# DETERMINING THE FEASIBILITY OF AN AFFORDABLE HOUSING LAND BANK FOR VIRGINIA'S PLANNING DISTRICT 10

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Thomas Jefferson Planning District Commission

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On my honor, I pledge that I have neither given nor received help on this assignment.

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The author conducted this study as part of the program of professional education at the Frank Batten School of Leadership and Public Policy, University of Virginia. This paper is submitted in partial fulfillment of the course requirements for the Master of Public Policy degree. The judgments and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, by the University of Virginia, or by any other agency.

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# Definitions

CLT: Community Land Trust, a type of community development organization that acquires property for a specific purpose, such as preserving green space or affordable housing, and maintains ownership in perpetuity.

Cost Burdened: A definition set by HUD. Households that spend more than 30% of their monthly income on housing are considered cost burdened (Department of Housing and Urban Development, n.d.)

Direct Sale: A method in which a locality in Virginia can, under certain circumstances, transfer a tax foreclosed property to itself instead of letting it go to auction.

HUD: The Department of Housing and Urban Development

Planning District 10: Planning region that the TJPDC serves. Contains the counties of Albemarle, Fluvanna, Greene, Louisa, Nelson and the City of Charlottesville.

Severely Cost Burdened: A definition set by HUD. Households that spend more than 50% of their monthly income on housing are considered cost burdened (Department of Housing and Urban Development, n.d.)

TJPDC: The Thomas Jefferson Planning District Commission

# Executive Summary

**Problem Statement:** Is a regional land bank a feasible tool to help address the housing crisis in Planning District 10?

Planning District 10 is facing a clear shortage of affordable housing. In Charlottesville and Albemarle alone, 9,000 households are cost burdened; between Fluvanna, Greene, Louisa, and Nelson, another 2,000 are cost burdened, bringing the total up to 11,000 households (Partners for Economic Solutions, 2019). When accounting for households classified as extremely low income (those that earn less than 30% of area median income), 53% of renter households and 47% of owner households are severely cost-burdened. High housing costs are associated with significant negative outcomes for households. In order to make ends meet, families may cut expenditures on food and health and may choose to live in substandard, dangerous housing (Joint Center for Housing Studies, 2017; Pew Charitable Trust, 2018; Metzker and Schwarz, 2015; Newman, 2015).

A regional land bank could be a potentially useful tool to help address the housing crisis. Land banks are redevelopment entities that acquire vacant or disused property through the tax foreclosure process and transfer it to developers. By facilitating the development of tax-foreclosed land into affordable housing, a land bank may be able to increase the stock of affordable housing in Planning District 10. However, a lack of tax delinquency in the region, the state of the regional real estate market, and legal barriers to property acquisition in Virginia may undercut a land bank's utility.

Three different types of land bank were considered for this analysis: a government land bank, a nonprofit land bank, and a Community Land Trust (CLT) land bank. These alternatives were ranked on three individual criteria (effectiveness, cost, and political feasibility) and the larger concept of land banking was ranked on two (property availability and geographic equity).

The TJPDC should not initiate any land bank for three reasons. First, it is unlikely that enough properties will go through the tax foreclosure process over the next 15 years, meaning a land bank would struggle to acquire a significant amount of properties. Secondly, a majority of tax foreclosures have occurred and are projected to occur in rural areas far away from the urban Charlottesville/Albemarle core where a majority of cost burdened households reside. Resettling these households would simply trade a housing cost burden for a transit cost burden. Finally, the expected recession associated with the outbreak of COVID-19 means localities will likely face significant budget cuts, making it unlikely they will be able to provide a new land bank with the financial support it needs. However, recognizing that if economic conditions do change, a land bank may be more feasible, the TJPDC should work to improve data collection on tax foreclosures and reform Virginia's land bank enabling legislation.

# Contents

# Client Profile

Formed in 1972, the Thomas Jefferson Planning District Commission TJPDC is an advisory planning body that represents the localities of Virginia's Planning District 10. The TJPDC provides

- strategic planning services to these governments on topics, such as housing and transportation
- acts as a coordinating body for localities
- provides a multitude of services such as assisting in grant applications or providing mapping and information data.

The TJPDC is headed by a 12-person commission, more than half of which are local elected officials from the six localities. The TJPDC is funded through a combination of contributions from local governments, private foundations, state and federal sources, and contract services (Thomas Jefferson Planning District Commission, n.d.).

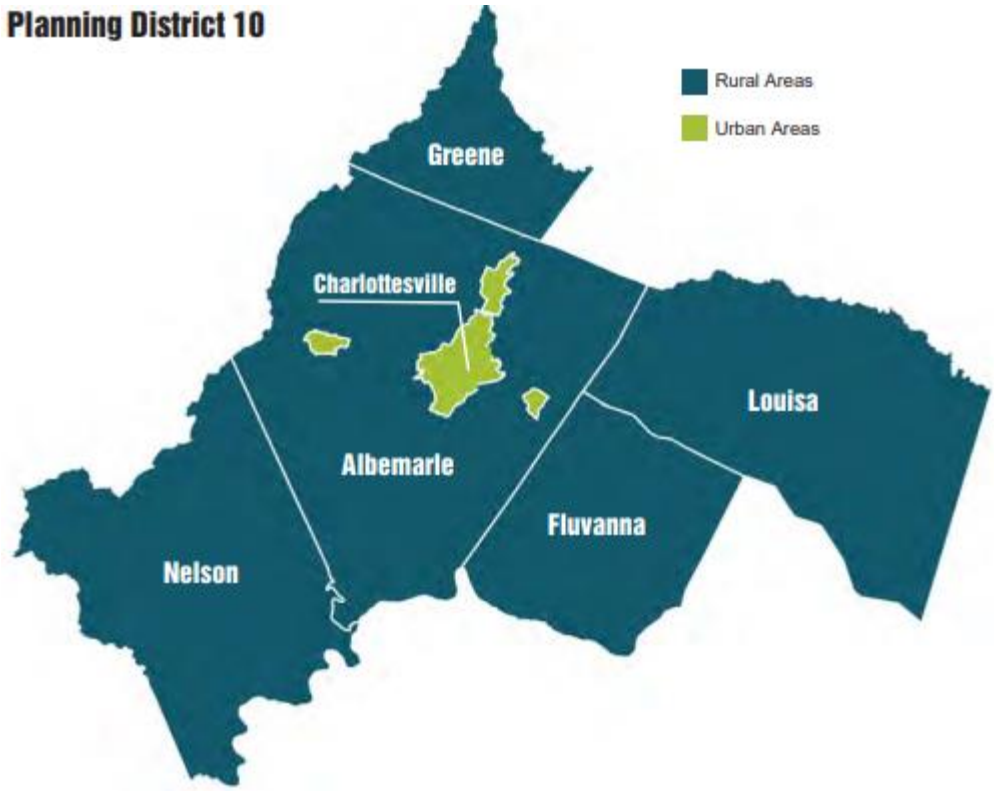


**FIGURE 1: PLANNING DISTRICT 10. CHART SOURCE: PARTNERS FOR ECONOMIC SOLUTIONS, 2019.**

# Background

## Shortage of Affordable Housing in Planning District 10

Planning District 10 is facing a shortage of affordable housing. In Charlottesville and Albemarle alone, 9,000 households pay more than 30% of their income on housing; between Fluvanna, Greene, Louisa, and Nelson, another 2,000 are cost burdened, bringing the total up to 11,000 households, roughly 10% of the households in the planning district (Partners for Economic Solutions, 2019).

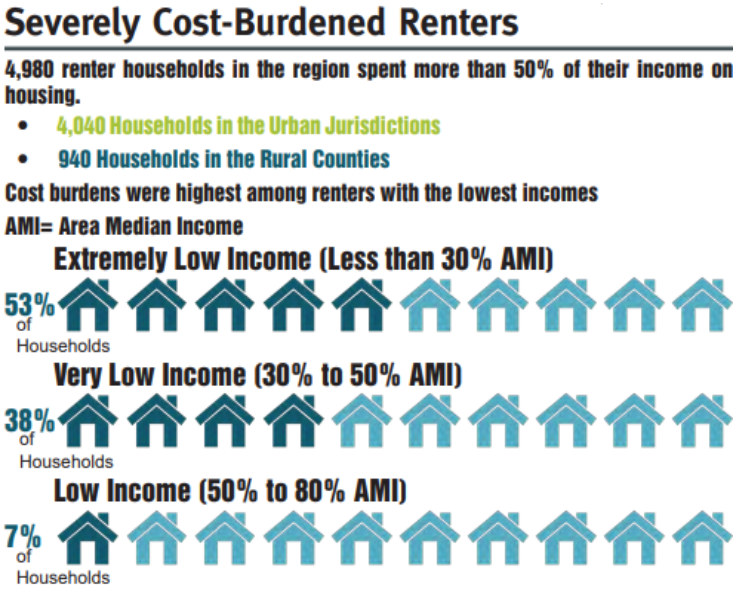


**FIGURE 2: COST BURDENED RENTER HOUSEHOLDS IN PLANNING DISTRICT 10. CHART SOURCE: PARTNERS FOR ECONOMIC SOLUTIONS, 2019**

Of particular concern is the number of low-income households that are cost burdened or severely cost burdened. When accounting for households classified as extremely low income (those that earn less than 30% of area median income), 53% of renter households and 47% of owner households are severely cost-burdened. Charlottesville and Albemarle had the highest shares of severely cost burdened low-income rental households, whereas Fluvanna had the highest share of severely cost burdened low-income owner households. (Partners for Economic Solutions, 2019).

## Race and Affordable Housing

Statistics regarding the relationship between cost burden and race in planning district 10 are unavailable. However, black households have a lower median income relative to other demographics income in all six localities. Hispanic households a lower median income in every locality but Greene and Nelson counties (Census Bureau, 2013-2017). Considering that minority households have a lower-than-the-median household income and that households with low incomes have a high likelihood of being cost burdened, it seems safe to assume that a large portion of cost burdened low income households are minority households.

## Effects of High Housing Costs

High housing costs are associated with significant negative outcomes for households. In order to make ends meet, households will either purchase less food or substitute healthier diets with cheaper, less nutritious foods (Joint Center for Housing Studies, 2017). Cost-burdened families have fewer savings; a 2015 study found that while non-burdened renters had a median of $1000 in savings, cost burdened renter households had a median savings of $10 (Pew Charitable Trust, 2018). Cost burdened families also make significant cuts to health expenditures; higher housing prices are associated with worse health conditions and delayed medical care (Metzker and Schwarz, 2015). For low income households, living in an area with high housing prices is associated with worse cognitive skills for children (Newman, 2015). Lastly, cost burdened families may be forced to choose inadequate housing, potentially exposing members to health risks, like lead or mold (Joint Center for Housing Studies, 2017). Cost burdens present a significant problem to Planning District 10 households, particularly those who are of low or extremely low income.

## Affordable Housing Construction in Planning District 10

Local governments and nonprofits are attempting to meet the demand for affordable housing. Some of the rural counties, specifically Fluvanna, Louisa, and Nelson, have established non-profit development foundations or corporations that provide some forms of housing assistance to low-income residents. However, the assistance provided by these entities is mainly directed towards rehabilitating existing housing stock or providing renters with maintenance assistance (Conway, 2019; Louisa County, n.d.). These counties, along with Greene, which lacks a non-profit developer, rely mainly on private development for the construction of new affordable housing. Of all the localities, Charlottesville has had the greatest public investment in affordable housing construction. Charlottesville established an affordable housing fund in 2008 and has appropriated roughly $1,000,000 annually into the fund since then; between 2008 and 2016, city investment contributed to the construction of approximately 800 affordable housing units (Yager, 2017).

Private investment in the construction of affordable housing units in Planning District 10 has been facilitated through the use of the Federal Low-Income Housing Tax Credit (LIHTC); 28 developments between 1988 and 2017 received an LIHTC credit, resulting in the creation of 1,967 affordable units (Partners for Economic Solutions, 2019). At the local level, Charlottesville requires that developers seeking a special use permit either donate to the city's affordable housing fund or reserve a certain percentage of units in the development for low income renters; most developers choose to donate (Yager, 2017). Albemarle has a similar requirement that developers offer a certain percentage of total units to low income buyers for 90 days, but as of 2019, the county has not established an affordable housing fund (Partners for Economic Solutions, 2019). While Charlottesville has directed some public investment towards the

construction of affordable units, all localities appear to rely primarily on private or non-profit developers for the construction of affordable housing.

The following are two major non-profit development entities that are involved specifically in the construction of new affordable housing in Planning District 10.

### Thomas Jefferson Community Land Trust (TJCLT):

Founded in 2008, the TJCLT develops affordable housing through the CLT model, which involves acquiring property and signing a long-term lease with a developer to build an affordable unit, while retaining ownership of the underlying land (Thomas Jefferson Community Land Trust, n.d.). The TJCLT has developed approximately 12 properties since 2008 (C. Jacobs, personal communication, 2020).

### Habitat for Humanity of Greater Charlottesville

A subchapter of the larger national organization, Habitat for Humanity of Greater Charlottesville, is a nonprofit corporation that focuses on providing low-income families with a path to home ownership. Habitat's model relies on partnering with these families, allowing them to contribute to the physical construction of their home in exchange for a low-cost loan to purchase said house. Habitat constructs approximately 20 homes annually (Habitat for Humanity, 2012). In addition, Habitat also assisted in the development of the Southwood Mobile Home Park in Albemarle County, a multistage, multi-home development project.

Given the continued existence of the housing crisis in the region despite the combined efforts of government and non-profits, it is clear new tools are needed. One such tool is an affordable housing land bank.

## What is a Land Bank?

A land bank refers to either a governmental or non-profit entity that acquires tax delinquent and/or vacant properties with the goal of putting that property towards a more productive use. Land banks are most commonly used to redevelop older, distressed neighborhoods, transferring deadweight, vacant properties to new owners. Land banks are therefore more common in larger localities with significant amounts of tax delinquent/vacant property; for example, the Detroit Land Bank, one of the largest in the country, holds approximately 95,000 properties (Runyan, 2018). However, land banks can be used for other purposes, such as increasing a neighborhood's stock of affordable housing; it ultimately depends on how the property is developed (Center for Community Progress, n.d.).

Land banks are typically granted special powers to acquire property. Specifically, the land banks can negotiate directly with local governments to acquire vacant or tax delinquent property that has been seized by the locality, clear back taxes and titles on those properties, and hold those properties tax-free. Land banks are not designed to hold property in perpetuity or develop property. Instead land banks typically hold on to a given property parcel between 3-5 years before passing it along to a responsible private owner (Center for Community Progress,

n.d.). When it comes to monetary resources, Land banks can be funded through several sources including: appropriations from state, local, or federal governments, foundation grants, private gifts, or from the revenues they gain by selling held land (de Wit, n.d.).

## Can a Land Bank Be Used to Address a Lack of Affordable Housing?

Traditionally, land banks have been used less to increase an area's stock of affordable housing and more to assist in dealing with urban decay and lack of investment (Alexander, 2008). The traditional approach entails a land bank ensuring that any property it acquires is sold to an entity, private or public, that has the ability to redevelop it. Comparatively, ensuring that property is used primarily towards increasing the stock of affordable housing requires a much more stringent and careful review of potential buyers, as well as much greater involvement in the redevelopment of property.

However, there is a strong consensus that land banks need not be limited to basic redevelopment. As researcher Frank Alexander notes, the flexibility that land banks have to distribute land parcels makes them well suited to carry out functions as diverse as preserving greenspace for future parkland and preventing gentrification. Alexander includes increasing affordable housing stock, both in terms of rental units and single-family homes, in the potential functions of land banks (Alexander, 2008). Theoretically, there is no reason why a land bank could not be used to increase an area's stock of affordable housing. Figure 3 shows a theoretical model for how a land bank could facilitate the construction of affordable housing.

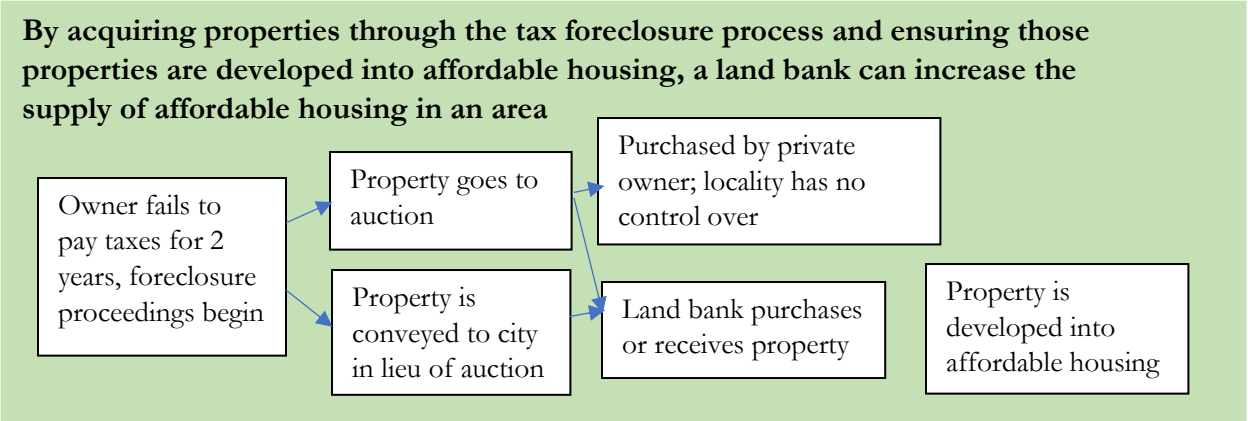


**FIGURE 3: MODEL OF AN AFFORDABLE HOUSING LAND BANK**

In terms of practical examples, there are quite a few land banks that have made the construction of affordable housing a priority. The Atlanta Land Bank, when first created, was focused mainly on facilitating the construction of affordable housing (Alexander, 2015). The MWCLT has outlined the creation of affordable housing as its main priority (Maggie Walker Community Land Trust, 2019).

Lastly, Virginia's Land Bank Entities Act expressly allows land banks to prioritize the creation of affordable housing when dispensing properties (Virginia Code § 15.2-7508). Thus, there is no

statutory barrier against a land bank being specifically used for the creation of affordable housing in Virginia nor would it be outside the bounds of previous land bank applications.

### Historical Development of Land Banking

In their comprehensive review of American land banking, the Center for Community Progress outlines three generations of land banks. The first generation of land banks emerged in the early seventies during the height of urban decline and the beginning of deindustrialization in the Midwest. St. Louis (1971) and Cleveland (1976) were the first two cities to create modern land banks and were later followed by Louisville (1989) and Atlanta (1991). Each of these cities created these land banks to resolve issues surrounding tax delinquent properties that, due to tax liens outweighing the properties market value or a lack of interest among private developers, were either sold off to owners uninterested in investment or left to revert to the city government for care. In order to resolve these issues, these cities turned to land banking; however, due to a reliance on city governments for funding, a lack of intergovernmental cooperation, and state statutes limiting their ability to acquire properties in the tax foreclosure process, these land banks had mixed success (Alexander, 2015).

The Center for Community Progress differentiates the second and third generation of land banks, as those were implemented in conjunction with a comprehensive reform of the respective states' tax foreclosure laws. These reforms, such as the one passed by Michigan in 1999, focused on streamlining the tax foreclosure process, allowing localities to conduct bulk operations when it came to dealing with their inventories of tax foreclosed properties and requiring all interested parties be notified in a tax foreclosure sale. These reforms were also accompanied by more extensive land banking statutes, granting these land banks greater powers to intervene in the tax foreclosure process and more sustainable political structure. For example, Michigan and New York both allow land banks to recoup 50% of the property taxes on properties returned to productive, taxable use for five years (Alexander, 2015). Ohio's land bank statute, implemented in 2009, actually empowered land banks with the ability to foreclose on tax delinquent properties and—after the owner has been notified and still fails to pay off the lax lien on the property—to transfer ownership of that property to the land bank without a public auction (Fitzpatrick, 2009). It should be noted that land banks emerged primarily as a response to urban decay/disinvestment; as this project discusses later, these conditions may not be present in Planning District 10 to the extent that they were/are in Midwestern cities in the Rust Belt (Alexander, 2015).

## Land Banking in Virginia

### The Land Bank Entities Act

Before 2016, localities in Virginia lacked the statutory authority to establish land banks. That changed with the passage of the Land Bank Entities Act, which created the statutory framework for land banking in the state.

### Creating a Land Bank

Under the Land Banking Entities Act, any local government or number of local governments may pass ordinances creating a land bank entity to assist in dealing with tax delinquent, abandoned, and vacant property. The adoption of an ordinance must be preceded by a public hearing, and all land banks must be governed by a board of directors with a minimum of five members. Furthermore, if multiple localities participate in the creation of a land bank, each of those localities must be represented by a minimum of two directors on the board. The statute allows for localities to also grant the powers of a land bank to an existing non-profit (Virginia Code § 15.2-7500; § 15.2-7503).

### Powers and Funding of a Land Bank

Under the act, local land banks are empowered to:

- Borrow funds,
- Enter into contracts,
- Procure insurance for losses and debts,
- Invest funds at the discretion of the board,
- Acquire, modify, lease and sell real property as they see fit, and
- Accept grants and donations from any source (Virginia Code § 15.2-7506).

The statue lays out three generally accepted sources of funding for a land bank:

- Grants and loans from any public or private source,
- Payments for services rendered, rent or lease payments, income from investments, or income from any other lawful activity, and
- Up to, but no more, than 50% of the property taxes collected on property returned to productive use by a land bank for up to 10 years (Virginia Code § 15.2-7509).

## Tax Foreclosure in Virginia

As previously outlined, tax foreclosure is the main process through which land banks acquire property. Under Virginia law, in order for land to qualify as tax delinquent, the owner must have failed to pay property taxes for two full years or, in case a structure on that property is classified as condemnable, a nuisance, derelict, blighted, one full year (Virginia Code § 58.1-3965). Once all interested parties have been notified and been given time to appeal the proceedings, the property will go to sale at a public auction. There do not appear to be restrictions on who the purchasers can be, meaning both public and private land banks may purchase a property at auction. Once the locality recoups the unpaid taxes from the value of the sale, any value left over is returned to the former property's owner. The purchaser of that property then receives the property with a clean title (Virginia Code § 58.1-3967).

While most tax foreclosure sales do take place at an auction, Virginia law does allow for a different type of "direct sale" under certain circumstances. If a property is tax delinquent, worth $75,000 or less, and if taxes and liens against the property exceed more than 50% of its value or unpaid taxes exceed more than 25%, then a locality may petition a circuit court to appoint a special commissioner to transfer ownership of that property to the locality without going through a public auction process (Virginia Code § 58.1-3970.1). Having reviewed the theoretical underpinnings of land banks in Virginia, it is also worthwhile to discuss some of the existing land banks in the state.

## Existing Land Banks in Virginia

Since the enactment of the Land Banking Entities Act, it appears there are three planned or currently operational land banks in the state. Each of them are in their infancy (as land banks were enabled just a few years ago) and mainly vary in terms of their organizational structure.

### The Chesapeake Land Bank Authority

Formed in 2018 by the City of Chesapeake, the Chesapeake Land Bank Authority is a government land bank focused on the redevelopment of commercial, residential, and industrial properties in targeted areas around the city. For the fiscal year 2019-2020 of operation, the entity was granted $3,000,000 in funding, $500,000 of which was for administrative costs. The operational budget covered the salaries for an executive director, office manager, financial and legal services, and various office expenditures (Chesapeake Land Bank Authority, 2019).

Rather than focusing on facilitating the transfer of property to the private market, the land bank is committed to facilitating redevelopment in line with the economic, environmental, and aesthetic character of the area. To this end, the land bank is focused on acquiring both residential and commercial properties (Chesapeake Land Bank Authority, 2019). Such a broad mandate shows that land banks do not necessarily need to be limited to merely assisting in the transfer of property to new hands, but can be created to fulfill a much broader redevelopment role.

### The Maggie Walker Community Land Trust

A non-profit CLT in the City of Richmond, the Maggie Walker Community Land Trust (MWCLT) was the first community land trust in the country to be designated as a land bank when the city did so in 2018. This model shows particular promise for the construction of affordable housing as it combines the relative ease with which land banks can acquire land with a community land trust's ability to ensure property remains oriented towards a community need in perpetuity (Davis, 2012). In the case of the MWCLT, that primary purpose is the construction of affordable housing. The MWCLT has also named preserving urban greenspace, encouraging commercial redevelopment, and facilitating that growth of urban agriculture as subordinate purposes (Maggie Walker Community Land Trust, 2018).

The MWCLT is still in the initial stages of property acquisition but is planning to acquire between 50 and 100 properties annually. This will mainly be through low-cost, direct sales with the City of Richmond, as the MWCLT's relatively small budget prohibits them from engaging in large scale property acquisitions (Maggie Walker Community Land Trust, 2018).

### The Danville Land Bank

The non-profit Danville Neighborhood Redevelopment Corporation (DNRC) recently received authorization from the City of Danville to act as the locality's land bank (Crane, 2019). However, the DNRC is still finalizing its role and has not yet begun to acquire properties (E. Cole, personal communication, 2019).

## Is a Regional Approach Appropriate?

The growth of urban areas in the past century has created a new housing ecosystem as outlying rural areas have become increasingly intertwined with urban cores (Ingram, 1998); to quote researcher Peter Salsich, "Urban development is now regional development" (n.d.). This phenomenon is explained by the fact that there is a strong linkage between outcomes in local housing markets and the larger regional economy (Hwang and Quigley, 2006). This means that, even though housing is a local issue, planning must be adopted at a regional level. Similarly, even though Charlottesville is a relatively small city, Planning District 10 exhibits this urban regionalization. Charlottesville and Albemarle are the economic centers of the wider region. Over 1,400 workers commute from Augusta County alone. While exact numbers are not available, it is safe to assume that many thousands more workers commute from the outlying counties of Planning District 10 into Charlottesville and Albemarle (Partners for Economic Solutions, 2019). The economic integration of the region means that planning cannot be focused on one single jurisdiction; the housing needs of Nelson and Louisa are intertwined with the economic character of Charlottesville and Albemarle. A regional land bank has the scope necessary to consider this integration when planning property acquisition and development.

## Potential Obstacles to Land Bank Success

### Can Land Banks Operate in Rural Areas?

As Figure 1 above shows, Planning District 10 is predominantly rural; land banks have historically been instituted in more dense urban areas (Western Land Conservancy, n.d.), but there is some research on the applicability of land banks in rural contexts. A proposal on creating a land bank for the rural Brazos Valley in Texas found that there were no rural-specific impediments that would hinder a land bank from operating effectively outside of Texas foreclosure laws (Jourdan, van Zandt, and Adair, 2010). Similar research has found that, while hampered by specific statutes, rural areas in Arkansas and Missouri could greatly benefit from regional land banking (Johnson, 2017). The rural nature of Planning District 10 should not be a detriment to a potential land bank; the local real estate market, however, might.

## Underlying Economic Conditions

While land banks have had a wide variety of purposes land banks have historically been most "successful" in economically depressed areas with high concentrations of tax-delinquent properties. The surrounding real estate market is often so weak that the value of these properties cannot justify private investment, meaning a land bank is often the only way a property can reenter the market (Alexander, 2015). Neither of these conditions are present in the greater Charlottesville real estate market.

First, the rate of tax delinquency appears to be relatively low. While the rate of tax delinquency in the region was not able to be ascertained, this can be inferred through the low frequency of tax foreclosure sales regionwide. Since 2010, an average of 1.8 properties have been sold through the tax foreclosure process annually in the city of Charlottesville and an average of 6.4 annually in Albemarle county. A lack of complete data from the four rural counties makes estimates there more difficult, but rates have ranged from an average of 20.1 tax-foreclosure sales annually in Louisa to 1 annually in Fluvanna. Assuming Nelson and Greene have rates somewhere within this range, there are between an average of 30 and 70 properties available for acquisition every year, an extremely small number. Comparatively, the first generation of land banks in places like Atlanta or Cleveland usually acquired something on the scale of 500 properties annually and other land banks like the MWCLT somewhere in the range of 50-100 (Alexander, 2015; Maggie Walker Community Land Trust, 2018).

Secondly, while real housing prices in the region have declined slightly over the past 15 years there is no evidence that the real estate market is extremely weak in any of the counties (for housing prices in real 2019 dollars can be found in Appendix C). The region has experienced steady economic and population growth since 2012. Rental rates, a general indicator of housing demand, rose by an average of 5.8% regionwide between 2016 and 2018. Nominal prices for single family homes have risen consistently in Albemarle and Charlottesville, and while this has not been true in Fluvanna, Nelson, and Greene, the decline in prices was not precipitous enough to indicate a weak market (Partners for Economic Solutions, 2019). Generally, the growing economy and population indicate that the regions housing market is relatively strong and that subsequently demand for tax delinquent parcels will be high. Not only will this mean that fewer properties will go through tax delinquency, as property owners are further incentivized to pay their taxes, but that competition for properties at auction will mean high acquisition costs. High demand may also disincentivize localities from engaging in direct sales; MWCLT has already experienced such an issue in Richmond (R. Adams, personal communication, 2020). Altogether, current economic conditions in the planning district indicate that not only are there relatively few properties for a land bank to acquire but that it may face significant competition for what properties are available. However, the COVID-19 outbreak may

change conditions in the market and the projections in this report attempt to account for that possibility.

## Legal Barriers

Virginia's land banking statute represents a mixture of characteristics from all generations of land banks. Unlike many of the first generation of land banks, Virginia's statute grants them significant independent powers, such as the ability to rent or lease property or borrow money (Alexander, 2015). Additionally, the statute also allows land banks to prioritize the dispensation of property for purposes like the construction of affordable housing. The power to purposefully dispense property to fulfill community goals was notably absent from land banks in states like Ohio and should result in land banks more in line with community needs. (Fitzpatrick, 2009). Virginia's property-tax-recapture statute grants land banks significantly more financial stability than first generation land banks enjoyed. Virginia also has relatively strong foreclosure laws in some respects. For example, purchasers of tax foreclosed property receive a clean title, making development of tax foreclosed properties much easier. This is important, as issues with clearing titles in other states have hampered the effectiveness of land banks (Alexander, 2015).

However, when compared to second and third generation land banks, Virginia's statute leaves land banks relatively disempowered. Notably absent from the statute is any power specifically relating to the state's tax foreclosure process. This means that, unlike the second and third generation land banks, land banks in Virginia have no special powers to acquire tax foreclosed properties. This issue is further compounded by other aspects of Virginia's tax foreclosure laws. Virginia localities are already severely limited in their abilities to use tax delinquent property to achieve community goals; in all but very strict circumstances, localities must sell tax delinquent property at public auction; it is likely most properties that go through tax foreclosure do not meet the requirements laid out under Virginia Code § 58.1-3970.1. This means that a land bank will have to compete against other entities in a public auction to acquire tax delinquent properties, driving up the costs of acquisition and driving down the likelihood of acquiring an individual price of property. Compared to land banks in Michigan or Ohio, which often have the ability to acquire tax delinquent properties through enacting the foreclosure process themselves or have priority when it comes to acquiring tax delinquent properties, Virginia's land banks face barriers to actually acquiring property.

Knowing that a land bank may be an effective tool to help address the regional affordable housing crisis, the following section presents three different forms of land banking for analysis.

# Policy Alternatives

## Alternative 1: Forming a Land Bank as a Government Authority

Under the Land Banking Entities Act, localities in Virginia do have the power to constitute a land bank in the form of a government agency. Creating a regional land bank authority would require the consent of each of the six corresponding localities in the TJPDC. Further, constituting a land bank as government agency would also require joint funding mechanism between the six localities to pay for labor, administration, and the acquisition of properties.

## Alternative 2: Allowing a Non-profit to Apply for Land Bank Status

The Land Bank Entities Act also allows Virginia localities the power to grant land bank status to local non-profits. Two of the three other land banks in Virginia, the Richmond Land Bank and the Danville Land Bank, are both run by non-profits. Much like establishing a government land bank, any non-profit seeking to become a TJPDC regional land bank would need the consent of each of the six localities. However, a funding agreement may not be necessary, and the non-profit could potentially rely on its original funding sources to operate. There are a number of affordable housing nonprofits in the region, such as the Piedmont Housing Alliance or the Charlottesville Low Income Housing Coalition that could work as land banks.

## Alternative 3: Partnering a Land Bank with a Community Land Trust

Unlike the previous two alternatives that focus only on the creation of a stand-alone land bank, this option would entail creating a land bank that also partners with CLT. A land bank/CLT combination may be an especially effective method of increasing a region's stock of affordable housing. This is because once a land bank sells a property to a private developer or an NGO like Habitat for Humanity, the land bank loses all control over its future. As an affordable property is bought and sold, its price will eventually return to the market level. However, because a CLT retains ownership of the underlying land, it can retain much tighter control over the housing unit and ensure it does not become unaffordable. Partnering with a CLT is an effective way of ensuring that affordable housing created through a land bank's actions remains affordable in the long term (Davis, 2012). The TJCLT is the only operating CLT in the region; therefore, this option essentially means naming the TJCLT as the regional land bank, unless another is formed.

# Evaluative Criteria

There are five criteria on which each land bank alternative are evaluated. Notably, the first two criteria, property availability and geographic equity, apply to the larger concept of land banking, rather than an individual model of a land bank. The other three criteria, political feasibility and cost effectiveness apply individually to each model of land banking. All are ranked as low, medium, or high. There is no simple threshold to determine whether any of the given models of land bank are feasible. Instead, the feasibility of a given model will be a qualitative estimate based on how well it preforms across all five criteria.

## Property Availability

While each individual land bank may be more or less effective at acquiring properties and facilitating their development, their individual effectiveness is limited by the total number of properties available to acquire in a given year. If there are plenty of properties available for acquisition, a land bank may be a feasible way to address the affordable housing crisis. Comparatively, if there are only a few properties available, a land bank may not be an effective use of resources regardless of how effective it is at acquiring them. This is especially true because of the tax foreclosures that took place over the past 10 years in Planning District 10, only a few of the ready develop properties were zoned for multi-unit development. This means that the number of properties available for acquisition has an almost one to one relationship with the number of affordable units that can be built. Determining future property availability requires estimating the number of properties over the next 15 years and, in order to account for economic uncertainty, across three different scenarios: continuation of the status quo, recession and recovery, and recession and decline. A full accounting of the methodology behind each scenario and the projections can be found in the appendices but scenario 2, the recession scenario, is the most likely to occur.

Some local governments like Charlottesville and Louisa have inventories of residentially zoned property that could be donated for a land bank. However, this analysis excludes these properties for two reasons. First, these properties cannot be used to justify the existence of a land bank because local governments could donate these properties to nonprofits/developers for affordable housing right now without using a land bank as an intermediary. Secondly, these property holdings are of limited size and cannot sustain a land bank for a significant amount of time. As such, these properties are excluded from this analysis, which focuses on tax foreclosed properties only.

## Geographical Equity

This criterion measures whether a land bank provides each locality within Planning District 10 with aid equivalent to its need. For example, an inequitable land bank would be one that provided more properties to the rural counties, even though the largest number of

residents living in unaffordable housing live in Charlottesville and Albemarle. This measure is based on the distribution of properties within the planning district as well as any other factors that may affect how assistance is provided.

## Effectiveness

This criterion measures how easily a land bank may acquire property and facilitate its development into affordable housing. Estimates for this criterion are based on qualitative judgements regarding each land bank's structure.

## Cost

For this project, cost will be defined solely in terms of annual monetary expenditures for a land bank on behalf of local governments. There are two main categories of costs associated with a land bank: administrative costs and operating costs. Administrative costs are those associated with the basic administrative spending and includes personnel, office space, basic office supplies, and travel expenses. Estimates for this are taken from the Chesapeake Land Bank Authority Budget. Operating expenses refer to the costs associated with the acquisition of properties, mainly the auction price. Virginia statute does allow for the direct sale of a tax foreclosed property, meaning a locality could acquire and then donate/sell a property to a land bank for a low price. While this would certainly affect acquisitions, it is unclear how many properties that have gone through the tax foreclosure process in Planning District 10 actually meet the conditions for this process. In order to account for this uncertainty, when projecting for cost, all properties will be assumed to go through an auction. The methodology for estimating these costs is found in Appendix D.

## Political Feasibility

This criterion is a measure of how easy or difficult it would be for a land bank to acquire the funding and governmental approval to operate. This is a qualitative criterion and is based on certain factors, such as the extent to which a given alternative requires funding from local governments within the planning district or takes advantage of existing institutions. This analysis is based on the likely emergence of a recession due to the COVID-19 outbreak.

# Policy Evaluation

## Property Availability: Low

Property availability is projected to be low. This is partially due to the fact that, given likely economic conditions, there are simply not that many properties available for a land bank to acquire. The Richmond Land Bank plans on acquiring between 50-100 properties for redevelopment annually over the next three years (Maggie Walker Community Land Trust, 2018). By comparison, only under the most dire and unlikely scenarios could a TJPDC regional land bank acquire close to that number of properties, without acquiring all foreclosed properties available in a given year. Table 1 shows projections for the number of properties available and the costs of acquiring them in each of the three scenarios broken down into 25% increments (i.e. in scenario one, acquiring 25% of all properties available in a given year would mean purchasing 5 properties for a total of $100,290.) Only under the most severe economic conditions do 50+ properties become available.

Table 1: Annual Average Number of Available Properties and Acquisition Costs in 2019 Dollars in Scenarios 1-3

| | 25% of Properties | | 50% of Properties | | 75% of Properties | | 100% of Properties | |
|---|---|---|---|---|---|---|---|---|
| Scenario | Number | Total Price ($) | Number | Total Price ($) | Number | Total Price ($) | Number | Total Price ($) |
| 1 | 5 | 100,290 | 10 | 200,581 | 15 | 300,871 | 20 | 401,161 |
| 2 | 9 | 128,366 | 15 | 256,731 | 23 | 385,097 | 31 | 513,463 |
| 3 | 15 | 212,667 | 30 | 425,334 | 45 | 638,001 | 60 | 850,668 |

## Geographic Equity: Low

Across all models of land banking geographic equity is low. Each locality that participates in a land bank must have a minimum of two representatives on the board of directors as a part of the statutory requirements laid out in the Land Banking Entities Act. This would ensure that each locality has a roughly fair share of control over the operations and administration of the bank.

The low score comes from the distribution of tax foreclosures in the region. This distribution would make any land bank inherently inequitable for some area residents. As shown in Table 2, an overwhelming majority of the tax foreclosure sales in the past decade took place in Louisa. This is good for low income residents of Louisa; however, the largest number of cost burdened households live in Albemarle and Charlottesville. As these households presumably work in these areas, requiring them to move out to Louisa to live in affordable housing would impose transit costs in the range of $750 per month, roughly $9,000 per year, on already vulnerable families (Partners for Economic Solutions, 2019). Essentially, a land bank

Table 2: Total Number of Accessible, Usable Properties by Year and County, Estimated

| Year | Albemarle | Charlottesville | Fluvanna | Louisa | Greene | Greene | Total |
|---|---|---|---|---|---|---|---|
| 2010 | 2 | 0 | 1 | 0 | 5 | 5 | 12 |
| 2011 | 0 | 1 | 1 | 0 | 5 | 5 | 11 |
| 2012 | 2 | 3 | 1 | 0 | 5 | 5 | 15 |
| 2013 | 1 | 0 | 1 | 1 | 5 | 5 | 12 |
| 2014 | 2 | 1 | 1 | 6 | 5 | 5 | 19 |
| 2015 | 4 | 0 | 1 | 0 | 5 | 5 | 15 |
| 2016 | 1 | 0 | 0 | 11 | 5 | 5 | 22 |
| 2017 | 3 | 0 | 3 | 3 | 5 | 5 | 19 |
| 2018 | 0 | 5 | 1 | 12 | 5 | 5 | 28 |
| 2019 | 2 | 0 | 0 | 15 | 5 | 5 | 27 |
| Total | 17 | 10 | 10 | 48 | 50 | 50 | 185 |

that resettled households from Charlottesville and Albemarle into the rural outlying counties would simply be replacing a housing cost burden with an equally heavy transit cost burden.

## Alternative 1: Government Land Bank

### Effectiveness: Moderate

A government land bank would be moderately effective at facilitating affordable housing construction relative to other land banks. Part of this comes from the fact that, by nature of being a government body funded by localities, it is likely that a government land bank could receive greater funding relative to nonprofit land banks, allowing them to acquire more properties. Another way to increase effectiveness for any land bank would be for a locality to engage in the "direct sale" process to sell qualifying properties directly to a land bank. A land bank would then be able to acquire this property without competing and likely for much lower cost. Relative to nonprofit land banks, a government land bank would have an easier time convincing local government to engage in this process (J. Rutherford, personal communication, 2020). At the same time, the expected recession will make localities much more hesitant to sacrifice the revenues they could get by selling these properties at judicial auction. Localities may therefore be hesitant to engage in direct sales with any land bank. This has already occurred in Richmond, where the Richmond Land Bank was unable to acquire several properties when the City of Richmond shifted these properties back to auction in order to cover a budgetary shortfall (R. Adams, personal communication, 2020).

Finally, while a government land bank may have an easier time acquiring properties it has relatively no control over how the properties it acquires are developed into affordable housing. A government land bank would be entirely dependent on developers outside of its control, limiting its effectiveness.

## Cost: High

Of the three forms of land banks a government land bank would have the highest cost. This is due to the fact that localities must shoulder both the acquisition and operations costs for a government land bank. Using the costs of the Chesapeake Land Bank Authority as a template, the bare minimum projected annual operating costs of a land bank are around $266,000 annually. When including funding for legal and financial services, additional services or personnel, and stipends and funding for board of directors' members, that number climbs to $533,000 (Chesapeake Land Bank Authority, 2019) annually. These are further compounded by acquisition costs, which, depending on the scenario and the amount of property acquired, could range from $100,000 to $850,000.

Table 3: Annual Operating Budget of the Chesapeake Land Bank Authority

| Item | Cost |
|---|---|
| Executive Director (Salary, Benefits, Training, Travel) | $137,000 |
| Office Manager (Salary, Benefits) | $75,000 |
| Rent (2 Offices and Conference Room) and Operating Expenses (Utilities, Housekeeping, Internet, Garbage) | $30,000 |
| Office Supplies (Computer Equipment, Software, Paper, Pens, Furniture) | $13,500 |
| Insurance (Indemnity and Risk) | $10,500 |
| Subtotal | $266,000 |
| Board of Directors (Training and Travel) | $10,000 |
| Board of Directors (Stipend) | $8,400 |
| Additional Personnel or Services as Needed | $49,100 |
| Professional Legal Services (Retainer and Services) | $100,000 |
| Professional Financial Services | $100,000 |
| Total | $533,500 |

## Political Feasibility: Low

The political feasibility of a government land bank is low. Setting up a new government agency that has authority to operate across all six localities in Planning District 10 would entail extensive and time-consuming negotiations. Each of the six localities would have to agree on the public shape of the organization, its funding levels, and what part of the funding each of the six localities would be responsible. Once that is agreed upon, each of the localities would have to allow public comment on the proposal and pass the ordinances to legally create the land bank. While each of these localities broadly shares a concern for the common good and is experienced at cooperation, the creation of affordable housing is a much greater priority in some areas than others. For example, Charlottesville has had an affordable housing fund since 2008, whereas Albemarle has just begun to update its housing program (Hays, 2019). As of its proposed FY20201 budget, Albemarle has not created a separate affordable housing fund (Albemarle County, 2020). A Supervisor from Nelson County noted that affordable housing had

not before been a high priority issue for the county (J. Rutherford, personal communication, 2020). At the same time, it is clear that Albemarle and Charlottesville place a higher priority on affordable housing and that other counties are at least aware of it as an issue. The Regional Housing Needs Assessment published last year made it clear that all localities in Planning District 10 had an affordability issue (Partners for Economic Solutions, 2019). In light of this relatively new information if Albemarle and Charlottesville push heavily for the universal adoption of land bank enabling ordinances, they may be able to sway the other counties.

On their own, these issues would only be a moderate barrier to overcome; it is the funding requirement that presents the biggest barrier to political feasibility. The COVID-19 outbreak will mean plummeting tax revenues for localities, as the economy enters a recession (Belz and Sheiner, 2020). As localities struggle to meet their existing financial obligations, it would be very difficult to take on any new financial obligation or allow property tax revenue to be diverted into a land bank (J. Rutherford, personal communication, 2020). A government land bank would require at a minimum hundreds of thousands and potentially millions of dollars in annual funding. While localities may in theory support the creation of a land bank, they would not practically be able to fund one.

## Alternative 2: A Nonprofit Land Bank

### Effectiveness: Low

A nonprofit land bank would have a low relative effectiveness. A non-profit land bank would likely have a smaller budget than a locality funded government land bank and therefore would be able to acquire fewer properties (C. Jacobs, personal communication, 2020; Maggie Walker Community Land Trust, 2020). Additionally, a nonprofit land bank would have a much more difficult time convincing localities to engage in direct sales since it is not a publicly owned entity (J. Rutherford, personal communication, 2020). Finally, a nonprofit land bank would face the same lack of control over development as a government land bank since it would be reliant on other entities to actually develop tax foreclosed properties into affordable housing.

### Cost: Low to Moderate

A nonprofit land bank would have moderate to low cost. While a nonprofit land bank may incur same operations and acquisition costs as a government land bank local governments would not have to bear all of the costs. Local governments would have to support some of the acquisition's costs associated with a land bank, since it appears most of the major housing nonprofits like Habitat for Humanity and Piedmont Housing Alliance rely on local government funds (Habitat for Humanity of Greater Charlottesville, 2019; City of Charlottesville, 2019; Albemarle County, 2019). However, the cost to local governments would be much lower than if it was responsible for bearing 100% of administrative and acquisition costs.

### Political Feasibility: Low to Moderate

A nonprofit land bank would have low to moderate political feasibility. Much like a government land bank, it would require each of the six localities to agree to create a land bank and go through the approval process. This, in and of itself, represents a barrier to implementing a land bank. However, unlike a government land bank, a nonprofit land bank is not burdened by large costs that localities would be required to take part in. This would certainly reduce institutional opposition that a land bank might face during creation. Additionally, there are a number of nonprofits in the area, like the Piedmont Housing Alliance or the Charlottesville Low Income Housing Coalition, might be able to serve as a land bank.

At the same time, a nonprofit land bank would require at least some funding from localities. Again, in light of the expected recession and decline in local government revenues, it is exceedingly unlikely that local governments could support a new expenditure for a land bank or would be willing to grant land banks the power to capture property taxes (J. Rutherford, personal communication, 2020). While a nonprofit land bank could rely on other funding sources like private donations or government grants, obtaining these grants is not assured and, if existing nonprofits are to be seen as an example, could not fully fund a land bank (Habitat for Humanity of Greater Charlottesville, 2019). Even though a land bank may require less funding from localities, the funding it would require still represents a serious impediment to establishing a land bank.

## Alternative 3: TJCLT Land Bank

### Effectiveness: Low to Moderate

As a nonprofit, a TJCLT land bank would face the same barriers to effectiveness laid out in Alternative 2. However, the TJCLT land bank receives a boost in effectiveness because the CLT ownership/land lease model. First, because the TJCLT would be the one developing these properties, it could take much greater steps to ensure that every property it acquires is developed into affordable housing. CLTs typically own the land and lease tenants the right to build improvements; the land and improvements cannot leave the CLT's control unless they willingly sell, ensuring that affordable homes remain affordable regardless of market conditions. This model would be subject to the TJCLT's limited capacity to develop the properties due to its small size; the TJCLT's development capacity is somewhere between four and six properties annually (C. Jacobs, personal communication, 2020). The TJCLT would therefore need to rely on non-profit/outside developers for at least some of the properties they acquire, meaning the boost in effectiveness derived from the CLT ownership model is limited.

### Cost: Low to moderate

A community land trust would have low to moderate cost. As a CLT is a nonprofit, all of the reasoning outlined in the cost section for Alternative 2 apply here as well.

## Political Feasibility: Low

A TJCLT land bank would have low political feasibility. As the TJCLT is a nonprofit, everything that applied for alternative two would apply here as well. For example, the TJCLT required cooperation and funding from the city of Charlottesville on a number of units they have developed in the past (Our Homes/Homeowners, n.d.). However, the CLT land bank model has a lower political feasibility rating because of the characteristics of the TJCLT. The TJCLT has an operating budget of about $100,000 and has had difficulty in the past acquiring funding to develop properties (C. Jacobs, personal communication, 2020). This means that, if the TJCLT were granted powers to operate as a land bank it would require extensive funding from the government, perhaps even beyond what other non CLT nonprofits might require. As discussed previously, such funding will not be available. Additionally, the Thomas Jefferson Community Land Trust is the only CLT operating within the planning district. If they are unwilling or unable to serve as a land bank, this alternative would practically impossible as it would require the creation of a brand-new non-profit.

## Outcomes Matrix

| | Effectiveness | Cost | Political Feasibility | Geographic Equity | Property Availability |
|---|---|---|---|---|---|
| Government Land Bank | Moderate | High | Low | Low | Low |
| Nonprofit Land Bank | Low | Low to Moderate | Low to Moderate | Low | Low |
| CLT Land Bank | Low to Moderate | Low to Moderate | Low | Low | Low |

## Recommendation: A Land Bank is Not Feasible at this Time

No form of land bank should be considered a feasible tool to address the affordable housing crisis at this time due to the low property availability, low geographic equity, and low political feasibility. As shown in Table 1, only in projected scenario three do enough properties become available to reach the 50-100 that most land banks acquire (Alexander, 2005; Maggie Walker Community Land Trust, 2018). Further, even under this unlikely scenario a regional land bank would have to acquire around 75% of the properties that go through the tax foreclosure process every year. Even if the land bank had the funding on hand to acquire those properties, it seems unlikely it could outcompete private bidders to such an extent.

The geographic inequity presents a much greater issue. As previously stated, the average monthly commuting cost from Louisa to Charlottesville (roughly 31 miles) is somewhere around $750 per month or roughly $9,000 per year (Partners for Economic Solutions, 2019). Fluvanna (roughly 23 miles), Greene (roughly 29 miles) and Nelson County (roughly 36 miles) are comparably distant from Charlottesville, so it seems safe to assume that the commuting costs are similar across the rural parts of Planning District 10. For reference, the average monthly HUD payment for Section 8 vouchers in the Charlottesville area is $638, meaning most low-income families only pay slightly more in rent than it would cost to commute from these outlying rural areas (Partners for Economic Solutions, 2019). Even if a sizeable inventory of properties were available, any land bank that operated with this property distribution would only add to low income households' financial burden.

Finally, even if a land bank had a well distributed pool of properties to draw from, the expected upcoming recession means local governments will be unable to provide the necessary funding or sacrifice the property tax revenue for a land bank to operate (J. Rutherford, personal communication, 2020). The combination of these factors makes any form of land bank unfeasible at this time. However, of the land banks that were considered.

# Moving Forward

Unfortunately, no form of land bank is feasible in Planning District 10 at this time. However, there is a chance that this could change if underlying economic conditions significantly worsen. The following are two reforms the TJPDC could pursue to improve the feasibility of a land bank and prepare for future implementation. Notably, neither of these reforms are enough on their own to make a land bank feasible; they will only improve the feasibility of a land bank if underlying conditions change.

## Improving Data Collection

At this moment, of the six localities in Planning District 10, only Charlottesville and Louisa appear to have internal records regarding properties that go through tax foreclosure. Other counties either do not separate their foreclosure records between mortgage and tax foreclosures or rely on the attorneys with whom they contract with to assist with the tax foreclosures to maintain records. This lack of central recordkeeping makes it difficult to determine how many and what kind of properties go through the foreclosure process. If foreclosures were ever to spike, making a land bank more feasible, policymakers would find it difficult to compile relevant data. The TJPDC should encourage localities to maintain centralized, easily accessible tax foreclosure records, so that they can more easily determine the number of tax foreclosures in the planning district.

## Changing Virginia's Land Banking Law

Typically, land banks have some type of power to intervene in the tax foreclosure process to acquire tax foreclosed properties before they go to market or to automatically acquire properties which are not purchased at auction/do not receive a high enough bid (Alexander, 2015). This both makes property acquisition cheaper and easier as land banks do not have to outcompete private bidders. However, under the Land Bank Entities Act land, banks are given no such powers, and therefore, have a much more difficult time acquiring property. If the TJPDC is still interested in creating a land bank, here are two potential reforms that would make it easier for land banks to acquire property:

### Automatic Acquisition

Under this power, land banks automatically acquire any property which remains unsold at a tax auction or does not receive a high enough bid. Land banks in Kentucky, Missouri, and Ohio have this power (Alexander, 2005).

### Preselection

Under this power, land banks would have the ability to pre-select which tax foreclosed properties they want to acquire by notifying the locality. When advertising tax foreclosed properties up for auction, the locality can advertise the pre-selected properties separately from the other pool of properties and note that they have been pre-selected by a land bank. If one of

these pre-selected properties does not sell at auction, that property is conveyed to the land bank for a nominal fee (OHIO REV. CODE. § 5722.04.). Only land banks in Ohio have this power (Alexander, 2005).

The TJPDC should consult with state legislators in the planning district like Del. Rob Bell, Del. Sally Hudson, and Sen. Creigh Deeds to see if they would be amenable to these reforms and willing to enact legislation supporting them. The TJPDC should also work with legislators representing areas where the three other land banks operate (Richmond, Chesapeake, and Danville) as well as with Sen. George Barker, who introduced the Land Bank Entities Act in 2016.

# Appendices

## Appendix A

Table 4 shows the total number of properties, by locality and year, that were sold in the tax foreclosure process. Fluvanna County provided some data; however, due to a prohibitively expensive FOIA charge and the outbreak of the COVID-19 virus, data for years 2010-2014 are missing and the characteristics of what property data was made available, such as value, location, zoning, are also missing. Neither Nelson or Greene stored their records in a single, complete database and those are therefore missing as well.

Table 4: Total Number of Tax-Foreclosed Properties by Year and Locality, Collected Data Only

| Year | Albemarle | Charlottesville | Fluvanna | Louisa | Greene | Nelson | Total |
|---|---|---|---|---|---|---|---|
| 2010 | 2 | 0 | ? | 0 | ? | ? | 2 |
| 2011 | 0 | 1 | ? | 0 | ? | ? | 1 |
| 2012 | 4 | 3 | ? | 4 | ? | ? | 11 |
| 2013 | 9 | 0 | ? | 3 | ? | ? | 12 |
| 2014 | 7 | 1 | ? | 13 | ? | ? | 21 |
| 2015 | 22 | 0 | 1 | 0 | ? | ? | 23 |
| 2016 | 9 | 0 | 0 | 35 | ? | ? | 44 |
| 2017 | 5 | 0 | 3 | 24 | ? | ? | 32 |
| 2018 | 2 | 5 | 1 | 31 | ? | ? | 39 |
| 2019 | 8 | 0 | 0 | 46 | ? | ? | 54 |
| Total | 68 | 10 | 5 | 156 | | | 239 |

Source: FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

However, it would be a mistake to assume that every property in this table could be used by a land bank for the purpose of constructing affordable housing. A number of these properties are not zoned for use or fail to meet zoning requirements. For example, in Albemarle Rural Development Areas, the minimum lot size for a single-family home is two acres; no housing units can be built on properties smaller than that. Large lots (in this case, over five acres) are also unsuited for development both because they cost more to purchase up front and would place a larger tax burden on the owner. Eliminating non-residentially zoned properties, properties that are too large, and those that do not meet zoning requirements leaves the pool of available properties much smaller. Table 5 demonstrates the effect of this restriction.

Table 5: Total Number of Usable Properties by Year and Locality, Collected Data Only

| Year | Albemarle | Charlottesville | Fluvanna | Louisa | Greene | Nelson | Total |
|---|---|---|---|---|---|---|---|
| 2010 | 2 | 0 | ? | 0 | ? | ? | 2 |
| 2011 | 0 | 1 | ? | 0 | ? | ? | 1 |
| 2012 | 2 | 3 | ? | 0 | ? | ? | 5 |
| 2013 | 2 | 0 | ? | 1 | ? | ? | 3 |
| 2014 | 2 | 1 | ? | 6 | ? | ? | 9 |
| 2015 | 11 | 0 | 1 | 0 | ? | ? | 12 |
| 2016 | 3 | 0 | 0 | 12 | ? | ? | 15 |
| 2017 | 3 | 0 | 3 | 7 | ? | ? | 13 |
| 2018 | 0 | 5 | 1 | 14 | ? | ? | 20 |
| 2019 | 3 | 0 | 0 | 26 | ? | ? | 29 |
| Total | 28 | 10 | 5 | 66 | ? | ? | 109 |

Source: FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

Further, not all properties that meet zoning requirements are ready for development. As five of the six localities in the region are predominantly rural, there are many cases where properties that could technically be developed are not connected to public or private roads. Developing these properties would require negotiating access easements with surrounding property owners, a potentially time consuming and expensive process. Table 6 shows the number of properties left when those requiring new easements are removed from the pool; this represents the true number of properties over the past decade that have gone through the tax foreclosure process and could be acquired by a land bank for development.

Table 6: Total Number of Accessible, Usable Properties by Year and Locality, Collected Data Only

| Year | Albemarle | Charlottesville | Fluvanna | Louisa | Nelson | Greene | Total |
|---|---|---|---|---|---|---|---|
| 2010 | 2 | 0 | ? | 0 | ? | ? | 2 |
| 2011 | 0 | 1 | ? | 0 | ? | ? | 1 |
| 2012 | 2 | 3 | ? | 0 | ? | ? | 5 |
| 2013 | 1 | 0 | ? | 1 | ? | ? | 2 |
| 2014 | 2 | 1 | ? | 6 | ? | ? | 9 |
| 2015 | 4 | 0 | 1 | 0 | ? | ? | 5 |
| 2016 | 1 | 0 | 0 | 11 | ? | ? | 12 |
| 2017 | 3 | 0 | 3 | 3 | ? | ? | 9 |
| 2018 | 0 | 5 | 1 | 12 | ? | ? | 18 |
| 2019 | 2 | 0 | 0 | 15 | ? | ? | 17 |
| Total | 17 | 10 | 5 | 48 | ? | ? | 80 |

Source: FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

In order to project the number of properties available in the future, it is first necessary to fill out the missing gaps in the data. For Fluvanna, this is relatively simple as the data shows

there was an average of one property available per year between 2015 and 2019; it seems relatively safe to assume that this held in the previous five years. This is much more difficult for Nelson and Greene as there is no data that might indicate how many properties are available annually. In light of this, the best possible way to estimate would be to look at which of the three areas with complete data is the most similar to these localities and extrapolate from there. Based on median housing price and median income (Zillow Housing Value Index, n.d.; Census Bureau, 2013-2017) . Table 4 shows the total number of tax foreclosed properties in the past ten years by county updated with these assumptions.

Table 7: Total Number of Accessible, Usable Properties by Year and County, Estimated

| Year | Albemarle | Charlottesville | Fluvanna | Louisa | Greene | Greene | Total |
|---|---|---|---|---|---|---|---|
| 2010 | 2 | 0 | 1 | 0 | 5 | 5 | 12 |
| 2011 | 0 | 1 | 1 | 0 | 5 | 5 | 11 |
| 2012 | 2 | 3 | 1 | 0 | 5 | 5 | 15 |
| 2013 | 1 | 0 | 1 | 1 | 5 | 5 | 12 |
| 2014 | 2 | 1 | 1 | 6 | 5 | 5 | 19 |
| 2015 | 4 | 0 | 1 | 0 | 5 | 5 | 15 |
| 2016 | 1 | 0 | 0 | 11 | 5 | 5 | 22 |
| 2017 | 3 | 0 | 3 | 3 | 5 | 5 | 19 |
| 2018 | 0 | 5 | 1 | 12 | 5 | 5 | 28 |
| 2019 | 2 | 0 | 0 | 15 | 5 | 5 | 27 |
| Total | 17 | 10 | 10 | 48 | 50 | 50 | 185 |

Source: FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

## Appendix B

Table 8: Median Tax Foreclosure Auction Sale Price in 2019 Dollars by County and Year

| Year | Albemarle | Charlottesville | Louisa |
|---|---|---|---|
| 2010 | 12173 | n/a | n/a |
| 2011 | n/a | 44427 | n/a |
| 2012 | 11887 | 81059 | n/a |
| 2013 | 24016 | n/a | 25780 |
| 2014 | 25127 | 197201 | 10496 |
| 2015 | 20706 | n/a | n/a |
| 2016 | 47508 | n/a | 23174 |
| 2017 | 49288 | n/a | 3833 |
| 2018 | n/a | 129399 | 17598 |
| 2019 | 10750 | n/a | 17000 |

Source: FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

Nelson, Greene, and Fluvanna had missing or incomplete tax foreclosure data. N/a indicates a year in which no tax foreclosure sales took place.

## Appendix C

Table 9: Median Housing Prices in 2019 Dollars from 2005 to 2019 by County and Year

| Year | Albemarle | Charlottesville | Fluvanna | Greene | Louisa | Nelson |
|---|---|---|---|---|---|---|
| 2005 | 478104 | 302501 | 248004 | 275486 | 249399 | 275979 |
| 2006 | 469133 | 313029 | 261886 | 280597 | 259272 | 284103 |
| 2007 | 478083 | 324890 | 270871 | 290118 | 269169 | 293420 |
| 2008 | 504898 | 342839 | 284958 | 304461 | 282968 | 306049 |
| 2009 | 522941 | 360748 | 296454 | 317020 | 293765 | 315649 |
| 2010 | 517513 | 361038 | 292611 | 312010 | 286673 | 308657 |
| 2011 | 514511 | 368520 | 296303 | 311517 | 289269 | 310597 |
| 2012 | 472466 | 363855 | 290043 | 306743 | 282964 | 303055 |
| 2013 | 435657 | 337485 | 265499 | 280581 | 260242 | 278603 |
| 2014 | 418723 | 325337 | 251963 | 269838 | 248263 | 266386 |
| 2015 | 405561 | 319641 | 243932 | 262898 | 240896 | 258906 |
| 2016 | 392571 | 313812 | 234090 | 254946 | 231722 | 248050 |
| 2017 | 388912 | 309443 | 225236 | 247833 | 224823 | 239353 |
| 2018 | 380316 | 307335 | 219969 | 242928 | 220184 | 233549 |
| 2019 | 371515 | 315129 | 222330 | 245111 | 224215 | 233758 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index

# Appendix D

## Projecting the Number and Price of Tax Foreclosed Properties

While there is a wealth of research on the impacts of vacancy and tax foreclosure, there is relatively little on predicting the rate of tax foreclosure in a given area. What research has been done suggests that there are a number of factors that influence tax foreclosure rates such as overall economic health and neighborhood factors like poverty and the number of vacant buildings in the surrounding area (Parks and von Rabenau, 2014; Goldstein, Klass, and Kone, 2018).

Combining all these characteristics into a model that predicts the number of tax foreclosed properties, the percentage of those properties a land bank could actually use, and the value of those properties would be time consuming and difficult. Considering that predicting the number of tax foreclosed properties is a secondary to determining the feasibility of a land bank, providing a truly accurate prediction of the number of tax foreclosed properties is then beyond the scope of this project. Instead, this project offers rough predictions of new tax foreclosures over the next 15 years based on three different scenarios. In order to predict the price of future tax foreclosures, the current ratio of median tax foreclosure price to median home value for each county is held constant.

Table 10: Percentage Ratio of Median Home Value to Median Tax Foreclosure Sale Price

| County | Ratio |
|---|---|
| Albemarle | 6.14 |
| Charlottesville | 34.3 |
| Louisa | 6.9 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

Ratio is calculated as (median tax foreclosure sale price/median home value), averaged over all years where data was available

### Scenario One: Status Quo

This scenario predicts that general economic trends will remain unchanged, meaning that mean number of foreclosure sales in each county will continue to occur at the 2010-2019 average for the next 15 years. Housing prices will continue to grow (or decline) at the real same real rate as the overall average annual growth rate from 2005 to 2019.

As Nelson, Greene, and Fluvanna had missing or incomplete tax foreclosure data, the ratio for Louisa was applied to these counties. Considering the onset of the COVID-19 virus at the time of writing, it is likely that economic conditions will stray from the status quo.

### Scenario Two: Recession Followed by Recovery

This scenario predicts that a recession and recovery will occur over the next five years, following the general economic trends seen during the 2008 financial crisis. Considering that tax delinquency rises during national economic downturns (Park and von Rabenau, 2014), this scenario would predict a short-term increase in tax foreclosures during the recession and then a return to the normal yearly average during the recovery. Under Virginia tax law, foreclosures can begin two years after delinquency; therefore, the effect of the predicted economic downturn on foreclosures will be lagged by two years.

While the U.S. economy has not entered a recession as of the time of this writing, numerous economists suggest that some type of economic downturn is imminent as unemployment skyrockets and demand falls (Stewart, 2020). This scenario therefore seems to be exceedingly likely, if not the most likely, of the three presented in this report.

Under this scenario, the number of tax foreclosures increases by 20% annually for a five-year recessionary period before returning to the pre-recession average. To predict housing prices, the five-year period with the worst mean annual decline in real property values was used to model the impact of a recession and the ratio of median home value to tax foreclosure sale price was used again.

### Scenario Three: Recession Followed by Long Term Economic Stagnation

Under this scenario, the recovery predicted in scenario two will not occur and the region will instead enter a long-term economic decline with the associated population and wage loss. It is difficult to project exactly what the impact of economic stagnation on the housing market will be so the estimates made under this scenario are rough.

For this type of scenario to occur there would need to be systematic job and population loss across the region (Follain, 2010). As the region did recover from the 2008 recession, this seems unlikely. However, with experts like Federal Reserve Bank of St. Louis President James Bullard predicting that unemployment could reach up to 30% in 2020 it is possible that the country and Planning District 10 could enter a long period of economic stagnation (Matthews, 2020.) Predicting this scenario used the same recession prediction method as scenario two. However, rather than having property values, the number of tax foreclosures, and tax foreclosure sale prices return to normal after the recession, the values for the final year of the recession were instead assumed to be the new status quo and carried out from there.

## Appendix D: Projected Number of Tax Foreclosures, Their Values, and the Median Home Price in 2019 by County and Year to 2035 for Scenario 1

| | Albemarle | | | Charlottesville | | | Fluvanna | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale |
| 2019 | 2 | 371,515.00 | 22,811.02 | 1 | 315,129.00 | 107,963.20 | 1 | 222,330.00 | 15,340.77 |
| 2020 | 2 | 365,124.94 | 22,418.67 | 1 | 316,231.95 | 108,341.07 | 1 | 220,795.92 | 15,234.92 |
| 2021 | 2 | 358,844.79 | 22,033.07 | 1 | 317,338.76 | 108,720.26 | 1 | 219,272.43 | 15,129.80 |
| 2022 | 2 | 352,672.66 | 21,654.10 | 1 | 318,449.45 | 109,100.78 | 1 | 217,759.45 | 15,025.40 |
| 2023 | 2 | 346,606.69 | 21,281.65 | 1 | 319,564.02 | 109,482.63 | 1 | 216,256.91 | 14,921.73 |
| 2024 | 2 | 340,645.06 | 20,915.61 | 1 | 320,682.50 | 109,865.82 | 1 | 214,764.74 | 14,818.77 |
| 2025 | 2 | 334,785.96 | 20,555.86 | 1 | 321,804.88 | 110,250.35 | 1 | 213,282.86 | 14,716.52 |
| 2026 | 2 | 329,027.64 | 20,202.30 | 1 | 322,931.20 | 110,636.23 | 1 | 211,811.21 | 14,614.97 |
| 2027 | 2 | 323,368.37 | 19,854.82 | 1 | 324,061.46 | 111,023.46 | 1 | 210,349.71 | 14,514.13 |
| 2028 | 2 | 317,806.43 | 19,513.31 | 1 | 325,195.68 | 111,412.04 | 1 | 208,898.30 | 14,413.98 |
| 2029 | 2 | 312,340.16 | 19,177.69 | 1 | 326,333.86 | 111,801.98 | 1 | 207,456.90 | 14,314.53 |
| 2030 | 2 | 306,967.91 | 18,847.83 | 1 | 327,476.03 | 112,193.29 | 1 | 206,025.45 | 14,215.76 |
| 2031 | 2 | 301,688.06 | 18,523.65 | 1 | 328,622.20 | 112,585.96 | 1 | 204,603.87 | 14,117.67 |
| 2032 | 2 | 296,499.03 | 18,205.04 | 1 | 329,772.37 | 112,980.02 | 1 | 203,192.11 | 14,020.26 |
| 2033 | 2 | 291,399.25 | 17,891.91 | 1 | 330,926.58 | 113,375.45 | 1 | 201,790.08 | 13,923.52 |
| 2034 | 2 | 286,387.18 | 17,584.17 | 1 | 332,084.82 | 113,772.26 | 1 | 200,397.73 | 13,827.44 |
| 2035 | 2 | 281,461.32 | 17,281.72 | 1 | 333,247.12 | 114,170.46 | 1 | 199,014.99 | 13,732.03 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

| | Greene | | | Louisa | | | Nelson | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale |
| 2019 | 5 | 245,111.00 | 16,912.66 | 15 | 224,215.00 | 15,470.84 | 5 | 233,758.00 | 16,129.30 |
| 2020 | 5 | 243,223.65 | 16,782.43 | 5 | 221,703.79 | 15,297.56 | 5 | 231,139.91 | 15,948.65 |
| 2021 | 5 | 241,350.82 | 16,653.21 | 5 | 219,220.71 | 15,126.23 | 5 | 228,551.14 | 15,770.03 |
| 2022 | 5 | 239,492.42 | 16,524.98 | 5 | 216,765.44 | 14,956.82 | 5 | 225,991.37 | 15,593.40 |
| 2023 | 5 | 237,648.33 | 16,397.73 | 5 | 214,337.66 | 14,789.30 | 5 | 223,460.27 | 15,418.76 |
| 2024 | 5 | 235,818.44 | 16,271.47 | 5 | 211,937.08 | 14,623.66 | 5 | 220,957.51 | 15,246.07 |
| 2025 | 5 | 234,002.64 | 16,146.18 | 5 | 209,563.39 | 14,459.87 | 5 | 218,482.79 | 15,075.31 |
| 2026 | 5 | 232,200.82 | 16,021.86 | 5 | 207,216.28 | 14,297.92 | 5 | 216,035.78 | 14,906.47 |
| 2027 | 5 | 230,412.87 | 15,898.49 | 5 | 204,895.46 | 14,137.79 | 5 | 213,616.18 | 14,739.52 |
| 2028 | 5 | 228,638.69 | 15,776.07 | 5 | 202,600.63 | 13,979.44 | 5 | 211,223.68 | 14,574.43 |
| 2029 | 5 | 226,878.17 | 15,654.59 | 5 | 200,331.50 | 13,822.87 | 5 | 208,857.97 | 14,411.20 |
| 2030 | 5 | 225,131.21 | 15,534.05 | 5 | 198,087.79 | 13,668.06 | 5 | 206,518.76 | 14,249.79 |
| 2031 | 5 | 223,397.70 | 15,414.44 | 5 | 195,869.20 | 13,514.98 | 5 | 204,205.75 | 14,090.20 |
| 2032 | 5 | 221,677.54 | 15,295.75 | 5 | 193,675.47 | 13,363.61 | 5 | 201,918.65 | 13,932.39 |
| 2033 | 5 | 219,970.62 | 15,177.97 | 5 | 191,506.30 | 13,213.93 | 5 | 199,657.16 | 13,776.34 |
| 2034 | 5 | 218,276.85 | 15,061.10 | 5 | 189,361.43 | 13,065.94 | 5 | 197,421.00 | 13,622.05 |
| 2035 | 5 | 216,596.12 | 14,945.13 | 5 | 187,240.58 | 12,919.60 | 5 | 195,209.89 | 13,469.48 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

## Appendix E: Projected Number of Tax Foreclosures and Cost of Acquisition in 2019 Dollars for Scenario 1

| | Acquire 25% | | Acquire 50% | | Acquire 75% | | Total | |
|---|---|---|---|---|---|---|---|---|
| Year | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost |
| 2019 | 7 | 141,549.58 | 15 | 283,099.17 | 22 | 424,648.75 | 29 | 566,198.34 |
| 2020 | 5 | 102,139.14 | 10 | 204,278.28 | 14 | 306,417.42 | 19 | 408,556.56 |
| 2021 | 5 | 101,415.88 | 10 | 202,831.76 | 14 | 304,247.64 | 19 | 405,663.52 |
| 2022 | 5 | 100,702.59 | 10 | 201,405.19 | 14 | 302,107.78 | 19 | 402,810.37 |
| 2023 | 5 | 99,999.16 | 10 | 199,998.31 | 14 | 299,997.47 | 19 | 399,996.62 |
| 2024 | 5 | 99,305.45 | 10 | 198,610.90 | 14 | 297,916.35 | 19 | 397,221.80 |
| 2025 | 5 | 98,621.36 | 10 | 197,242.71 | 14 | 295,864.07 | 19 | 394,485.43 |
| 2026 | 5 | 97,946.76 | 10 | 195,893.52 | 14 | 293,840.28 | 19 | 391,787.04 |
| 2027 | 5 | 97,281.54 | 10 | 194,563.09 | 14 | 291,844.63 | 19 | 389,126.18 |
| 2028 | 5 | 96,625.60 | 10 | 193,251.19 | 14 | 289,876.79 | 19 | 386,502.38 |
| 2029 | 5 | 95,978.80 | 10 | 191,957.61 | 14 | 287,936.41 | 19 | 383,915.22 |
| 2030 | 5 | 95,341.06 | 10 | 190,682.12 | 14 | 286,023.17 | 19 | 381,364.23 |
| 2031 | 5 | 94,712.25 | 10 | 189,424.50 | 14 | 284,136.74 | 19 | 378,848.99 |
| 2032 | 5 | 94,092.27 | 10 | 188,184.54 | 14 | 282,276.80 | 19 | 376,369.07 |
| 2033 | 5 | 93,481.01 | 10 | 186,962.02 | 14 | 280,443.04 | 19 | 373,924.05 |
| 2034 | 5 | 92,878.37 | 10 | 185,756.75 | 14 | 278,635.12 | 19 | 371,513.50 |
| 2035 | 5 | 92,284.25 | 10 | 184,568.51 | 14 | 276,852.76 | 19 | 369,137.02 |
| Total | 83 | 1,694,355.08 | 167 | 3,388,710.16 | 250 | 5,083,065.24 | 333 | 6,777,420.32 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

## Appendix F: Projected Number of Tax Foreclosures, Their Values, and the Median Home Price in 2019 by County and Year to 2035 for Scenario 2

| | Albemarle | | | Charlottesville | | | Fluvanna | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale |
| 2019 | 2 | 371,515.00 | 22,811.02 | 1 | 315,129.00 | 107,963.20 | 1 | 222,330.00 | 15,340.77 |
| 2020 | 2 | 341,496.59 | 20,967.89 | 1 | 311,473.50 | 106,710.82 | 1 | 203,365.25 | 14,032.20 |
| 2021 | 2 | 314,654.96 | 19,319.81 | 1 | 288,673.64 | 98,899.59 | 1 | 193,095.31 | 13,323.58 |
| 2022 | 2 | 302,572.21 | 18,577.93 | 1 | 278,425.73 | 95,388.65 | 1 | 186,761.78 | 12,886.56 |
| 2023 | 3 | 292,768.87 | 17,976.01 | 1 | 273,274.85 | 93,623.96 | 1 | 179,272.63 | 12,369.81 |
| 2024 | 3 | 283,458.82 | 17,404.37 | 2 | 268,355.91 | 91,938.73 | 2 | 173,751.04 | 11,988.82 |
| 2025 | 4 | 278,583.32 | 17,105.02 | 2 | 269,295.15 | 92,260.52 | 2 | 172,552.15 | 11,906.10 |
| 2026 | 5 | 273,791.69 | 16,810.81 | 3 | 270,237.68 | 92,583.43 | 3 | 171,361.54 | 11,823.95 |
| 2027 | 2 | 269,082.47 | 16,521.66 | 1 | 271,183.52 | 92,907.47 | 1 | 170,179.15 | 11,742.36 |
| 2028 | 2 | 264,454.26 | 16,237.49 | 1 | 272,132.66 | 93,232.65 | 1 | 169,004.91 | 11,661.34 |
| 2029 | 2 | 259,905.64 | 15,958.21 | 1 | 273,085.12 | 93,558.96 | 1 | 167,838.78 | 11,580.88 |
| 2030 | 2 | 255,435.27 | 15,683.73 | 1 | 274,040.92 | 93,886.42 | 1 | 166,680.69 | 11,500.97 |
| 2031 | 2 | 251,041.78 | 15,413.97 | 1 | 275,000.06 | 94,215.02 | 1 | 165,530.59 | 11,421.61 |
| 2032 | 2 | 246,723.86 | 15,148.85 | 1 | 275,962.56 | 94,544.77 | 1 | 164,388.43 | 11,342.80 |
| 2033 | 2 | 242,480.21 | 14,888.28 | 1 | 276,928.43 | 94,875.68 | 1 | 163,254.15 | 11,264.54 |
| 2034 | 2 | 238,309.55 | 14,632.21 | 1 | 277,897.68 | 95,207.75 | 1 | 162,127.70 | 11,186.81 |
| 2035 | 2 | 234,210.63 | 14,380.53 | 1 | 278,870.32 | 95,540.97 | 1 | 161,009.02 | 11,109.62 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

| | Greene | | | Louisa | | | Nelson | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale |
| 2019 | 5 | 245,111.00 | 16,912.66 | 15 | 224,215.00 | 15,470.84 | 5 | 233,758.00 | 16,129.30 |
| 2020 | 5 | 224,031.45 | 15,458.17 | 15 | 219,327.11 | 15,133.57 | 5 | 214,730.10 | 14,816.38 |
| 2021 | 5 | 215,563.07 | 14,873.85 | 15 | 201,715.15 | 13,918.35 | 5 | 205,410.81 | 14,173.35 |
| 2022 | 6 | 209,807.53 | 14,476.72 | 18 | 192,436.25 | 13,278.10 | 6 | 199,453.90 | 13,762.32 |
| 2023 | 7 | 203,513.31 | 14,042.42 | 22 | 186,720.89 | 12,883.74 | 7 | 191,136.67 | 13,188.43 |
| 2024 | 9 | 197,794.58 | 13,647.83 | 26 | 179,494.79 | 12,385.14 | 9 | 184,408.66 | 12,724.20 |
| 2025 | 10 | 196,271.56 | 13,542.74 | 31 | 178,274.23 | 12,300.92 | 10 | 182,343.28 | 12,581.69 |
| 2026 | 12 | 194,760.27 | 13,438.46 | 37 | 177,061.96 | 12,217.28 | 12 | 180,301.04 | 12,440.77 |
| 2027 | 5 | 193,260.62 | 13,334.98 | 5 | 175,857.94 | 12,134.20 | 5 | 178,281.67 | 12,301.44 |
| 2028 | 5 | 191,772.51 | 13,232.30 | 5 | 174,662.11 | 12,051.69 | 5 | 176,284.91 | 12,163.66 |
| 2029 | 5 | 190,295.86 | 13,130.41 | 5 | 173,474.41 | 11,969.73 | 5 | 174,310.52 | 12,027.43 |
| 2030 | 5 | 188,830.58 | 13,029.31 | 5 | 172,294.78 | 11,888.34 | 5 | 172,358.24 | 11,892.72 |
| 2031 | 5 | 187,376.59 | 12,928.98 | 5 | 171,123.18 | 11,807.50 | 5 | 170,427.83 | 11,759.52 |
| 2032 | 5 | 185,933.79 | 12,829.43 | 5 | 169,959.54 | 11,727.21 | 5 | 168,519.04 | 11,627.81 |
| 2033 | 5 | 184,502.10 | 12,730.64 | 5 | 168,803.81 | 11,647.46 | 5 | 166,631.63 | 11,497.58 |
| 2034 | 5 | 183,081.43 | 12,632.62 | 5 | 167,655.95 | 11,568.26 | 5 | 164,765.35 | 11,368.81 |
| 2035 | 5 | 181,671.71 | 12,535.35 | 5 | 166,515.89 | 11,489.60 | 5 | 162,919.98 | 11,241.48 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

## Appendix G: Projected Number of Tax Foreclosures and Cost of Acquisition in 2019 Dollars for Scenario 2

| | Acquire 25% | | Acquire 50% | | Acquire 75% | | Total | |
|---|---|---|---|---|---|---|---|---|
| Year | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost |
| 2019 | 7 | 141,549.58 | 15 | 283,099.17 | 22 | 424,648.75 | 29 | 566,198.34 |
| 2020 | 9 | 138,062.17 | 15 | 276,124.35 | 22 | 414,186.52 | 30 | 552,248.70 |
| 2021 | 10 | 126,218.49 | 15 | 252,436.98 | 22 | 378,655.47 | 29 | 504,873.96 |
| 2022 | 12 | 143,881.55 | 17 | 287,763.09 | 26 | 431,644.64 | 34 | 575,526.18 |
| 2023 | 14 | 170,227.50 | 21 | 340,454.99 | 31 | 510,682.49 | 42 | 680,909.99 |
| 2024 | 17 | 195,169.27 | 25 | 390,338.53 | 37 | 585,507.80 | 50 | 780,677.06 |
| 2025 | 15 | 234,471.47 | 30 | 468,942.93 | 45 | 703,414.40 | 60 | 937,885.87 |
| 2026 | 18 | 293,815.65 | 37 | 587,631.29 | 55 | 881,446.94 | 73 | 1,175,262.58 |
| 2027 | 5 | 81,636.56 | 10 | 163,273.12 | 14 | 244,909.68 | 19 | 326,546.24 |
| 2028 | 5 | 81,151.80 | 10 | 162,303.60 | 14 | 243,455.41 | 19 | 324,607.21 |
| 2029 | 5 | 80,673.53 | 10 | 161,347.06 | 14 | 242,020.59 | 19 | 322,694.12 |
| 2030 | 5 | 80,201.67 | 10 | 160,403.34 | 14 | 240,605.01 | 19 | 320,806.68 |
| 2031 | 5 | 79,736.15 | 10 | 159,472.29 | 14 | 239,208.44 | 19 | 318,944.58 |
| 2032 | 5 | 79,276.88 | 10 | 158,553.77 | 14 | 237,830.65 | 19 | 317,107.53 |
| 2033 | 5 | 78,823.81 | 10 | 157,647.62 | 14 | 236,471.43 | 19 | 315,295.24 |
| 2034 | 5 | 78,376.85 | 10 | 156,753.71 | 14 | 235,130.56 | 19 | 313,507.41 |
| 2035 | 5 | 77,935.94 | 10 | 155,871.89 | 14 | 233,807.83 | 19 | 311,743.77 |
| Total | 145 | 2,161,208.87 | 259 | 4,322,417.74 | 388 | 6,483,626.61 | 518 | 8,644,835.48 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

# Appendix H: Appendix F: Projected Number of Tax Foreclosures, Their Values, and the Median Home Price in 2019 by County and Year to 2035 for Scenario 3

| | Albemarle | | | Charlottesville | | | Fluvanna | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale |
| 2019 | 2 | 371,515.00 | 22,811.02 | 1 | 315,129.00 | 107,963.20 | 1 | 222,330.00 | 15,340.77 |
| 2020 | 2 | 341,496.59 | 20,967.89 | 1 | 311,473.50 | 106,710.82 | 1 | 203,365.25 | 14,032.20 |
| 2021 | 2 | 314,654.96 | 19,319.81 | 1 | 288,673.64 | 98,899.59 | 1 | 193,095.31 | 13,323.58 |
| 2022 | 2 | 302,572.21 | 18,577.93 | 1 | 278,425.73 | 95,388.65 | 1 | 186,761.78 | 12,886.56 |
| 2023 | 3 | 292,768.87 | 17,976.01 | 1 | 273,274.85 | 93,623.96 | 1 | 179,272.63 | 12,369.81 |
| 2024 | 3 | 283,458.82 | 17,404.37 | 2 | 268,355.91 | 91,938.73 | 2 | 173,751.04 | 11,988.82 |
| 2025 | 4 | 274,444.83 | 16,850.91 | 2 | 263,525.50 | 90,283.84 | 2 | 168,399.50 | 11,619.57 |
| 2026 | 5 | 265,717.48 | 16,315.05 | 3 | 258,782.04 | 88,658.73 | 3 | 163,212.80 | 11,261.68 |
| 2027 | 5 | 257,267.66 | 15,796.23 | 3 | 254,123.96 | 87,062.87 | 3 | 158,185.84 | 10,914.82 |
| 2028 | 5 | 249,086.55 | 15,293.91 | 3 | 249,549.73 | 85,495.74 | 3 | 153,313.72 | 10,578.65 |
| 2029 | 5 | 241,165.60 | 14,807.57 | 3 | 245,057.84 | 83,956.81 | 3 | 148,591.66 | 10,252.82 |
| 2030 | 5 | 233,496.53 | 14,336.69 | 3 | 240,646.80 | 82,445.59 | 3 | 144,015.03 | 9,937.04 |
| 2031 | 5 | 226,071.34 | 13,880.78 | 3 | 236,315.15 | 80,961.57 | 3 | 139,579.37 | 9,630.98 |
| 2032 | 5 | 218,882.28 | 13,439.37 | 3 | 232,061.48 | 79,504.26 | 3 | 135,280.33 | 9,334.34 |
| 2033 | 5 | 211,921.82 | 13,012.00 | 3 | 227,884.37 | 78,073.19 | 3 | 131,113.69 | 9,046.84 |
| 2034 | 5 | 205,182.71 | 12,598.22 | 3 | 223,782.46 | 76,667.87 | 3 | 127,075.39 | 8,768.20 |
| 2035 | 5 | 198,657.90 | 12,197.59 | 3 | 219,754.37 | 75,287.85 | 3 | 123,161.47 | 8,498.14 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

| | Greene | | | Louisa | | | Nelson | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale | Num. of Tax Fore. | Median Home Value | Median Tax Forelosure Sale |
| 2019 | 5 | 245,111.00 | 16,912.66 | 15 | 224,215.00 | 15,470.84 | 5 | 233,758.00 | 16,129.30 |
| 2020 | 5 | 224,031.45 | 15,458.17 | 15 | 219,327.11 | 15,133.57 | 5 | 214,730.10 | 14,816.38 |
| 2021 | 5 | 215,563.07 | 14,873.85 | 15 | 201,715.15 | 13,918.35 | 5 | 205,410.81 | 14,173.35 |
| 2022 | 6 | 209,807.53 | 14,476.72 | 18 | 192,436.25 | 13,278.10 | 6 | 199,453.90 | 13,762.32 |
| 2023 | 7 | 203,513.31 | 14,042.42 | 22 | 186,720.89 | 12,883.74 | 7 | 191,136.67 | 13,188.43 |
| 2024 | 9 | 197,794.58 | 13,647.83 | 26 | 179,494.79 | 12,385.14 | 9 | 184,408.66 | 12,724.20 |
| 2025 | 10 | 192,236.55 | 13,264.32 | 31 | 172,548.35 | 11,905.84 | 10 | 177,917.48 | 12,276.31 |
| 2026 | 12 | 186,834.71 | 12,891.59 | 37 | 165,870.72 | 11,445.08 | 12 | 171,654.78 | 11,844.18 |
| 2027 | 12 | 181,584.65 | 12,529.34 | 37 | 159,451.53 | 11,002.16 | 12 | 165,612.53 | 11,427.26 |
| 2028 | 12 | 176,482.12 | 12,177.27 | 37 | 153,280.75 | 10,576.37 | 12 | 159,782.97 | 11,025.03 |
| 2029 | 12 | 171,522.97 | 11,835.09 | 37 | 147,348.79 | 10,167.07 | 12 | 154,158.61 | 10,636.94 |
| 2030 | 12 | 166,703.18 | 11,502.52 | 37 | 141,646.39 | 9,773.60 | 12 | 148,732.23 | 10,262.52 |
| 2031 | 12 | 162,018.82 | 11,179.30 | 37 | 136,164.67 | 9,395.36 | 12 | 143,496.85 | 9,901.28 |
| 2032 | 12 | 157,466.09 | 10,865.16 | 37 | 130,895.10 | 9,031.76 | 12 | 138,445.76 | 9,552.76 |
| 2033 | 12 | 153,041.29 | 10,559.85 | 37 | 125,829.46 | 8,682.23 | 12 | 133,572.47 | 9,216.50 |
| 2034 | 12 | 148,740.83 | 10,263.12 | 37 | 120,959.86 | 8,346.23 | 12 | 128,870.72 | 8,892.08 |
| 2035 | 12 | 144,561.22 | 9,974.72 | 37 | 116,278.71 | 8,023.23 | 12 | 124,334.47 | 8,579.08 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

# Appendix I: Projected Number of Tax Foreclosures and Cost of Acquisition in 2019 Dollars for Scenario 3

| Year | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost | Number of Tax Foreclosed Properties | Total Annual Cost |
|---|---|---|---|---|---|---|---|---|
| 2019 | 7 | 141,549.58 | 15 | 283,099.17 | 22 | 424,648.75 | 29 | 566,198.34 |
| 2020 | 7 | 140,599.32 | 15 | 281,198.63 | 22 | 421,797.95 | 29 | 562,397.27 |
| 2021 | 7 | 137,097.44 | 15 | 274,194.89 | 22 | 411,292.33 | 29 | 548,389.78 |
| 2022 | 9 | 158,330.64 | 18 | 316,661.28 | 26 | 474,991.92 | 35 | 633,322.56 |
| 2023 | 11 | 184,518.25 | 21 | 369,036.51 | 32 | 553,554.76 | 42 | 738,073.01 |
| 2024 | 13 | 226,389.88 | 26 | 452,779.76 | 39 | 679,169.64 | 51 | 905,559.52 |
| 2025 | 15 | 249,988.57 | 31 | 499,977.15 | 46 | 749,965.72 | 61 | 999,954.29 |
| 2026 | 18 | 277,645.38 | 36 | 555,290.75 | 55 | 832,936.13 | 73 | 1,110,581.50 |
| 2027 | 18 | 266,868.32 | 36 | 533,736.64 | 54 | 800,604.95 | 72 | 1,067,473.27 |
| 2028 | 18 | 258,611.50 | 36 | 517,222.99 | 54 | 775,834.49 | 72 | 1,034,445.99 |
| 2029 | 18 | 250,628.14 | 36 | 501,256.28 | 54 | 751,884.42 | 72 | 1,002,512.57 |
| 2030 | 18 | 242,908.77 | 36 | 485,817.54 | 54 | 728,726.31 | 72 | 971,635.08 |
| 2031 | 18 | 235,444.23 | 36 | 470,888.47 | 54 | 706,332.70 | 72 | 941,776.94 |
| 2032 | 18 | 228,225.72 | 36 | 456,451.44 | 54 | 684,677.17 | 72 | 912,902.89 |
| 2033 | 18 | 221,244.73 | 36 | 442,489.45 | 54 | 663,734.18 | 72 | 884,978.91 |
| 2034 | 17 | 156,992.15 | 35 | 313,984.30 | 52 | 470,976.44 | 69 | 627,968.59 |
| 2035 | 17 | 151,496.90 | 35 | 302,993.79 | 52 | 454,490.69 | 69 | 605,987.59 |
| Total | 248 | 3,528,539.52 | 496 | 7,057,079.05 | 744 | 10,585,618.57 | 993 | 14,114,158.09 |

Source: Zillow Home Value Index, S&P/Case-Shiller U.S. National Home Price Index, FOIA/RECORD Requests from Charlottesville, Albemarle, and Louisa

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