

**Stafford County Utilities Commission  
Meeting Minutes**

**October 11, 2016**

**A. Call to order**

Chairman Joyce Arndt called to order the regular meeting of the Utilities Commission at the George L. Gordon, Jr. Government Center on October 11, 2016 in the ABC Conference Room.

**B. Roll call**

Sylvia Dyson conducted a roll call. The following persons were present:

Members Present: Joyce Arndt, Bill Tignor, Mickey Kwiatkowski, Mike Makee, and DaBora Lovitt (7:15-8:33)

Members Absent: Alan Glazman. Hartwood District seat is vacant.

Staff Present: Jason Towery, Dale Allen, Julie Elliott, Jeff Harvey, Mike Zuraf, and Sylvia Dyson

**C. Public Presentations**

There were no public presentations.

**D. Approval of Minutes**

Mr. Tignor made a motion to approve the September 13, 2016 minutes as written. Ms. Kwiatkowski seconded. The motion passed 4-0.

**E. Commission Members' Comments**

Mr. Tignor inquired about a public meeting that took place the previous Thursday regarding some sort of water issue. Mr. Towery stated that he will talk about the meeting in his Director's report.

Ms. Kwiatkowski stated that according to August's operations report there had been 107 complaints and was curious what they were about. Mr. Towery explained that those were standard complaints, such as odor, water pressure, or not being able to pay the water bill, etc. Ms. Kwiatkowski inquired whether the complaints were related to the rate increases. Mr. Towery stated that there had only been two emails commenting on the increase.

Mr. Makee inquired about the proclamation for the Little Falls water treatment facility. Mr. Towery stated that the proclamation had been issued at the October 4<sup>th</sup>, 2016 Board of Supervisors meeting. He added that there was also a public presentation done for both waste water treatment facilities, Aquia and Little Falls, acknowledging the awards and the extent of their efforts and service. Mr. Towery also stated that jackets were purchased for the employees of both plants which were embroidered with "Stafford County Utilities Gold" for

Aquia and “Platinum” for Little Falls. Mr. Towery proceeded to thank the Commission for the kind gesture.

Ms. Kwiatkowski inquired how the County acquired the property at Thompson Avenue. Mr. Towery explained that as part of the Claiborne Interceptor Project the County had to use the property as a point of access. He added that the property owners were concerned whether the bridge which would be used for access would be able to sustain construction traffic. It was Mr. Towery’s presumption that the owners eventually decided that they did not have any need for the property and donated it to the County, which saved the County hundreds of thousands in access fees. He believed that the owners took some sort of tax write off to their benefit.

Ms. Kwiatkowski inquired how the collection of delinquent charges was going. Ms. Elliott stated that Ms. Clements was working closely with the outsourcing agency and that she hadn’t heard of any issues. Ms. Elliott added that the County did not have to pay the agency for the collection and that the collection charges were added on to the delinquent amounts. She felt that the collection process was going along rather nicely. Mr. Towery stated that he would get an update from Ms. Denno and pass the information on to the Commission.

**F. Director’s Report**

Mr. Towery briefed the Commission that two resolutions dealing with the Utilities Department were passed at the October 4<sup>th</sup>, 2016 Board of Supervisors meeting. The resolutions authorized the Utilities Department to execute a lease with the residents at 204 Thompson Avenue as well as renewing the lease for the office space occupied by the Utilities Department at 2128 Jefferson Davis Highway for another 5 years.

Mr. Towery added that the County was looking into a long term use for the property at 204 Thompson Avenue, but the type of use had not been determined at this point.

Mr. Towery stated that three more resolutions would be going to the Board of Supervisors at their October 18<sup>th</sup>, 2016 meeting. The first resolution would be to authorize a contract for the construction of the Butler Road force main repair. Mr. Towery stated that the bids would not come in until the following day, which is why a contractor had not been announced.

Mr. Towery informed the Commission that there had been a large force main break in the previously mentioned area about a week ago. He was uncertain what caused the break at this point, but it was presumably due to gas eating up the inside of the line. He added that the Utilities Department was working on a long term remedy. Mr. Towery explained that a temporary repair was in place until a contractor would be determined to carry out the long term repair.

The second and third resolution, according to Mr. Towery, were to amend Section 22 and 25 of the County Code regarding onsite sewage disposal. He added that the County had been approached by the development community regarding the rigidity of the County standards, which were well above and beyond state requirements, and that he would go further into detail later on under “New Business”.

Mr. Towery stated he did not have any major updates on the Truslow Road project, other than the County is continuing to pursue three outstanding easements. Letters had already been sent

out to the owners requesting easements and the Department of Utilities was having conversations with the owners.

Mr. Towery stated that there had been some additional public interaction. As mentioned by Mr. Tignor earlier in the meeting, a town hall meeting held by Mr. Snellings had taken place the previous Thursday regarding some concerns from residents in the Hartwood area regarding the well water not being properly replenished. He added that one of the things discussed at the meeting was the water extension policy. He further stated that the areas of concern were outside of the urban service area (USA) and that any extensions to these areas would require comprehensive plan amendments.

Mr. Harvey stated that there was major concern by the citizens regarding well yield in that part of the County. There were a couple of property owners that had low yielding wells and that there had been requests by the citizens that the County require that a well be dug and tested before a building permit was issued. Mr. Harvey explained that State Code did not authorize the County to perform those types of duties, but there were a number of counties listed that were eligible. At this point there wasn't much that the County could do for the public other than educating them about piedmont versus coastal plain. He added that a map was presented at the town hall meeting showing some of the wells with low yields as well as some of the properties surrounding it, and the issues seemed to be very spotty.

Ms. Kwiatkowski was curious if the issue came up because of the new planned development in that area. Mr. Harvey affirmed and added that the residents were concerned that the new cluster development would affect their water supply. Unfortunately County staff was unable to give the residents any concrete answers, other than the development being by-right, which meant there wasn't much the County could do. He added that County staff tried to clarify the purpose of a cluster development for residents. Clusters allowed for smaller lot sizes for more open space, which was more advantageous as far as water recharge. The amount of wells would be the same as it would with a conventional development.

Ms. Arndt inquired if homeowners would be able to go to the state to get help finding out what the problem might be. Mr. Harvey explained that the Health Department currently was very limited in what they could do in regards to wells and only acted as a permitting and monitoring agency, but was unable to do any well testing or drilling. The health department would have to rely on submitted reports and did not have a lot of technical advice to give.

Mr. Tignor inquired about the age of the properties. Mr. Towery stated that they varied in age. He added that in the piedmont the wells were very spotty, which was due to the formation of the piedmont and that he believed that the homes that were experiencing the yield issues were newer homes. Mr. Harvey affirmed and added that they were built within the last five to seven years. He further added that when drilling a well in the piedmont, one would have to hit a fracture in the rock in order to get access to water and that the size of the fracture would determine the amount of water that would be available. Mr. Harvey stated that homeowners could possibly put in reservoir storage tanks to try and balance out the water flow. According to Mr. Harvey the Health Department did have standards for how much water had to be in storage for each home, which was 150 gallons per bedroom, per day. In most cases, he stated, the storage was within the well casing itself.

Mr. Tignor inquired if any engineering went into the drilling of a well. Mr. Allen replied that there were some standards, but for the most part a well driller just went out to the site and drilled a well.

Mr. Tignor asked if there was possibly an issue of one home taking water away from another. Mr. Towery stated that there could be, but added that in the piedmont it was hard to determine since the water supply was so fractured and broken. Mr. Allen added that if two neighbors were getting water from the same fracture, it was possible that the high usage of one of the neighbors could affect the other.

Mr. Tignor inquired how localities to the west were handling these issues. Mr. Harvey explained that Fauquier and Loudoun had the authority to have higher standards through the Health Department. In Loudoun, he added that for new developments the developers had the option to do exploratory wells, and if they chose not to, there would be limitations on the subdivision plat until actual wells were being drilled for each lot. Developers were also required to drill and test wells for quality and quantity prior to obtaining a building permit. There was also a permit from the County that was required in order to drill a well, which had to be obtained yearly. Mr. Harvey further pointed out that Loudoun was unique in that there was a lot of limestone geology with caverns and such, and that there was an overlay zone for part of the county with additional regulations due to potential impacts.

Mr. Makee mentioned a newspaper article he read which referenced a recent earthquake as one of the causes of the reduction in well water, and was wondering if that was at all true. Mr. Harvey stated that it was possible.

Mr. Tignor felt that the developers should make their customers aware of the well water situation. Mr. Towery reiterated that the County had limited authority in terms of what they were able to do and had to rely on the developers to do so.

Ms. Arndt asked if, when a developer presented a plan, there was a requirement to have the area tested. Mr. Towery reiterated that it was not required by the state. Mr. Harvey affirmed and added that in the case of the previously mentioned new development, the developer hired a geologist prior to purchasing the property. According to the geologist there was not going to be any water issues.

Ms. Lovitt asked staff if they could foresee any changes regarding the requirements in the future. Mr. Towery responded that there was some ongoing consideration. Mr. Harvey added that Virginia in general was a "buyer beware state" and that the County did currently not have the authority to require developers to disclose the water situation. The County would have to ask for special legislation in order to make it a regulatory requirement.

Mr. Towery stated that the County had been talking with the Health Department regarding this issue and according to their records there didn't seem to be an uptick in wells drying out. It appeared that the previously mentioned situation was unique but still warranted some attention. Mr. Towery stated that the Utilities Department would look out for water extension requests and would notify the Commission.

Ms. Arndt was afraid that with more and more developments coming into the county, there would be more issues of that sort. Mr. Harvey admitted that that was possible. He also stated

that currently there were about 5,600 homes on wells in the piedmont and that the issue was very localized.

Ms. Kwiatkowski inquired whether Mr. Snellings was going to pursue anything based on the town hall meeting. Mr. Allen stated that Mr. Snellings would ask the Board to do a water study in the piedmont only. Mr. Towery added that the most recent water study from 2004 showed 40 million gallons of county wide capacity per day. Mr. Harvey added that it was 7 million gallons a day capacity in the piedmont with an estimated usage of 2 million a day. Mr. Towery stated that between the two water plants there were an additional 10 million gallons supplied per day.

Mr. Tignor inquired what the average well depth was. Mr. Towery stated that in most cases they were 300-400 feet deep, but most of the depth was for capacity.

Mr. Towery stated he would bring the Commission's concern up to County Administration.

Mr. Towery reiterated that there was a large sewer force main break on the Falls Run force main on October 3<sup>rd</sup>, 2016. He explained that there was a large pump station in Falmouth with a 16-inch force main which ran from Falmouth along River Road over to the Chatham Heights area where it discharges. He added that the force main broke behind the CVS causing a large spill. The pump station was consequently shut down and a pump and haul program was initiated. The estimated amount pumped was about 4 to 5 million gallons over a 3 day period. There was also some testing and monitoring done in the river and Falmouth Beach was shut down for precautionary measures. Mr. Towery stated that the Department of Utilities is still working with DEQ and the Department of Health to assess how much was spilled. He added that the County might be fined by DEQ because of the spill.

Ms. Arndt mentioned that she had read an article that claimed the County was purposely dumping sewage into the river. Mr. Towery felt that this had to do with public outreach and education. He proceeded to explain that Little Falls was currently treating about 3 million gallons per day. He added that last year's loss due to breaks was only about 1.5 million gallons.

Mr. Towery gave the Commission an update on some of the aspects of Operations and Customer Service. He mentioned that currently the daily water demand was 9.85 million gallons per day. He proceeded to highlight some of the work that had been accomplished such as the inspection of 22,157 feet of sewer main and the cleaning of 29,585 feet of sewer main. He added that 49 hydrants had been painted and 26 repaired. He further pointed out that the meter techs read 35,474 meters, set 74 new ones, and replace 59 old ones. He also mentioned that Customer Service fielded over 5,000 phone calls. Ms. Lovitt inquired whether the numbers were a monthly average and whether the 5,000 calls were a high or low number. Mr. Towery explained that there was an active hydrant maintenance program. Regarding the number of calls, Mr. Towery stated that compared to last month, it was lower.

Mr. Towery gave a brief update on current construction projects as well, stating that the completion of the Celebrate Virginia Water Tank had been slightly delayed due to contractor issues, but should be complete within the next couple of month. He further stated that the 342 Phase II Waterline construction had been completed; however, there was a leak that the contractor was still trying to locate. He did not anticipate that the substantial completion on

the 15<sup>th</sup> could be held. Mr. Towery added that there were currently eight more capital projects underway.

Regarding personnel changes, Mr. Towery informed the Commission that Ms. Giles has moved to the County Administration Office and was replaced by Ms. Dyson, who is the new Administrative Specialist in the Utilities Administration Office. He further added that Janet Spencer would be leaving shortly and a successor would still have to be determined.

#### **G. Unfinished Business**

##### **1. Formal Recognition of Little Falls Run and Aquia Wastewater Treatment**

This item was discussed during the Commission Members' Comments portion of the meeting.

Mr. Towery stated that there had also been a lot of extraordinary effort trying to fix the Falls Run main break, and that Supervisors Thomas and Bohmke asked that there be a "Pizza Party" at the Field Operations office as a token of their appreciation.

#### **H. New Business**

##### **1. Comprehensive Plan Update**

Mr. Towery stated that this subject came up as part of the Water and Sewer Master Plan and introduced Mr. Zuraf, Principal Planner in the Planning and Zoning Department, who proceeded to give a presentation (Attachment 1) regarding the Comprehensive Plan changes.

Following the presentation, Mr. Allen explained that Mr. Zuraf would provide estimates of dwelling units and square feet of non-residential development on a parcel by parcel basis. These numbers would be combined with the water and sewer figures to create new flow projections, which would help to analyze the existing system and find deficits.

Mr. Tignor asked if there was sufficient capacity in waste water treatment plants. Mr. Allen explained that that would be determined by the updated master plan. He added that it would have to be determined whether the waste water facilities had capacity for build out, however what the plan was aiming at were interceptor sewers, pump stations, water transmission mains, and elevated water storage tanks.

Mr. Towery stated that once the numbers were in, he would start updating the Commission on an approximate timeline until completion of the update. He estimated it to be a 6-month process from the time the numbers were received.

##### **2. Proposed draft Ordinance regarding On-Site Sewage Disposal**

Mr. Towery provided the Commission with a copy of the CEDC recommended changes to the Ordinance, explaining that the Stafford County Code was currently more stringent than State Code. There had been requests by the development community to modify these sections of the code. Mr. Towery stated that staff had been working with local AOSEs, the Department of Health, the Fredericksburg Builders Association, as well as others to

come up with the proposed revisions. Mr. Towery proceeded to highlight some of the changes explaining to the Commission that there was no action required by the Commission at this moment. Some of the suggested changes were as follows:

Chapter 22

- Remove the requirement of the system having to have a useful life of at least 20 years, since there was no way for the County to regulate this requirement
- Reduce the minimum primary drainfield area from 4,000 square feet to 2,500 square feet while adding a capacity requirement of 400 gallons per day
- Requirement for reserve drainfield with same capacity of original site and a minimum area of 2,500 square feet
- Add definition for community on-site disposal system
- Exemption from the 2,500 square foot requirement for existing, improved sites with failed systems

Chapter 25

- Add definition for community on-site disposal system
- Break down for lots recorded before 1997, lots recorded between 1997 and 2008, and lots recorded after 2008
- Allow for advanced on-site systems to be installed

Mr. Towery stated that the ultimate goal was to come up with a more reasonable Code that would allow for proper development of lots, but would not penalize homeowners with failing septic systems or drainfields, while being more in line with State Code requirements.

Mr. Towery added that Supervisor Maurer made a request at the CEDC meeting to allow for lots with failed systems to get an offsite easement if there was no other way of achieving capacity. The easement would be obtained through a waiver process.

Mr. Tignor was curious why the County Code was more stringent than the State Code. Mr. Allen explained that the Health Department essentially asked for more stringent regulations. Mr. Harvey added that there had been discussions back in 2006 between the Board of Supervisors and the Health Department where the Health Department had noted a couple of instances where the standards of the State allowed for homebuilders to have very small drainfield sites. He further stated that there had been instances where the drainfield sites had been damaged or destroyed during development of the house and there weren't many opportunities for repair. In order to prevent pump and haul, the Health Department felt, there needed to be area requirements. The size of the areas was based off of four bedroom homes at the time.

Mr. Tignor stated that he believed that the septic system regulations were changed to require more capacity in the 80s. Mr. Allen explained that the basic change was to put the emphasis on treatment in the soil rather than just disposal. He added that before the regulation change one could have a drain tile in the water table with essentially no treatment. The new regulations added the requirement for separation distances between the water table and the drainfield in order to have soil that was unsaturated to provide treatment.

### **3. November and December meeting schedule**

The Commission voted to move November's meeting to Tuesday, November 15<sup>th</sup>, 2016. The December meeting schedule would be determined at a later date.

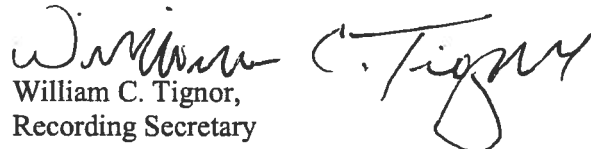
**4. Lake Mooney WTP tour schedule**

Mr. Towery offered taking the Commission on a tour of Lake Mooney WTP, which the Commission gladly accepted. After a brief discussion regarding setting up a date, Mr. Towery suggested to get back to the Commission with some potential dates. The Commission agreed.

**I. Adjournment**

There being no further business, Ms. Arndt adjourned the meeting at 8:51 PM.

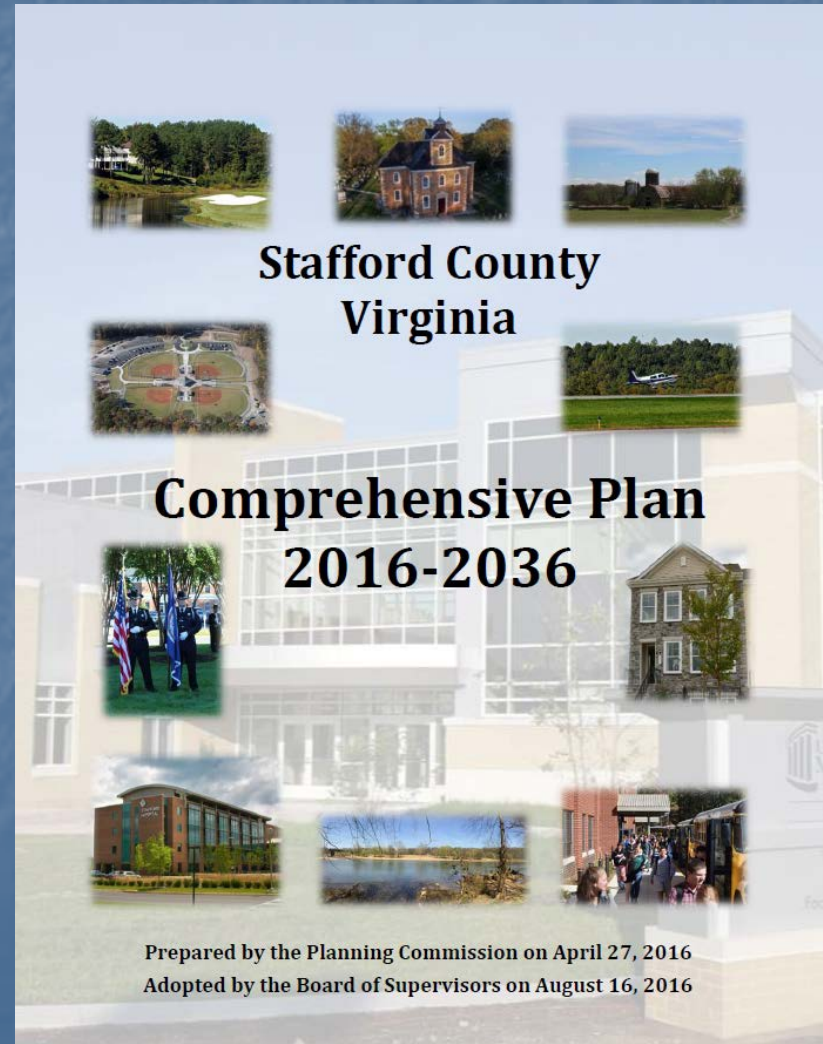
Minutes submitted by,

  
William C. Tignor,  
Recording Secretary



# Utilities Commission Meeting October 11, 2016

## New 2016 - 2036 Comprehensive Plan - Land Use Concepts & Public Utility Impacts



# Background

- The amendments would serve as a 5-year update to the existing Stafford County Comprehensive Plan, 2010 – 2030
- The format of the Plan remains unchanged
- History of the Former 2010 – 2030 Plan
- Process to amend UDAs initiated in 2012
  - Flexibility was provided in State Code regarding UDAs



# Key Changes

- Future Land Use Map Amendments
  - UDA terminology deleted, concentrated growth concept retained as TGAs
  - New "Planning Area" land use designation consolidates overlapping efforts
    - TGAs (residential /commercial mixed use areas)
    - RDAs (Economic Development)
    - PFAs (Economic Development)

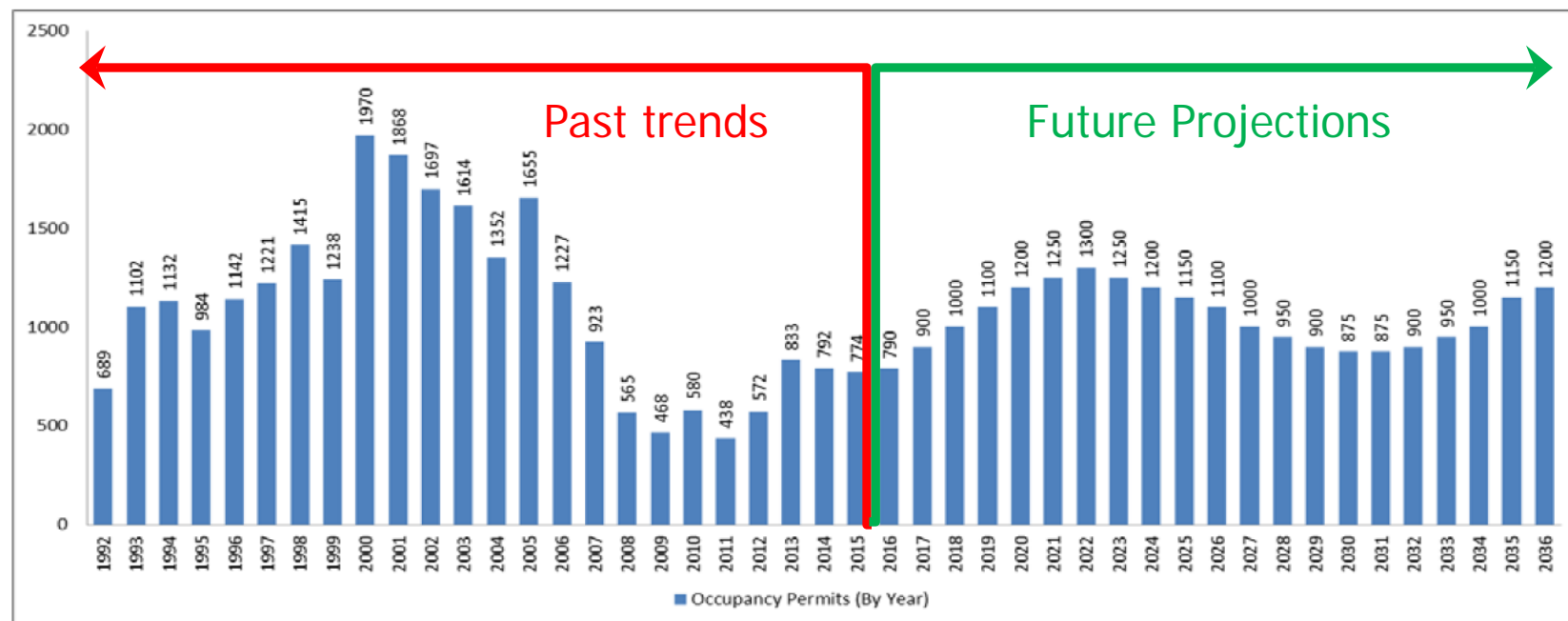
# Key Changes

## ■ New population projections

### *Population Projection Comparison*

	<i>2016 Estimate</i>	<i>2036 Projection</i>	<i>Population Increase</i>	<i>Dwelling Unit Increase</i>
<i>FAMPO</i>	<i>142,380</i>	<i>236,182</i>	<i>93,802</i>	<i>33,620</i>
<i>Planning Department</i>	<i>142,380</i>	<i>200,524</i>	<i>58,144</i>	<i>20,840</i>

Table 6.8 County Residential Occupancy Permit Projection



# Key Changes

- Reduction in Equivalent Dwelling Units

## *Equivalent Dwelling Unit Distribution*

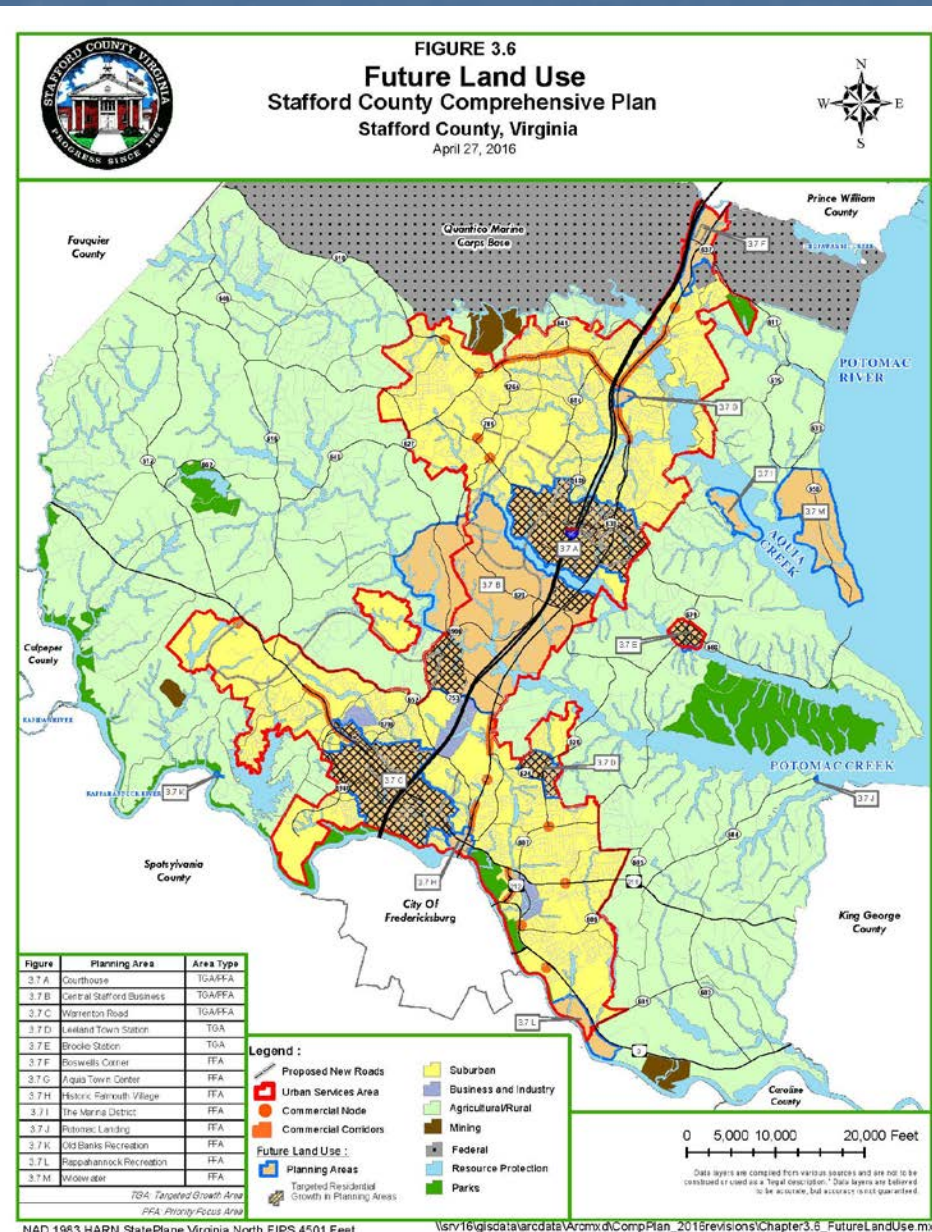
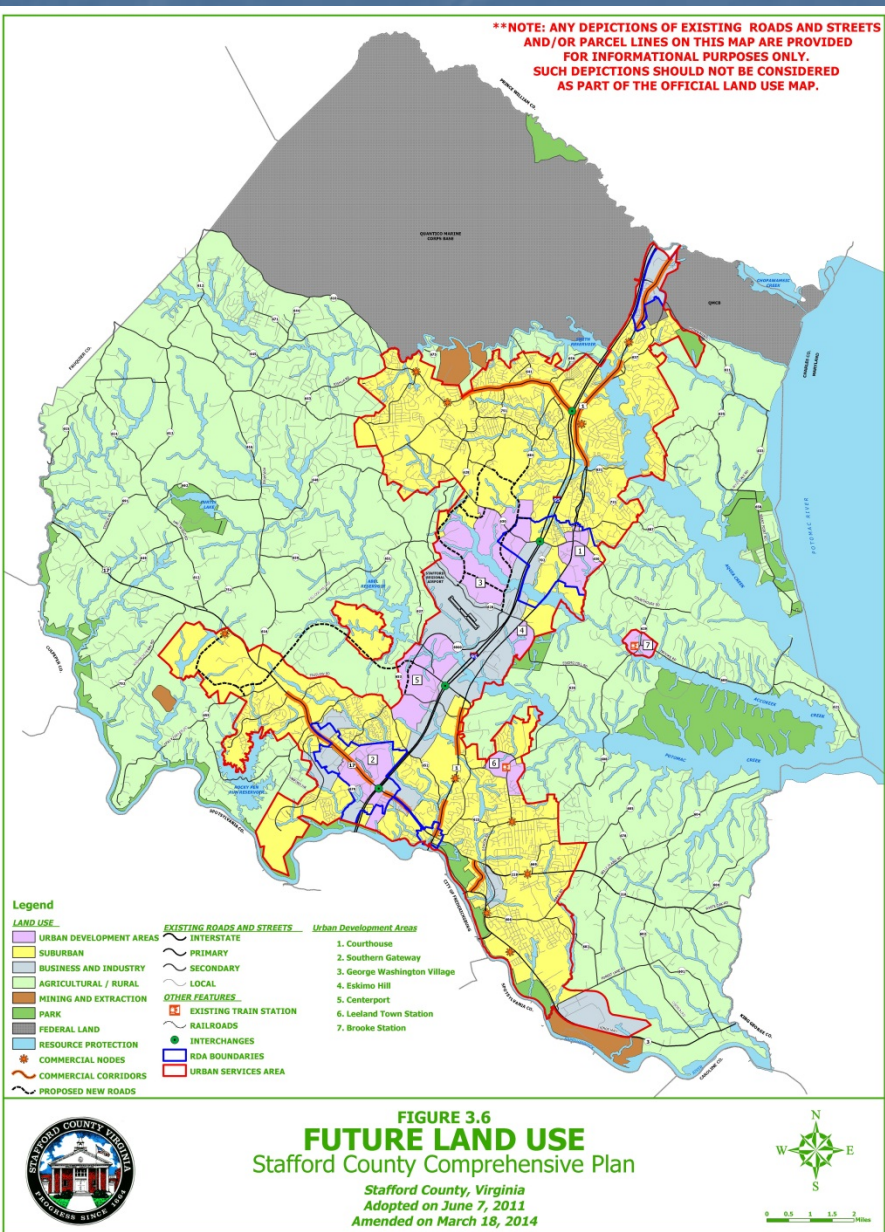
	<u>TGA</u>	<u>Suburban</u>	<u>Ag/Rural</u>	<u>Total</u>
<i>FAMPO</i>	<i>16,810</i>	<i>10,086</i>	<i>6,724</i>	<i>33,620</i>
<i>Planning Department</i>	<i>10,420</i>	<i>6,252</i>	<i>4,168</i>	<i>20,840</i>

- Amount of new growth designated in UDAs/TGAs is retained at 50%



# FORMER Land Use Plan

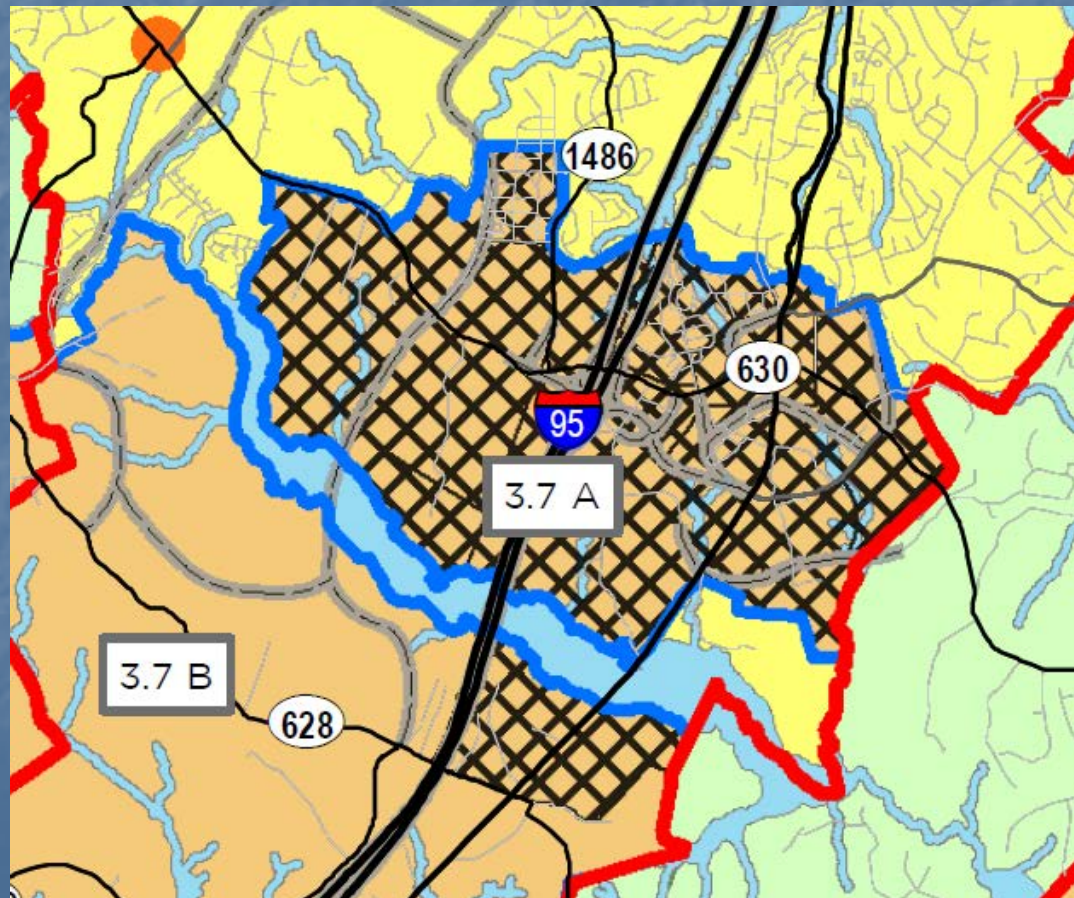
# NEW Land Use Plan





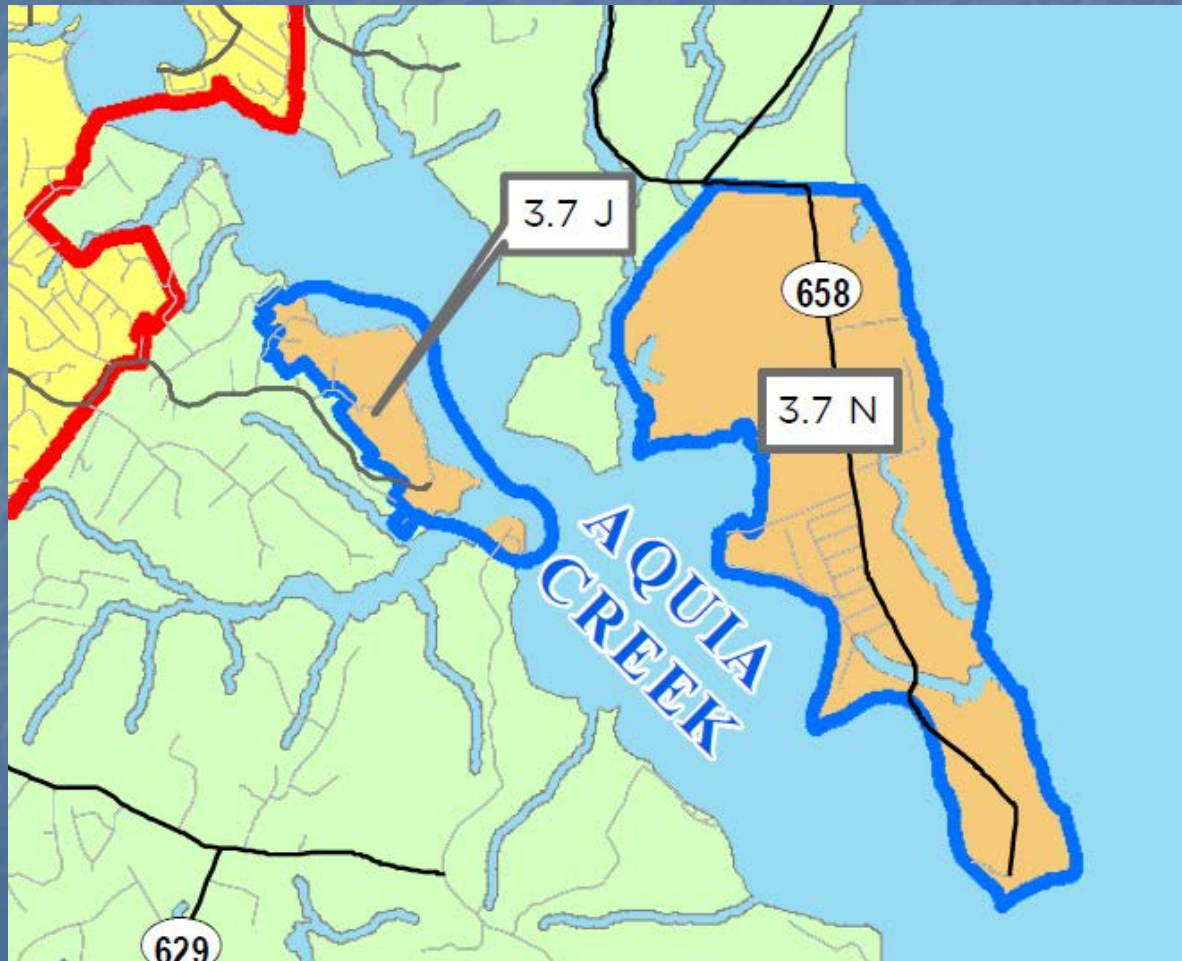
# Planning Areas

- Targeted Growth Areas – Residential/Commercial Mix



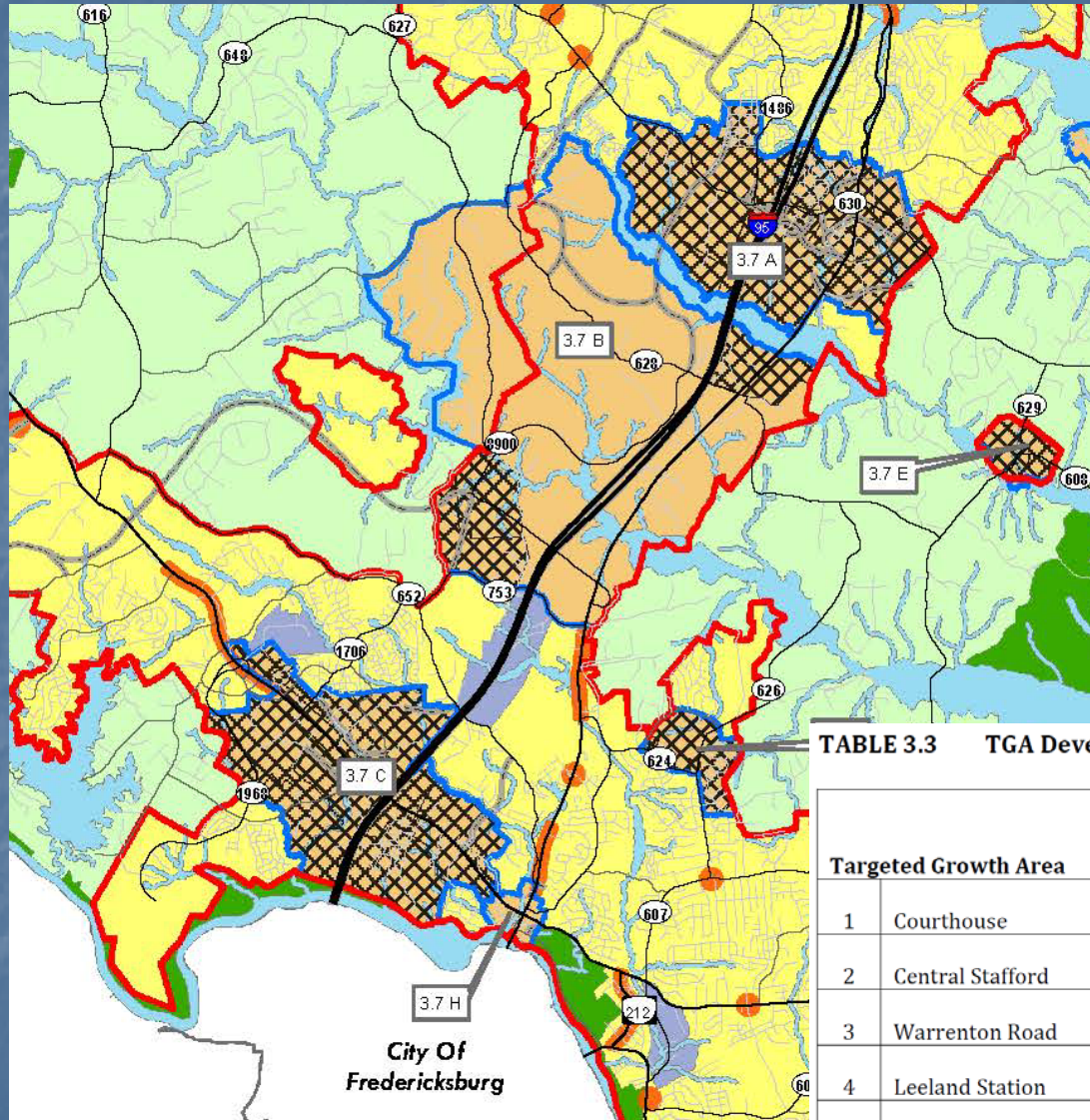
# Planning Areas

- Economic Development Priority Focus Areas





# TGA Buildout

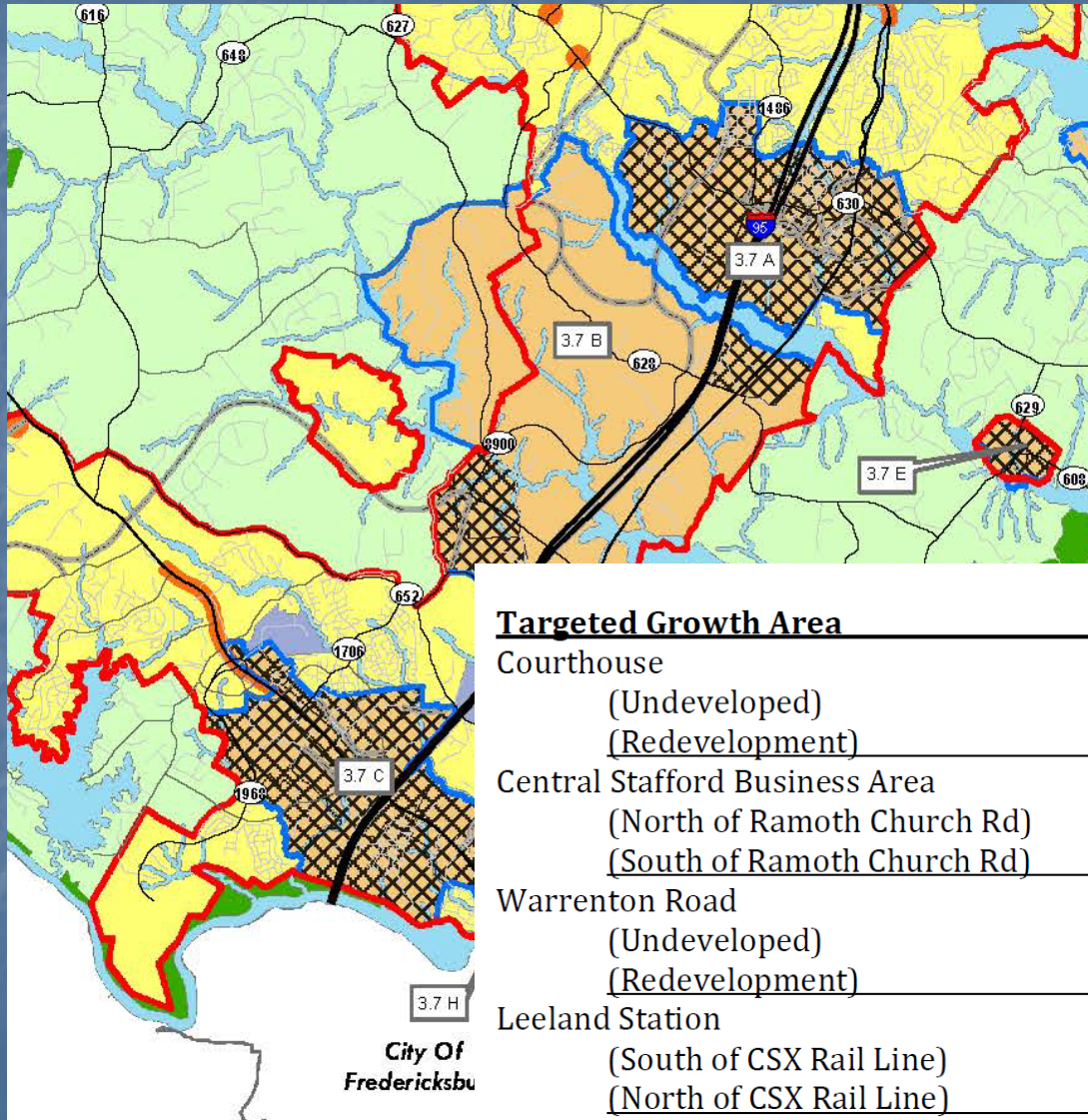


**TABLE 3.3 TGA Development Summary**

Targeted Growth Area		Residential (dwelling units)				Commercial (total square feet)
		Single Family	Townhouse	Multi-family	Total	
1	Courthouse	1,500	750	1,500	3,750	5,000,000
2	Central Stafford	550	200	1,000	1,750	12,075,000
3	Warrenton Road	1,000	800	1,500	3,300	4,750,000
4	Leeland Station	240	180	360	780	123,660
5	Brooke Station	240	-	-	240	40,000
Total		3,530	1,930	4,360	9,820	21,988,660



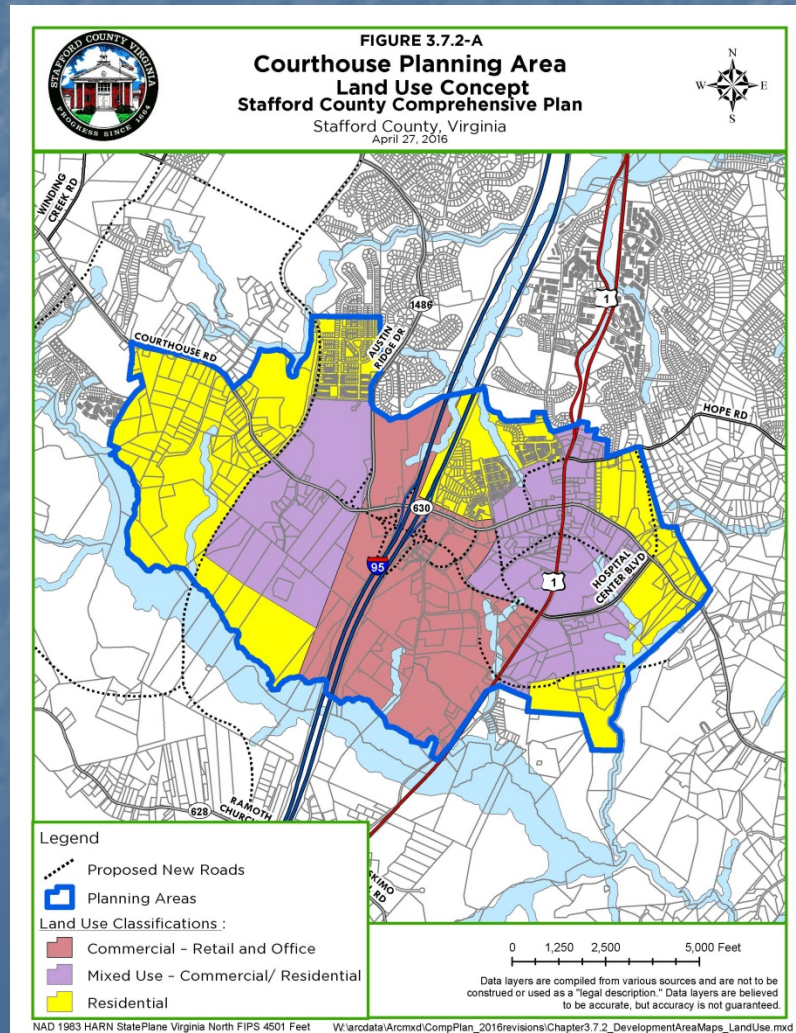
# TGA Phasing



Targeted Growth Area	Development Phase		
	Near-term	Mid-term	Long-term
Courthouse			
(Undeveloped)	X		
(Redevelopment)		X	
Central Stafford Business Area			
(North of Ramoth Church Rd)		X	
(South of Ramoth Church Rd)	X		
Warrenton Road			
(Undeveloped)	X		
(Redevelopment)		X	X
Leeland Station			
(South of CSX Rail Line)	X		
(North of CSX Rail Line)		X	
Brooke Station			X

# Planning Areas

## ■ Land Use Concept Maps in each Planning Area





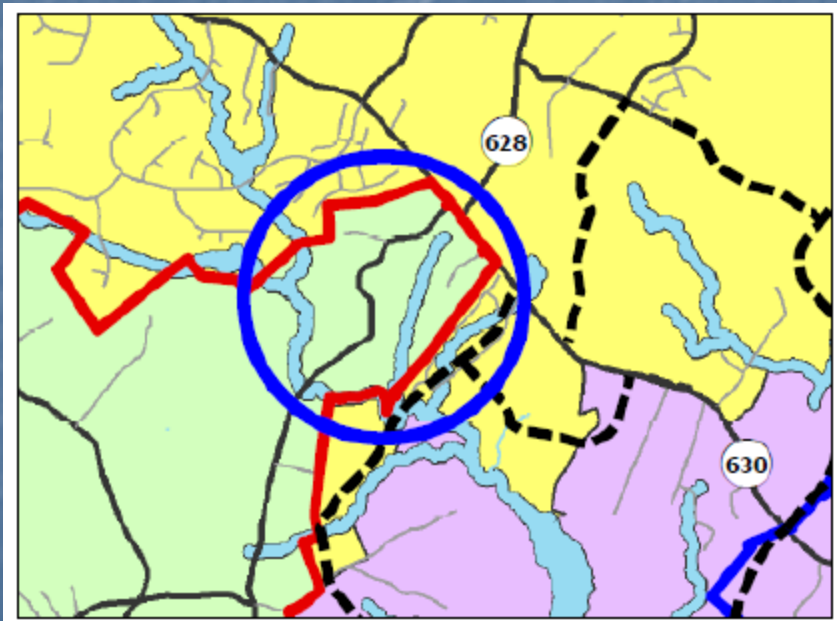
# Utilities Specific Issues / Changes

The map displays Stafford County, Virginia, in red. It is bordered by Fauquier to the northwest, Prince William to the northeast, Culpeper to the west, Spotsylvania to the southwest, Fredericksburg to the south, King George to the southeast, and Caroline to the south. The Quantico Marine Corps Base is located in the north-central part of the county. Major roads shown include Interstate 95 (I-95) running north-south through the center, and several state routes such as 810, 846, 812, 862, 818, 848, 827, 1284, 709, 884, 1486, 890, 828, 800, 862, 763, 1709, 1889, 824, 807, 212, 806, 218, 808, 804, 801, 803, 837, 811, 836, 835, 868, 826, 808, 805, and 3. The map also shows the Potomac River to the east and the Rappahannock River to the south.

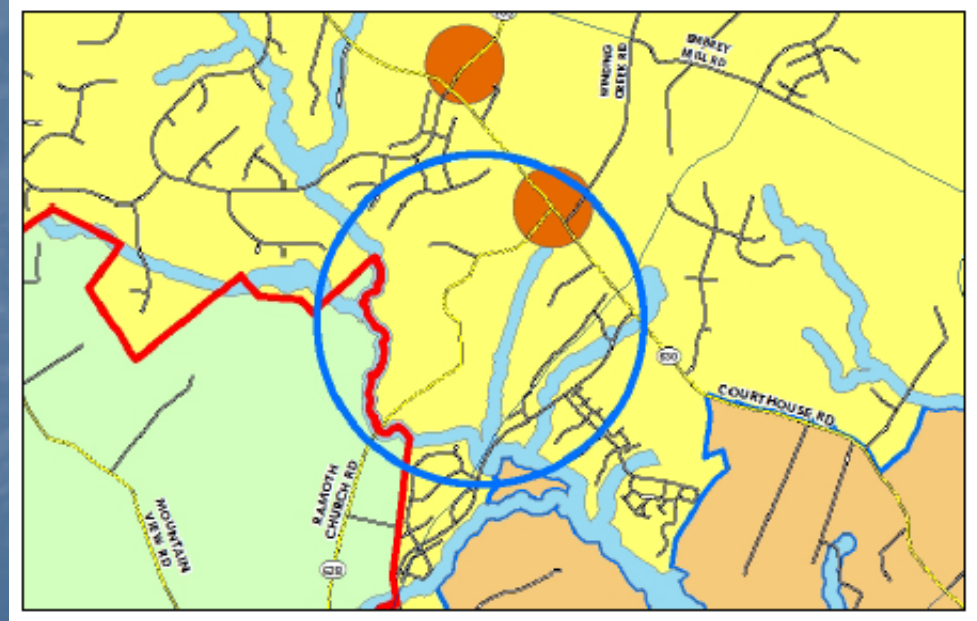
# USA Adjustments

*Expand USA along Ramoth Church Road*

**FORMER** Land Use Map

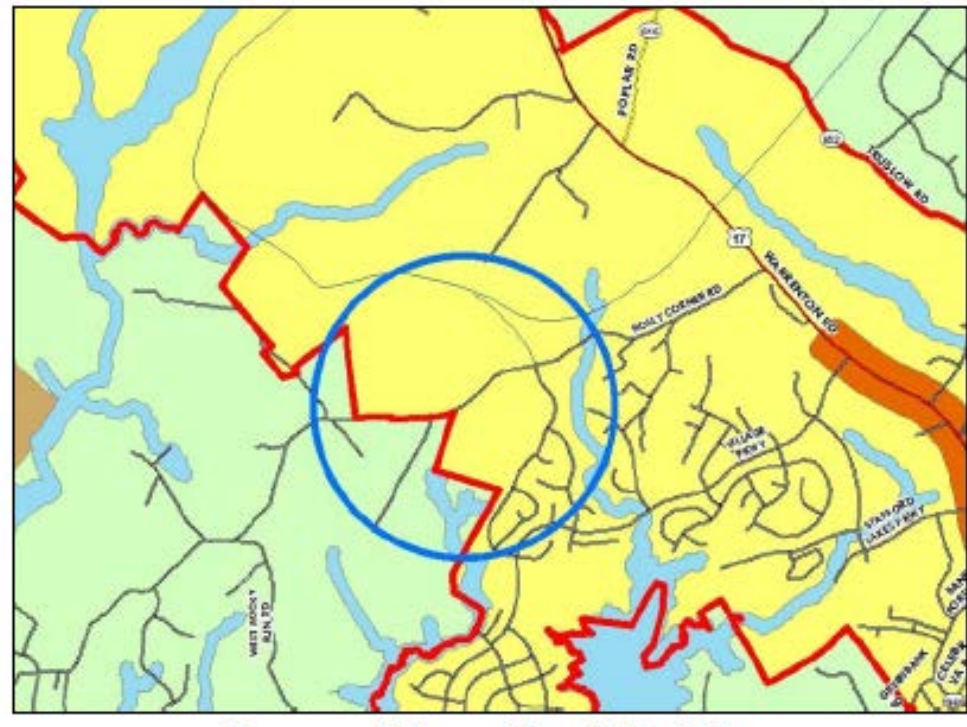


**NEW** Land Use Map





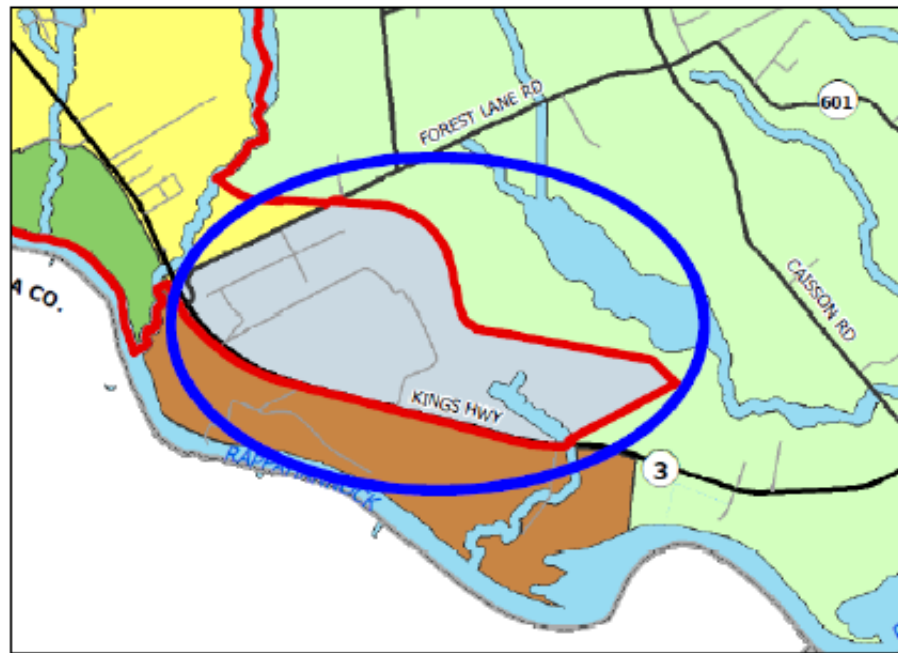
# CURRENT Land Use Map



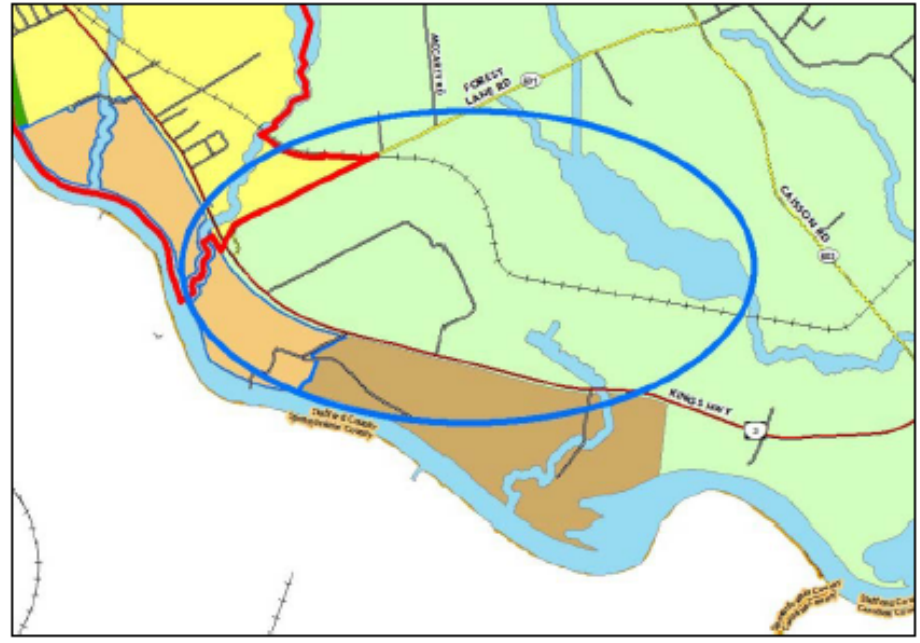
# USA Adjustments

*Reduce USA on north side of Kings Highway*

**CURRENT** Land Use Map



**PROPOSED** Land Use Map

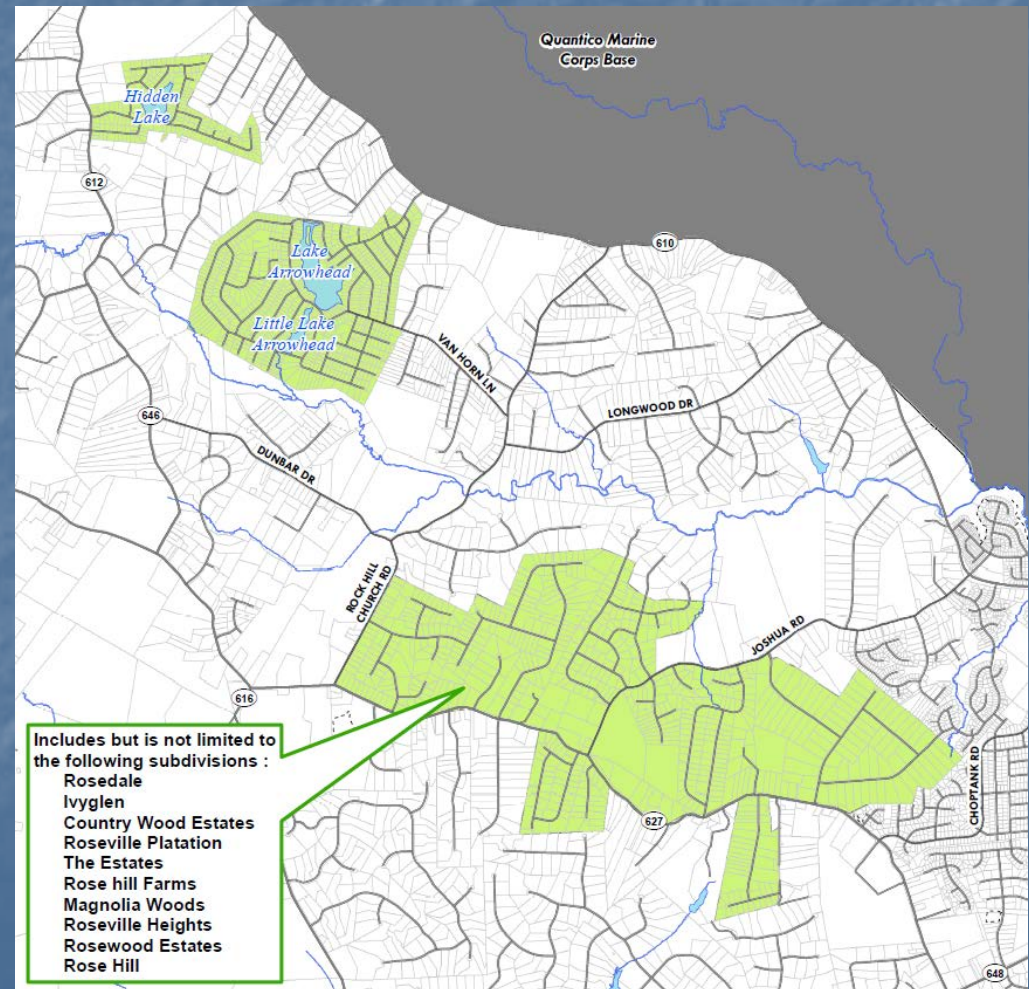




# Water and Sewer Utilities

## ■ Special Water and Sewer Service Areas

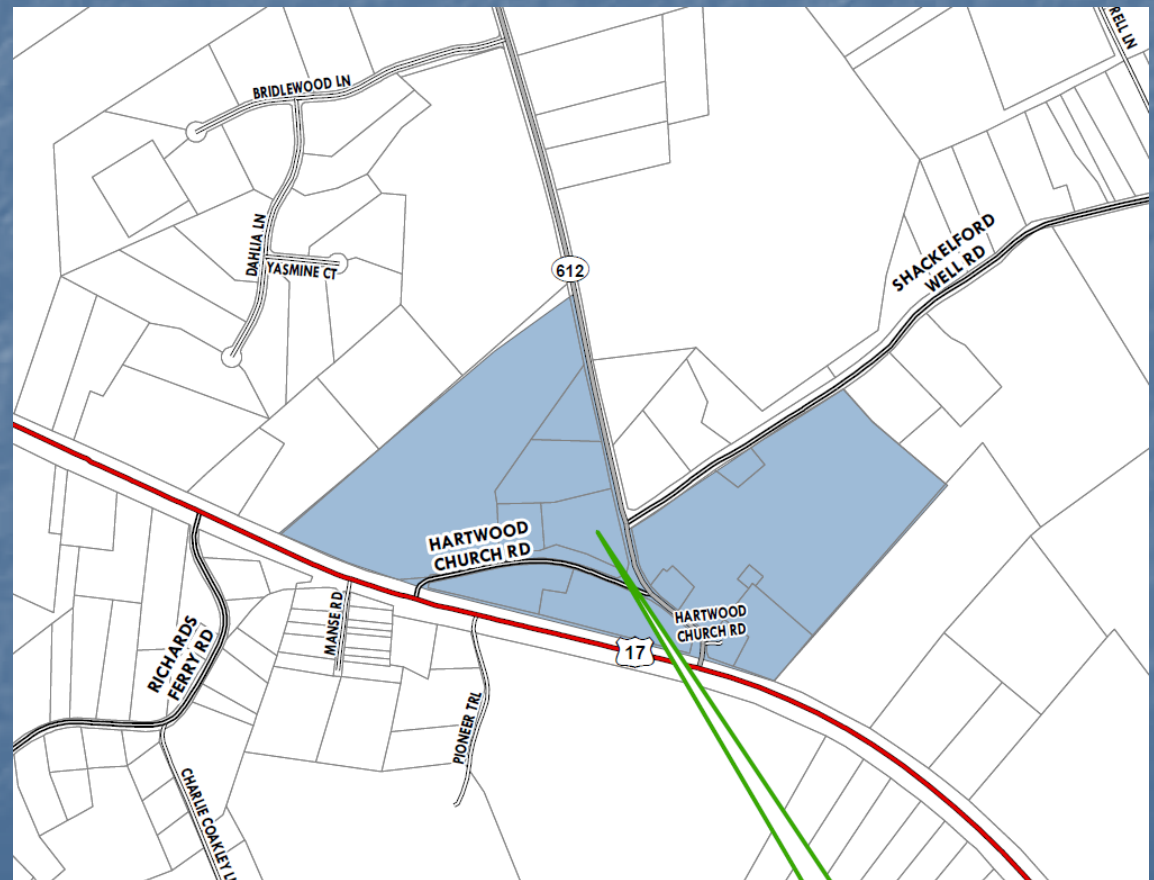
ROCK HILL  
SEWER  
SERVICE  
AREA



# Water and Sewer Utilities

- Special Water and Sewer Service Areas

HARTWOOD  
WATER  
SERVICE  
AREA





# Ch. 2 Water and Sewer Policies

- Policy 1.4.2 – location of water and sewer lines
- Additional criteria for extension of water and sewer outside of USA:
  - SEWER: when there is limited potential for future extensions
  - WATER: to improve water quality by completing loops for water lines previously constructed
  - SEWER AND WATER: for industrial zoned properties only in cases where such utilities had previously been extended to the properties and/or are located adjacent to the property
- Policies 1.4.3 & 1.4.4 deleted – private connections

# Questions?



**FIGURE 3.6**  
**Future Land Use**  
Stafford County Comprehensive Plan  
Stafford County, Virginia  
April 27, 2016

