director's interview with a Full-Time Recreation Assistant candidate.
- Center Supervisor attended Recreation Manager's Monthly Supervisor meeting.
- Homeschool PE (Physical Education) ended their first semester with 41 participants.

NIENHUIS PARK COMMUNITY CENTER

- Logged visits for December were 1,927 which is an increase of 411 compared to November.
- Center Supervisor attend the Annual City of Broken Arrow Employee Service Awards and Holiday Banquet held at Stoney Creek Conference Center.
- Broken Arrow Volleyball Club Competitive Season began December 5th using Nienhuis' two gyms. The Competitive Season will run through March 31st, 2018.
- Center Supervisor met with Premier Flooring representative concerning gym floor moisture spots after being screened and coated.
- Center Supervisor attended interviews for two Full-Time Recreation Assistant positions. There is one open position at each Center; Central Park and Nienhuis Park Community Centers.
- Center Supervisor attended Parks and Recreation Director's interview with the Nienhuis Park Full-Time Recreation Assistant candidate.
- Began planning and securing vendors for the Daddy Daughter Dance to be held in February 2018.
- Center Supervisor held one Part-Time Recreation Assistant's three month performance evaluation.
- Center Supervisor met with Oklahoma Bureau of Narcotics representative about holding a seminar at Nienhuis Park Community Center.
- Pizza with Santa had 195 participates which was an increase of 23 compared to December 2016. Everyone enjoyed Santa and the activities.
- Attended Recreation Manager's Monthly Supervisor meeting.

RAY HARRAL NATURE CENTER

- The estimated total number of visitors in the Nature Center were 796 which is a decrease of 12 compared to November.
- Ray Harral Nature Center's classroom hosted 2 private parties during the month.
- Girl Scout Troop 425 with 30 participants explored the Nature Center and enjoyed self-guided hikes in the park.

- Ray Harral Nature Park was the recipient of an Eagle Scout Service Project by Elton Ashcraft. Elton reached out to local businesses to donate materials to update all trail markers throughout the park. The trail markers will allow visitors to navigate easily through the park's trail system. Updating the trail markers also addressed patrons reoccurring complaint about not being able to read the markers. Upon completion, Elton has meet all requirements to obtain his Eagle Scout rank, the highest rank for Boy Scouts.
- Nature Center hosted the Employee Advisory Committee monthly meeting.
- Center Supervisor administered Ray Harral Nature Center's orientation for new Part-Time Recreation Assistant.
- Center Supervisor attended Recreation Manager's monthly supervisor meeting.
- Center Supervisor attended Monthly Employee Event Steering Committee meeting.

PARKS MAINTENANCE DIVISION

PARKS MAINTENANCE MANAGER

- Attended Director's weekly staff meeting.
- Conducted staff meetings with Parks Maintenance Division Supervisors.
- Monitored ongoing park projects:
 - Streetscapes Phase IV: Signal light at Ft. Worth and Main Street installed. Working with Information Technology Department (IT) to get irrigation central command software installed, and controller connected to City's internet system.
 - Indian Springs Sports Complex (ISSC) Renovation Project: New fencing started on baseball complex, and dugout concrete being removed and replaced. Only demo work has started on soccer complex. No work started on new irrigation system.
 - Arrowhead Concession/Restroom/Umpire Building: Still in design phase to enlarge building plan and connect existing building to new structure.
 - Country Aire Playground Replacement: Waiting on pre-construction meeting.
 - Leisure Park New Splash Pad and Replacement Playground: Waiting on pre-construction meeting.
 - Rose West Dog Park and Restroom: Work on hold due to backorder of block for the restroom. Block to be delivered on 1/10/18.
 - Events Park and Liberty Trail Restrooms: Block work completed at Events Park, and roof sheathed. Liberty Trail restroom on hold until block is delivered on 1/10/18.
 - Events Park Playground and Pavilions: Pre-construction meeting held, and notice to proceed given.
 - New Adult Softball Complex: Waiting on design firm to provide field layout options for staff to review.
 - Events Park Security Lighting: Light poles have been installed and are operational. Remote programming of control system scheduled for 1/16/18.
 - Nienhuis Pool Parking Lot Lighting: Waiting on pre-construction meeting.
 - Veterans Park Phase II: Granite work for wall and monument awarded. Remaining work for Phase II construction currently being bid. Bids open 1/31/18.

- Memorial Park/Garden: Engineering staff to email copies of plans to volunteers that have expressed interest in helping with project.
- Waterslide Resurfacing: Project currently being bid. Bids open 1/16/18.
- Submitted 2017 Tree City USA recertification application to Oklahoma State Forester.
- Attended Concept Design meeting to discuss needs for a future Broken Arrow Seniors Annex.
- Met with Parks and Recreation Department staff and City administration to review department's Capital Project requests for 2019.
- Attended design review and progress meetings associated with the Memorial Park project. Discussion included bidding procedures, volunteer contacts, and plan/amenity reviews.
- Attended progress meeting for ISSC baseball and soccer fencing/irrigation project. Project moving slowly, but contractor was confident they would meet the substantial completion date.
- Met with Parks and Recreation Department managers to review 2019 personnel requests.
- Attended City Council meeting for Parks and Recreation Director.
- Attended Operational Group Projects meeting.
- Requisitioned two replacement zero-turn mowers that were quoted through Logistics.
- Ordered dog waste stations for Rose West Dog Park.
- Worked with Stormwater Department to remove old concrete basketball court at Lions Park and install a new concrete court. Park Maintenance staff replaced backboard and goal to place the court back in service.
- Submitted 2018 pesticide license renewal application to the Department of Agriculture. State law changed in November 2017 that requires municipalities to pay company and employee licensing/exam fees. In previous years municipalities were exempt from the fees.
- Submitted additional information to the City's GIS Coordinator/Analyst to be added to the GreenCity Geographic Information System (GIS) software for management of the Parks and Recreation Department's assets.

FACILITIES MAINTENANCE SECTION

- Conducted monthly playground inspections. Removed cracked slide from Aspen Creek, and replaced with temporary pipe wall barrier. Quoted and ordered a replacement slide. Sprayed weeds inside playground borders. Routine graffiti removal.
- Setup mobile stage for Ruts N Guts event. Shutdown and removed stage after event concluded.
- Checked heaters in unoccupied department facilities during extreme cold temperatures. Temporarily shut-off water when needed.

- Two tennis net posts were removed at Vandever tennis courts, and installed new in-ground sleeves and posts.
- Checked and changed flags as needed prior to Pearl Harbor Remembrance Day. Lowered and raised flags as ordered during the month.
- Installed ice warning signs around department ponds.
- Parks Maintenance pond fountains were turned off during extended freezing temperatures.
- Straightened rules signs in various parks.
- Checked all sump pumps in swimming pool diving wells. Removed leaves that had collected inside swimming pool tubs.

GROUNDS MAINTENANCE SECTION

- Checked and cleaned all outdoor restrooms. Removed litter from park sites and delivered recyclable materials to the Metropolitan Environmental Trust (M.E.T.)
- Removed temporary creek crossing at the Events Park for Ruts N Guts event.
- Eradicating gophers/moles from athletic fields and Anderson Pond dam.
- Grading down fence line ridges in advance of new fences being installed on the ISSC baseball and soccer fields.
- Spot painted soccer field boundary corners.
- Worked with Fleet Maintenance to get estimates and make outside vehicle repairs on a refuse truck that was involved in an accident.
- Nienhuis Park Basketball Court, replaced broken basketball rim.
- Nienhuis Disc Golf Course, removed thorny locust trees.
- Routine leaf/debris removal from the Nienhuis Park synthetic football fields.
- Repaired leak on irrigation mainline at Arrowhead Softball Complex.
- Filling in ground depressions throughout various park sites.
- Mowed native monarch waystation sites. Tilled up new waystation sites in preparation for seeding.
- Drilled several in-ground holes for new flag pole sleeves at Veterans Park. Veterans of Foreign Wars (VFW) personnel were handling the installation of the new pole sleeves.
- Liberty Parkway Trail - Performed monthly inspection of the trail, removed vines growing on chain-link fencing, measured all retaining walls for inventory purposes, repainted several trail bollards and added reflective tape, and trimmed back trees adjacent to trail surface.

- Located electric lines on ISSC soccer fields in advance of irrigation contractor starting work.

HORTICULTURE/FORESTRY SECTION

- Performed routine maintenance in Rose District; blew sidewalks, removed litter, herbicide applications, weeded beds, etc.
- Updating GIS tree inventory. Adding newly planted trees, and correcting tree species on tree entries that were not correct. Training Crewleader on collection/editing procedures.
- Investigated property in Ray Herral Nature Park involved in a fire. No significant tree or structure damage.
- Checked irrigation hot boxes and fixture heat tape during periods of extended freezing temperatures.
- Continued with annual tree pruning throughout the park system. Raising limb height to 8 feet. Removing unwanted species of trees and removing deadwood as needed during pruning process. Hauled trimmings and deadwood to Tulsa green waste site or chipping onsite. Grinding stumps on trees that were removed.
- Routine leaf removal from landscape beds and walking trails at Ray Herral Nature Park.
- Deadheaded winter annuals and trimming back perennials.
- Inputted Parks Maintenance Division's pesticide inventory into the City's Material Safety Data Sheet (MSDS) online program.
- Horticulturist monitored contractors' maintenance of rose plants in Rose District and Centennial Park.
- Chipped up brush pile stored at the Parks Maintenance Facility, and hauled chips to Stormwater Department's chipping site, Northeastern State University.

End of Report

INTEROFFICE MEMO

To: Michael Spurgeon, City Manager

**From: Norm Stephens, Assistant to the City Manager / Economic Development
Coordinator**

Date: January 23, 2018

Re: Tulsa's Future

Attached is the Regional Economic Development Activity Update for December 1 --
December 31, 2017.



**Regional Economic Development Activity Update
December 1 – December 31, 2017**

Announcements & New Jobs Created

	Capital Investment	Greater than \$50,000	Less than \$50,000	Total Jobs
For the month of December	\$74,900,000	313	405	718
Total for 2017	\$138,103,300	3,173	1,724	4,897
Total for 2016	\$146,500,000	1,888	1,899	3,787
Totals for 2016-2017	\$284,603,300	5,061	3,623	8,684

Business Attraction Activity

	Proposals Submitted	Site Visits	Phase 2 Proposals Submitted
For the month of December	3	0	1
Total for 2017	52	31	6
Total for 2016	47	17	15

Business Retention & Expansion Activity

	BRE Visits
For the month of December	35
Total for 2017	825
Total for 2016	817

Lead Development

Monthly Leads

For the month of December	9
Total for 2017	114
Total for 2016	117

Lead development companies: Mayville Engineering Co., Seepex, Inc., Telephonics Corp., Altierre Corporation, Enviva LLP, Standardaero, Cobham Avionics, Exsif Worldwide, Unifor Brass Forgings

Start Date	Number of Jobs	Status	Target Industry	Community	Source
12-1-2017	N/A	Active	Manufacturing	Tulsa Region	Consultant
12-1-2017	80-120	Active	Call Center	Tulsa	Company Direct
12-5-2017	680	Active	Manufacturing	Tulsa Region	Consultant

All regional partners receive RFP request for proposal unless client specifies certain communities, or sites have already been chosen.

2018 Scheduled Appointments

Destination	Participation Deadline	Scheduled Appointment Dates	Communities Attending
Dallas Call Trip	February	March TBD	TBD
Carolinas Call Trip	March 11	April 11-13 (tentative)	TBD
GEDMT Atlanta Call Trip	April TBD	May 9-11	TBD
Chicago Call Trip	June 8	July TBD	TBD
Dallas Call Trip	July 6	August TBD	TBD
Chicago Call Trip	September 7	October TBD	TBD
Ohio Call Trip	October 1	November TBD	TBD

*We may add additional call trips to this tentative schedule based on additional project activity and partner interest.

2018 Trade Shows & Events

In addition to call trips, TRC economic development staff will be attending the following trade shows and events; scheduled appointments will likely be made in coordination with these shows and events. Regional Partners are welcome to register to attend these events and participate in scheduled appointments alongside TRC staff.

Destination	Participation Deadline	Event Dates	Communities Attending
MRO Americas, Orlando	March 9	April 10-12	TBD
SEDC Meet the Consultants - Dallas	March 16	April 18-20	TBD
AUVSI - Dallas	March 23	April 30 – May 3	TBD
Select USA Summit, D.C.	May 18	June 20-22	TBD
Farnborough International Airshow	May 18	July 16-22	TBD
21 Club Reception - NYC, NY	TBD	TBD	TBD
NBAA – Las Vegas	September 14	October 16-18	TBD
GEDMT Houston Reception	TBD	November TBD	TBD

Note: Any registration costs or pay-to-play fees for the above shows and events are the responsibility of individual partners.

**Staff will be finalizing the 2018 schedule in the coming weeks and will provide this to partners as soon as it is available.*

2018 Regional Partner Meetings

- February 8, 2018 – Broken Arrow Chamber of Commerce, 210 North Main Street, Broken Arrow
- May 29, 2018
- August 2, 2018
- November 8, 2018

All meetings are 12:00 p.m. to 1:30 p.m. (Hosts Needed)

INTEROFFICE MEMO

To: City Council

From: Mr. Kenneth D. Schwab, P.E., CFM, Assistant City Manager – Operations

Copied: Mr. Michael Spurgeon, City Manager

Date: January 26, 2018

Re: City of Broken Arrow and the Broken Arrow Public Schools – Ecology and Environmental Partnership Update

KDS
01-26-18

The following is intended to serve as an update on the City of Broken Arrow and the Broken Arrow Public Schools Ecology and Environmental Partnership.

The Oversight Committee has met regularly since the actual kick-off in late October 2017. On the first Monday of each month the Committee meets to discuss the course of action and the vision of the Program. The report for the last Committee meeting is attached for your reference.

The Committee will make a formal recommendation in the near future that the name of the creek be officially called Tiger Creek. In addition, we will soon begin a naming program that will seek public input. The Committee is seeking names for the Project, the Park, the Detention Facility and an overall Brand Name or Tag Line. This public input process will take about a month or so and then we will present the findings with a recommendation to the Council in early spring. The attached report includes a proposed schedule and names for this process.

Furthermore, on January 24, 2018, City personnel working with Ms. Gradel presented a lesson titled “Exploring Floodplain Management: Investigating Tiger Creek Watershed” to Ms. Gradel’s Advanced Placement Environmental and Innovation classes this past week. Students learned the basics of hydrology as it related to rainfall versus runoff in the Tiger Creek watershed. They were asked to serve and function as scientists as they learned basic hydrology concepts. Moreover, they observed the how different floodplain concepts such as detention, wetland preservation and pervious pavement could have a positive impact by reducing the peak flow and runoff volume from a given storm event. They had the opportunity to observe the Oklahoma Floodplain Managers Association’s flood model first hand which demonstrates the above identified techniques.

Lastly, the next scheduled event is for February 2, 2018. This is World Wetland Day. On this day, students will begin to learn how to design and construct a floating wetland. This officially kicks of the design and soon construction of the proposed wetlands for the detention facility.

**BROKEN ARROW PUBLIC SCHOOLS
AND CITY OF BROKEN ARROW**

**EXPLORING FLOODPLAIN MANAGEMENT:
INVESTIGATING THE TIGER CREEK WATERSHED**

ADVANCED PLACEMENT ENVIRONMENTAL

MS. GRADEL

JANUARY 24, 2018

Kenneth Schwab, P.E., CFM
and
Jeff Bigby, P.E., CFM

EXPLORING FLOODPLAIN MANAGEMENT: INVESTIGATING THE TIGER CREEK WATERSHED

Objective: Learn the basic fundamentals of watershed characteristics, rainfall measurement, corresponding runoff hydrology and the tenants of floodplain management.

Focus: Expose the students to the basic critical thinking skills involved with watershed characteristics, rainfall analysis, runoff analysis and floodplain management. These critical thinking concepts include:

Watershed Characteristics:

Drainage Basin Area, Ground Slope, Impervious Area, Development, Hydraulic Length, etc.

Rainfall Analysis:

Duration of storm event, rainfall depth for various storm events, developing a hyetograph

Runoff Analysis:

Initial abstractions, Routing stormwater runoff, lag time, developing a hydrograph, peak runoff, volume of runoff

Floodplain Management:

Land use, flood control/protection, wetlands, pervious pavement

Activity: Set up Oklahoma Floodplain Managers Association's (OFMA's) flood model for demonstration purposes. The model replicates flood flow on different ground conditions including wetlands, pervious pavement, and impervious pavement. It can also replicate the danger of building within the floodplain.

OFMA Flood Model

Set-Up, Presentation and Storage Tips

Set up the model well before the presentation time. Connect the hose to the receiving bucket that receives outflow from the floodplain spigot. Find a source of water where you are presenting to fill up the water usage bucket. Have the 4 development type bins ready for use. Place props inside the floodplain including houses, trees, etc. before your first presentation begins.

There are four development bins that demonstrate their impacts on the receiving floodplain. They are; un-detained parking lot bin with shopping center and autos props, retention\detention pond bin, pervious pavement with actual pervious pavement section wedged into the more scuffed up rainmaker bin, and wetland bin including sponges inserted to act as a wetland. Swap out these four demonstration binds to show the effect of each on the downstream floodplain. Scoop one smaller pitcher full of water out of the larger water holding bucket and slowly pour one full pitcher onto each demonstration bin through the "rainmaker" bin that more evenly controls how the poured water will be distributed. After each presentation is done, wipe out the creek, floodplain and reset the houses etc. If you need to get the floodplain to drain out quicker, lift up the upper end of the model to let gravity help drain it a bit quicker.

If kids (or really curious and enthusiastic adults) are watching, let them reset the houses in the floodplain between the four demonstrations or let them pour the water and be the rainmaker to get them involved in the demonstration.

Explain a minimal bit about what each of the four development models (un-detained development flow, retention\detention pond, pervious pavement, and wetland) does to the receiving floodplain as you are demonstrating. If you will be at an event that is several hours long, maybe place a sign up stating show times at 10:00, 10:30, 11:00 etc.

Keep plenty of towels handy and recycle water between the water holding bucket and floodplain outflow receiving bucket. The wetland sponges will need to be wrung out between wetland presentations and after they are used the last time. Do your best to dry everything out before packing it back up.

Carefully pack the model and all contents back into the wooden carrier after final use. Use towels as protection to avoid scuffing of the interior of the model. Be extra careful in placing the pervious pavement section into the model so that it does not damage other parts with it's heavy weight.

The model is large enough that it will barely fit into a full size SUV or will easily fit into the back of a truck. Normal size autos are not typically big enough to carry it. Block the model crate wheels or do something else to keep it from rolling during transport to avoid damage to the model or to your vehicle.

Have fun and teach at least one person something they didn't know!



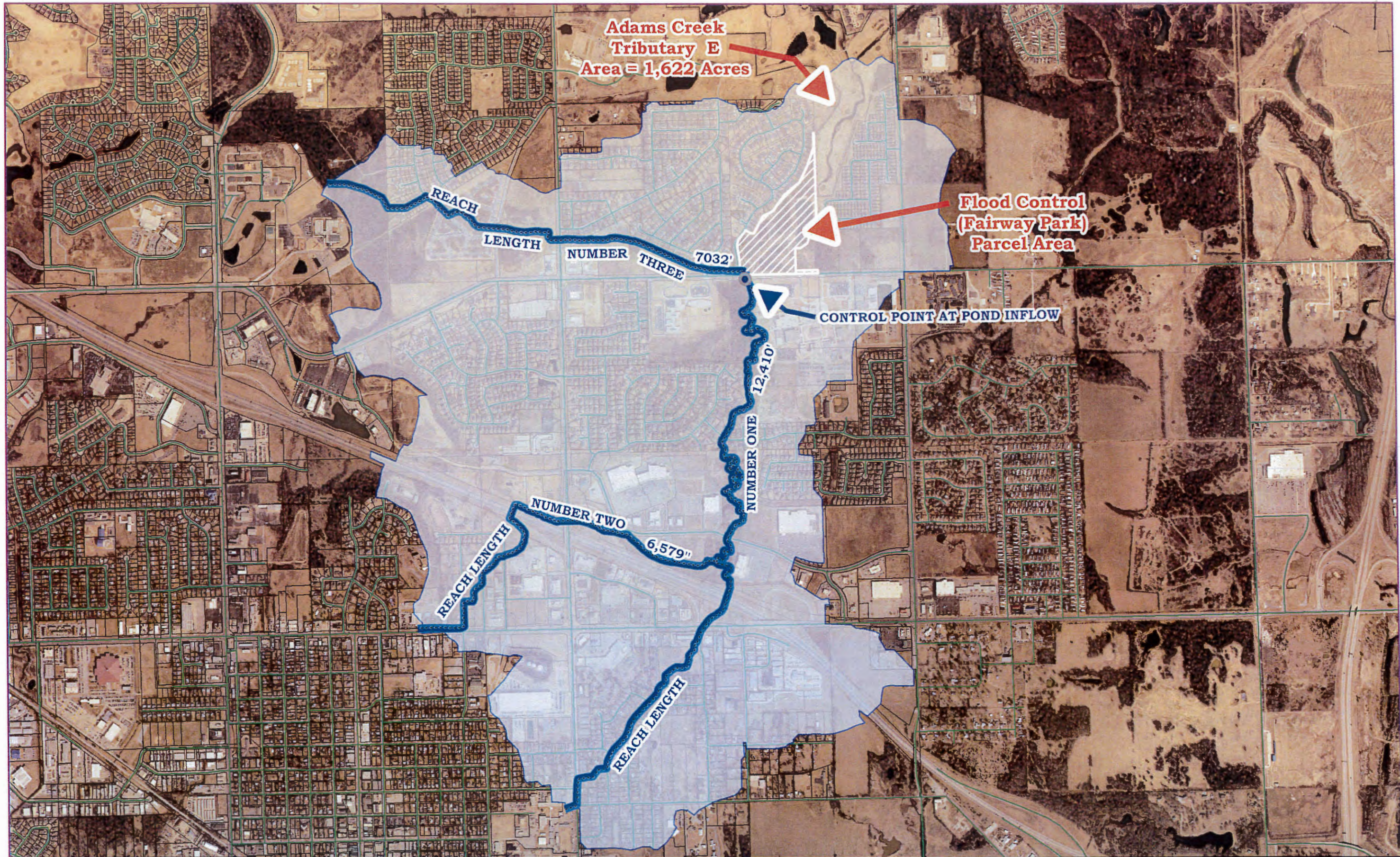
STATION	DEPTH (ft)	TEMPERATURE (°F)	WIND DIRECTION	WIND SPEED (mph)	WAVE PERIOD (sec)	WAVE HEIGHT (ft)	SEA STATE	TIME
100.0	0.0							1000
100.5	0.5							1005
101.0	1.0							1010
101.5	1.5							1015
102.0	2.0							1020
102.5	2.5							1025
103.0	3.0							1030
103.5	3.5							1035
104.0	4.0							1040
104.5	4.5							1045
105.0	5.0							1050

DEPTH (ft)	TEMPERATURE (°F)	WIND DIRECTION	WIND SPEED (mph)
100.0			
101.0			
102.0			
103.0			
104.0			
105.0			





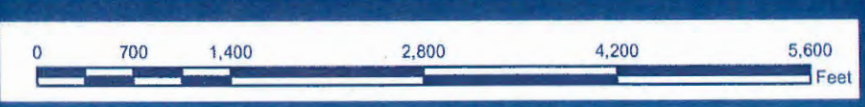
WATERSHED MAP



City of Broken Arrow
Engineering & Construction
Stormwater Division

*Adams Creek
Tributary E*

Adams Creek
Master Drainage Study
Basin Map



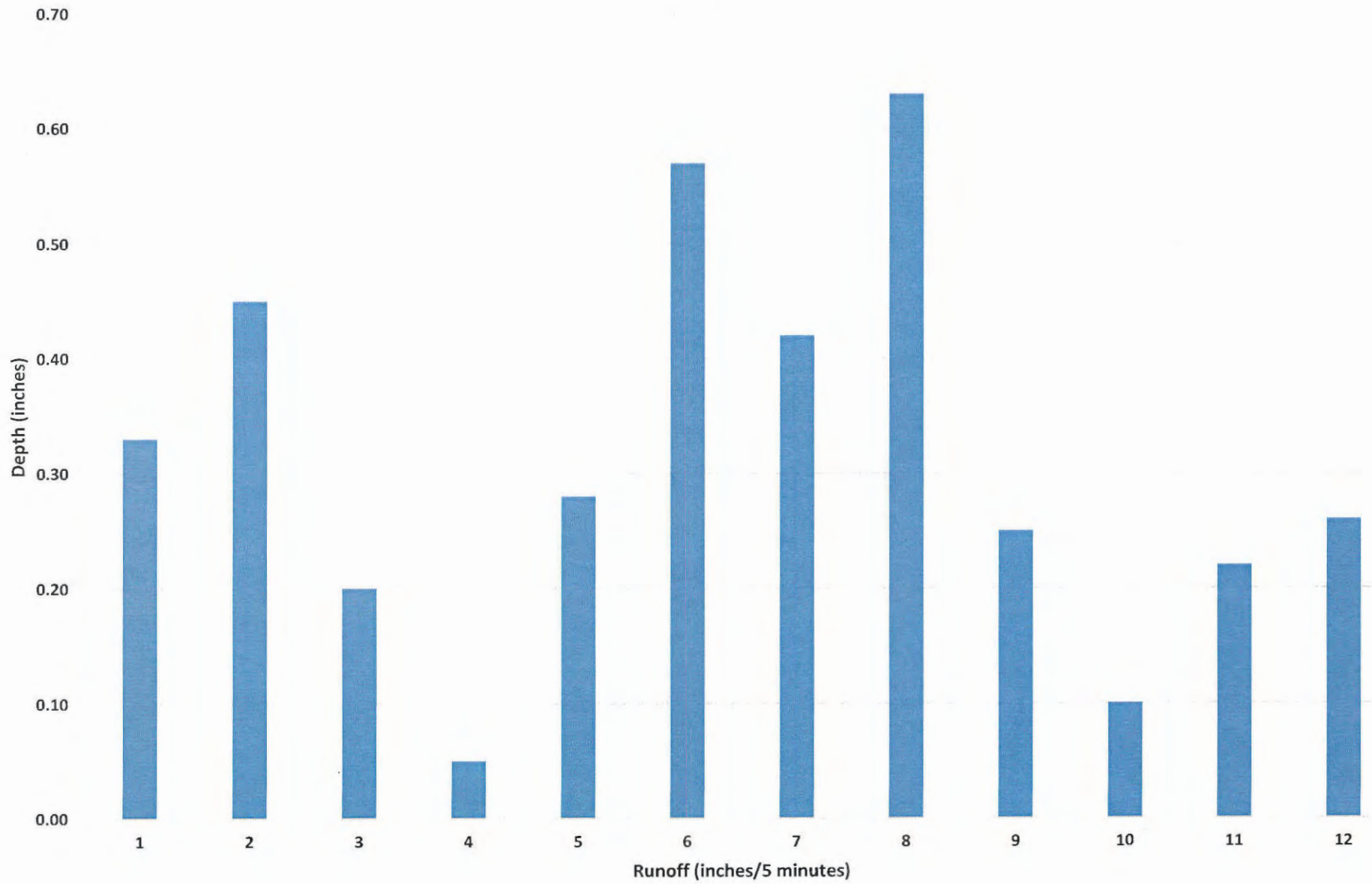
Broken Arrow
Flood Control
Mapping

RAINFALL ANALYSIS

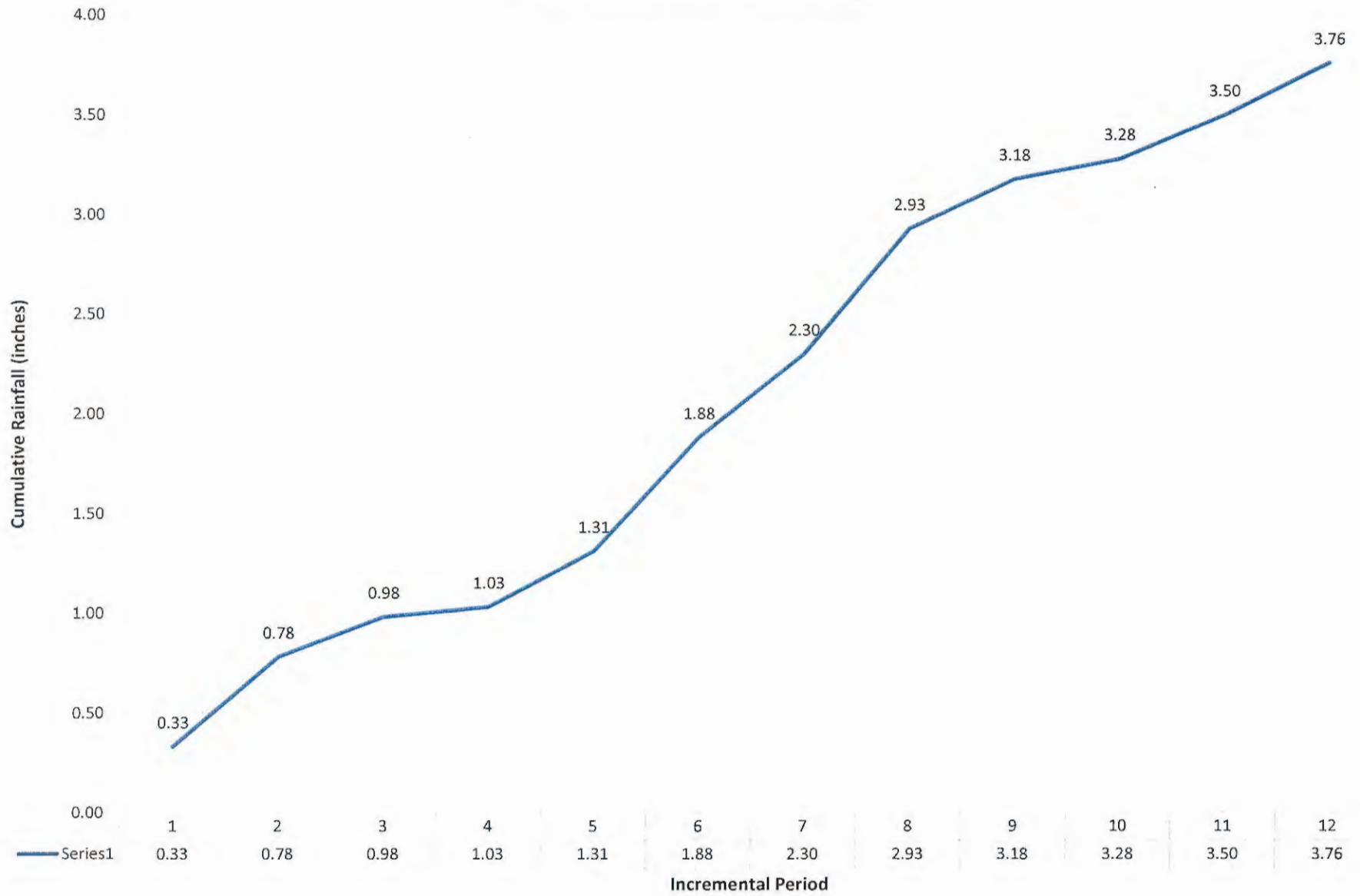
**TIGER CREEK
RAINFALL VERSUS RUNOFF DATA**

Increm. Point	Time Inc. (min.)	Increm. Rainfall (in)	Cumulative Rainfall (in)	Increm. Perc. (%)	Cumul. Perc. (%)
1	5	0.33	0.33	8.8	8.8
2	5	0.45	0.78	12.0	20.7
3	5	0.20	0.98	5.3	26.1
4	5	0.05	1.03	1.3	27.4
5	5	0.28	1.31	7.4	34.8
6	5	0.57	1.88	15.2	50.0
7	5	0.42	2.30	11.2	61.2
8	5	0.63	2.93	16.8	77.9
9	5	0.25	3.18	6.6	84.6
10	5	0.10	3.28	2.7	87.2
11	5	0.22	3.50	5.9	93.1
12	5	0.26	3.76	6.9	100.0
Totals	60	3.76	3.76	100.0	100.0

RAINFALL

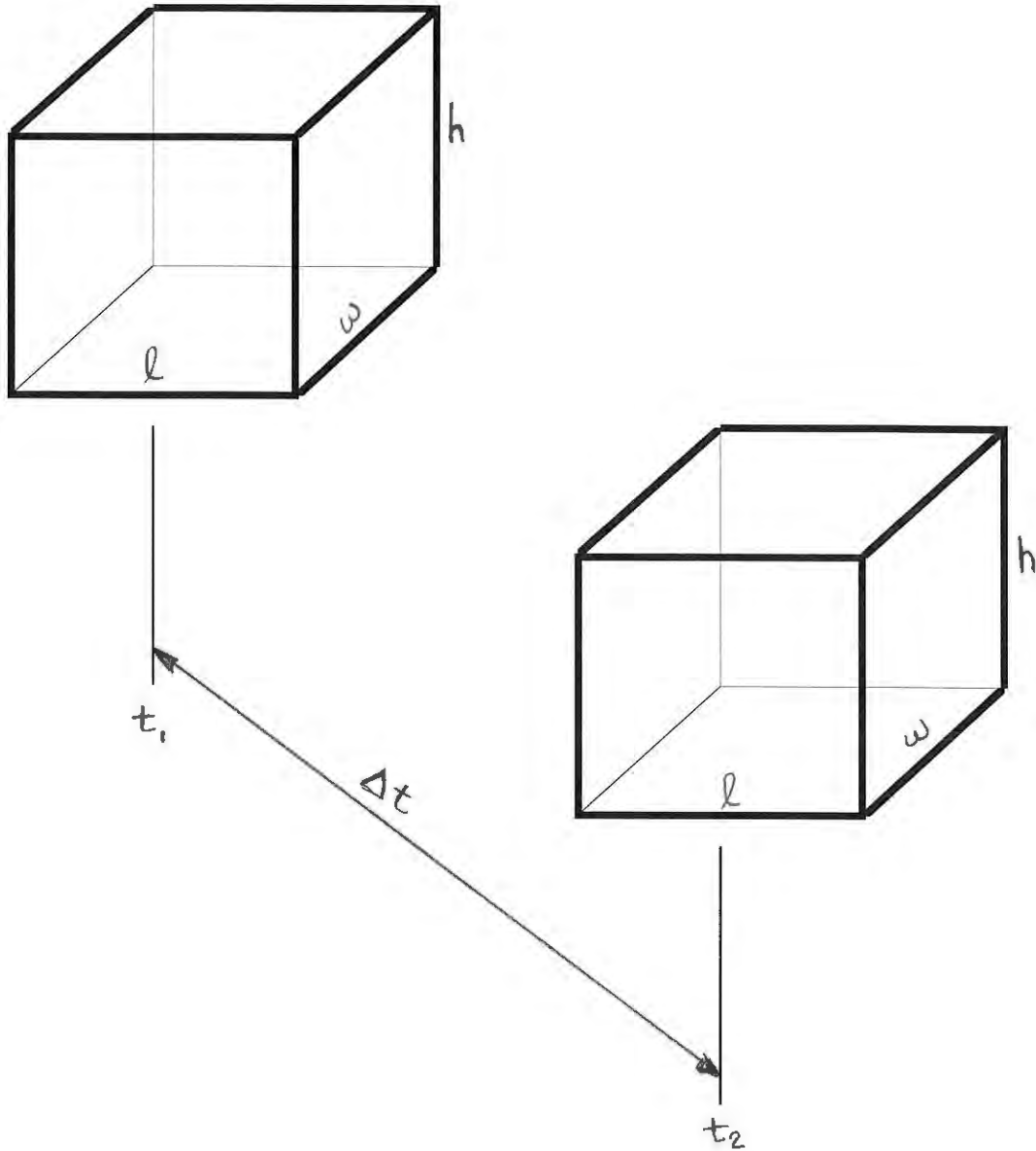


Cumulative Rainfall Distribution



RUNOFF ANALYSIS

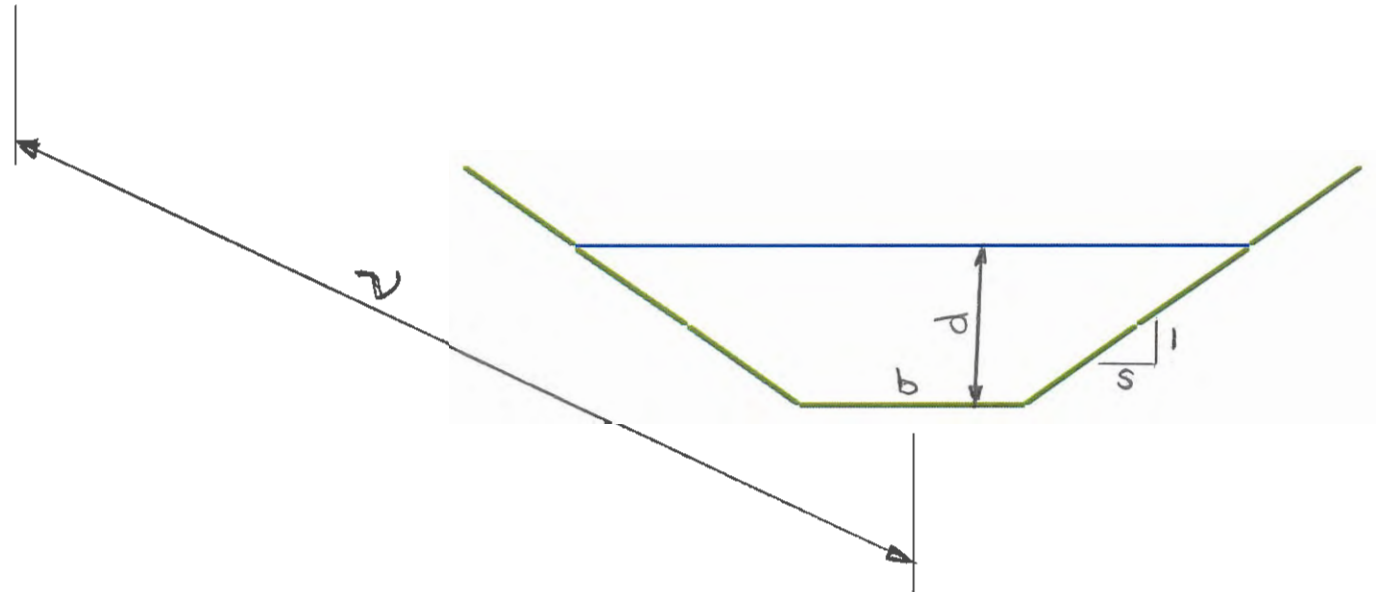
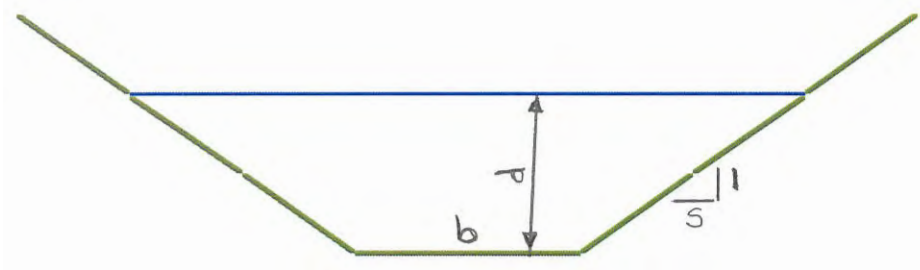
FLOW DIAGRAM



$$\text{Flow (Q)} = \frac{\text{VOLUME (V)}}{\Delta t}$$

$$Q = \frac{l \cdot w \cdot h}{\Delta t} \text{ (cfs)}$$

FLOW DIAGRAM



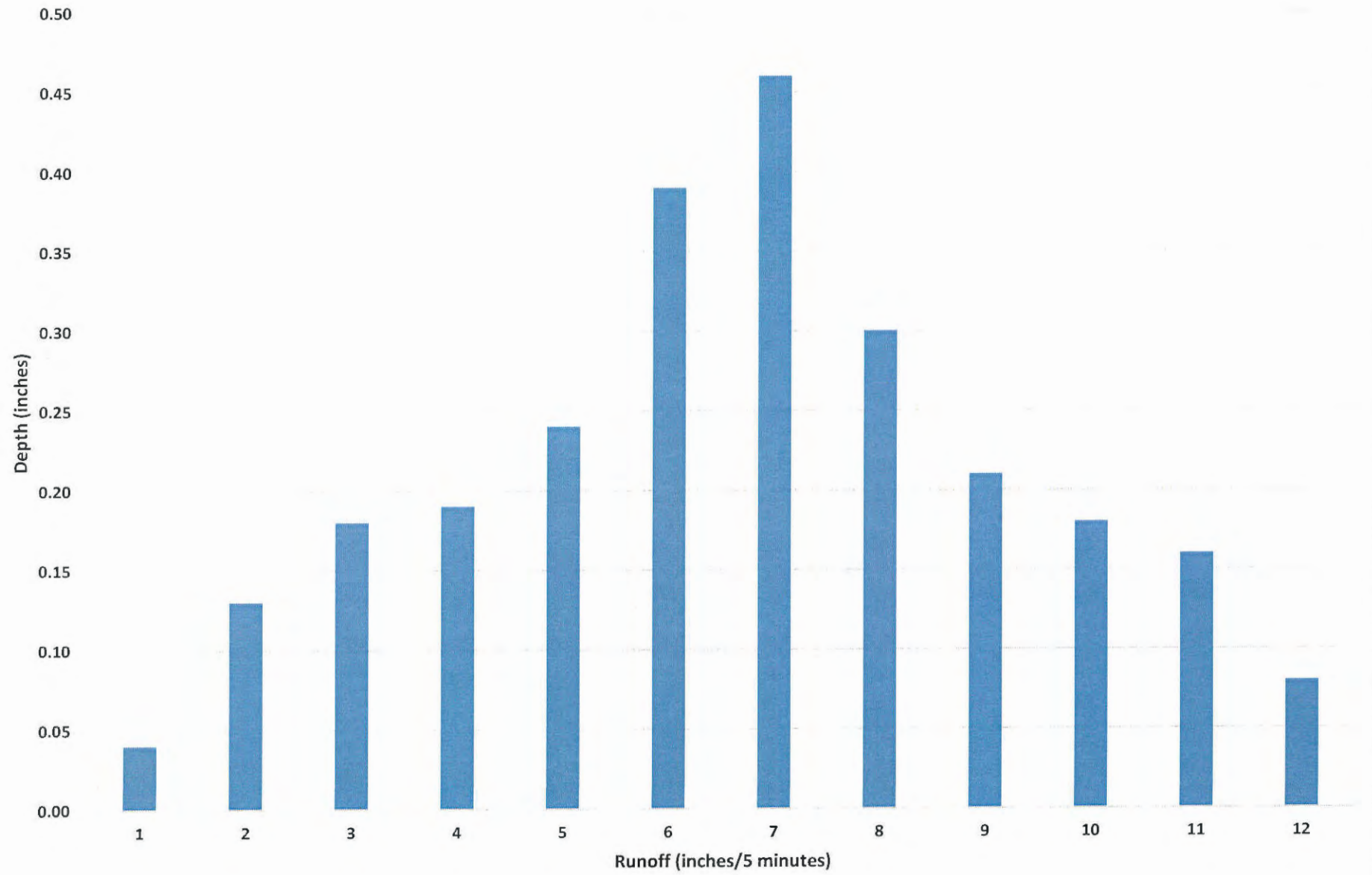
$$\text{FLOW (Q)} = \text{AREA (A)} \cdot \text{VELOCITY (v)}$$

$$Q = d(b + sd) \cdot v \text{ (cfs)}$$

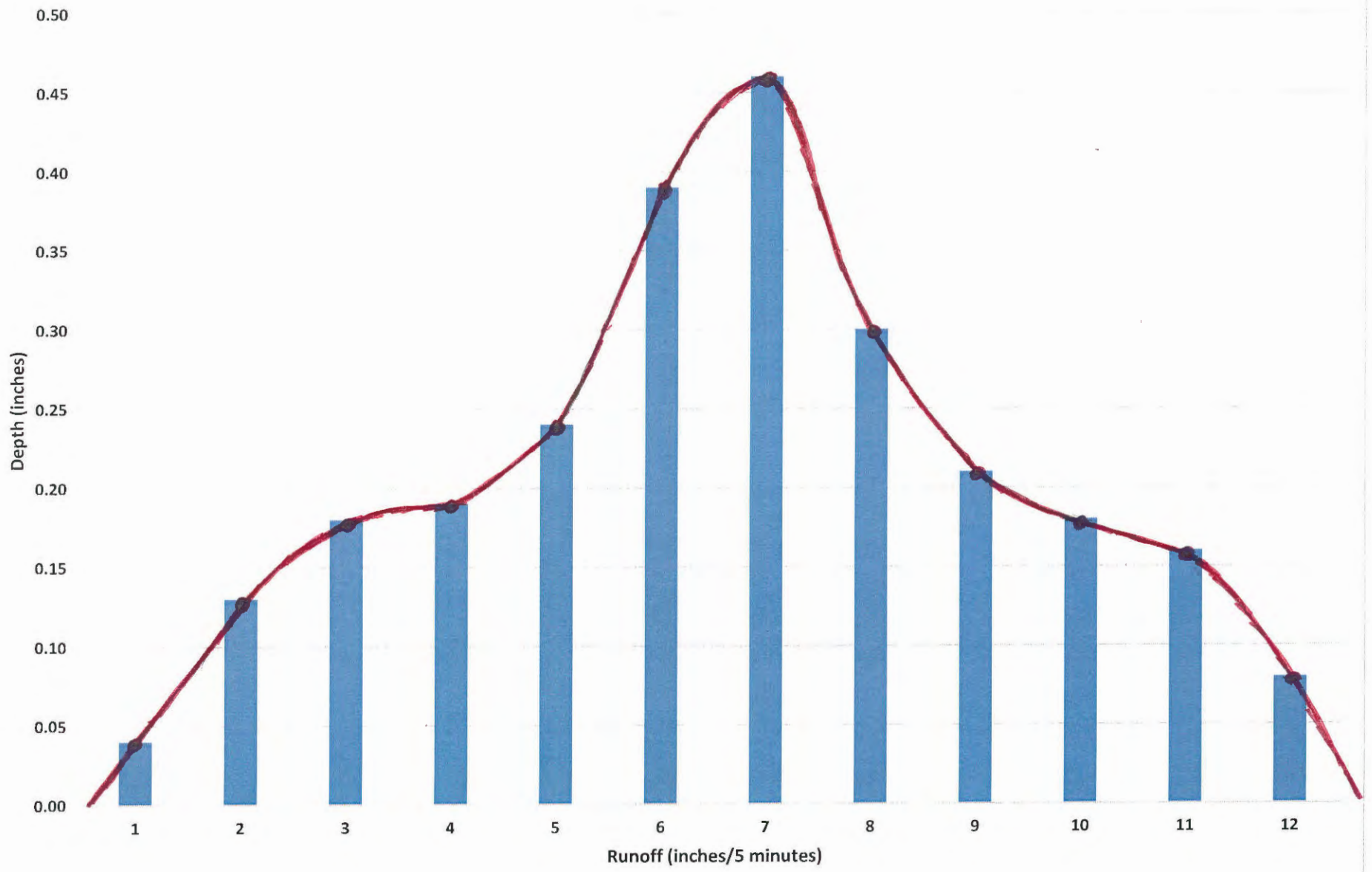
**TIGER CREEK
HYDROGRAPH**

Increm. Point	Time Inc. (min.)	Increm. Rainfall (in)	Runoff (in.)	Runoff (in.)
4	5	0.33	0.18	54.5
3	5	0.45	0.24	53.3
9	5	0.20	0.13	65.0
5	5	0.05	0.04	80.0
2	5	0.28	0.19	67.9
6	5	0.57	0.39	68.4
8	5	0.42	0.30	71.4
7	5	0.63	0.46	73.0
12	5	0.25	0.18	72.0
1	5	0.10	0.08	80.0
11	5	0.22	0.16	72.7
10	5	0.26	0.21	80.8
Totals	60	3.76	2.56	68.1

RUNOFF



RUNOFF



2. GENERAL CORRESPONDENCE / NOTIFICATION



Hooks, Jennifer

From: Berryhill, Brandon
Sent: Wednesday, January 24, 2018 9:49 AM
To: All Dept. Heads
Subject: FW: New K-9 member
Attachments: Thor 1 (002).jpg; Thor 2.jpg; Thor 3.jpg

From: Smith, Steven T
Sent: Wednesday, January 24, 2018 9:46 AM
To: All Police Dept Personnel
Subject: New K-9 member

Officer Baldwin and I are headed back to Oklahoma with the newest member of the Broken Arrow Police K-9 Unit. He will be joined with his new handler, Officer Mike Ryan, and they are scheduled to begin their training together on February 5th. Officer Ryan has decided to give him the name of "Thor".

We were presented with lots of good dogs to choose from and it was nice to have a tough decision to make. Thor presented a great hunt instinct with a nice search pattern and was among the top performers on a bite demonstration. We narrowed down our choices to 3 candidates and Baldwin tested each dog in a bite suit, checking for courage and confidence. We came away with a final decision between two very confident dogs with nice established bites. Thor distinguished himself with a nice aptitude for tracking and won the day. We think he and Officer Ryan are going to be an excellent addition to our program.

Thor is a German Shepherd Dog who originates from Hungary.

Good Luck to Officer Ryan and K-9 Thor.

Sgt. Steven Smith
Broken Arrow Police Department



PRESS RELEASE

Contact: Krista Flasch
Director of Communications
City of Broken Arrow
Phone: (918) 259-2400, ext. 5309
Mobile: (918) 409-7771

Broken Arrow mayor attends meeting at White House

President Trump addressed select group of U.S. mayors

WASHINGTON, D.C. (1/24/2018) – Broken Arrow Mayor Craig Thurmond was part of a select group of mayors from across the nation to attend a special meeting at the White House, where President Donald Trump and Vice President Mike Pence addressed the group.

Thurmond and Oklahoma City Mayor Mick Cornett were the only Oklahoma representatives to attend the “Mayors’ Day at the White House: A Conversation with President Trump.” During the discussion, the president announced the federal government is planning to spend \$1.7 trillion on infrastructure.

The mayors were already in Washington attending the United States Conference of Mayors (USCM), and a select group was invited by the White House to attend the meeting and a special reception with representatives of various federal agencies to discuss key issues within the mayors’ communities.

“It was an honor to be invited to the White House and hear President Trump and Vice President Pence speak and to represent the citizens of Broken Arrow,” Thurmond said. “Also, it was great to talk with the senior administration staff about federal funding for Broken Arrow.”

Thurmond spoke with the Department of Commerce regarding Broken Arrow’s planned Innovation District and the Department of Transportation regarding the City’s needs for road and bridge improvements.

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3. SPECIAL EVENTS / ACTIVITIES



CITY OF BROKEN ARROW

Parks & Recreation Post Event Report

Event/Program: Is Beekeeping For Me? Date: 1/16/18

DETAILS

<i>Location</i>	Ray Harral Nature Center	<i>Attendance</i>	28 participants
<i>Event Organizer</i>	John Darling, Center Supervisor	<i>How long has the event been going?</i>	2 nd Year

DESCRIPTION

- The Northeastern Oklahoma Beekeepers Association (NEOBA) presented at the Ray Harral Nature Center to help area residents decide if beekeeping is the right hobby for them or not.
- NEOBA presented on the day-to-day operations of running a beekeeping setup which included equipment, dedication of time, and safety measures.
- This event was a preliminary class for NEOBA before their official three day beekeepers training course scheduled for January 27th in Owasso.
- Citizens were given the opportunity to ask questions throughout the class and at the end of the program.
- The participation for this class was doubled compared to previous year.

TYPE OF PROMOTIONS USED

- Broken Arrow Parks and Recreation Facebook Pages
- City of Broken Arrow's events calendar.
- Seasonal Informer Newsletter
- Flyers in Community Centers and Nature Center

NOTES

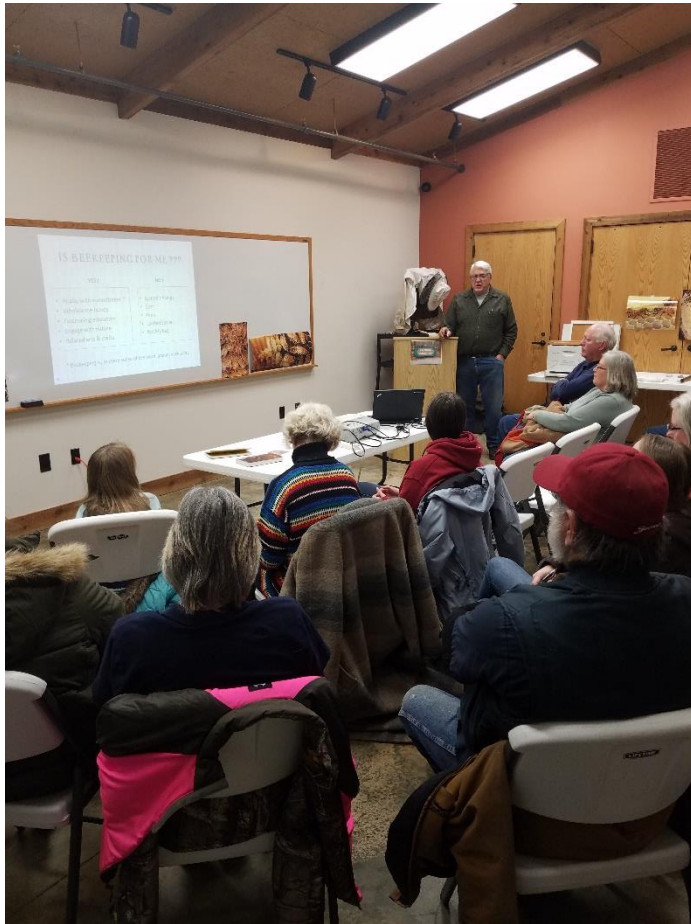
Our goals:

- Continue to foster a strong partnership with the Northeastern Oklahoma Beekeepers Association for future classes and events.
- Continue this great opportunity for Broken Arrow and south Tulsa area residents to decide if they want to follow through with NEOBA's three-day training course.

For Next Year:

- Reach out to more outlets for advertising purposes.

PHOTOS:



CITY OF BROKEN ARROW

Parks & Recreation Post Event Report

Event/Program: Spring Garden Prep Date: 1/23/18

DETAILS

<i>Location</i>	Ray Harral Nature Center	<i>Attendance</i>	49 participants
<i>Event Organizer</i>	John Darling, Center Supervisor	<i>How long has the event been going?</i>	1 st Year

DESCRIPTION

- The Tulsa Master Gardeners presented at the Ray Harral Nature Center on the importance of proper maintenance and preparation of a home garden.
- Their goal was to help participants get the most out of annual gardening.
- Topics covered included: basic composting and soil needs, what plants will grow best in Oklahoma, knowing what problems to look for, and basic landscaping needs.
- Participants were able to ask questions to the Master Gardner’s and received advice on a wide range of gardening needs.

TYPE OF PROMOTIONS USED

- Broken Arrow Parks and Recreation Facebook Pages
- City of Broken Arrow events calendar
- Vintage Newsmagazine events catalogue

NOTES

Our goals:

- Provide an inclusive and welcoming atmosphere for the surrounding area’s outdoor education needs.
- Develop a solid partnership with the Tulsa County Master Gardeners.

For Next Year:

- Continue to expand our advertising purposes to reach a broader crowd.
- If the event continues to grow we may need to host this event at a larger facility.

PHOTOS:

