**MEMORANDUM**

**TO:** Madison Plan Commission

**FROM:** Xuezhu Zhao (Gillian)

**DATE:** November 1, 2018

**SUBJECT:** Fiscal Impact Analysis of the Pumpkin Hollow Neighborhood Development Plan

Prepared to lead the future growth of the City of Madison, the Pumpkin Hollow Neighborhood Development Plan was proposed to develop the mostly vacant undeveloped land into a vibrant residential community. In order to support decision making of the Plan Commission, a combination of Per Capital Multiplier and Proportional Valuation methods of Fiscal Impact Analysis are adopted to evaluate the local fiscal costs and revenues associated with the development.

**Brief Description of the Proposal**

To guide the development of a new residential neighborhood located on the northeast side of the City of Madison, the Pumpkin Hollow Neighborhood Development Plan proposed recommendations for land use and design, open space preservation, transportation, urban services delivery, development phasing and plan implementation.

The proposal has identified existing land use and planned for future land use. The majority of the existing land within the planning area is agricultural land, public parkland, or vacant undeveloped land with limited other uses, classified agriculture district. Envisioned a vibrant residential community, the plan proposed to provide a wide variety of housing choices, a mixed-use neighborhood center, a system of well-located public parks, and a large conservation area. Predominantly a residential neighborhood, it will provide additional housing opportunities near major employment centers on Madison’s northeast side. Primary infrastructures will be improved while the natural settings will be preserved by public improvements funded by agencies of the City.

Specifically, from the Development Plan, “The neighborhood is planned primarily as a residential community, and residential uses comprise about 37 percent of the lands within the planning area, or 805 acres. About 45 percent of the planning area, or 980 acres, is recommended for park and open space uses, including existing and planned County and City parks, an extensive open space area recommended for preservation and conservation along Token Creek, an open space corridor located generally north of The American Center, and stormwater management facilities. About one percent of the planning area, or 19 acres, is included in the recommended mixed-use neighborhood center primarily located at the Hoepker Road-Portage Road intersection and potentially extending west to the Interstate Highway. Two potential office/employment areas comprising about 26 total acres are recommended: one just east of Interstate Highway 39-90-94, adjacent to the mixed-use neighborhood center; and one at the south end of the planning area, west of Portage Road. Institutional uses, including a potential public school site adjacent to the area park on Portage Road, are recommended on about 17 acres. Street and highway rights-of-way will comprise about 16 percent of the planning area, or 345 acres.”

**Fiscal Impact Analysis**

A combination of Per Capita Multiplier and Proportional Valuation methods is applied by me to analyze the fiscal impact by calculating the average cost and revenue from new residents, workers and land use. This approach will ideally give the Plan Commission an idea of how the financial status of the City will be influenced by each resident, workers, and type of land use. It helps the City aim for fiscal neutrality by regulating and designing different land uses which brings in different kinds of population requiring and paying for different services. This combination of methods is the most applicable for me given the limited data and time provided. Its result will advise the Plan Commission to ask for further detailed analysis if needed.

**Per Capita Multiplier Method**

FIA of the development plan is first conducted by the Per Capita Multiplier method, which calculated average expenditure and revenue per person from existing conditions to predict the total expenditure and revenue generated by the new development.

The calculation process is simple: First, the new residents and workers brought by the development are determined as 10,925 and 370 respectively. Then, allocation rule percentage (ARP) is calculated by averaging the shares of residential parcels and residential property values of all. Next, residential and non-residential shares of total expenditure and revenue are determined by ARP, which are further used to be divided by the number of existing population and worker respectively to get the multipliers. The new expenditure and revenue are therefore generated by multiplying the number of new residents and workers by respective multipliers, including other sources like property tax and fund balances. The net fiscal impact will be the difference between the new expenditure and revenue, which is a positive $2,450, 781.77 for this development.

*Net Fiscal Impact (Not Including Debt Service)*



This method is commonly used in FIA because of its simplicity. Using existing data, it was completed in a relatively short and inexpensive way, and the results are highly precise. However, it could not take complex factors into account when considering the capacity of government services. It is also based on the assumption that current level of service and number of employees will remain the same in the future. The relocation of expenditure and revenue is also subject to local experiences. My calculation excluded non-residents in offering public safety & health and library services. TIF revenue is also included when calculating the property tax rate of the city.

Noticeably, consideration of debt service could impact the result hugely. While the previous calculation did not take Debt Service into account, it suggests that the development will generate a huge revenue for the city. However, if the debt service from previous years are maintained for this year, the net revenue will encounter a $1,511,188.54 decrease. Since the proposal mentioned public improvements, it is hoping the City to distribute public funds to help with the development, making the Net Fiscal Impact still positive but smaller.

*Net Fiscal Impact (Including Debt Service)*



**Proportional Valuation / Land Use Method**

Another method used to conduct FIA is the Proportional Valuation / Land Use method, which calculates the existing average revenue and expenditure from different types of land use per acre and applies the multiplier to different uses of land in the new development.

The calculation process is not complicated. For different types of land, the relative values are first calculated by dividing each value by the total value of land and improvements. Then, the revenue and expenditure are allocated for different land uses based on their relative values. Per Acre Costs and Revenues are determined by dividing allocated expenditure and revenue by each area of allocated lands. After including property tax in the revenues, the net fiscal impact is determined to be a -$608,584.91 for this development.

*Net Fiscal Impact*

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A way for the City to gain more revenue from this development regarding land use is to build more residential buildings over preserved lands for park. If 400 acres of parks are taken to be developed as residential buildings, the net fiscal impact goes from a negative value to a positive $395,243.53. This suggests a way for the City to collect more property tax from the residential lands and avoid spending money for non-taxable lands.

*Net Fiscal Impact - More Residential, Less Parks*

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In literature, this method is frequently identified as for calculating impacts of non-residential growth. This methodology assumes that assessed property values are directly related to public services costs, which is more true for non-residential uses. It is used infrequently because the categorization of land use varies and is very subjective. For example, I included both commercial and office in commercial land use. I also put civic/institutional under others, which category still account for assessed value but is usually non-taxable. As the class definition of the City is not given, assigning land uses from the development to the established categories is subjective and inaccurate. Also, because the relationship between the demand for services and acreage of land based on different uses is not applicable to all cases, this method could overstate the cost of large developments and understate the cost of small developments. However, it is still helpful in giving the Plan Commission a hint of the impact of each kind of land use.

**Discussion**

In decision-making process, FIA is a critical tool to estimate the net fiscal impact associated with the proposed land-use development, evaluating options and alternatives to achieve at least a fiscal neutrality from new development. It is helpful to project operating and capital needs and clarify revenue and expenditure impacts to improve the decision making. FIA also provides planners and the public with information about the development plan, levels of service and development values from a fiscal perspective. Yet FIA is not without limitations. The limitations of each method are mentioned in the above sections, and FIA has some inherent disadvantages itself too.

One criticism is that FIA only considers impacts on a jurisdiction’s budget while neglecting social and environmental costs and benefits which may be beneficial to citizens. Conducting solely a FIA in decision-making process will emphasize financial benefits over the quality of life. Communities must consider all priorities in addition to fiscal costs and revenues. Another limitation of FIA is that most FIA measures the fiscal impact on a single jurisdiction while the region is coved by multiple overlapping jurisdictions. This is a valid criticism and FIA should explicitly state what it is and is not evaluating.

FIA is also related to inherent subjectivity when the planner is defining the factors and standards for different sources and types of service. Different categorization and assumptions will yield different results that may shift a negative to a positive impact. Therefore, planners should explain the FIA calculation process, detailing the assumptions made.

If given more time and resource, I would categorize the services and land uses into more detailed categories, listing out all the major factors influencing the service fees. It is also important to predict the number of population, workers, and services from the past years instead of assuming that the numbers are the same. I would also apply some of the marginal cost approaches since they fit the real scenario more than average cost approaches since they are conducted on a case by case standard. By using both interviews and past results, I could possibly reduce the personal interests of the interviewees and achieve more accurate and suitable analysis. Although this requires a lot of time and effort, it will provide the Plan Commission the most valuable fiscal impact analysis.

Other analysis should also be conducted in the future. For example, a cost-benefit analysis is valuable in comparing all the advantages and disadvantages. The time value of money should also be considered in further analysis.

**Recommendations**

I recommend the Plan Commission to adopt the proposal but leave space for negotiation and issue public funding if needed. The Plan Commission should recommend the approval to the City and the City should ask for the opinion from each district and department. The Plan Commission should adopt the proposal because the proposal of the Pumpkin Hollow Neighborhood meets the City’s demand for more residential housings as well as conserving natural elements. The Fiscal Impact Analysis on the proposal indicates an achievable fiscal neutrality for the City.

Importantly, it shows the impact of debt service and land use choice of the development plan. The Per Capita Method suggests an increase of City’s revenue that, bringing in more residents will benefit the City financially. Although it implies a great amount of revenue, the City’s goal should be fiscal neutrality, so the funding should be provided for public improvements as requested. While the Proportional Evaluation Method suggests a negative fiscal impact, it could be compensated by transforming more natural lands to residential lands. But the costs of transformation are not accounted for in the analysis and the method is not ideal for this residential development plan. Therefore, the Plan Commission should refer more to the first method and adopt the proposal.

**Bibliography**

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**Appendix A Per Capita Method**





**Not including Debt Service**

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**Including Debt Service**

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**Appendix B Proportional Evaluation Method**

**Original**

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Revenue

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Expenditure

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**More Residential**









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