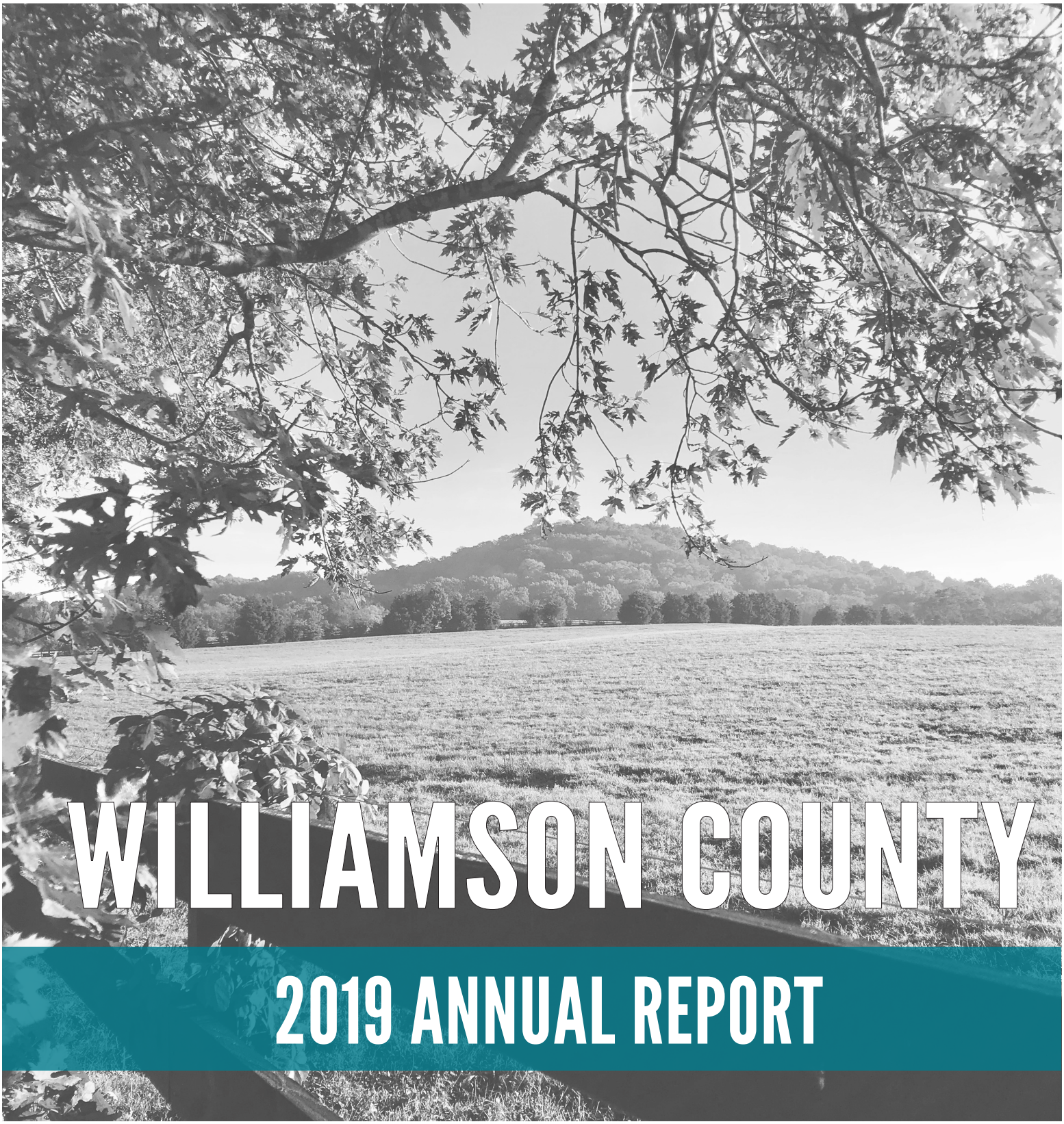

WILLIAMSON COUNTY

2019 ANNUAL REPORT

Department of Community Development

Planning and Zoning | Sewage Disposal Management

Codes Compliance | Building Codes | Engineering

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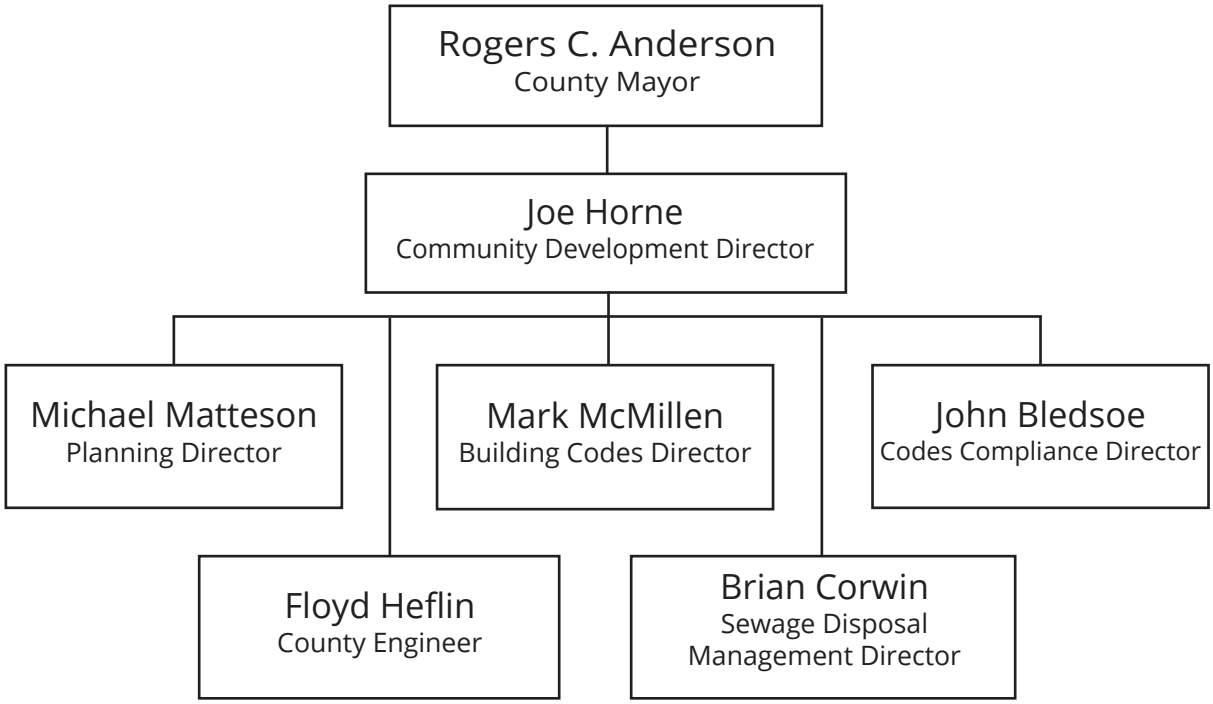
Department of Community Development

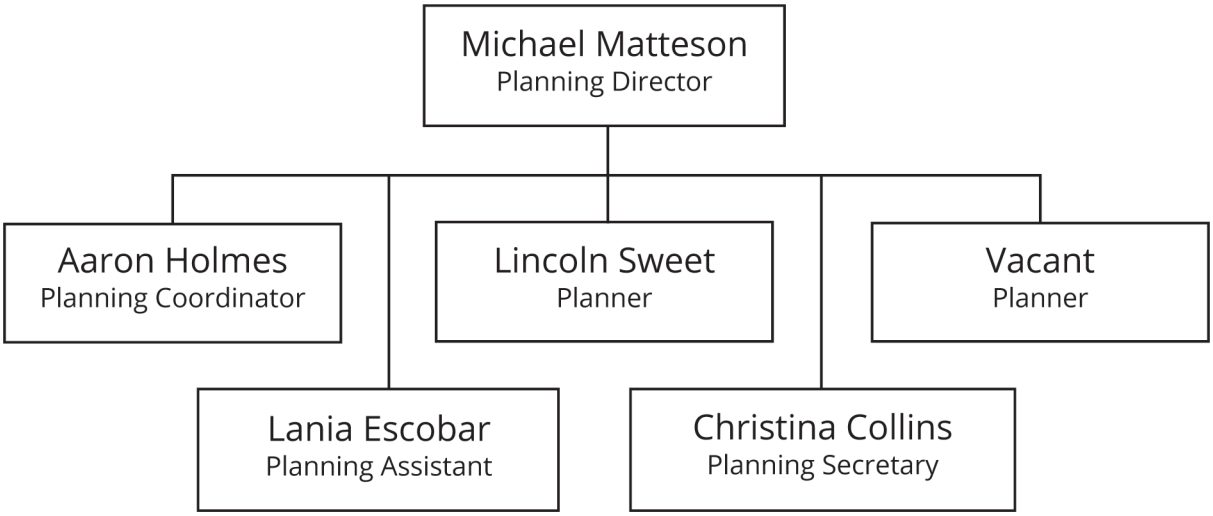
The Community Development Department provides the framework for planning and development services for the unincorporated portion of Williamson County. In a county undergoing the growth confronting Williamson County, it is important these services are integrated as much as practicable. The integration of these services allows not only for the provision of housing and related services to our community, but allows for the opportunity to monitor these markets and develop new techniques



Department of Planning and Zoning

County Planning plays a fundamental role in maintaining the quality of development in Williamson County. This role includes assisting developers and the general public in administering the Zoning Ordinance and other regulations. This department is responsible for support of the County Board of Commissioners, the Williamson County Regional Planning Commission, the Highway Commission, and other boards that may require routine aid in administering and interpreting the Zoning Ordinance, the Subdivision Regulations and for any specific research that may arise.

The County's Planning Department is located on the 4th floor of the Williamson County Administrative Complex along with the Building Codes, Codes Compliance, Engineering, and Sewage Disposal Management Departments. County Planning services are directed by Michael Matteson, Planning Director, who is assisted by Aaron Holmes and Lincoln Sweet. There is presently one (1) vacant Planner postion.



Overview

The following is a summary of the activity for 2019. This data will allow the Staff, the Planning Commission, the Board of Commissioners and the general public insight into the amount of growth

Map Amendments

A new Zoning Ordinance (2013 Zoning Ordinance) and Official Zoning Map (2013 Zoning Map) were adopted in May of 2012. No (0) amendments to the new Official Zoning Map were approved in 2018.

Text Amendments

In 2019, there was one (1) amendment to the regulations utilized by the Planning Department. Some of these amendments go hand in hand, i.e. if one regulation is amended, another might have to be amended in order to achieve the desired result.

- There was one (1) amendment to the 2013 Williamson County Zoning Ordinance.
- There were no (0) amendments to the Williamson County Subdivision Regulations.

Minor Subdivisions

Minor Subdivisions consist of no more than two (2) lots. Where there are no bondable improvements required, Staff has the discretion to review and approve these plats. In 2019, Staff processed thiry-nine (39) Minor Subdivisions.

Plat Revisions

Plat Revisions affecting two (2) or fewer lots are subject to review and approval by the Staff. There are many different items that may be dealt with on a revised plat, including a lot line shift. In 2019, Staff processed sixteen (16) plat revisions.

Major Site Plans: Planning Commission

The Planning Commission has reviewed a diverse range of non-residential site plans. In 2019, there were twelve (12) non-residential site plans reviewed. Table 1.1 outlines those plans reviewed.

Table 1.1: Major Site Plans Approved by the Planning Commission

Project Name	Square Footage or Acreage
Gateway Church Phase II - Amendment to Site Plan	13,398 SF
Troubadour Club Amenity Area Site Plan	115,892 SF
Dolan Commercial Venue	5,800 SF
Fox Hardwood Lumbar, LLC - Stacking Shed Addition	11,160 SF
Currey Ingram Academy - Boarding Addition	22,9811 SF
Grace Chapel & Grace Christian Academy High School	60,103 SF
Hardeman Springs Academy	1,101 SF
Central East Middle School - Henpeck Lane	196,999 SF
Page Middle School - Phase II Expansion	64,272 SF
The Gathering Church	47,491 SF
Currey Ingram Academy	8,295 SF
Page High School - Phase II	101,925 SF

Minor Site Plans: Staff Level Review

The Zoning Ordinance allows Site Plans for certain uses in certain Zoning Districts to be reviewed and approved by Planning Department staff, rather than by the Planning Commission. Table 1.2 lists those Site Plans approved at the staff level in 2019.

Major Subdivisions

Major subdivisions are those consisting of three (3) or more lots. Under this category, there are Traditional Subdivisions, Conservation Subdivisions and Large Lot Easement Subdivisions. The following table details the Final Plat activity related to major subdivisions for 2019. See Table 1.2 below.

Table 1.3: Major Subdivisions

Project Name	Section	Lots
Daventry Subdivision	Section 1	14
Sloan Farm	Large Lot Easement Subdivision	5
Daventry Subdivision	Section 2	24
The Cliffs at Garrison Creek	Large Lot Easement Subdivision	5
Stephens Valley	Section 3	27
Stephens Valley	Section 4	21
The George Clark Heard, III	Large Lot Easement Subdivision	1
Poplar Ridge	Large Lot Easement Subdivision	4
McDaniel Estates	Section 2	45
Hardeman Springs	Section 1	35
Locust Creek Hollow	Large Lot Easement Subdivision	4
Enclave at Dove Lake	Section 1	59
Hardeman Springs	Section 2	42
Vineyard Valley	Section 2	16
The Farmstead	Large Lot Easement Subdivision	5
Todd and Joy Griffin	Large Lot Easement Subdivision	1
Vineyard Valley	Section 3	26
Briarwood Farms	Large Lot Easement Subdivision	3
King's Chapel (Revision)	Section 1	48
The Grove	Section 12	5
The Grove	Section 13	53
Russell Ridge	Large Lot Easement Subdivision	5

Major Site Plans (Staff Level Review) Approved via Special Use Permit By Board of Zoning Appeals

Certain uses require a Special Use Permit to be approved by the Board of Zoning Appeals. In conjunction with the BZA's review of the use, the Zoning Ordinance permits the Site Plans to be reviewed and approved by Planning Department Staff, subject to approval of the Special Use Permit by BZA. The BZA approved zero (0) Special Use Permits in 2019.

Other Projects at Staff Level Review

This category includes projects that are reviewed at the Staff Level other than Site Plans. They are Changes of Use/Tenant, Home Occupations, Special Event-Limited Impact, Temporary Uses, and Inquiries. The number of projects reviewed under this category in 2019 was two hundred and thirty-five (235).

Planning Department Goals for 2020

The Planning Department has established three four primary goals for 2020. The first goal is the adoption of the updated Comprehensive Land Use Plan, which will serve as the overarching policy document for the unincorporated County with respect to growth and development-related issues. The second goal is to begin implementing the policies and recommendations of the Comprehensive Plan by updating the zoning map and zoning text. The third goal is to begin working with the six municipalities within the County on a regional growth plan designed to make the Urban Growth Boundaries (UGB's) function optimally. The fourth goal is the update the County's Subdivision Regulations, which govern the subdivision of property within the unincorporated County.

Department of Sewage Disposal Management

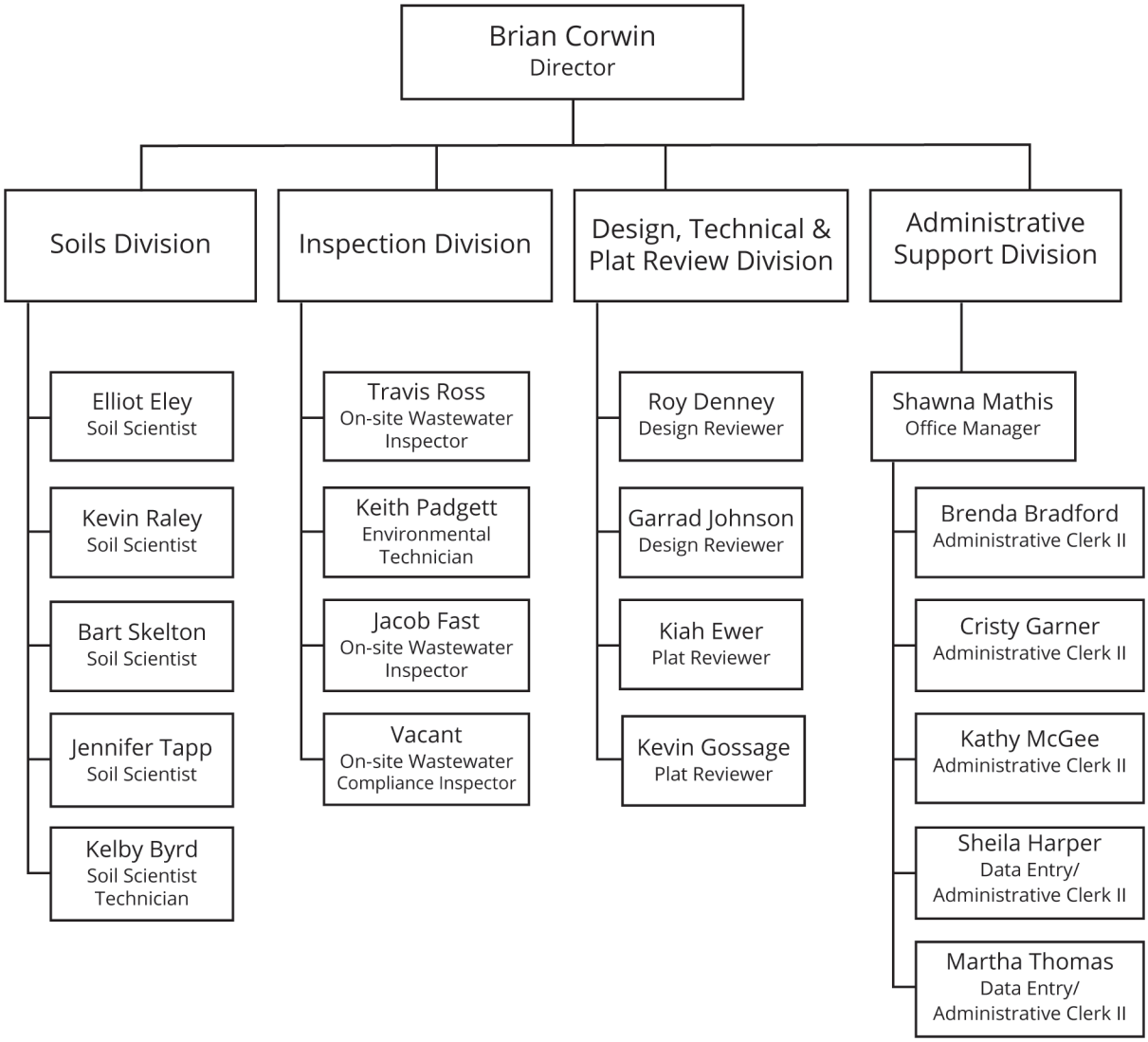
The Department of Sewage Disposal Management is charged with the task of ensuring that the laws of Williamson County regarding the use and placement of individual, on-site subsurface sewage disposal systems (i.e., septic systems), are fairly implemented and enforced so as to protect the:

- health and well-being of the general public;
- irreplaceable groundwater and surface water resources of the County; and
- quality of the environment which the citizens of the County enjoy.

The Department is empowered to regulate subsurface sewage disposal in accordance with Tennessee Code Annotated Title Sixty-Eight, Chapter Two Hundred Twenty-One, Part Four. In January of 1993, pursuant to provisions outlined in said code, Williamson County chose to enter into and executed an agreement (i.e., contract) with the Tennessee Department of Environment and Conservation (TDEC) to implement the provisions of this part of the state code in its area of jurisdiction. Additionally, the Department is governed by the Board of Health of Williamson County. The ten members of the Board of Health have the power to promulgate all regulations, rules and policies of the Department, and grant variances of such rules when deemed appropriate and necessary.

Williamson County Government has jurisdiction over all proposed or existing septic system installations within the boundaries of Williamson County. In addition to the lands governed by the County, this jurisdiction also includes all land areas contained within the boundaries of the incorporated cities and towns which lie within the County. Thus, the Department of Sewage Disposal Management is the agency charged with the implementation, interpretation, and enforcement of the regulations. In addition to the State of Tennessee's Rules of the Department of Environment and Conservation, Division of Water Resources (TDEC-WR); Chapter 0400-48-01: Regulations to Govern Subsurface Sewage Disposal Systems, the County adopted its own set of rules in May, 2000. Effective in October of the same year, the Regulations Governing On-Site Sewage Disposal Systems of the Williamson County Department of Sewage Disposal Management are no less stringent, and in many respects are more stringent, than the state regulations.

Our office is located on the fourth floor of the Williamson County Administrative Complex in Suite 411. Brian K. Corwin is the Director and is assisted by Office Manager, Shawna Mathis. The Department staff is divided into four groups: Soil Scientists, Inspectors, Design and Plat Review, and Administrative Support.



Board of Health Members

The Williamson County Board of Health is composed of ten members including Chairman and County Mayor Rogers Anderson, Dr. Charlie Beauchamp, Cathy Montgomery, Cyndy Howes, Martin Myers, III, Dr. Gary Owen, Rhonda Watson, Dr. C.A. Stillwell, Tina Hamblen, and Dr. Samuel Bastian.

Department Overview and Quantitative Data

In order to carry out our mission, the Department is directly involved and oversees every aspect associated with on-site subsurface sewage disposal within the County limits. This “cradle-to-grave” approach begins with the earliest phases of property development, continues through final system installation and on throughout the life of the system. The implementation of this process encompasses much more than simply permitting systems. It involves every aspect associated

encompasses much more than simply permitting systems. It involves every aspect associated with the permitting process and in essence has evolved into a form of quality control to ensure the protection of public health and the environment with regard to sewage disposal. These Departmental responsibilities and processes, and their statistics, are further explored in the following paragraphs.

Soil Assessment

Soil assessment involves the processes, practices and techniques utilized to evaluate the soils on a parcel of land to determine whether or not those soils will support the installation of a subsurface sewage disposal system. These soil assessment methodologies include soil mapping, percolation tests and general soil surveys. The Department's soil scientist staff manages this aspect of the program. Part of this responsibility includes the review and approval of all soil maps and percolation tests submitted by independent consultants for conformance with the regulations, as well as with accepted soil science standards.

Soil Maps

The Department completed two soil maps in 2019 covering approximately 17 acres. In 2018, the Department completed one soil map covering approximately one acre. Although the Department completed one soil map in 2016, covering approximately one acre, none were completed in 2014, 2015, or 2017. According to fees collected, the soils division completed six soil maps in 2013 covering approximately seven acres. The Department completed four soil maps in 2012 covering four acres, six soil maps in 2011 covering seven acres, three soil maps in 2010 covering three acres, seven soil maps totaling 5.25 acres in 2009, and seven in 2008.

In 2013, the Department received one application for a preliminary soil investigation as compared to one in 2012, four in 2011, one in 2010, and four in 2009. There have been no other preliminary soil investigations completed by the Department since 2013.

Responsibilities of Department Soil Scientists also include on-site verification of soil maps submitted by private soil consultants. Department staff reviewed 163 soil maps in 2019. This is a decrease of 17% to 2018. In 2018, Department staff verified 197 soil maps, a 3.7% increase over 2017. The Department reviewed 190 soil maps in 2017, a 1.6% increase over 2016. In 2016, Department staff verified 187 soil maps, a decrease of 13.8% to 2015. The Department reviewed 217 soil maps in 2015, 220 soil maps in 2014, 163 soil maps in 2013, 122 soil maps in 2012, and 71 in 2011. See Figure 2.1: Soil Map Submittals on the following page.

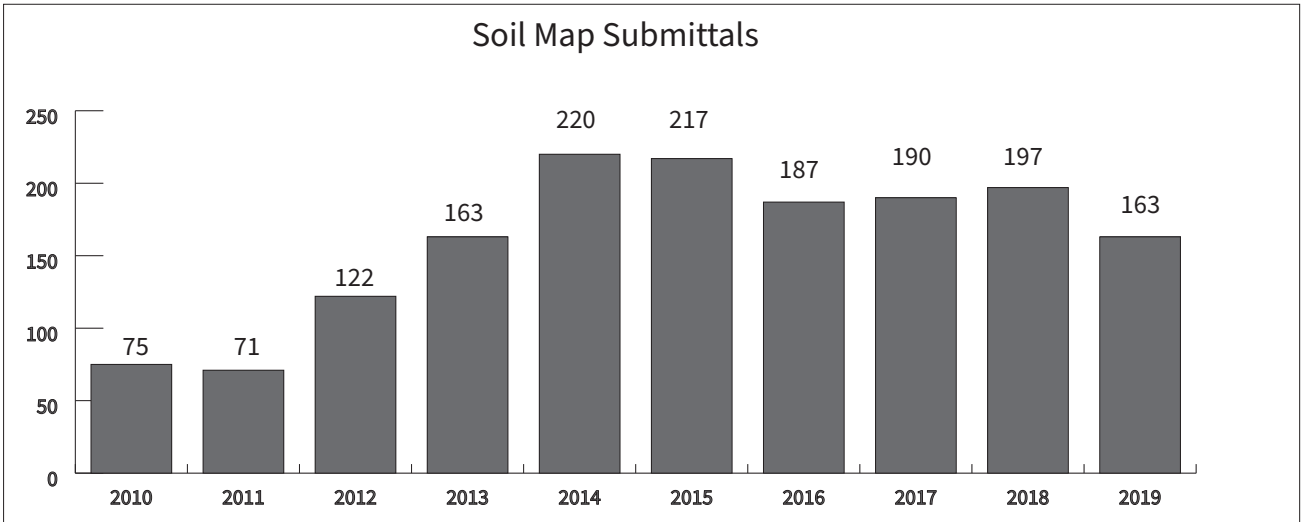


Figure 2.1: Soil Map Submittals

Percolation Tests

Although much more sophisticated and accurate methodologies are available for soil evaluation, percolation tests are still accepted in limited situations for property development. In 2019, 2018, 2017, 2016, 2013, and 2012, no percolation tests were processed by the Department. The Department processed one percolation test in 2015 and two percolation tests in 2014. See Figure 2.2.

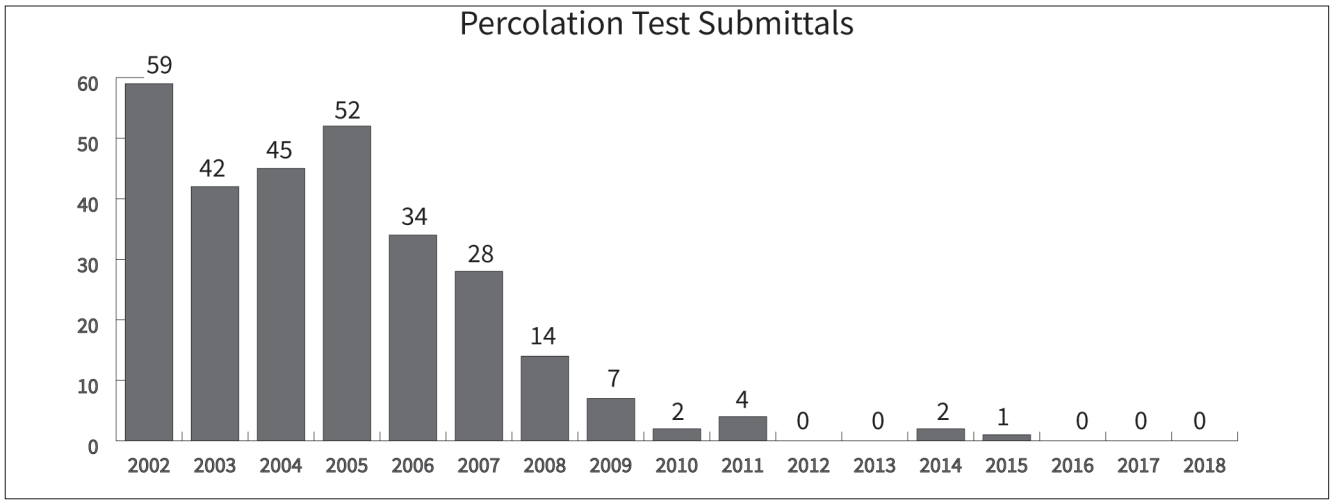


Figure 2.2: Percolation Test Submittals

Property Development

Utilizing the soil assessment information, a land parcel can then be evaluated for suitability for the use of subsurface sewage disposal systems. Department staff oversees this process for both platted and un-platted parcels of land. This involves working with independent consultants (e.g., surveyors, engineers, etc.) on everything from lot configuration, to the determination of system type, to area sizing and setback requirements, among a multitude of other things. These responsibilities include the review and approval of subdivision plats (and their revisions) for adherence to all applicable laws and regulations.

Subdivisions and SSDS Location Maps

Any proposed subdivision of land which requires the use of subsurface sewage disposal systems, or any individual lot of any size which requires location of suitable septic areas in order to be deemed build-able, must be reviewed and approved by the Department. The resulting Subdivision Plat (which also requires concurrent review and approval by the Planning Department), or Subsurface Sewage Disposal System Location Map, must be recorded in the Register of Deeds Office before Permits for Construction of Subsurface Sewage Disposal Systems can be issued.

The Department collected $35,500 in plat review fees in 2019, a decrease of 17.4% to 2018. The fees collected represent 201 Final Plat and Subsurface Sewage Disposal System Location Map submittals, containing 284 individual lots. The Department collected $43,000 in review fees in 2018, an 18.2% increase from 2017. Those fees represent 220 Final Plat and Subsurface Sewage Disposal System Location Map submittals, containing 344 lots. In 2017, the Department collected $36,375 in review fees. Those fees represent 204 Final Plat and Subsurface Sewage Disposal System Location Map submittals, containing 291 individual lots. This is a 3% decrease from the $37,500 in review fees collected in 2016. Although the total number of lots reviewed decreased, the overall number of Final Plat and Subsurface Sewage Disposal System Location Map submittals increased by about 6%. In 2016, the Department reviewed 192 Final Plat and Subsurface Sewage Disposal System Location Map submittals, containing 300 individual lots. The Department collected $25,000 in review fees in 2015. Those fees represent 172 Final Plat and Subsurface Sewage Disposal System Location Map submittals, containing 200 individual lots, a 35% decrease to 2014 submittals. In 2014, the Department collected $38,125 in review fees. Those fees represent 210 Final Plat and Subsurface Sewage Disposal System Location Map submittals, containing 305 individual lots, a 17.3% increase over 2013 submittals, and a 26.5% increase in individual lots reviewed. In 2013, the Department collected $29,750 in review fees representing 179 Final Plat and Subsurface Sewage Disposal System Location Map submittals containing 238 individual lots, a 38.8% increase over 2012 submittals, and 42.5% increase in individual lots reviewed.

The Department collected $20,875 in review fees in 2012, representing 129 submittals containing 167 individual lots. In 2011, $19,375 in review fees were collected, representing 102 submittals containing 155 individual lots. In 2010, $14,750 in review fees were collected for 87 submittals and 118 lots. $23,750 in review fees were received by the Department in 2009 to review 123 submittals and 109 lots. These statistics do not include Preliminary Plat reviews, Sketch Plan (i.e., Concept Plans) reviews, or reviews of re-submittals required to rectify errors and omissions. See Figure 2.3 on the following page.

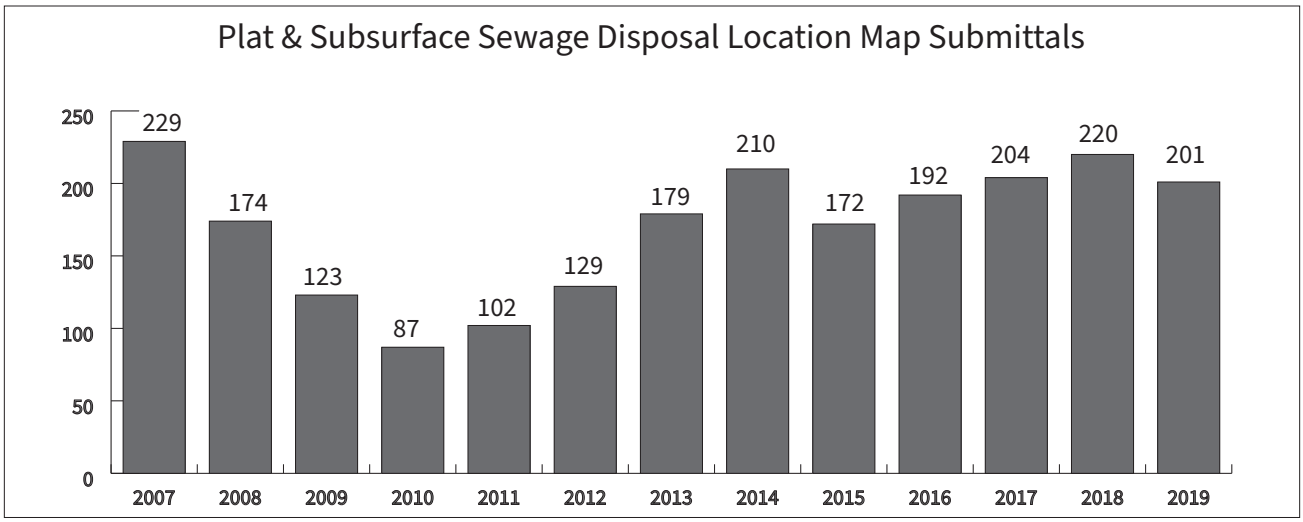


Figure 2.3: Plat and Subsurface Sewage Disposal Location Map Submittals

Alternative & Experimental System Designs

All alternative and experimental on-site wastewater systems are required to be designed by a licensed engineer. The Department's design review staff oversees the review and approval of all system design plans for conformance with the regulations, as well as with accepted engineering practices and standards.

Three types of alternative systems are utilized in Williamson County; standard Low Pressure Pipe (LPP) systems not requiring soil modification; Modified Low Pressure Pipe (MLPP) systems requiring soil modification; and Mound systems. The use of experimental systems is rare and restricted to repair purposes, where proper soil conditions do not exist for installation of a code compliant system, or to special situations specifically approved by the Board of Health. In addition, conventional systems serving structures with a wastewater flow in excess of 750-gpd are considered "large" conventional systems, and must be designed by a licensed engineer.

The Department reviewed 120 system design plans in 2019, a decrease of 14.9% to 2018. Of the 120 system design plans reviewed, 87 were LPP systems, 27 were MLPP, 3 were large conventional systems, and 3 were experimental systems. In 2018, the Department reviewed 141 system design plans, an increase of 18.5% to 2017. Of the 141 system design plans reviewed, 100 were LPP systems, 36 were MLPP, 1 was a large conventional system, and 4 were experimental systems. The Department reviewed 119 system design plans in 2017, a 5.5% decrease to 2016. Of the 119 system design plans reviewed, 74 were LPP systems, 34 were MLPP systems, 9 were large conventional systems and 2 were experimental systems. In 2016, the Department reviewed 126 system design plans, a 3.1% decrease to 2015's 130, which was flat to 2014. Of the 126 reviewed, 80 were LPP systems, 42 were MLPP systems, 4 were large conventional systems, and none were experimental systems.

Of the 120 plans reviewed in 2019, 113 (94.2%) required at least one round of revisions. Of the 113, 66 (58.4%) required two or more rounds of revisions. Of the 141 plans reviewed in 2018, 134 (95.0%) required at least one round of revisions. Of those, 59 (44.0%) required two or more rounds of revisions. In 2017, 79 (67.5%) of the 119 total plans reviewed required revisions; 29 (36.7%) of the 79 required a second round of revisions. Of the 29 that required second revisions, 14 (48.2%) required additional revisions. In 2016, 73 (64.6%) required revisions; 14 of the 73 (19.1%) required a second round of revisions, and 2 (14.3%) required additional revisions. See Figure 2.4.

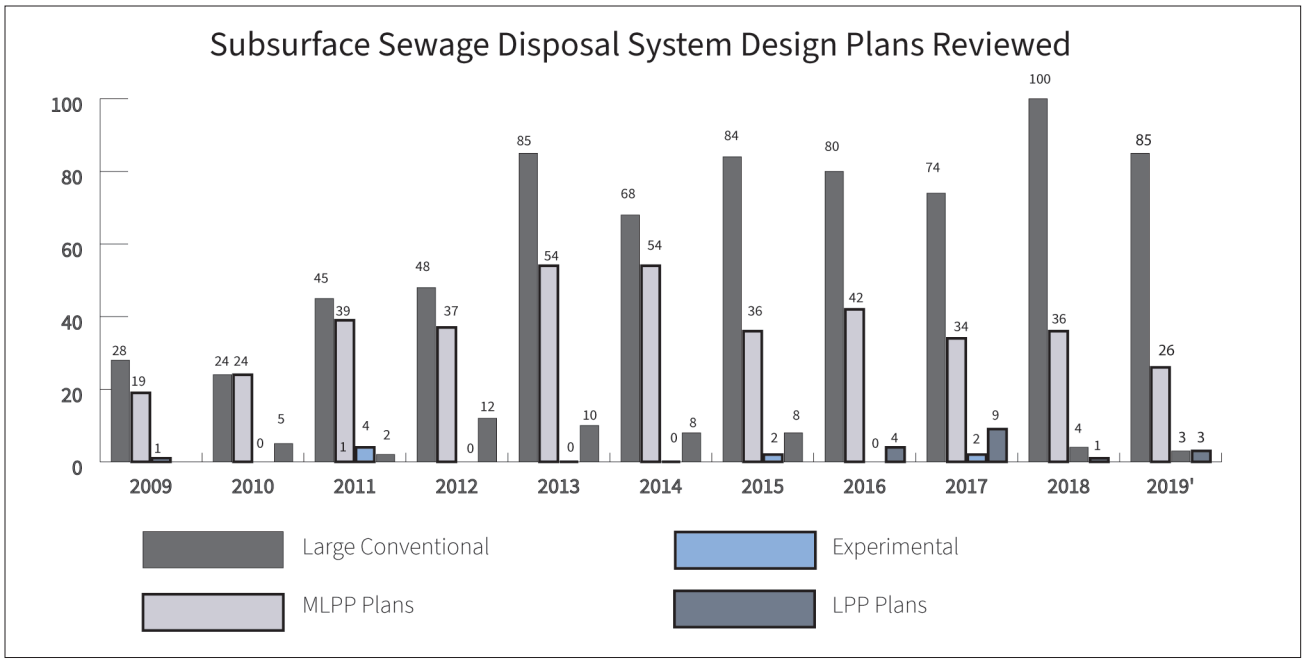


Figure 2.4: Subsurface Sewage Disposal System Design Plans Reviewed

Construction Permits

The Department not only issues permits for the construction of new subsurface sewage disposal systems, but also for the upgrade or enlargement of existing systems, and the repair and/or replacement of malfunctioning and failing systems. In addition to the above-noted processes associated with permitting new systems, Department personnel are also involved with the evaluation of individual site plans and building floor plans to ensure that a proposed structure is in compliance with applicable rules, regulations and approvals. For existing systems that are failing and malfunctioning, Department personnel are charged with investigating, evaluating and prescribing remedies to fix those problems.

Anyone constructing, altering, extending, modifying, or repairing, either alternative or conventional subsurface sewage disposal systems within Williamson County, must hold a valid Construction Permit issued by the Department. The recipient of a Permit for Construction of a system (i.e., the property owner or builder) is held responsible for adhering to the construction requirements of the Regulations.

The Department issued 243 new construction permits in 2017, a 25% increase over 2016. According to fees collected, the Department issued 194 new construction permits in 2016, a 2.6% increase from the previous year. In 2015, new construction permit activity (189 total permits) increased 5.6%, from 179 in 2014. The Department issued 237 construction permits in 2013, 132 in 2012, and 112 in 2011. See Figure 2.5.

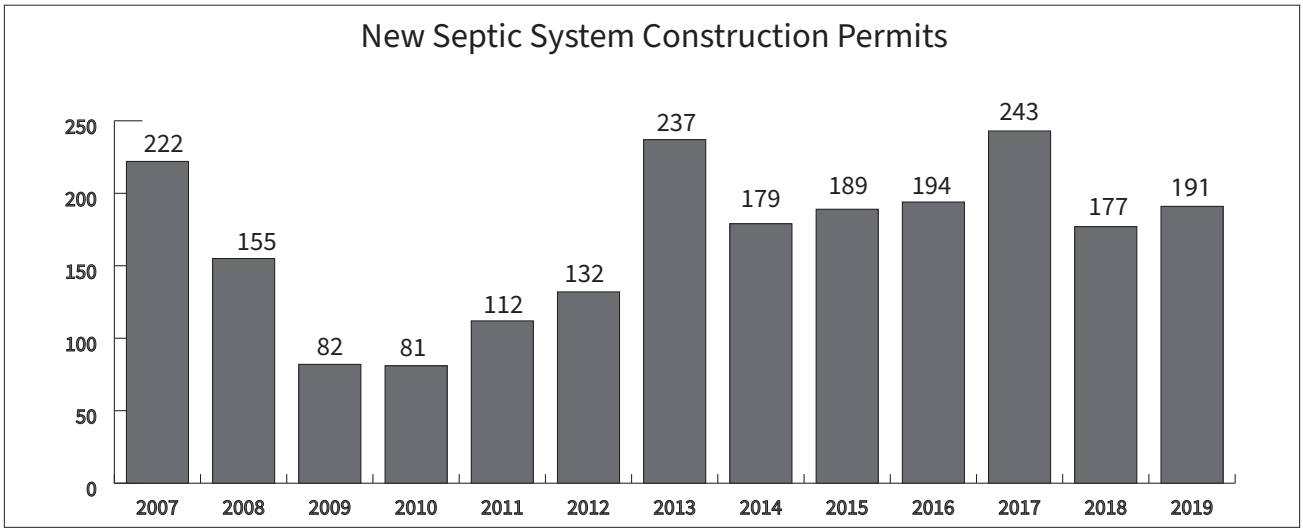


Figure 2.5: New Septic System Construction Permits

Through a series of steps, the Department determines the type of septic system that is appropriate for use with the construction of a new structure, and for expansion or modification of an existing structure. System type is determined by the soil conditions on the property, number of bedrooms in the structure, and whether or not oversized bathing fixtures will be included in residential construction; commercial structures are evaluated by proposed use and other factors. In 2019, conventional system represented 41.4% (79) of the 191 new construction permits issued. Of the 177 permits issued in 2018, conventional systems represented 39.5% (70) of all new construction. New conventional septic system construction permits (155) represented 63.8% of the total 243 new construction permits issued in 2017. In 2016, conventional septic systems represented 46.9% of all new construction, versus 46% in 2015. In 2014, conventional septic systems represented 46.9% of all new construction, verses 51.9% in 2013, 50.8% in 2012, 52% in 2011, 59% in 2010, and 61% in 2009.

Falling slightly to the last several years, only 50.3% of the new construction permits issued in 2019 included oversized Jacuzzi or garden tubs. Remaining consistent over the three previous years, 52.5% of the new construction permits issued in 2018 included oversized Jacuzzi or garden tubs. The majority (52.7%) of new construction permits issued in 2017 included oversized Jacuzzi or garden tubs. 52.1% of new construction permits issued in 2016 included oversized Jacuzzi or garden tubs. New construction with oversized tubs represented 60.3% in 2015, 68.7% in 2014, 57% in 2013, 62.1% in 2012, and 55.4% in 2011. See Figures 2.6 and 2.7 on the following page.

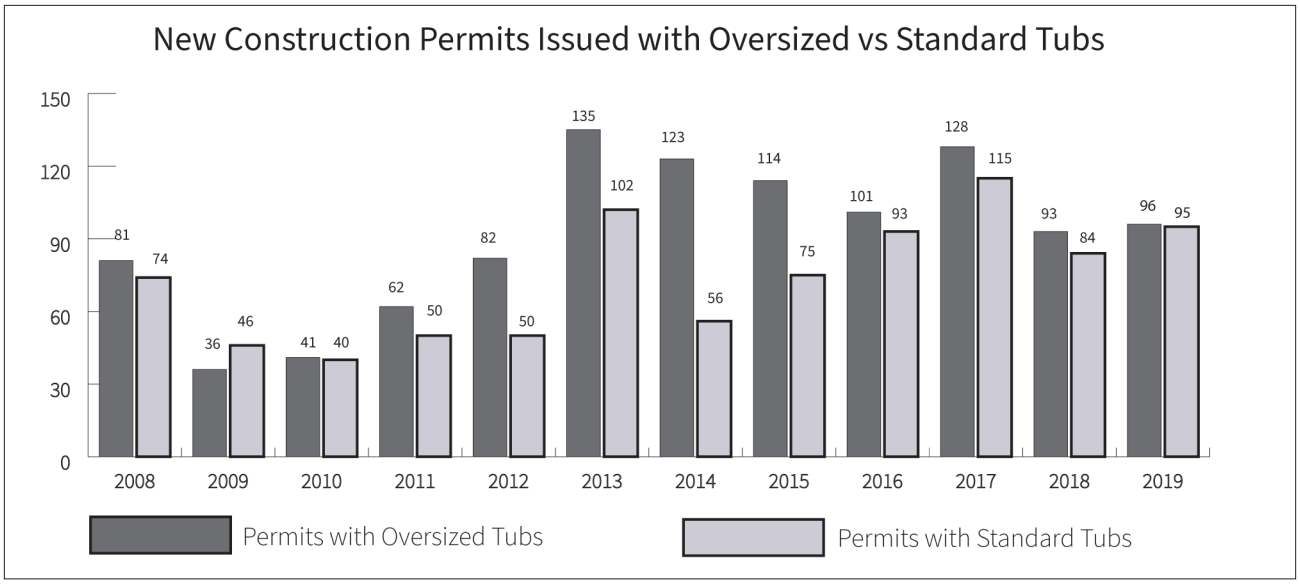


Figure 2.6: New Construction Permits Issued with Oversized and Standard Tubs

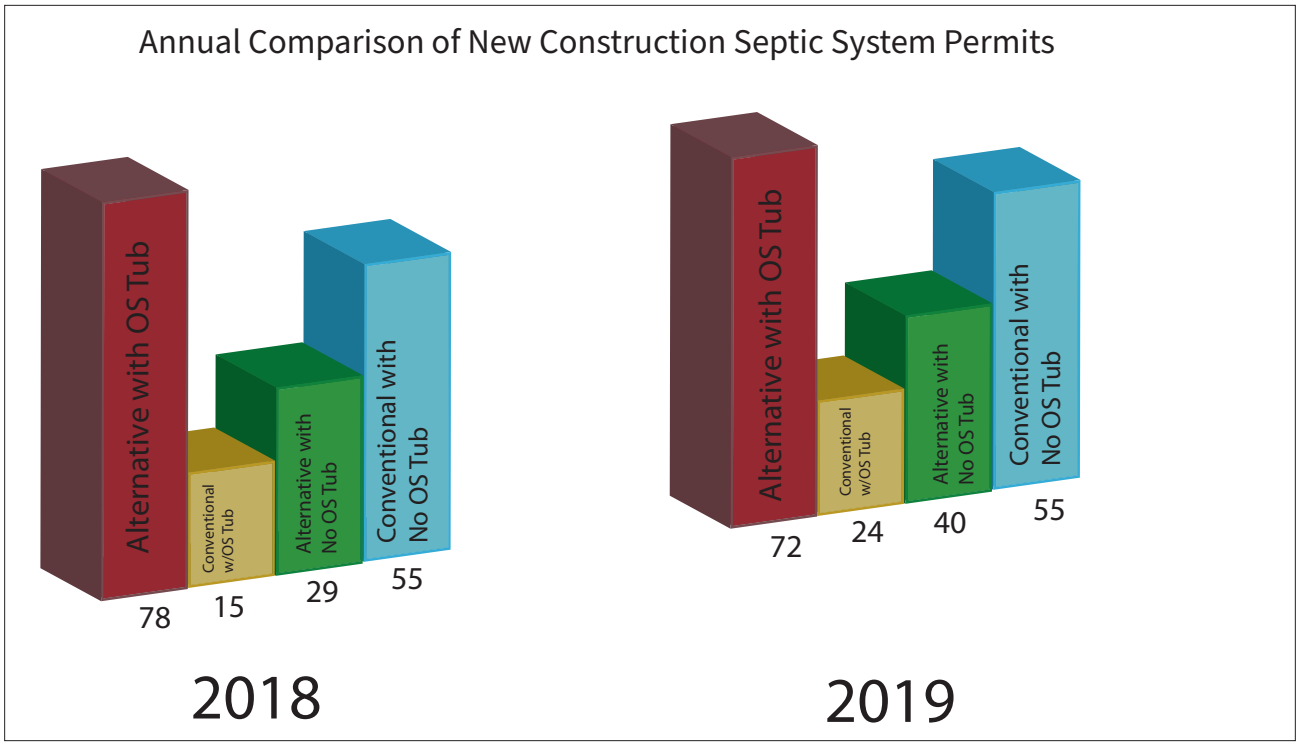


Figure 2.7: Annual Comparison of New Construciton Septic System Permits

The Department has equal authority over the repair of existing systems, which may be required for a variety of reasons including upgrading non-conforming systems due to remodels and expansions of structures, and repairing malfunctioning/failing systems which may be a threat to public health and/or the environment. In 2019, the Department issued 257 repair permits, an increase of 8.4% over 2018. Of the 257 repair permits issued, 212 (82.5%) were issued to repair malfunctioning/failing systems, and 45 (17.5%) were issued for other reasons.

The Department issued 237 repair permits in 2018, an increase of 6.8% over the previous year. Of the 237 repair permits issued, 206 (86.9%) were issued for repair of malfunctioning/failing systems, and 31 (13.1%) were issued for other reasons. In 2017, the Department issued 222 repair permits, a 7.8% increase over 2016. Of the 222 repair permits issued, 166 (74.8%) were issued to repair malfunctioning/failing systems, and 56 (25.2%) were issued for other reasons. When the Department transferred to the new online, electronic application workflow system, IDT Plans in May 2017, we did not continue to track applications for repair permits by system type. Therefore, the repair permits cannot be broken down as in years past.

According to fees paid in 2016, 206 repair permits were issued, a 5.6% decrease from 2015. Of those 206, 174 (84.5%) were issued to repair malfunctioning/failing systems, and 32 (15.5%) were issued for other reasons. Ninety-two (52.9%) of the repair permits issued for malfunctions/failures were for Conventional systems, sixty-three (36.2%) were for LPP systems, and nineteen (10.9%) were for MLPP systems. Of the Repair Permits that were issued for other reasons, 22 (68.8%) were for Conventional systems and 10 (31.2%) were for LPP systems. In 2015, 218 repair permits were issued, a 24.6% increase over 2014. Of the 218 permits issued, 176 (80.7%) were issued to repair malfunctioning/failing systems, and 42 (19.3%) were issued for other reasons. Ninety-seven (55.1%) of the Repair Permits issued for malfunctions/failures were for Conventional systems, sixty-three (35.8%) were for LPP systems, and sixteen (9.1%) were for MLPP systems. Of the 42 Repair Permits issued for other reasons, 28 (66.7%) were for Conventional systems, 8 (19.0%) were for LPP systems, and 6 (14.3%) were for MLPP systems. According to fees paid in 2014, 175 repair permits were issued, a 19% increase over 2013. Of those 175, 132 (75.4%) were issued to repair malfunctioning/failing systems, and 43 (24.6%) were issued for other reasons. Seventy-three (55.3%) of the systems requiring permits for malfunctions/failures were Conventional systems, 35 (26.5%) were LPP, and 24 (18.2%) were MLPP. Of the 43 Repair Permits that were issued for other reasons, 26 (60.5%) were Conventional, 10 (23.3%) were LPP, and 7 (16.2%) were MLPP. See Figure 2.8.

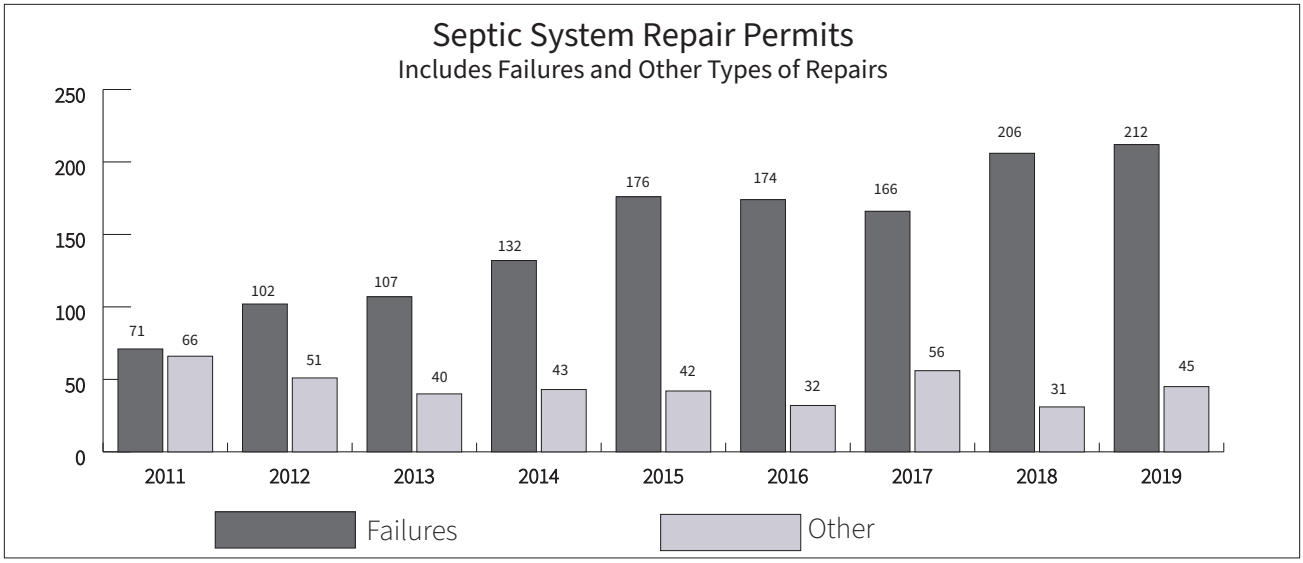


Figure 2.8: Septic System Repair Permits

System Inspections

During the actual installation of new systems and the repair, modification, or upgrade of existing systems, the Department's inspection personnel oversee all construction related activities. System installations must be supervised from start to finish and the County Regulations detail a very rigorous inspection process at various stages throughout the installation to ensure adherence to all applicable regulations, permit details, and construction standards. The number of inspections required depends upon the complexity of the system or repair. In 2019, the Department received 1,348 formal requests for inspections, which is down 13.6% to the previous year. The Department received 1,561 formal requests for inspections in 2018. This is an increase of 67.3% over 2017. In 2017, 933 inspections were formally requested. This number is significantly higher than previous years due to the implementation of our new electronic system, IDT Plans. This new system allows the installers to request an inspection electronically resulting in more accurate records. Due to errors discovered when compiling the Annual Report, accurate inspection request data is not available for 2015 and 2016. In 2014, 593 inspections were formally requested versus 748 in 2013, and 701 in 2012. In 2011, 538 inspections were requested, versus 387 in 2010, 455 in 2009, 949 in 2008, and 1,105 in 2007. These figures do not include inspections not called in to the Department, not entered into the IDT system, or repeat inspections. They also do not include inspections of septic tank abandonments for properties hooking to sewer. See Figure 2.9.

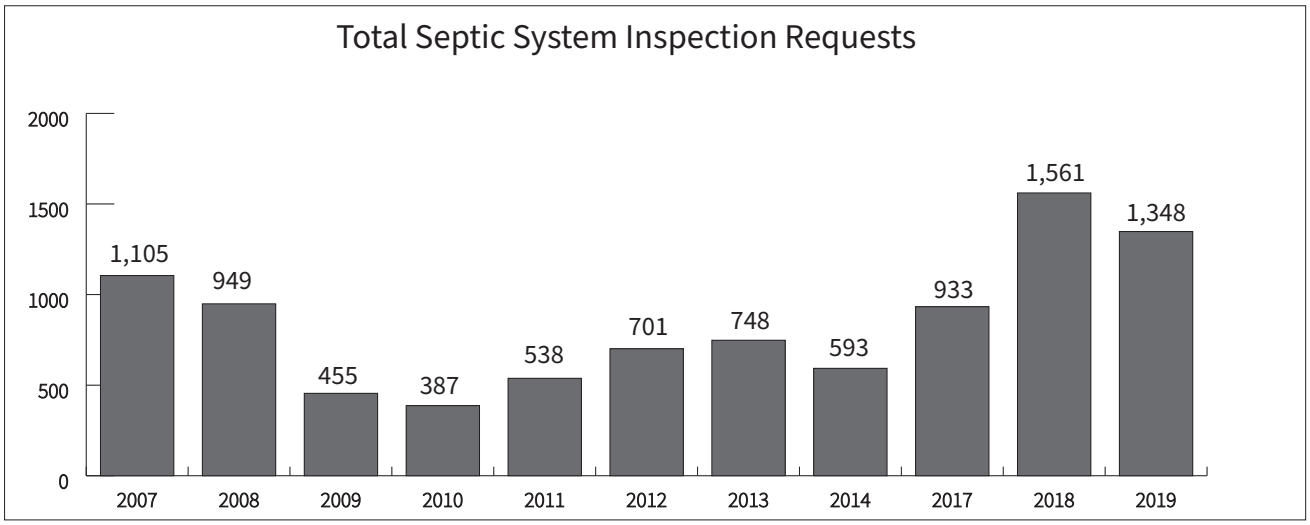


Figure 2.9: Total Septic System Inspection Requests

After all inspections are completed and final approval is granted to a system installation, whether new or repaired, the Department will issue a Certificate of Completion. The Department issued 308 Certificate of Completions in 2019, which was flat to 2018. In 2018, the Department issued 309 Certificate of Completions, a decrease of 8% from 2017. Approximately 336 Certificate of Completions were issued in 2017, which was an increase of 7%. The Department issued approximately 314 Certificate of Completions in 2016, which is a 19.4% increase over the previous year. In 2015, approximately 263 Certificate of Completions were issued by the Department, versus approximately 291 in 2014, 235 in 2013, 271 in 2012, 139 in 2011, 134 in 2010, 187 in 2009, and 296 in 2008. Only after issuance of such certificate may a property owner receive a Certificate of Occupancy for that structure from the Building Codes Department. See Figure 2.10 on the following page.

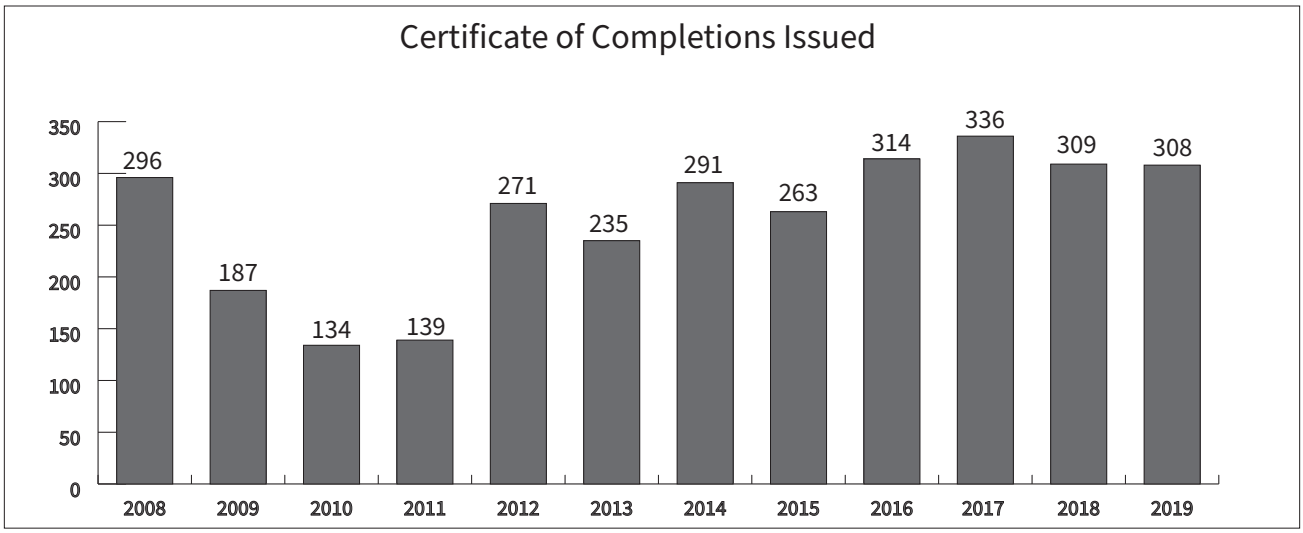


Figure 2.10: Certificate of Completions Issued

Other Department Services

Any modification to a property serviced by a subsurface sewage disposal system in Williamson County automatically triggers the completion of a Technical Assistance Application with the Department, an on-site inspection by a Department staff member, review of pertinent documentation, and approval by the Department, whether or not an actual septic permit is required. Typical modifications include projects such as swimming pools, attached or detached garages, out buildings (e.g., sheds, barns, etc.), sunrooms, patios, decks, porches, and other minor external or internal remodeling or cosmetic improvements.

In 2019, the Department processed 965 Technical Assistance Applications, which was an increase of 9% over the previous year. The Department processed 885 Technical Assistance Applications in 2018, an increase of 26.4% over the previous year. In 2017, the Department processed 700 Technical Assistance Applications. This was an increase of 45% over 2016. The Department processed 483 Technical Assistance Applications in 2016, a 1.9% increase over 2015. In 2015 the number of Technical Assistance Applications fell slightly, following a consistent trend upwards since the dramatic drop of 53% in 2009. In 2015, the Department processed 474 Technical Assistance Applications, a 1.5% decrease over 2014's 481. In 2013 the Department processed 432 Technical Assistance Applications, compared to 413 in 2012, 381 in 2011, 375 in 2010, 355 in 2009, and 749 in 2008. See to Figure 2.11 on the following page.

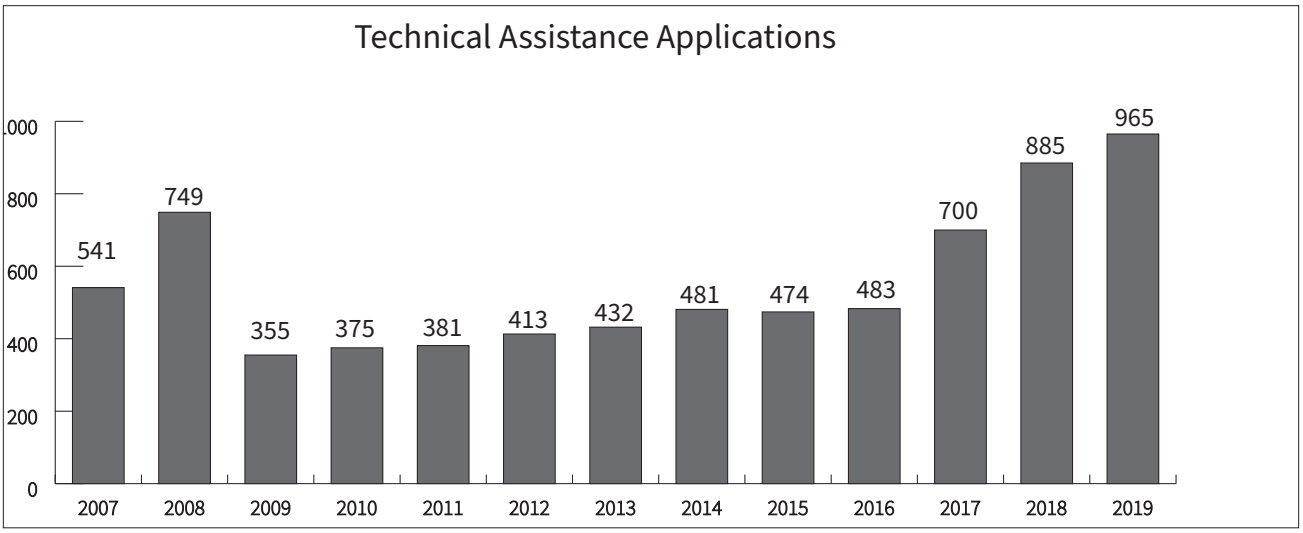


Figure 2.11: Technical Assistance Applications

Included in the Technical Assistance group are two community services the Department provides for the convenience of the public. One of these, system recertification, is important to both buyers and sellers of property. This service ensures that a system is functioning, is in compliance with the Regulations, and also that a home's size (i.e., number of bedrooms and oversized tubs) is compatible with its septic system permit restrictions. The Department received two Recertification Applications in 2019. In 2018, the Department received four Recertification Applications. However, in 2017, the Department received only one Recertification Application, down from the 3 received in 2016. The three Recertification Applications received in 2016 were a decrease of 77% to the 13 Recertification Applications received in 2015. In both 2013 and 2014, the Department received 15 Recertification Applications versus 18 in 2012, 25 in 2011, 34 in 2010, 40 in 2009, and 30 in 2008.

The second service, collecting and processing water samples for the purpose of identifying various contaminants in wells, springs and other private drinking water sources, requires the on-site collection of a sample by a Department Inspector. Processing of the specimen is completed by a state laboratory within seven to ten days, which is followed by written notification of the results to the applicant. Due to private laboratories doing the majority of this sampling work for property owners, the Department has not received any requests for water samples since 2016. One water sample was requested in 2016. No water samples were requested in 2015 or 2014. Three water samples were gathered by the Department for analysis in 2013, versus only one in 2012, seven in 2011, six in 2010, and three in both 2009 and 2008.

The Department provides a number of services that do not have fees directly associated with them. Sometimes these services are requested as a result of natural phenomena. Homeowners who have suffered losses due to fires, floods, or tornadoes are not charged fees to process permits to repair or rebuild their homes. Since the February 2008 tornado, the number of applications for reconstruction due to storm damage has steadily decreased each year. The Department has not processed any applications since 2012. The Department processed one in 2012, one in 2011, three in 2010, and five in 2009. Likewise, construction due to flood damage has been minimal since the devastating flood of

The Department processed three application in 2019 for damages caused by fire. In both 2018 and 2017, the Department processed two applications for construction due to fire damage. In 2016, ten applications for construction due to fire damage were processed and four were processed in 2015. Six applications were made in 2014 for construction due to fire damage. One application was processed in 2013 for construction due to fire damage, seven in 2012, five in 2011, and seven in 2010.

Additionally, homeowners hooking to sewer and abandoning their septic systems must comply with County Regulations specifying the manner in which the tank is rendered unusable, in order to address public health and safety concerns. Although verification of proper abandonment procedures is required, no fees are assessed to homeowners for inspections of abandoned tanks. Department Staff inspected approximately 25 tank abandonments in 2019, a decrease of 13.8% to 2018. In 2018, the Department inspected approximately 29 tank abandonments, a decrease of 17.1% from the previous year. The Department inspected approximately 35 tank abandonments in 2017, a decrease of 18.6% from 2016. In 2016, approximately 43 tank abandonments were inspected by the Department, a 38.7% increase over the 31 tank abandonments inspected in 2015. Of the 43 tank abandonments in 2016, 7 were attributed to the joint Williamson County/City of Franklin project begun in 2009 to extend sewer to the Grassland and Meadowgreen areas. In 2015, 14 of the 31 tank abandonments were due to the same project. In 2014, approximately twenty tank abandonments were completed with 5 attributed to the Grassland/Meadowgreen sewer project. Thirty-three tank abandonments were inspected in 2013. Of those, 12 (36.4%) were part of the Grassland/Meadowgreen sewer project. The remaining 21 inspections can be attributed to other subdivisions annexed into the City of Franklin. Forty-eight tank abandonments were inspected in 2012. In 2011, because of the inception of the Grassland/Meadowgreen sewer project, 81 tank abandonment inspections were done by Department staff, a drastic increase from 2010's 11 tank abandonment inspections. See Figure 2.12.

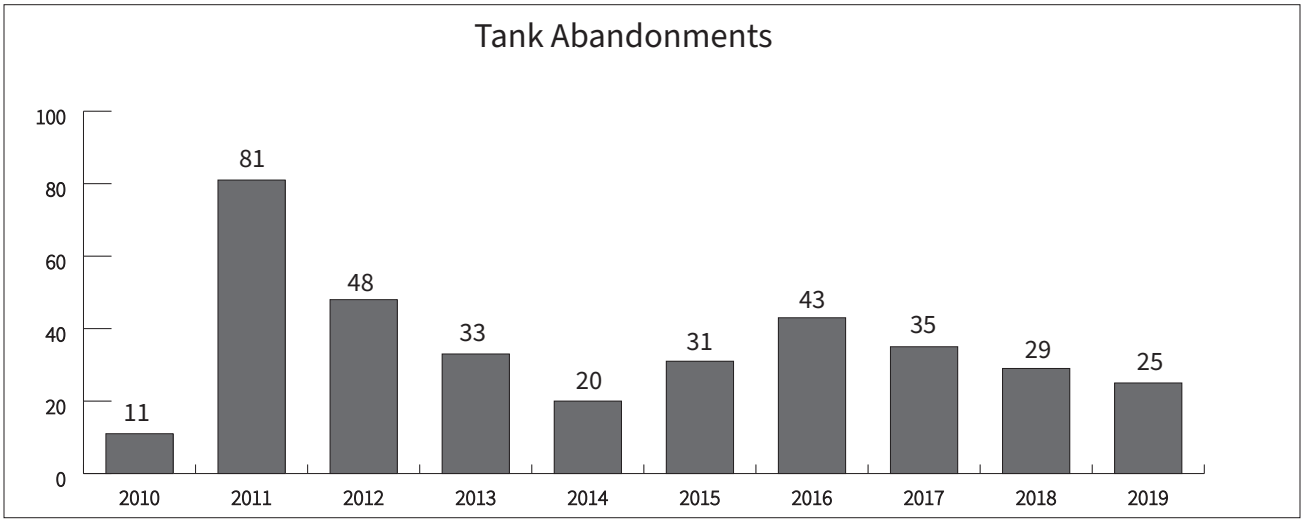


Figure 2.12: Tank Abandonments

Finally, lot checks, flagging of existing systems, field sketches of sites, etc., are services often required during the review of Plats or SSDS Location Maps; and, soil surveys are performed by the Department for landowners who meet certain criteria and want to build residences for themselves on their own properties. Fees for these services are not charged individually, but rather are included as a portion of permit or plat review fees. In 2017, the tracking of lot checks changed. With the implementation of the IDT system in May of that year, lot checks were included with the review of the Design Plans and other Technical Assistance Applications. Between January 1, 2017 and April 30, 2017, the Department conducted 89 lot checks. The remainder of the year all lot checks were conducted through other various applications and are not stand alone projects, preventing us from giving accurate statistics.

The Department completed approximately 228 lot checks in 2016 compared to 205 in 2015. In 2014, the Department completed approximately 189 lot checks compared to 223 in 2013, 125 in 2012, 102 in 2011, 69 in 2010, and 68 in 2009. In 2016, Department staff completed 1 soil survey, which is the only soil survey completed by the Department since 2014. Department staff completed 2 soil surveys in 2014, 44 in 2013, 41 in 2012, 23 in 2011, 29 in 2010, and 31 in 2009. See Figure 2.13.

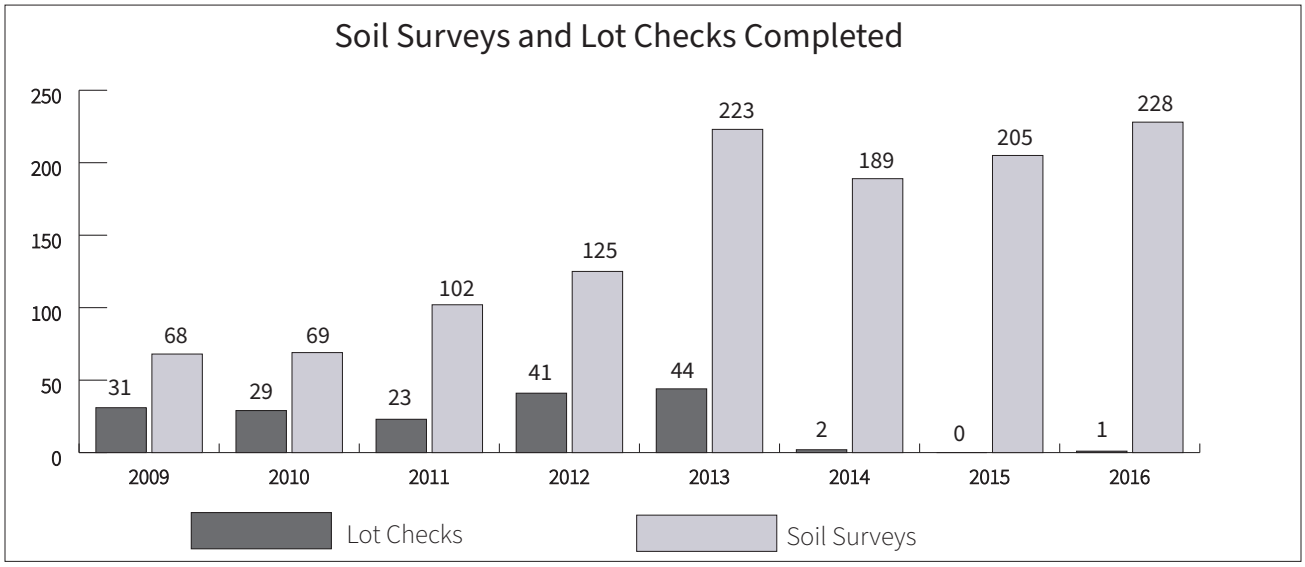


Figure 2.13: Soil Surveys and Lot Checks Completed

Licensing of Septic System Installers

Construction, modification, or repairs of subsurface sewage disposal systems within Williamson County may only be conducted by persons holding valid installers' licenses and identification cards issued by the Department of Sewage Disposal Management. The Department issues three types of installer licenses: Conventional, Alternative, and Conventional/Alternative. Persons wishing to be licensed in Williamson County must:

- Obtain the corresponding licenses through the Tennessee Department of Environment and Conservation, Division of Water Resources (TDEC-WR);
- Provide a Letter of Credit or Surety Bond;
- Pay an annual license fee;
- Demonstrate thorough knowledge and understanding of the Department's Regulations Governing On-Site Sewage Disposal Systems; and
- Successfully complete a probationary period under the direct supervision of the Department.

Installers must renew their licenses with TDEC-WR and the Department annually. The Department issued 24 installer licenses in 2019, of which 22 were for conventional and alternative licenses. Only 2 licenses were for conventional systems only. In 2018, the Department issued 26 installer licenses. Of those, 20 were for conventional and alternative licenses and 6 were for conventional licenses only. The Department issued 23 installer licenses in 2017, 20 of those being conventional and alternative combined and 3 being conventional only. In 2016, 24 installer licenses were issued, of which five were conventional only, and 19 were conventional and alternative combined. In 2015, 24 installer licenses were issued. Six of those were conventional only and 18 were conventional and alternative combined. In 2014, 25 installer licenses were issued, of which five were conventional only, and 20 were conventional and alternative combined. In 2013, 23 installer licenses were issued, of which nine were conventional only, and 14 were conventional and alternative combined. In 2012, 24 installer licenses were issued, of which nine were conventional only, and 15 were conventional and alternative combined. In 2011, the Department issued 22 installer licenses, of which six were conventional only, two were alternative only, and 14 were conventional and alternative combined. Nineteen installer licenses were issued in 2010 and 2009. Twenty-seven installer licenses were issued in 2008.

Pumpers

The Department has regulatory authority over all septic tank pumping contractors conducting business in Williamson County. This includes the permitting of individuals allowed to conduct such operations as well as oversight to ensure the proper disposal of all collected septage. Although the Department does not require a separate County license for pumping contractors to operate in Williamson County, they are required to provide the Department with a valid copy of their state Septic Tank Pumper Permit issued by the Tennessee Department of Environment and Conservation, Division of Water Resources (TDEC-WR). Additionally, they are required to file with the Department a valid copy of their Wastewater Discharge Permit for Wastewater Haulers with a wastewater treatment facility approved by TDEC-WR.

Miscellaneous

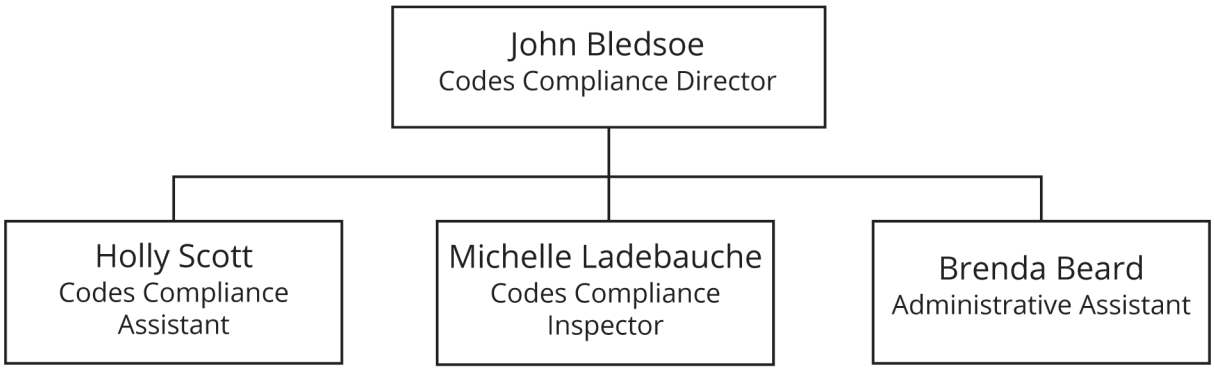
The Board of Health approved Amendments to the Regulations Governing On-Site Sewage Disposal Systems in Williamson County related to required and encouraged water conservation methods and best management practices for commercial and non-residential uses that went into effect on July 1, 2019. These new regulations require qualifying commercial and non-residential property owners to submit supporting documentation to substantiate compliance with these requirements and obtain an annual Operation Permit from the Department. The Department received several applications for said Operation Permits in 2019, but only one was finalized, approved and issued. The other applications are in process and the Department is working with the applicants to obtain all required approvals and permits.

The Department also has regulatory authority over all product and technology approvals proposed for use in conjunction with on-site wastewater systems in Williamson County. Department staff reviews such proposals on an individual, case-by-case basis.

Department of Codes Compliance

Codes Compliance plays an integral role in maintaining the quality of life in Williamson County, assisting developers and the general public negotiating zoning and other regulations to the mutual benefit of both. This department is responsible for support of the Board of Zoning Appeals and other boards for the routine processes of administering and interpreting the Zoning Ordinance, issuing sign permits, zoning inspections, and for specific research as the need arises. Codes Compliance is the enforcement branch of the Community Development Office.

Codes Compliance is located on the 4th floor of the Administrative Complex, along with the Building Codes, Planning and Engineering Departments. Codes Compliance activities are directed by John Bledsoe, Codes Director, who is assisted by Holly Scott, Michelle Ladebauche and Brenda Beard.



2019 Board of Zoning Appeals Members

Chairman: Dave Ausbrooks
Vice Chairman/Representing the Planning Commission: Don Crohan
Secretary: Karen Emerson-McPeak
Members: Sue Workman and Andrew Ring

Table 3.1: Board of Zoning Appeals Overview

Board of Zoning Appeal Cases For	Total 2015	Total 2016	Total 2017	Total 2018	Total 2019
Total Agenda Items	18	23	16	24	14
Variances	8	3	1	6	6
Appeals	0	0	2	1	0
Special Uses	8	18	10	12	8
Other	2	2	3	5	0

Inspections

The Codes Compliance Department is also responsible for numerous inspections and related enforcement. Some of these inspections are based on zoning and building permit activity and some are initiated from complaints received from the public. Compliance inspectors are expected to initiate inspections of violations and non-permitted construction as they patrol the county.

Table 3.2: Codes Compliance Activities

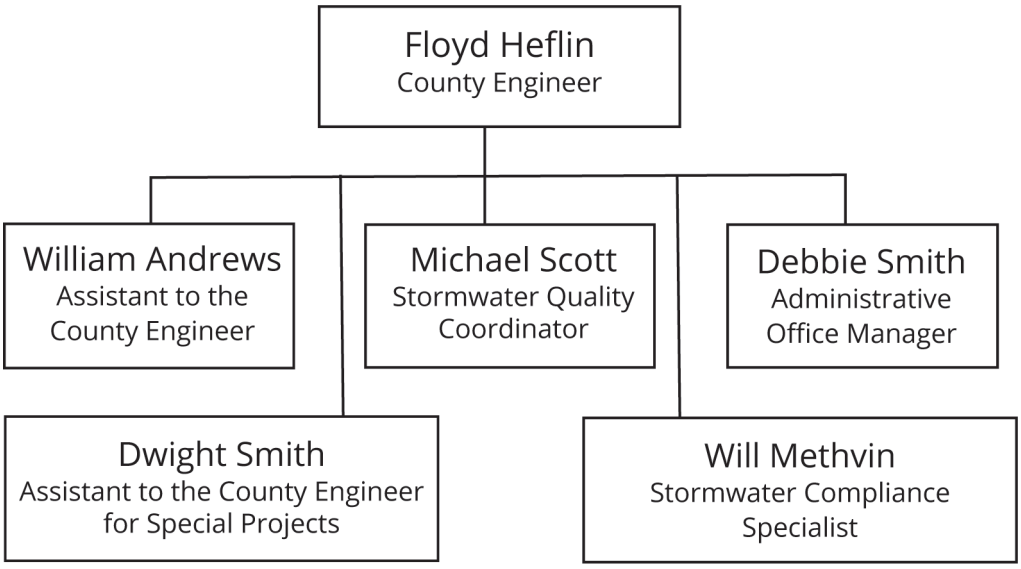
	2015	2016	2017	2018	2019
Online Form Submittal	32	53	60	68	41
Complaints Lodged	125	110	118	87	57
Complaints/No Violation Cited	41	51	29	28	28
General Code Violation	97	59	89	89	29
Cases Closed During Year	91	107	119	115	47
Signs Removed*	363	417	394	445	235
Sign Violation Notices*	56	96	62	86	89
Sign Permits	48	63	51	26	50
Overgrown Lot Cases	12	10	14	9	4
Overgrown Lot Inspections	28	26	29	23	5
Pool Fence Inspections-	213	261	258	399	230
Mobile Home and	15	12	12	8	6
Barn and Accessory Structure	66	60	50	74	80
Junk and Debris Complaints	18	12	30	22	12
Junk and Debris Inspections	33	27	82	68	14
Department Phone Calls	1554	1574	1215	1137	1233

* There were many signs placed in violation that were removed, but no notice was sent, either because of time limitations or inability to determine name/address of responsible party. Agreement was reached in 2008 allowing our office to administer the Williamson County Zoning Ordinance regulations in State rights-of-way, resulting in an increase in the number of unpermitted off-site signs picked up by staff.

Department of Engineering

County Engineering works to maintain the quality of development in Williamson County while assisting developers and the general public in interpreting development regulations and implementing associated requirements. This Department is responsible for support to the County Commission, Storm Water Appeals Board, Highway Commission, Planning Commission, and other boards for the routine processes of administering and interpreting the Storm Water Management Regulations, Subdivision Regulations, Zoning Ordinance, FEMA (Federal Emergency Management Agency) Regulations, engineering practices, and for specific research as the need arises.

County Engineering is located in Community Development along with Building Codes, Codes Compliance, Sewage Disposal Management, and County Planning. Engineering activities are directed by Floyd Heflin, P.E., County Engineer, who is assisted by William Andrews, Dwight Smith, Michael Scott, Will Methvin and Debbie Smith.



Overview

The Engineering Department is an essential part of the Community Development team. One of the main duties of the Department is to review and approve all construction plans for new development. This review includes storm water quality requirements imposed by our Municipal Separate Storm Sewer System (MS4) permit with the Tennessee Department of Environment and Conservation (TDEC), Division of Water Resources. Delineation and platting of areas required for on-site sewage systems is also coordinated with Sewage Disposal Management. Letters of Credit for approved construction projects are estimated and established. When on-site storm water detention is neither possible nor practical for these developments, funds in-lieu-of detention may be levied, and placed in an account for use on community storm water management projects of greater magnitude. Surety for public improvements is reviewed and field inspections are performed on work in progress to assess compliance.

Other responsibilities vary from coordination of infrastructure testing and outside consultants, to assisting County residents with drainage and erosion control issues. Additionally, traffic and roadway issues, floodplain management, storm water enforcement, and various engineering-related concerns are addressed daily. The Engineering Department coordinates with the Highway Department, as required, concerning new development affecting County maintained roadways. Land Disturbance permits are also issued from the Engineering Department after review and approval of grading, drainage, and erosion control plans.

Surety

The Engineering Department establishes surety amounts for roads, drainage, and erosion control. Letters of Credit for new development are received at the final plat stage as required by the Planning Commission. Letters of Credit help insure proper performance during construction, and high infrastructure quality upon completion. Currently, the Engineering Department administers Letters of Credit totaling $21,971,000.00 for roads, drainage and erosion control. In 2018, 1.25 miles of roadway, with an estimated construction cost of $724,000.00, were released from surety and accepted by the Highway Commission and County Commission for addition to the County road system. William

Land Disturbance Permits

Any activity disturbing one acre or more of land, or adding 10,000 square feet or more of impervious surface, must provide drainage calculations, a site specific erosion control plan, and obtain a land disturbance permit. Additionally, individual lots, which are part of a larger plan of development, are also regulated if the entire development disturbs one acre or more of land. During 2018, 385 permits were issued for individual lots at a cost of $150 per permit, while 51 permits were issued for subdivisions or non-residential site plans at a cost of $300 per permit. Total Land Disturbance Permit fees equaled $87,450.00.

Floodplain Management

Williamson County participates in the National Flood Insurance Program (NFIP) as administered by FEMA. Currently mapped floodplains in the unincorporated County cover approximately 15,316 acres within which approximately 286 structures are located. The majority of those structures were constructed prior to the County's first Flood Insurance Study in 1981. Of those structures in the floodplain, 19 homes are classified as "repetitive loss structures". Repetitive loss structures are structures that have had two or more claims of $1000.00 or more in a rolling ten year period. During Williamson County's participation in the NFIP (since 1980), total paid losses have been $7,574,535.00 through 07/31/2019. Most of these losses have occurred after the 2010 flood, prior to which the losses were approximately $800,000. At the end of July 2019, there were 646 policies in force representing $197,884,000.00 in coverage.

Since 2008, the County has also participated in the NFIP's Community Rating System (CRS). The CRS program provides flood insurance discounts to communities with exceptional floodplain management. The County is currently classified as a Class 8 Community allowing a 10% discount on certain flood insurance premiums. The County receives CRS credit for maintaining a Multi-Hazard Mitigation Plan, performing community outreach to our repetitive loss areas, preserving floodplain as open space, and managing flood plain delineation and development. The Engineering Department works with Williamson County's Emergency Management Agency to maintain a current mitigation plan so we will continue to be eligible for future grant opportunities. During 2018, outreach letters were sent to 120 properties providing information on flood preparation, loss prevention, and response.

Stormwater Quality and Watershed Protection

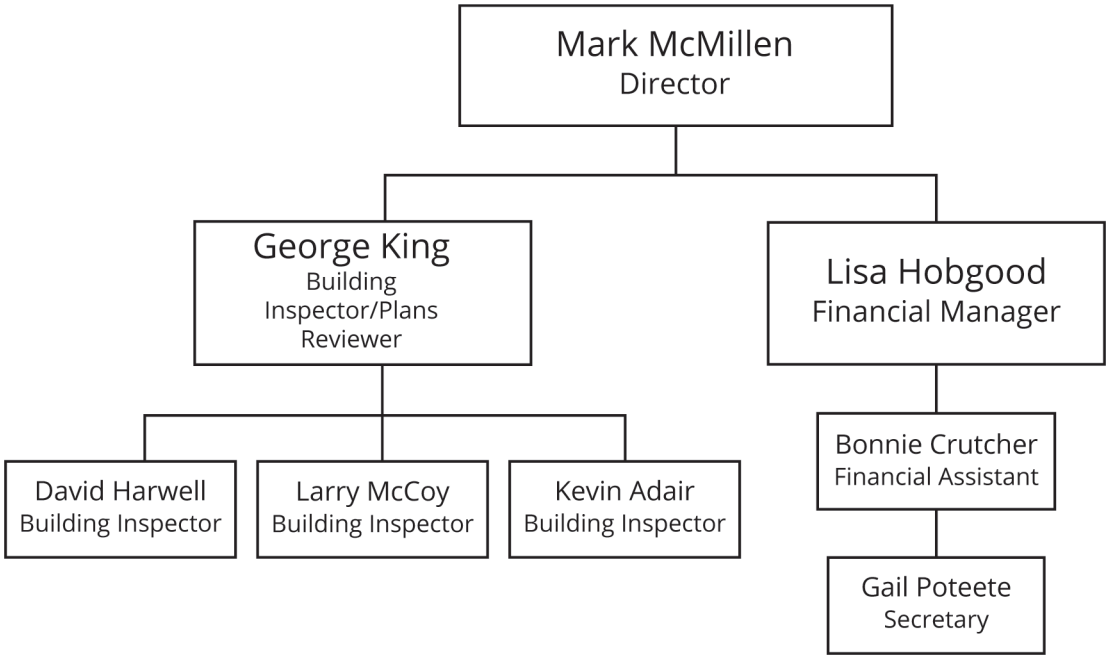
Williamson County is required by the Tennessee Department of Environment and Conservation to have a Phase II National Pollutant Discharge Elimination System (NPDES) MS4 permits for storm water. Requirements of the permit include controlling construction site runoff and illicit discharges, and the County pays an annual permit fee of $3,460. Other components involve public education, community involvement, and enforcement. While compliance is the goal of the program, $109,750.00 in storm water penalties were collected during 2018. Permit compliance is managed by Michael Scott who also coordinates the agenda of the Storm Water Appeals Board. This Board meets monthly as needed to hear appeals of the Storm Water Management Regulations. Ten appeal applications were received in 2018 representing $1000 in fees. An additional three appeals were made to the County Engineer. Additional information on the County's stormwater program can be found at williamsoncounty-tn.gov/stormwater.

Department Goals for 2019

The Engineering Department will continue working in a cooperative effort with other Departments, elected officials, and County residents to promote and protect our health, safety, and welfare with the additional objective of improving the environment and infrastructure of Williamson County. Specifically, we will continue to improve our Water Quality program utilizing data from our sampling and analysis program as required by our State permit. We will further our efforts to provide premium discounts and flood protection for the residents of Williamson County under the NFIP and CRS. Engineering will also utilize GPS and GIS tools to improve our mapping and inspection of stormwater infrastructure. Engineering, and Community Development as a whole is continuing work to improve our application, plan review, and inspection processes through the implementation of our web based IDT system. This system was fully implemented in 2017 to allow online submission and review of plans for most applications processed by Community Development. It includes the ability to issue and pay for permits over the internet, making the review process much more convenient for applicants. We started utilizing an improved permit module within the IDT system on 01/01/2020.

Department of Building Codes

Serving a necessary role in the development of Williamson County, the Department of Building Codes insures that all construction within the unincorporated areas of the County meets current building codes adopted by the Board of Commissioners and collects and maintains records for all Privilege Tax and Educational Impact Fees.
Grouped under Community Development with Codes Compliance, Engineering, Sewage Disposal Management, and Planning, the Building Codes Department is directed by Mark McMillen.



Building Permits

The Department of Building Codes is responsible for the issuing building permits for unincorporated area of Williamson County. The breakdown of building permit issues and valuations is explained in the table and charts on the f ollowing pages.

Table 5.1: Building Permits and Valuations

Year	New Single Family Residences	Valuation (in Millions)	Total Permits	Valuation (in Millions)
2006	448	$188	865	$221
2007	322	$157	78	$187
2008	193	$79	636	$131
2009	139	$54	483	$92
2010	129	$42	610	$71
2011	157	$49	505	$82
2012	240	$77	596	$113
2013	433	$158	814	$189
2014	426	$185	762	$208
2015	433	$188	825	$233
2016	442	$217	856	$264
2017	339	$203	856	$238
2018	392	$202	782	$251
2019	530	$273	950	$422

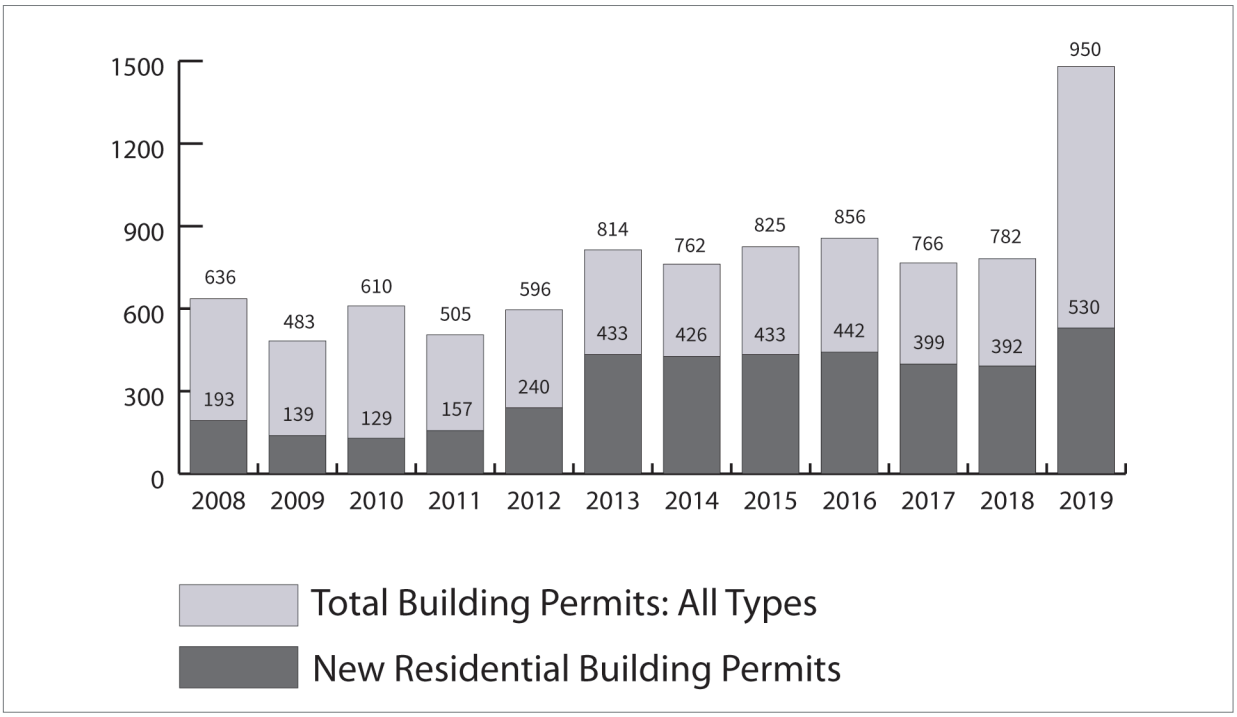


Figure 5.1: Building Permits by type issued from 2007-2019

Figure 5.2: Total Construction cost by construction type

Adequate Facilities Tax

Officially referred to as Privilege Tax, this tax is assessed on new residential and commercial structures to offset the cost of growth on the County's infrastructure. Building Codes has the responsibility of assessing and collecting this tax for both the unincorporated area of the county as well as for the cities of Brentwood, Fairview, Franklin, Nolensville, and Spring Hill. These funds, once collected, are deposited with the County Trustee.

Effective July 1, 2007, the County Board of Commissioners enacted a new "Adequate Facilities Tax" (AFT) in schools. This additional $1.00 per square foot is devoted solely to construction of new schools and is collected on new residential structures only.

All new County residential construction is assessed at $2.00 per square foot, including areas that may be completed at a later date. Areas not included are unfinished basements, garages, carports, porches and accessory structures. All County commercial structures under roof are computed at $0.34 per square foot. This includes areas such as bank drive thru, covered service station islands and material storage areas. City residential construction is also assessed at $2.00 per square foot. Building Codes is now collecting these fees for all cities within Williamson County including Fairview and Thompson's Station, which were added in March 2017.

Table 5.2: Distribution of Adequate Facilities Tax Collected

	Purpose	Amount
County Residential Revenue Distribution	Schools*	$0.70
	Roads	$0.20
	Parks/ Rec	$0.08
	Fire Protection	$0.02
Commercial Residential Revenue Distribution	Roads	$0.30
	Fire Protection	$0.04
City Residential Revenue Distribution	Schools*	$0.92
	Parks/Rec	$0.08

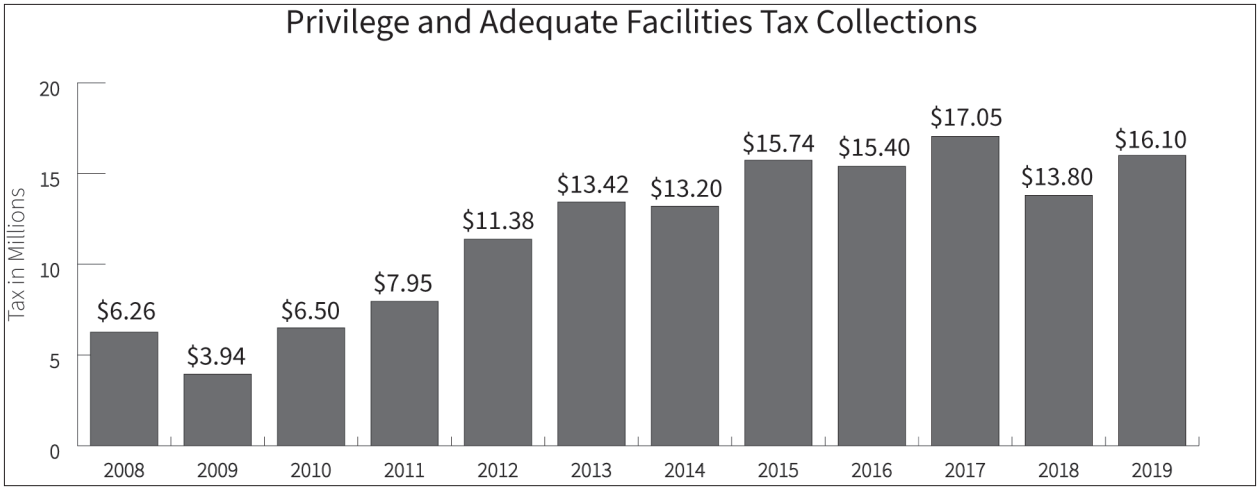


Figure 5.3: Privilege and Adequate Facilities Tax Collected

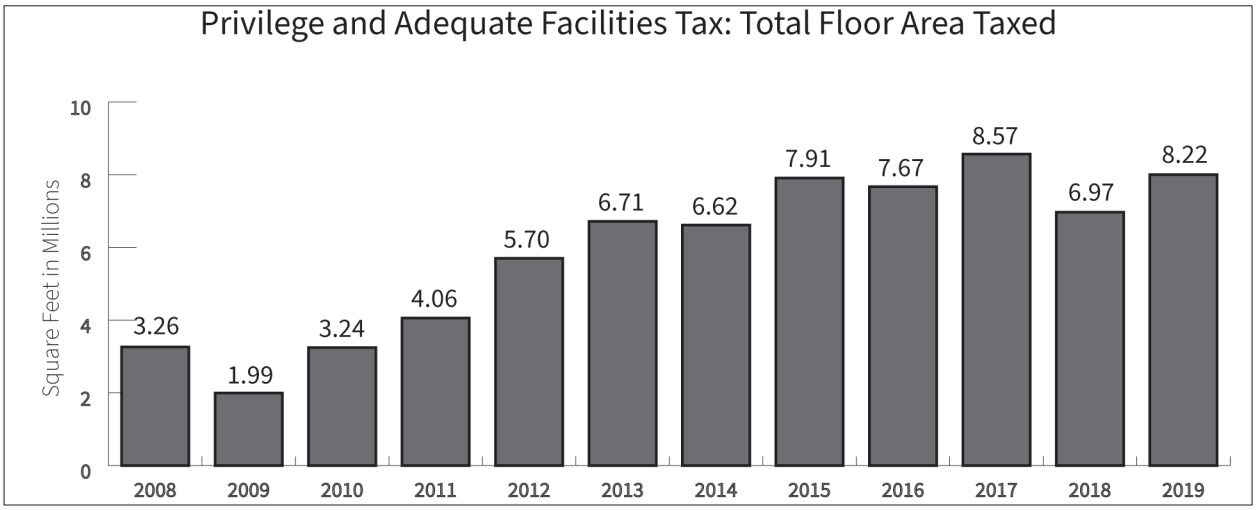


Figure 5.4: Privilege and Adequate Facilities Tax, displayed by Square Footage of taxable floor area

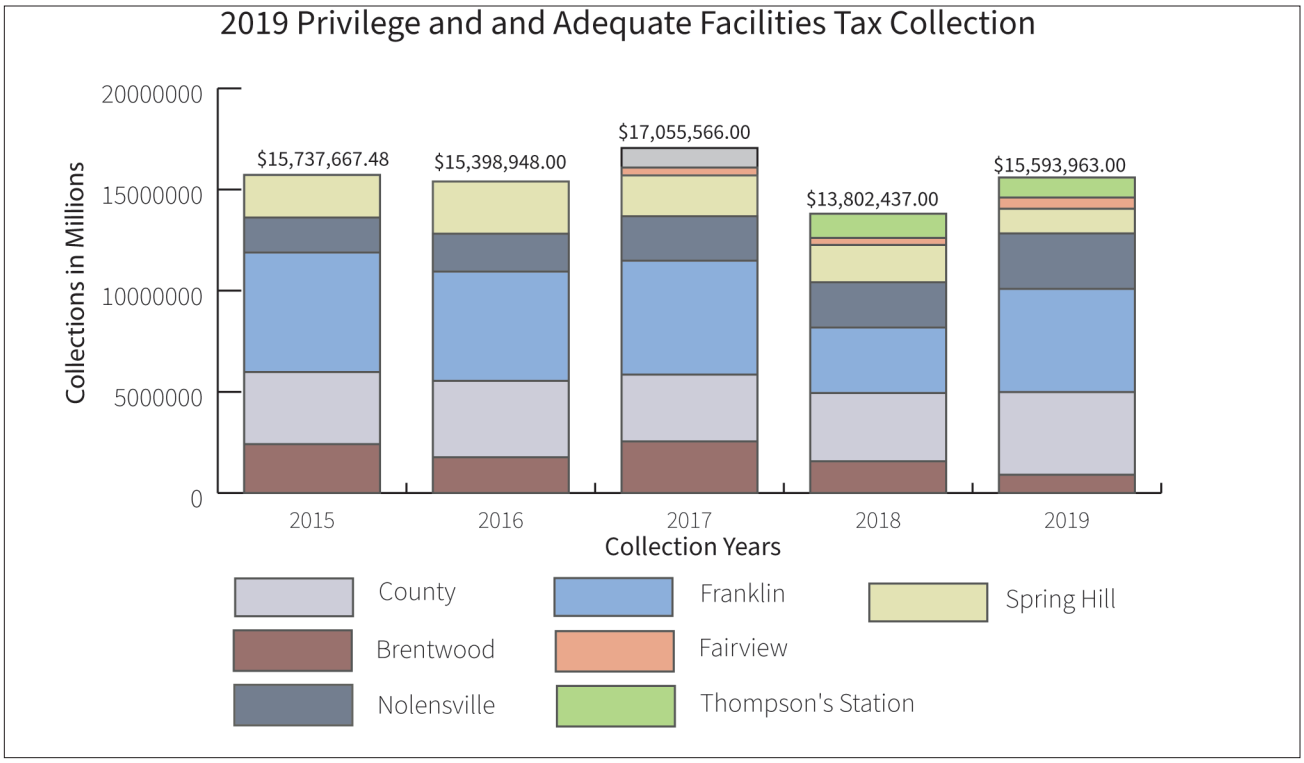


Figure 5.5: Total Privilege and Adequate Facilities Tax collected from 2015 to 2019

Education Impact Fee

In November 2016, the Williamson County Board of Commissioners approved a resolution establishing an Educational Impact Fee (EIF). The EIF is intended to offset the capital costs for schools to be constructed as a result of residential growth. Building Codes Department commenced collecting this fee on March 1, 2018.

In additon to the collecting of the Education Impact Fee, the Department assists in the processing of appeals of the Education Impact Fee. Appeals are heard by the Board of Adjustments and Appeals. In 2019, the Board heard 690 appeals representing $6,414,379.00 in contested funds. Figure 5.7 on the following page depicts the number of appeals made since 2017.

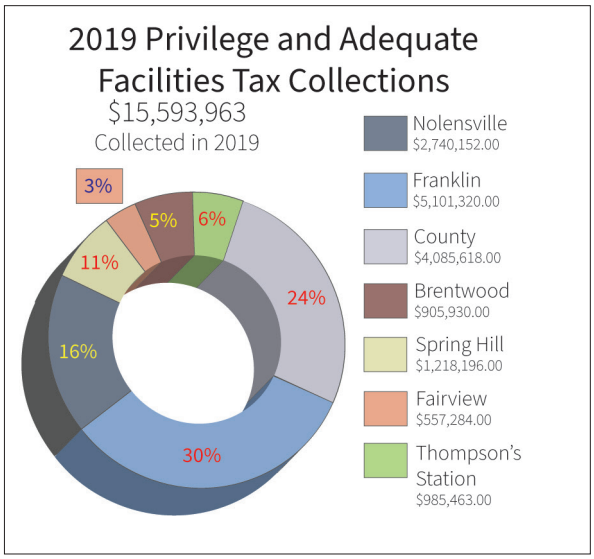


Figure 5.6: Privilege and Adequate Facilities Tax collected in 2019 by jurisidiciton

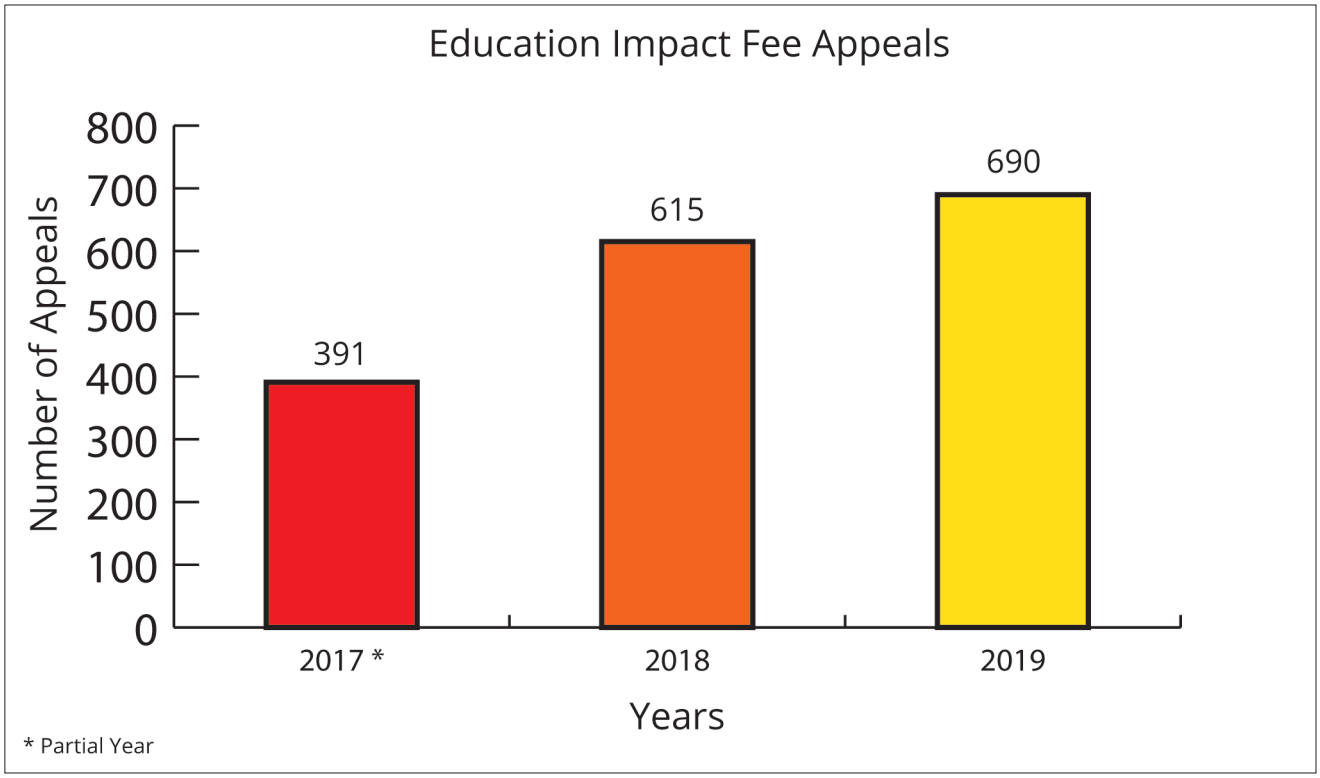


Figure 5.7: Education Impact Fee Appeals from 2017 to 2019

Goals

Construction of new homes county-wide has increased back to levels we saw in 2006, which is a great sign of recovery in economic stability for our County. In 2019, we will strive to continue a professional level of service to the building community while meeting Building Code requirements that are constantly changing due to Federal Government mandates, especially on the Energy Code. The State of Tennessee now mandates that all inspectors be certified in all areas of inspections performed. We strive to do more with less staff to save tax-payer dollars by having inspectors certified and licensed by the State in Building, Plumbing, Mechanical and Energy. Certification is renewable in 3-year periods by achieving 36 hours of State-approved continuing education in all areas of certification.