Zoning for Urban Agriculture: The Politics of Institutionalizing Community Gardens in Madison, WI

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Abstract

The growing popularity of urban agriculture calls for the need for formal recognition in the Madison zoning code rewrite. To understand the politics of this process, we interviewed key actors: city planners and community gardeners, observed public hearings, and analyzed geographic data. City planners and gardeners agree on the importance of community gardens and support the institutionalization of gardening in the zoning code. However, there appears to be a perceptual disconnect between the parties. The urban agricultural zone is a largely symbolic, political statement by the city whereas the primary concerns of gardeners are more tangible.

Introduction

As the city of Madison nears the end of its long awaited zoning code re-write, a new urban agricultural zone has spurred many questions about the outlook for current and future community gardens. What is the political geography of community gardens and the newly created urban agricultural zone in Madison, Wisconsin? How will the new urban agricultural zone affect community gardens in Madison? We addressed these questions by interviewing city officials and community garden directors in Madison and by conducting participant observations of public hearings relating to urban agriculture. We also used mapping to analyze the distribution of land-use zoning and community gardens in Madison.

The current Madison city zoning code, although amended often, dates back to 1966. The city's intent for the new zoning code, which has been on the drawing board for the past few years, is that it will encompass more planning needs while also promoting the most effective modern community development practices. Many properties in Madison have had to be specifically coded as Planned Unit Developments because the old zoning code did not encompass their specific needs. The new zoning code has reconstructed the labeling and

regulations of zones in addition to implementing a new zone called the urban agricultural zone. We wanted to determine whether the urban agricultural zone would be applied to existing community gardens and to what degree it would facilitate the creation of new ones.

In this project we collected both qualitative and quantitative data to determine the potential impacts of the new urban agricultural zone. We conducted interviews with city planners, who are involved with the zoning code rewrite, and community gardeners in order to assess public opinion. Our intent was to interview community garden directors, but we found that community garden structures varied significantly enough to make it difficult to find people with that title. We were able to interview representatives in authoritative positions in various gardens in Madison. We also conducted participant observations of public hearings related to the zoning code rewrite in order to understand the political discourse surrounding this issue. Our intent, through these qualitative means, was to determine what differing perceptions people in the planning realm and gardening community have about the new zoning rewrite.

In addition, we obtained quantitative GIS data from one city planner interviewee including the distribution and location of Madison community gardens and the current zoning map of the city. We used this data to create a map of land use and community garden locations by overlaying the two layers of data. The resulting map provides a context for understanding the locations of the main objects of study -- community gardens -- in this project. Not only does the visual representation provide an opportunity for spatial analysis, but it spatially relates the elements discussed in our interviews to the geography of the city of Madison.

After collecting and analyzing our data, we were able to generalize the political perceptions of planners and community garden representatives. Planners and gardeners agree the new urban agricultural zone is a good step towards institutionalizing community gardening, but

their perceptions in implementing new gardens differ. While the planners focused on the urban agricultural zone as an achievement, gardeners expressed concerns about short term solutions the city could be doing to encourage urban agriculture.

Literature Review

History of Community Gardens

The period from the turn of the century to World War I was a time of experimentation for garden programs in urban areas. Three types of urban gardens emerged in American cities in the 1980s; vacant lot cultivations, school gardens, and civic gardens (Lawson 2005). While each played a specific role, they were the result of common forethought. Industrial expansion and the subsequent rapid increase in urban population defined the 1890s. With such highly concentrated populations came concern for new urban problems including water quality, waste removal, and city related health problems. Progressive era city planners and business leaders saw urban gardening programs as a way "to simultaneously improve both the environment and the behavior of the participants" (Lawson 2005, 21).

Lawson suggests that while the earliest gardening programs described above targeted particular groups—the poor, immigrants, and children, between 1917 and 1945 were the first national urban gardening campaigns to seek popular support from all citizens and the first to rise out of national crisis (Lawson 2005, 113). At this time the popular appeal focus shifted from economic incentives of gardening to health, recreational, and social benefits. Lawson notes the importance of emphasis on these psychological benefits to gardeners in time of war and depression to offset concerns and fears. However, the tone of the USDA released publication on "victory gardens" set a more imperative tone to the need for Americans to garden. It became a "public duty, as well as a private necessity, for everyone who [was] able to grow at least a part of

the vegetables needed for his family" (Boswell 1943, 2). In times of national emergency, people were to make it their civic duty to grow some of their own food in order to relieve the burden on commercial food sources. The report goes on to provide information to inexperienced gardeners on what to grow, how to plant, prepare fertilizer, tend to, and use various crops. Also included are diagrams and plans for laying out plots.

Boswell advised against what he called wasteful gardening in cities where land may be cramped, poorly lighted, poorly drained, or in industrial neighborhoods and warned that if one decided to try, one should "realize the odds against profitable yields" (Boswell 1943, 5). Despite this depiction of city gardening, Lawson's documentation of urban gardening at this time is not as bleak in her description of city festivals and parades embracing "war gardens." As she points out, by 1940 56.5 percent of the U.S. population was urban and thus the nationalist movement promoted both rural and urban gardening. (Lawson 2005, 114). Another defining characteristic of the victory garden movement was the fact that it was the first to combine both community and national level organization. Top-down and bottom-up approaches were combined in the formation of gardens across the country. Urban gardening programs prior to this time and up until recently with the potential impacts of urban agricultural zoning, have not had as much two-directional support.

While urban gardening programs today cannot be analyzed with the same ease and clarity of hindsight Lawson gave to early century urban garden case studies, we can still make observations about current goals and project prospects. The neighborhood community garden is still the most common and widespread type of garden found in rural, suburban, and urban areas alike. In cities community gardens serve as semi-public parks that both participating gardeners and residents can enjoy (Lawson 2005, 267).

Studies of community gardeners in recent years have found that gardeners come from a wide array of backgrounds in gardening knowledge and rationale for gardening. Particularly in urban settings, gardens around the country reflect the rich cultural diversity of their gardeners (Lawson 2005). While Lawson notes a general assumption that most gardens are in low income communities, she believes that they are just as likely to be found in middle-class and gentrifying communities (2005, 266). In Madison, the same general claims have been made, but it is also arguable here that gardens are spread throughout varying income level neighborhoods.

Community Action Coalition of South Central Wisconsin, a non-profit, anti-poverty community action agency, manages 14 community gardens in the Greater Madison area serving 850 low-income participant-gardeners (Campbell 2003, 172).

Rationale for Community Gardens and Urban Agricultural Zoning

A strong case for community gardens involves a food system analysis. Campbell (2004, 348) identifies food security as a major problem in central cities by providing a passionate account of life without access to quality food. Her description of a food desert is compelling but eliminates any notion of objectivity, as it is an entirely emotional account. She provides an indepth description of the differences between the conventional and alternative food systems, noting that planners have had little interest in promoting the alternative food system while community groups have been pushing the alternative system as a solution to the food security system (Campbell 2004, 346). Her thesis is that by eliminating binaries in the discourse about food systems we can find workable solutions to food security; however, she spends quite some time defining the alternative/conventional binary (Campbell 2004, 342-46). It seems contradictory, but it is helpful for her to define the binary she is criticizing, strengthening her thesis.

At issue is the role of planners in promoting community gardens. According to Campbell (2004), planners should do the kind of stakeholder and food systems analyses that she outlines in order to see how the alternative food system can be incorporated into a community. Several critiques recognize the fact that urban planners are more concerned with traditional regulation than with analyzing and changing food systems (Wright and Czerniak 2000, 419; Campbell and Salus 2003, 170; Campbell 2004, 346). Wright and Czerniak take the most extreme view on this topic, saying "it is incontestable that the majority of students earning degrees in planning will spend their careers mostly engaged in regulatory matters. Euclidean zoning and subdivision review typically rule the day..." (2000, 419). The author's focus is on land trusts, which they believe to be the way to fill in the gap left by traditional zoning. Their thesis is essentially that planners should be better-educated in land trust management (2000, 422), but this notion is highly contested in a response by Jacobs (2000) who claims that planners are educated in land trust management, but most choose to focus on regulatory planning because it is considered more important.

Regardless of whether traditional regulatory planning or voluntary planning (land trusts) is the preferred method of encouraging alternative food systems in communities, the discourse between these authors shows a general concern about the use of traditional zoning in facing food issues. Campbell (2004, 349-50) argues that planners can have a holistic understanding of food systems but use traditional zoning in order to effect change. Thus, the issue is using traditional zoning to promote alternative food systems. Traditional zoning has been ineffective in preserving urban agricultural land (Wright and Czerniak 2000, 419; Kaufman and Bailkey 2000, 57-58). Kaufman and Bailkey are simply writing a guidebook for establishing urban agriculture so their analysis isn't very critical. Still, they provide a more on-the-ground viewpoint of zoning as a

road-block to urban agriculture. A common recommendation is to simply include urban agriculture as a land-use zone, allowing community gardens to be recognized in the zoning code (Kaufman and Bailkey 2000, 77; Campbell 2004, 349-50). On the other hand, land trusts and voluntary regulation are also proposed as a method of promoting and preserving community gardens (Campbell and Salus 2003; Wright and Czerniak 2000).

The City of Madison has used voluntary land trust methods for preserving urban agriculture (Campbell and Salus 2003), but the focus of our research is the current proposal to use traditional zoning to promote urban agriculture in Madison. As part of the zoning code rewrite, the city is planning to implement a new land-use zone, called the "urban agricultural zone," in order to "ensure that urban garden and farm areas are appropriately located and protected to meet needs for local food production, and to enhance community health, community education, garden-related job training, natural resource protection, preservation of green space, and community enjoyment" (Public Review Draft). Thus, Madison is using traditional land-use regulation to promote some of the goals of urban agriculture without making a particularly strong political statement about the need for community gardens in urban food deserts where food security is an issue.

Case Studies in Urban Agriculture

The literature on urban agriculture and zoning is extensive, and provides many different case studies on this issue. Examining these provides an in-depth understanding of what is currently happening in Madison in regards to the zoning code rewrite and its affect on community gardens. Based on a review of some of the case studies available in this topic of research, it is clear that there is a need for land to be preserved specifically for urban agricultural purposes in order to solve problems associated with food security (de Zeeuw, Guendel and

Waibel 2000; Kaufman and Bailkey 2000). Kaufman and Bailkey argue that vacant land can be utilized for urban agricultural purposes such as community gardens (2000, 3), though this is not necessarily the case for all cities in the US. Kaufman and Bailkey studied three cities (Chicago, Boston, and Philadelphia) where they found a considerable amount of vacant land, current urban agricultural projects that were underway and acceptance of urban agriculture by local institutions (2000, 23). Although Madison does not necessarily have all three key aspects that Kaufman and Bailkey found to be especially important for urban agriculture, the city has many urban agricultural projects and an acceptance by the local government to preserve urban agricultural land. Kaufman and Bailkey summarize some obstacles to urban agriculture, which include: skeptics outweigh enthusiasts for city farming, challenges to funding and support, urban agriculture not always seen as the best use of land in cities, and the idea of urban farming is foreign to many (2000, 84). Madison faces some if not all of these challenges. However, the step towards instituting the urban agricultural zone will help to minimize some of these challenges.

Also significant and notable about the literature on urban agriculture is the lack of negative critiques of it (Mougeot 2000, 2). Many books and articles reviewed noted some of the arguments against urban agriculture, but ultimately concluded that negative effects can be overcome in various ways, and urban agriculture is a good use of land for varying reasons. Most arguments against urban agriculture come from city planners, public health, and environmental actors (Mougeot 2000, 2). Mougeot argues that these various issues can be overcome through proper management of urban agriculture sites (2000, 3).

There are a few cities where zoning is used to preserve urban agricultural land. A report on urban agriculture included case studies where zoning currently exists to preserve land for use in urban farming. Portland, Oregon, Columbus, Ohio, Minneapolis, Minnesota and Boston, Massachusetts all preserve urban agriculture through zoning, though its effectiveness varies (Bremer, Jenkins and Kanter 2003). In Portland, community gardens are recognized in the zoning code. However, proposals for new gardens must be presented to the Plan Commission and City Council, which could be an obstacle to creating new community gardens (Bremmer, Jenkins and Kanter 2003, 33). Columbus has significant support for urban agriculture through an organization that promotes urban farming and community gardens. As in Portland, proposed community gardens must present to the Planning Commission for approval (Bremmer, Jenkins and Kanter 2003, 34). In Minneapolis, community gardens are protected under the City of Minneapolis Municipal Code, but the process to start a new community garden is lengthy and challenging (Bremmer, Jenkins and Kanter 2003, 34). Boston has the fewest challenges to community gardens as compared to the other three cities in this report. The City of Boston created a special district for Open Space, which includes community gardens. The land in Open Space Subdistricts is not permanently designated, but rezoning for community gardens is less expensive and time consuming (Bremmer, Jenkins and Kanter 2003, 34). Madison may face similar challenges as these cities, particularly in respect to how proposed community gardens can be developed. It is unclear based on the current draft of the zoning code how these issues will be addressed.

Although most of the literature promotes the use of zoning to preserve urban agricultural land, there is another step that is also promoted in the literature to protect and develop community gardens in a city. The literature promotes the inclusion of community gardens and other urban agricultural land use in a City Comprehensive Plan in order to protect community gardens specifically. Berkeley, California has such a measure in their Comprehensive Plan,

which recognizes community gardens as a desirable use of land and proposes ways to encourage and support community gardens (Bremmer, Jenkins and Kanter 2003, 36). There are also problems inherent in this plan. In the case of Berkeley, there is no measure in the City Plan to implement this specific land use. Despite the lack of teeth in some legislation, the inclusion of urban agriculture and community gardens is a step in the right direction. As Kirschbaum argues, "having clear language about Community Gardens in a city's comprehensive plan, as in Seattle and Berkley, legitimized such a use of land and overcomes a major obstacle: the perception of community gardens as an interim use, for beautification, until something better emerges." (2000, 3). Madison is taking steps towards recognizing that urban agriculture is important to the future of the city just as other cities around the country have done.

Methodology

To address our research question, we applied various methodologies, such as interviews, participant observation and cartography, to collect quantitative and qualitative information. With an exploratory research proposal, these methodologies enabled us to analyze and develop correlations among our data to develop a strong thesis and answer to our question.

Interviews

As a popular and reliable methodology, interviews enable researchers to gather valid and reliable data pertinent to their research proposal. Being a popular methodology, interviews often have limitations, such as the ability to skew questions to illicit a certain response. Despite limitations, it is an influential way to have personal communication and compile more detailed information. To answer our research question, we conducted interviews with two different sets of people: community gardeners and city zoning planners.

The way in which an interview is conducted varies depending on the direction of your

research proposal. There are three basic approaches to conducting qualitative interviewing: informal conversational interview, semi-structured interview, and structured open-ended interview (Berry 1999). Informal conversational interviews are unorganized and resemble a conversational dialogue rather than following a structured set of questions. Unlike an informal interview, interviews that are semi-structured have a guide of questions in which different conversations are able to branch off of. With structured open-ended interviews, careful thought is put into open-ended questions providing less flexibility for questions (Berry 1999). The approach that would be most conducive to our research would be a semi-structured interview considering that we can receive more exploratory and descriptive responses drawn from our guide of questions.

The formation and design of interview questions is just as important as the interview approach. In order to be more productive in an interview, the investigator should "phrase questions in terms of 'what' and 'how'" (Secor 2010, 201). These types of questions elicit detailed responses compared to questions focused on 'why'. A question asking 'why' challenges the interviewee's knowledge or action on the subject (Secor 2010, 201). Formatting the questions is imperative to guiding the direction of the interview towards answering our research questions therefore with our two sets of interviews our objectives will be different along with the questions we seek to have answered.

Our first set of interviews was with city zoning planners. We contacted two specific planners, Matt Tucker of the Zoning Board of Appeals and an author of the zoning rewrite, Heather Stouder. These contacts enabled us to get a better insight as to why urban agricultural zones were included into the zoning rewrite and the impact they will have on the city. Our selection of participants evolved through what is known as the early stage of the "snowball

technique" (Secor 2010, 201). It was through Professor William Gartner, our research advisor, that we were able to attain our current contacts. Hopefully as a result of these interviews, they interviewee's will be able to guide us to other influential contacts.

Through these sets of interviews, our objectives were: to find out what issues prompted the rewrite, the reason for introducing urban agricultural zones, and to understand the goals in which urban agricultural zones hope to achieve.

The second focus of our interviews was geared toward community garden directors. Having collected the contact information of community gardens in Madison, we met with four directors and the project coordinator for the Badger Rock Middle School. Our first objective was to get an understanding of the history of the garden, especially a history of zoning-related issues. The second objective was to understand the garden directors' perceptions of the urban agricultural zone and its impact on their gardens. The final objective was to understand the anticipated changes in operation they will have to implement in regards to the zoning changes and potential future conflicts that may arise. As a result of these interviews, we hoped to understand the positive and/or negative views that community garden directors may have regarding urban agricultural zones.

As with any type of methodology, certain strength and weaknesses are present. The reason interviews are a preferred research method include: they provide a more elicit in-depth response to the research question, variability in data collection techniques, certainty about who answered questions, convenience for the interviewee, and collect detailed information and other secondary sources. Where there are strengths, there are weaknesses. The weaknesses with interviews include the ability to skew questions to generate responses, the difficulty in contacting interviewees, the ability of misinterpreting their responses, and the subjectivity of interviews.

After we collected and met our objectives through these two sets of interviews, we were able to thoroughly analyze the quantitative data. By comparing and contrasting the viewpoints of the urban planners and community garden directors, we could ultimately establish the thesis to our research proposal. Analyzing the results of the urban planning interviews and the interviews of the community garden directors, we enabled us to see if they align or if they have differing opinions. These opinions were the premise of our research conclusion.

Participant Observation

The second methodology was participant observation. This element played a critical role in the political aspect of our research proposal. Our participant observation involved attending the Special Zoning Code Rewrite Meetings and Badger Rock Middle School Hearing. At these meetings we saw how planners interacted with each other, the political tensions among them, and noted specific habits, including where they chose to sit, their verbal and nonverbal actions, and how they related to each other. These details say a lot about what took place behind the scenes. We observed and noted if there were any obstacles in the planning room that prevents the rewrite from being completed and implemented. Through participant observation we met our objectives to examine political opinions, acquire specific information on the zoning rewrite, and monitor the current standing of the rewrite in getting passed.

With this type of methodology, the detail in which qualitative data is analyzed is crucial. Having very detailed observation notes that take everything into account is important (Allsop, et. al. 2010, 207). For this reason our research was very exploratory and the information we gathered from our methodologies altered the focus of our research thesis. To record our observations, we all took thorough and detailed notes of what we witnessed during the meetings. Afterwards, we all compared our notes and made general conclusions. Having multiple people

taking notes enabled us to grasp a deeper and more conclusive observation, picking up on things just one person may have missed. Being able to have various accounts of what happened was very beneficial to this type of methodology. What we gathered through participant observation was useful when compared to the interviews in order to see the similarities and differences between political actors.

With participant observation being highly subjective, there are a quite a few strengths and weaknesses with this type of methodology. One strength is being able to focus on things that relate to the research. Consequently, this is also a weakness since researchers might have a bias opinion on the data and results. Another weakness is that people in public will often alter their behavior to present themselves in a desirable manner and that researchers can develop sympathies for those being studied or develop exaggerated bias for or against the group (Burgess and Kemp).

Cartography

Cartography is a methodology that enables researchers to illustrate the data they collected. The reasons maps are made and used reflect dominant cultural values and power relations present within a certain society (Hanna 2010, 259). As our project relates community gardens within Madison with current land-use zones, the purpose of a map is to visualize the locations of the community gardens in relation to the surrounding land-uses. Our objectives are to depict these variables visually to stir dialogue about their relationship. In what zoning types are gardens commonly found? Are gardens found in zones in which their long term standing may be threatened? Do map patterns suggest needs for new zoning?

In order to achieve our objectives, the quality of our quantitative and qualitative data was crucial. To design our map we primarily used two programs, ArcGIS and Adobe Illustrator. With

these programs we were able to incorporate the data in which we collected to map existing community gardens along with the surrounding zoning areas. It is important while making maps to take into consideration the map projection, style, sizes, symbols, and the uses of color (Hanna 2010, 263). These factors played a huge part in conveying our message.

As with any methodology, cartography has its strengths and weaknesses. Various strengths of producing a map is to have a visual document that conveys the message and focus of a research project and have a variety of purposes and can depict almost anything. For the weaknesses, maps can exaggerate information distorting the reality of the data collected, they are time consuming to complete, the inability to collect data to display on the map, and if not done with detail and care may be difficult to understand.

Results

Urban Planner Interviews

Matt Tucker (5 November 2010)

We met with Matt Tucker, Zoning Administrator to discuss the zoning code re-write, the history behind the to-be-implemented urban agriculture zone, and his perceptions of the re-write process. As a city planner, Matt described the importance of updating the zoning code, which he described as a city planner's tool for regulating the use of land and development. As he pointed to a large zoning map of the Madison on a wall behind him, he explained that all the pink and purple scattered across the city represented situations where land was specially coded on a project to project basis. By rewriting the code, which was last written in 1966, zoning regulations can be written for broader application so many individual contracts will not be necessary.

When asked about the decision to implement an urban agriculture zone for the city of Madison, Matt explained that interest in urban agriculture had emerged within the last few years

of planning. The zone was created in recognition of the widespread interest of the Madison community to improving access and opportunities to grow food locally. Matt mentioned the influence of urban agriculture models of other cities like Cleveland, and local projects including Growing Power's Madison project and the Troy Gardens model. Matt explained that throughout the process of implementing this zone, the city received feedback from a committee of people interested in urban agriculture including community gardeners, farmers, and professors. Matt informed us that community gardens are currently allowed in all zones and the new zoning code should have minimal impacts on community gardens. When asked about feedback, Matt told us it has been overwhelmingly positive, except for a few concerns about animal husbandry and the lack of allowance for hoop houses. Ultimately, city planners intend the zone to help eliminate barriers that those wishing to engage in urban agriculture might face.

Heather Stouder (9 November 2010)

We met with Heather Stouder in the Municipal Building where she has been involved in the zoning code rewrite for the past year and a half as a city planner. Heather explained that there are more than 500 site specific zoning cases throughout the city. This reflects that the current zoning doesn't encompass what it should. Draft writing for the zoning re-write started in 2007 and has been a longer project than originally expected. Ideas for the urban agriculture zone stemmed from other city ordinances including Boston, Cleveland and Chicago. The planners didn't want zoning codes and regulations to hinder urban agriculture. The addition of the urban agriculture zone was also in reaction to the community which is very interested, particularly the academic community, and people involved in Troy Gardens.

Heather has found feedback on the zone to be quite positive, although she also noted some negative feedback about animal husbandry. Heather sees the zone as unique in its

entrepreneurial opportunities and animal husbandry. She noted the challenges to economic feasibility of entrepreneurial endeavors in Madison where 'city land is not yet cheap, and vacant lots are not available for urban agriculture projects like they are in other cities' using similar urban agriculture models (Heather Stouder, 9 November 2010). The state of Wisconsin has a rich farming culture. Madison itself is surrounded by extensive agriculturally productive communities. She noted that the urban agriculture zone will not affect community gardens, but if anything will allow more gardens and community farming projects with models like Troy Gardens or the Badger Rock school to prosper. We also discussed the role this zoning label will play in institutionalizing urban agriculture.

Community Garden Interviews

Marlborough Community Garden/Community Action Coalition (CAC) - Nicole Craig (12 November 2010)

We met with Nicole Craig from Community Action Coalition (CAC) to discuss the Marlborough Community Garden located on the south side of Madison. Marlborough Community Garden is about 1.6 acres, with most plot sizes averaging 20' x 20', with some larger, and some smaller. According to Nicole, 'zoning has had little effect on the garden in the past, though the new urban agriculture zone would make it easier to keep and start new community gardens in Madison' (Nicole Craig, 12 November 2010). Nicole followed up with us via email to inform us that the Rimrock/Green Community Garden did run into zoning issues because it was on private property. The property was re-appropriated to allow the community garden to stay on the land.

We also discussed her involvement with the Community Action Coalition. The CAC is a private organization that works with community gardens to develop leadership and support new

gardens. Nicole is a community garden specialist, and helps to start new community gardens, support existing gardens, and work on leadership development so that the community gardens can be self sufficient and less reliant on the CAC. Currently, Nicole is working with the Marlborough Community Garden to develop leaders that can run the garden on their own.

Nicole also mentioned that the Quann garden went through a similar process and is now being directed by the gardeners in the community. The CAC is funded through city and state grants.

Eagle Heights Community Gardens - Margaret 'Gretel' Dentine (15 November 2010)

Gretel is one of three paid employees of the Eagle Heights Community Garden, which has 540 plots and over 1,000 gardeners and is located on the campus of the UW-Madison. She reported no issues with the city (zoning or other regulations) directly affecting the garden. The situation is unique because they are governed more strongly by the university than the city since they are on university property. She believes that they have experienced similar issues as many other gardens, mostly involving getting along with the neighbors. She said that she didn't know how the urban agricultural zone would affect the garden and that she didn't have much specific information about it, although she had heard about it more generally.

From Gretel's perspective, the introduction of an urban agricultural zone is a good idea. She said, 'the city has not made community gardening a priority' (Gretel Dentine 15 November 2010), adding that she was happy to hear about the new zone. In her opinion, the city has viewed community gardening as a recreational activity more than a solution to food security, and she would like to see a shift there. She identified the major barrier to community gardening in Madison as administrative structure. The difficulties of getting a garden started are overwhelming and make it nearly impossible for gardens to get off the ground. The CAC has been helpful, but she thinks the city should think about how to encourage community gardening

by providing administrative aid. She proposed creating a community garden coordinator at the city-level to direct and organize gardens in Madison and help new ones start.

McCormick Community Gardens-Sharon Bogert (17 November 2010)

We met with Sharon Bogert from the McCormick Community Garden, toured the garden that is located on the east side of Madison and discussed how this new garden was started. The McCormick Community Garden had its first growing season in the summer of 2010. The garden is located on McCormick Ave, which was formerly a connection between two major roads, but was recently dead ended. The city had planned to make the dead end street much longer, but the neighborhood association lobbied to have the road shortened to allow for green space in the area where there was formerly a road, and thus allow the community garden to be in that location. The Department of Transportation finalized this plan approximately three years ago, and the process to start the garden started in the Fall of 2009.

The McCormick Community Garden received a grant of \$500 from the Community Foundation, and this money was used to build a shed, purchase tools, access water, and cover other start up costs. Sharon noted that if gardens that received a grant were able to give back a small amount, this money could then be used to ensure that other gardens could get funding to start as well. Sharon and another volunteer from the neighborhood association were the leaders in this start up, and each put in more than 400 hours to start this community garden. Sharon was able to to spend this amount of time because of her recent retirement, but 'it would not have been possible to start this garden without so much free time and the grant they received to start this garden' (Sharon Bogert, 17 November 2010). Sharon also said they have money saved from last year to cover some of the costs that will occur at the beginning of the next growing season.

The garden itself is quite small compared to some of the other gardens we toured, but all of the plots were used this past growing season, and there is currently a waiting list for next summer. Last summer there were about twenty gardeners. 'We didn't face any zoning issues, though the land is leased by the Community Action Coalition through the Engineering Department of the city of Madison' (Sharon Bogert, 17 November 2010). She is in favor of the new urban agriculture zone because it will save land for community garden use, though she did mention that issues like composting ordinances need to be addressed by the city for it to be successful. Sharon hopes to direct the garden for as long as she and her husband are capable. She is very enthusiastic about the garden and wants it to be successful. 'One hindrance to starting community gardens is access to land' (Sharon Bogert, 17 November 2010), so she supports the city facilitating access to land for community gardens. Sharon also told us 'the biggest obstacle to starting a new garden is the administrative and financial support necessary to start a new garden' (Sharon Bogert, 17 November 2010). She told us that community gardens provide a connection for the community and can be very helpful for people who are unemployed or underemployed.

Troy Community Gardens – Jill Jacklitz (18 November 2010)

We interviewed Jill, the executive director of Troy Gardens at her office. Troy Gardens is approximately 26 acres in size with another 5 acres dedicated to co-housing. The land has community garden plots, a farm with a 150 person CSA program, and a kid's garden. Jill explained that the land is under a conservation easement so it is not at risk of development, and the community garden aspect of it is actually required in the easement and not at risk. She said Troy Gardens is also protected through the Land Trust, which has had a focus on the housing

aspect of the land. She told us about the history of the land and how it came to be protected years after people first began gardening on it.

When asked about the urban agriculture zone, Jill told us she was aware of the rewrite and that it would not have any impact on the well established Troy Gardens. At a meeting with The Dance County Food Council, she saw a presentation on the zoning re-write. She noted that she thought it could be helpful with development of new urban agricultural projects.

Jill also commented on the frequent reference we have noticed to Troy Gardens as a model worth reproducing elsewhere. She explained that the model is locally and nationally recognized for its integrated land use, and its housing aspect. It is referred to as a great case study for neighborhood-based planning and conservation-based affordable housing as well. She recounted what an exciting community driven process Troy Gardens has been from the start and has continued to be. Although the non-profit Community Groundworks oversees all of Troy Gardens, the community garden has prospered through the hard work of volunteers who manage the land and gardeners.

During our interviews at Troy Garden, we took pictures of the garden (Figures 1 and 2) to show the use and layout of the land. These photographs demonstrate the diverse nature of Troy Gardens and how that model can be applied in the future for urban agriculture projects. Zoning for areas like Troy Gardens is a challenge, so the addition of the urban agricultural zone is intended to solve some of these issues.

Badger Rock Middle School- Jamie Domini (18 November 2010)

We interviewed Jamie Domini, the project coordinator for Badger Rock Middle School, which is a year-round middle school that educates children on environmental and cultural sustainability. Opening in the fall of 2011, Jamie claimed that 'they have not had any problems

with zoning issues' (Jamie Domini, 18 November 2010). The situation is a bit different compared to the community garden directors in which we interviewed. Their zoning, since it is a school, is a mixed conditional use zone. This being said, she didn't know how the urban agricultural zone would affect the garden in the school.

With the implementation of Badger Rock Middle School, it will bring to Madison a stronger awareness of our impact on ecology and educate children and families about community gardens and ways in which to conserve our environment. It is critical that we distill this among the youth. Badger Rock will be built near the Alliant Energy Center along the West Beltline Hwy and Indian Springs Park. This is an area in which lower income and culturally diverse families reside. This middle school will bring together the neighborhoods creating more cohesive environment.

Participant Observation

Zoning Rewrite Meetings (25 and 26 October 2010)

The Zoning Code Rewrite Meetings were held on Monday, October 25th, 2010 and Tuesday, October 26th, 2010. Neither of the meetings discussed urban agricultural zones, so we were unable to acquire specific information on that aspect of the rewrite as we had expected.

Other than that, we achieved the outcomes we set to meet through our participant observation.

Monday's meeting was held in a large hearing room with 13 participants, mainly urban planners, attending. It was somewhat difficult to gather the relationship among the group since the seating chart was predetermined. In the beginning of the meeting, there were a lot of amendments to specific parts of the code which generated very little debate. It was at this time that various participants seemed disinterested in what was going on. This was observed through their blank stares and their inability to follow along with the pages the others were discussing. As

the evening went on, there was only one participant who seemed to spark discussion. There were a few participants that would call out contradictions regarding what others had previously stated. Overall there were no obvious tensions among anyone in the group. The fact that the meeting was being broadcasted to the public may have affected how participants interacted with each other, the amount to which they sparked conversation/debate, and the way in which they composed themselves. Typically being on television, people tend to act more conservatively to diminish the risk of drawing negative attention to themselves and the subject at hand.

The second Zoning Code Rewrite Meeting took place on Tuesday, Oct. 26, 2010. The participants in this meeting comprised a mix of urban planners and one Alder. Before hand, we had an impromptu discussion with two of the participants. They informed us that, like the day before, urban agricultural zones would not be discussed in this meeting and that there is really little they have to discuss on this issue. From what we witnessed, most urban planners do not contend urban agricultural zones except for the uninformed Alders.

Unlike the first, this meeting was not televised. This could explain why there were more in-depth discussions and debates. People were less concerned with what could resonate with the public if broadcasted. As I mentioned that urban agricultural zones were not discussed in this meeting, they were alluded to when defining community gardens and urban cultivation. None of the participants knew the working definition of community gardens and urban cultivation which was surprising.

It was easy to pick up on the moderate tension amongst several of the participants as they deliberated in the small and crowded conference room. During this meeting, the Alder provided a lot of insight and sparked debates amongst the group. Having an Alder present at the meeting helped mark the influence politics has on zoning. The zoning changes impact their district

therefore is imperative for Alders, to actively participate in hearings, apparent in this meeting, to represent the interest of their constituents and businesses.

Badger Rock Middle School Hearing (22 November 2010)

We attended the Badger Rock Middle School Public Hearing at Madison City Hall. The hearing was in accordance to the zoning map amendments rezoning the property from R3 Single-Family and Two-Family Residence District to a C2 General Commercial District. Participants included those associated with the Resilience Research Center, Badger Rock Middle School, Architects, Urban Planners, and the Alder for District 14.

The Resilience Research Center is setting the precedent for new strong and innovate ways to revitalize underdeveloped urban areas. A representative of the Center for Resilient Cities and the lead architect came to speak and answer a few questions. They explained how the project is an effort to weave some of the strongest and most innovative efforts to revitalize urban neighborhoods. The important partnerships of the project are Growing Power and Badger Rock Middle School, a charter school. The emphasis of the project was placed on it being a place of learning that can also serve the community through benefits to the immediate neighborhood. In addition to the year round charter school, there will be a space designated to commercial use, another area for community gardens and community activities, and an area to be run by Growing Power.

The architect explained how the designs would complement and support the multiple uses of the space and the sustainable design goals. Ultimately, they hope to eventually have net zero energy used in the building. This will be achieved by incorporating flat roofs to the buildings and having dual purpose designs for walls and windows to capture light. Madison Gas and Electric

will be another project partner which will help them achieve this low energy goal through research on additional alternative energy designs at the school.

An alderperson from the area also spoke about the opportunities to revitalize the neighborhood this project will allow. According to the alderperson, the idea of bringing back Badger School resonates well with the community. Mixed use on the corner of the site will provide opportunities for the neighborhood, possible vendors, and green job opportunities. Described as one of the most underdeveloped aging corners of the beltline, talk of sort of commercial use has been well received. The only source of concern by the interests who spoke was over regulation and limitations on hoop houses, which are not allowed to exist on the property for more than 6 months at a time.

The motion passed without any objections. There seems to be a favorable consent for this project. Some participants commented that this was a great proposal.

Cartography

We created a map (Figure 3) to visualize community gardens in Madison. Using data provided by the city of Madison, we mapped each property in the city according to its land-use zone, generalizing by type of land-use. We then added the locations of the community gardens in the city, again using data provided by the city. The purpose of this map is to visualize the locations of the community gardens in relation to the surrounding land-uses. We want to be able to see the community gardens as they fit in the overall pattern of zoning in the city.

We used the data provided by the city to create a table (Figure 4) that shows the ownership and zoning at each community garden. The list is organized by land-use, making it easy to see which zones are the most frequent for community gardens. The table compliments the map because the map doesn't have fine enough detail to determine the zoning of the actual

garden properties.

It appears that most of the community gardens are in the middle of vast residential areas, which we have learned leads to "neighbor issues." The most notable exception is Troy Gardens, which has its own PUD zone (visible on this map). It is clear that most community gardens are in areas that are already filled in with residential development. Thus, it would be difficult to rezone large pieces of land for urban agriculture (like Troy Gardens). However, with the new urban agricultural zone, there may be some motivation in the future to do this. In that case, new pieces of land would need to be found, and this map would look much different.

It is also notable that there is so much purple on this map. The city sees the prevalence of purple on a map like this as a reason for rewriting the zoning code (Matt Tucker, 5 November 2010). The "Planned Development" zones are unique properties that are dealt with conditionally, on a case-by-case basis because their usage does not fit into any of the predefined zones in the zoning code. Troy Gardens is a good example. There is such a diversity of activities taking place on the property that there is no existing zone to deal with it. The new zoning code will seek to include more situations so that there will be less need for Planned Development zones.

Conclusion

Interviews with both planners and community garden directors show that the city and the gardeners are largely in agreement about the future of community gardens in Madison. Both support the growth of gardens in the city, though the means to achieve this goal are somewhat divided. The city of Madison is taking steps towards institutionalizing community gardens, but are not yet providing some of the resources necessary to start new gardens. The garden directors that we spoke with recognize what the city is doing, and are supportive, but also see that there is

potential for further involvement by the city to further support the growth in the number of gardens in Madison.

The creation of the urban agricultural zone in the zoning code rewrite is a political statement by the city of Madison to endorse community gardens as a solution to food security problems. The city recognizes that the urban agricultural zone has limited effectiveness in actually changing the status quo of community gardens in the city. The city supports community gardens and acknowledges their positive effects to the city. This is clear based on their enthusiastic support of the urban agricultural zone and the social movement surrounding community gardens. However, they also recognize that there are limits to the new zone, and the physical effects of the zone will be minimal. No properties in the city will be zoned urban agricultural in the new zoning map (Matt Tucker, 5 November 2010). The city planners we spoke with recognize that while promoting urban agriculture in general, the new zone does little to facilitate the creation of new community gardens, and will not change anything for existing community gardens. The new zone will not result in short term benefits for community gardens, but the hope is that the city's symbolic support of urban agriculture will have long-term positive impacts.

Although community garden representatives are largely in agreement with city planners about the urban agricultural zone, there remains a disconnect between the perceptions of gardeners and the perceptions of city planners regarding how the city can best support community gardens. Discussions with urban planners focused on the achievement of the urban agricultural zone while the community garden representatives focused on more immediate needs such as funding and administrative support for new gardens. Based on our interviews with garden directors, the biggest obstacle to starting a new garden is finding suitable land for the

garden and the costs and manpower required in that process. While Sharon acknowledged the urban agricultural zone saying, "The more a city can make land accessible and usable the better" (Sharon Bogert, 17 November 2010), she emphasized that "the biggest problem is administrative" (Sharon Bogert, 17 November 2010), especially a lack of start-up funds.

Despite the current lack of funding and manpower by the city to facilitate the start of new gardens, other organizations have stepped in to fill this void. Gardeners noted the administrative advantages to having a Community Action Coalition affiliation, in addition to access to the website, garden equipment, educational activities, and a network with other gardeners. The CAC provides the leadership necessary to start gardens, and of the garden representatives we talked with, all were supportive of the CAC and were glad to have their services available to the community. The Madison Community Foundation, which awards grants and scholarships to organization and individual projects within Dane county, is a major source of start-up funding for gardens including McCormick (Sharon Bogert, 17 November 2010). Gretel Dentine noted that being affiliated with the University of Wisconsin also helped Eagle Heights Garden to fill the void of administration and funding (Gretel Dentine, 15 November 2010).

Another area of disconnect between planners and gardeners is the concept of economic viability of community gardens. Heather Stouder emphasized that community gardens can become economically viable and views the urban agricultural zone as way to make that feasible (Heather Stouder, 9 November 2010). Heather sees the potential for urban agriculture to not only be a movement valuing social justice and community needs but one that also incorporates economically sustainable business models. Gardeners view urban agriculture as a community activity that allows people to grow their own food, straying from a business model for community gardens. Sharon mentioned that if every garden gave a portion of plot fees to a

'garden fund,' new gardens could be financially supported (Sharon Bogert, 17 November 2010). The notion of economic viability of community gardens is perceived differently by gardeners and planners.

Community garden representatives and city planners agree that community gardens are important and should be protected, and the creation of the urban agricultural zone is a step towards that; however, this new zone will only serve as a political statement in the short term. Planners understand community gardens as both important for communities but also potentially as an economically viable business, while gardeners are more concerned with short term needs such as financial and administrative support.

Future research should get perspectives from a larger sample. Such perspectives should come from the community gardeners, other people involved at the city level such as members of the Community Garden Committee, and people who were involved at the start of the urban agricultural zoning meetings. Future research also should investigate other methods the city could take towards supporting community gardens. Some options the city could pursue would be to provide more grants to start new community gardens, facilitate access to land necessary for new gardens, and staff to provide administrative support. The Community Action Coalition does some of this work, so further support of this group could be helpful.

Further research could also address the limited effectiveness of urban agricultural zones and ways the city or other groups like the CAC could further support community gardens as a solution to food security in Madison. Another avenue that could be pursued in future research would be regulation of runoff of gardens by the city. Though this is not a current problem, it could potentially as community gardens continue to grow. Looking at the possibility of replicating models such as Troy Gardens should also be considered for the city of Madison and

other communities. Further research should consider what urban agriculture model is ideal, and how to zone for that model. In the case of Madison, research could address how to best zone for unique areas such as Troy Gardens.

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Figure 1. Kids garden, with greenhouse and co-housing in the background. Troy Gardens demonstrates a unique community garden model, which has integrated space for community garden plots, education areas for children, a greenhouse, compost areas, a Hmong medicinal garden, a Community Supported Agriculture (CSA) farm, an apiary, and co-housing. Troy Gardens has adapted many accommodations for the diverse members of the garden. The Troy Gardens model is well received by the city planners we interviewed, and replication of this model is supported. Nischik, J. "Troy Gardens." 18 Nov. 2010.



Figure 2. Hmong medicinal garden, with co-housing and greenhouse in the background. Diversity is an important part of Troy Gardens. Designating an area for the Hmong medicinal garden exemplifies the dedication of Troy Gardens to maintaining diversity and ensuring that there is a space for specialized gardens such as this one. Nischik, J. "Troy Gardens." 18 Nov. 2010.

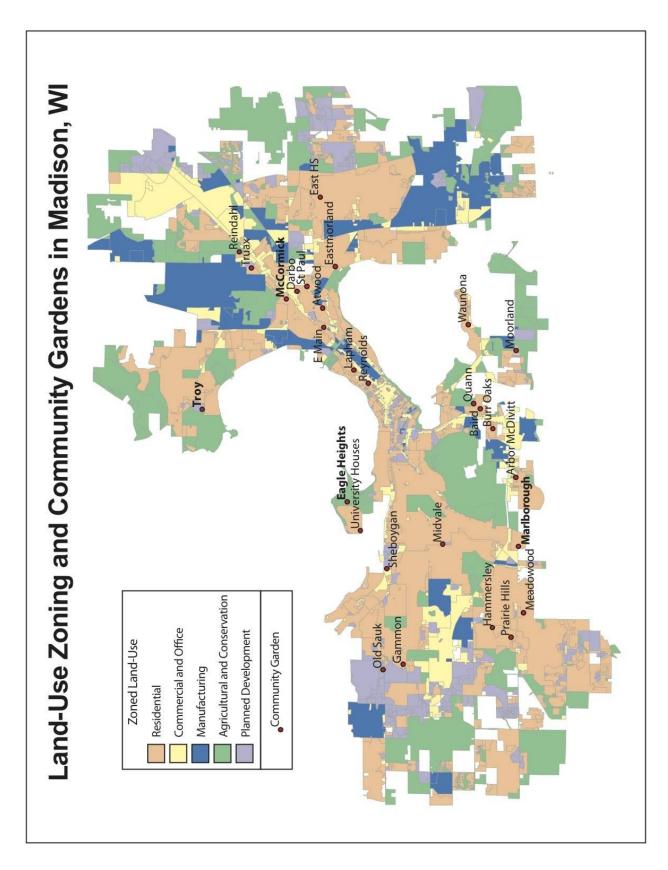


Figure 3. Land-Use Zoning and Community Gardens in Madison, WI. Data from Heather Stouder 35

Garden	Ownership	Zoning
Agricultural and Conservation		
Old Sauk	Church	Α
Moorland	MMSewD	Α
Reindahl	City	С
Eagle Heights	UW	С
Quann	City	С
Commercial		
Reynolds	City	C3
Planned Development		
Sheboygan	State	PUDGDP
Troy	Nonprofit	PUDSIP
Residential		
East HS	MMSD	R1
Gammon	Church	R1
Hammersley	Clty	R1
Meadowood	City	R1
Prairie Hills	City	R1
Burr Oaks	MMSD	R1
Waunona	City	R1
Eastmorland	City	R2
Midvale	MMSD	R2
Marlborough	City	R2
Arbor McDivitt	Church	R3
Baird	City	R3
St Paul	Rail	R4
Atwood	City	R4
Lapham	MMSD	R4
University Houses	UW	R4
McCormick	City	R4
Truax	City	R5
E Main	Rail	R5
Darbo	Nonprofit	R5

Figure 4. This table allows us to see the actual zones of the community gardens in Madison as well as the type of ownership of each garden. Data from Heather Stouder.