

City of Eugene Food Security Scoping and Resource Plan



City of Eugene
Planning and Development Department
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List of Abbreviations

CEAP: climate energy action plan

CFSA: community food system assessment

COE: City of Eugene

CPW: Community Planning Workshop

CSA: community supported agriculture

CSC: Community Service Center

EC: Eugene City Code

EDA: US Economic Development Agency

EM: emergency management

EWEB: Eugene Water and Electric Board

FFLC: FOOD for Lane County

LCFPC: Lane County Food Policy Council

LCOG: Lane Council of Governments

OPDR: Oregon Partnership for Disaster

Resilience

PDD: Planning and Development

Department

UO: University of Oregon

USDA: US Department of Agriculture

Acknowledgments

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Executive Summary

Food security has been defined as a strong, sustainable, local and regional food system that ensures access to affordable, nutritious, and culturally appropriate fresh food for all people at all times. It is a condition in which all community residents obtain a safe, nutritionally adequate diet through a food system that promotes community self-reliance and social justice.

In a February 2009 work session on recommendations from the Sustainability Commission, the Eugene City Council directed the City Manager to undertake a scoping and resource plan for development of a food security plan in conjunction with community partners. Community food security is a broad topic. Given this breadth and the need to involve a diverse and wide range of stakeholders, the emphasis of the City's scoping process was to identify the City's role and community-wide projects that are at or near their implementation phase.

Staff convened an advisory committee to help create this scoping document. The final document was reviewed by the advisory committee, the internal Sustainability Board, and Eugene Sustainability Commission.

Action items that are underway include:

- Complete a food market analysis in cooperation with Lane County, EWEB and the University of Oregon. The study will identify local products for local institutional and retail markets.
- Dedicate City staff and resources to improve coordination of urban agriculture and homesteading activities, with the goal of increasing home and neighborhood scale resiliency and sufficiency.
- Continue to align recommendations from the Community Climate and Energy Action Plan with food security, urban agriculture and related City services and planning efforts.
- Complete gap analysis of existing local food security assessments.

The scoping report also includes recommendations for community and City-led actions which are not currently incorporated into work plans and for which funding has not been identified. These include:

- Revise Eugene City Code to address urban agriculture and homesteading opportunities.
- Complete a disaster food access and distribution analysis and plan.
- Follow up the gap analysis of local food assessment with a comprehensive community food security assessment. A community food security assessment is a data based profile that highlights positive and negative outcomes of current methods to satisfy household food needs.
- Evaluate the need, scope and funding opportunities for the development of a community wide indicator and measurement project.

Through the completion of these actions, the level of local knowledge concerning our food system will increase as the City continues to work in collaboration with local stakeholders to advance programs and resources to strengthen the local food system.

Introduction

In February, 2009, the Eugene City Council reviewed recommendations from the Eugene Sustainability Commission (Commission) and adopted the following motion:

Undertake a scoping and resource plan for the development of a food security plan in conjunction with community partners and report back to Council by January, 2010.

This document responds to this directive with scoping elements and identification of the community resources necessary for developing a comprehensive local Food Security Plan.

Background

Food security is defined by the Community Food Security Coalition as a strong, sustainable, local and regional food system that ensures access to affordable, nutritious, and culturally appropriate fresh food for all people at all times¹. It is a condition in which all community residents obtain a safe, nutritionally adequate diet through a food system that promotes community self-reliance and social equity.

A number of local groups, researchers, and government agencies had previously worked on initial elements of a Community Food Security plan. This project brought together these stakeholders as a project Advisory Committee to help coordinate and capitalize on the work already accomplished, identify planning gaps, and gain support for the final Scoping Document. For the purpose of this project, the Advisory Committee agreed that the goal of a Community Food Security Plan is to promote and enable a secure local food system.

A local food system and food security are seen as the long-term aspirational goals of a collaborative community effort. The current local food system is in a condition similar to that of communities throughout the country. The region enjoys tremendous benefits from a wide variety of locally produced foods, yet we continue to experience food scarcity in disadvantaged populations, receive a majority of our foods from outside the local region, and remain susceptible to interruptions in the food supply due to natural disasters or price fluctuations.

The Advisory Committee agreed that a first step in developing the scope of a Community Scale Food Security Plan is to create a food system model.

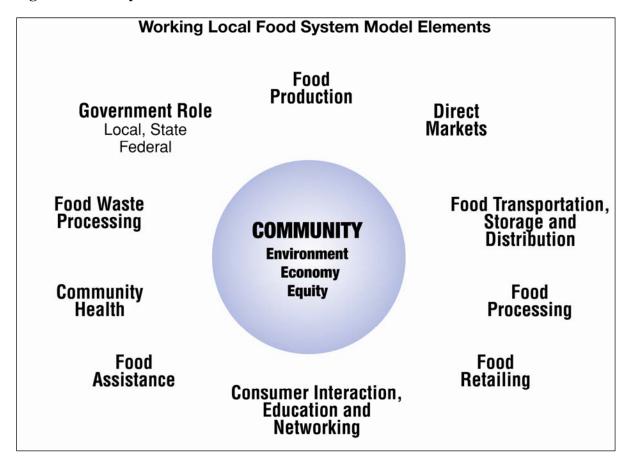
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¹ Community Food Security Coalition, <u>www.foodsecurity.org</u>. 2/10/10.

Food System Model

Establishing a working local food system requires a wide variety of inputs, activities, and resources. The Advisory Committee agreed to utilize and expand an existing Food System Model² (Figure 1) as a method to organize the various activity clusters within the local food system.

Figure 1: Food System Model



Primarily, the model provides a template to characterize and evaluate the variety of activities related to a local food system, and therefore generate a food security plan. This is accomplished through categorization of activities and identification of cross-category linkages (e.g. the intersection of actions). Secondarily, the model provides a lens to respond to the various elements outlined in the Council Action. The model is utilized throughout this document to provide consistency and examples of activities. A brief overview of the major identified components of each cluster is provided below.

1. Food Production: Soil, water, amendments, seeds, starts, livestock, skills, knowledge and labor, machinery, capital equipment, business models, sustainable practices, urban

² From: Jessica Chaney, "Planning our Food Future: The Role of Food Policy Councils" 2005.

- agriculture, certifications (Salmon Safe, pesticide-free, USDA Organic, OMRI, TILTH, etc.), and greenhouse gas emissions.
- **2. Direct Markets:** Community supported agriculture, farm stands, farmers markets, direct sales.
- **3. Food Transportation, Storage, and Distribution:** Transportation system (air, land, water), storage infrastructure, greenhouse gas emissions, and Food Hub.
- **4. Food Processing:** Processing at farm level, value-added processing, and packaging.
- **5. Food Retailing:** Institutional buyers, grocery stores and supermarkets, restaurants, and marketing of local foods.
- **6. Consumer Interaction, Education, and Networking:** Access issues to low-cost healthy foods, home-scale food preservation, training programs, community equipment, local food events and programs, and knowledge of greenhouse gas emission sources in supply chain.
- **7. Food Assistance:** Food pantries, food recovery, meal sites, meal delivery, and emergency planning and response.
- **8. Community Health:** Hunger and malnutrition, disease prevention, labor force productivity, adult longevity and activity, and ecosystem and animal health.
- **9. Food Waste Processing:** Composting, energy production, landfill management, and animal feed
- **10. Government Role Local, State, and Federal:** Laws, policy, financial incentives, technical assistance, adult education, K-12 school curriculum, university research, and school and community gardens.

Document Overview

The structure of this scoping document utilizes each of the five elements identified in the recommendation from the Sustainability Commission, which was:

By January 2010, return to council with a scoping and resource plan for developing a food security plan which will (1) identify community partners and form a project advisory committee, (2) review existing policies and food system assessments, (3) develop a market analysis plan, (4) identify benefits and barriers and (5) determine the budget and timeline to complete the plan and identify resources available, including external funding sources.

Each element is provided a section for a high level discussion of the major issues and a corresponding appendix(s) with additional details. The strategies and work items for approaching these various elements can at overlap or are very similar in scope. The authors have tried to clarify these linkages within each element.

For the purposes of this project, the Advisory Committee identified the southern Willamette Valley within Lane County (roughly a 50 mile radius from the Eugene/Springfield Metro Area)

as the project's geographic scope. This helped to define the inquiry and response to each element, but also presented a challenge to incorporating and evaluating the regional resources (outside of the 50 mile radius) that directly influence our local food system.

Lastly, the literature and local knowledge on food security and the food system is varied and opinions can be widely divergent. Given this fact, the Advisory Committee and staff worked to find common ground on the variety of items that were addressed. Additionally, each element needed further clarification from the Sustainability Commission, City of Eugene staff, and the project Advisory Committee members to verify the intent of the element. Each of the sections provides staff and the Committee's interpretation of the questions and tasks presented. Any omissions or misinterpretations of information are the sole responsibility of City of Eugene staff working on this project.

Element 1: Community Partners and Resources

Through discussions with the Sustainability Commissioners, the goal of "identify community partners and form a project advisory committee," was interpreted by staff as to mean identifying the local organizations involved in food security community discussions and forming an advisory committee for this Scoping Project. Members of the Advisory Committee brought a great deal of knowledge of existing partners and resources available to the discussion on local food systems. Their collective involvement provided greater detail within this document, which ultimately adds to the development of a Food Security Plan.

This section provides a brief overview of the Advisory Committee, a short discussion of local resources, and recommendations of next steps.

Community Advisory Committee

Advisory Committee members included representatives from Lane County Food Policy Council, Willamette Farm and Food Coalition, OSU/Lane County Extension Service, Lane County Farmers Market, the Southern Willamette Valley Bean and Grain Project, City of Eugene Sustainability Commission, Lane County staff, Lane Council of Governments, Eugene Water and Electric Board, City of Eugene Planning and Development Department, and FOOD For Lane County. The Advisory Committee met once per month from July through November to discuss and review the development of this Scoping Document.

This group of individuals does not represent all the stakeholders within a working local food system, but they do represent the majority of organizations involved in local food security discussions. The intent of this document is to serve as a next step in an ongoing discussion that will ultimately involve the entire community.

A list of the members and their organizations is provided as Appendix A.

Local Food System Resources

The Advisory Committee provided information on existing community partners, programs, and projects related to the local food system and food security in general. The local area is well

served by community groups, public agencies, and private non-profits working together to strengthen elements of the local food system. Community-based organizations work to integrate the various elements of the local food system and identify where resources are needed most. A few organizations and activities are identified below, with more exhaustive lists provided in Appendices B-D.

- The Lane County Food Policy Council (LCFPC) provides the local community with a joint citizen and governmental advisory body that reviews and recommends policy to strengthen the local food economy and improve access to healthy and nutritious food. Council members represent the diversity of stakeholders involved in the food system, including farmers, processors, retailers, anti-hunger organizations, nutritionists, governments and citizens.
- The Willamette Farm and Food Coalition produces the *Locally Grown Guide* and works to increase the economic viability of local farms, meat producers, and dairy producers through strengthening access to farmers markets, community supported agriculture (CSA), and institutional, restaurant, and grocery buyers. Through their work, the number of farm listings has increased and CSA programs have grown from 7 to 20 in the past ten years.
- Local Faith-Based Initiatives include weekly dinners, breakfasts, community gardens, food pantries, sack lunch programs, a "That's My Farmer" event to support CSA's, and a public policy advocacy program through Ecumenical Ministries of Oregon.
- Huerto De La Familia strives to alleviate poverty and hunger among low-income Latino
 families by assisting them into growing their own organic food. It is one of the few
 agencies working primarily with minority populations.
- FOOD for Lane County's (FFLC) emergency distribution program works to meet the needs of the hungry in Lane County. They distributed 6.5 million pounds of food through their partner agencies in 2008-09, which included food for 3,958,659 meals at emergency food pantries; 420,241 meals through emergency shelters and meal sites; 130,514 healthy snacks during the school year through the Cereal for Youth program; and 140,273 meals for children through the Summer Food Program. At their meal site, the Dining Room, they served 57,343 hot meals, or an average of 309 per night. They rescued and packaged 608,710 pounds of prepared food and harvested 158,000 pounds of fresh, organic produce from their three community gardens. They also recruited, trained, and mobilized thousands of community volunteers who donated over 66,900 hours to their hunger relief effort.
- Within the City of Eugene, the Community Gardens Program provides growing space for over 300 residents. Additional food producing gardens exist within supporting agencies such as FFLC and local school districts. Comparatively, on a per-capita basis, Eugene is on par with Portland and Seattle for the number of available garden plots.

- Appendix B: Southern Willamette Valley Food System Members.
- Appendix C: Organizations and Services working on Food Security Related Initiatives.
- **Appendix D:** Local Food System Collaborative Projects

Recommendations

Currently, the City of Eugene does not have an identified liaison for food system related programming. Staff involved with this scoping project came from the Planning and Development Department and required substantial time and effort to become knowledgeable on the local food system and produce this scoping document. Given the magnitude of food system activities, identified community interest in the City of Eugene's involvement (8% of respondents in the Eugene Counts 2010 community survey identified "thriving local food production" as an outcome), and the preliminary recommendations from the Community Climate and Energy Action Plan's (CEAP) Food and Agriculture Section; staff recommends that an organizational program unit be formally identified and funded to provide food system related services.

Through the completion of this scoping project, staff recognized there to be the opportunity for redirecting waste prevention activities within the Solid Waste and Green Building program to address this recommendation. Program resources can be transitioned from backyard composting programs toward home and neighborhood scale waste prevention and urban agriculture activities. This new emphasis could include food system related activities such as: providing resources and assistance for home-scale urban farming/homesteading, facilitation of neighborhood level agriculture organization, coordinate with the City community gardens program, develop self-sufficiency/emergency preparedness programs, or act as City liaison for community farming activities (e.g. volunteer coordination for food bank garden projects). Inherent in this transition would be the development of a City web page(s) that would provide information, links, and act as an outreach tool for food system related activities.

Staff estimates that a half-time Program Coordinator position would meet the resource needs for this new element of the program. A cost and resource estimate is provided under Element 5: Budget and Timeline.

Element 2: Policy and Assessments

This element includes four sections; policy analysis, system assessments, plan metrics and recommendations. To provide greater benefit to the City Council's deliberation on this issue, the Advisory Committee defined local policy options, gaps in plan assessments, and a framework for evaluating the health of the local food system. This element posed the greatest challenge to the Committee due to the breadth of policy (international to local) impacting the operation of our local system. Our approach was to identify immediate action items that would address local policy and assessment opportunities, while developing the lens by which to view future research projects.

Policy Analysis

Food security policy has an established legacy in national and international hunger and disaster mitigation. The expanding aim of food security policy has been to address the broader systemic issues associated with conventional food systems (production, processing, transportation, access, etc).

Just as food impacts almost every element of what we do, public policy affects the food system in innumerable ways. Some of the effects are fine-grained and (perhaps) more easily influenced; such as the number of chickens citizens are allowed to have in an urban setting. Others are less tractable at the local scale even if the issue is nominally a local one; such as decisions to expand urban growth boundaries or the aggregate result of rural parcelization. Lastly, some regulatory and subsidy/incentive structures are beyond local influence and must be addressed at the state or federal levels.

Utilizing the food system model as a guide, a list of policy issues and policy related actions is provided in Appendix E: Food System Related Policy. These include items not simply under the authority of the City of Eugene, but also at the local, regional, or state level.

From this list, two policy items were identified as a priority due to the amount of community interest and ability to improve local conditions. These two items are also included in the draft recommendations from the CEAP: Food and Agriculture section. These include the revision of Eugene City Code to allow greater numbers and type of animals for urban homestead use and the creation of a regional disaster food distribution plan. These two are discussed in summary below with budget elements included in Section 5: Budget and Timeline.

Land Use Code Update

Staff within the City of Eugene Planning and Development Department have identified the interest to revise the land-use code to allow increased opportunities raising "micro-livestock" within the city limits. The community interest in this topic has increased recently due to the economic recession, interest in self-sufficiency and homegrown foods, and as a climate change adaptation measure.

Some assistance is available from a 2010 white paper available on the subject. University of Oregon Law School professor Mary Wood and students from the Environmental and Natural Resources Program completed an in-depth review of current urban homesteading literature and conducted a comparative analysis of municipal codes to create a draft model ordinance for the City of Eugene (Appendix F: White Paper on Urban Homesteading and Model Ordinance). This information could assist City staff in the development of the code revisions.

To amend the code (EC section 9.5250, *Farm Animal Standards* and EC Table 9.2010, *Agricultural Zone Uses and Permit Requirements*) would require a Type V Process. Type V

³ Micro-livestock is a term coined for species that are inherently small as well as for breeds of cattle, sheep, goats, and pigs that are less than about half the size of the most common breeds. National Research Council, Panel on Microlivestock. *Microlivestock: Little-known small animals with a promising economic future*. National Academies Press, 1991.

applications provide for a legislative review by the Planning Commission and City Council of changes to the land use code. The process includes public notice and a public hearing before the Planning Commission, which forwards a recommendation to the City Council. The City Council holds a public hearing before making a final decision.

City of Eugene Planning Division staff estimated that the project would require 6-9 months to complete (see Element 5 for budget details). This work is currently not included in the FY11 work plan/budget.

Emergency Management Program: Food Access and Distribution

Local emergency management (EM) programs prioritize the life/safety elements of disaster response. This includes clearing roads, fixing broken water and sewer mains, and restoration of electricity and gas power, rescue operations, and emergency medical response. For the provision of non-life threatening support (food/shelter), EM programs relies on prevention (educating/assisting citizens on being prepared) and on agencies such as the American Red Cross and local food banks. The standard prevention advice is for community members to have a three-day supply of food on hand, while the availability of food from the Red Cross and food banks is dependent upon what is on-hand during the emergency.

Research done in Whatcom County, Washington⁴ in 2008, estimated that during a wide-spread or prolonged disaster, grocery store shelves would be empty within 1-3 days, emergency food banks within the same timeline, and middle and upper income households would likely exhaust supplies within 3-7 days. Recent disasters such as Hurricane Katrina (2005), US Midwest flooding (2009), and Haitian earthquake (2010), are a reminder that the probability of a prolonged disaster resulting from a Cascadia Subduction Zone earthquake is quite high.

Currently, there is no comprehensive local analysis of emergency food capacity or plan for emergency food distribution during a pro-longed disaster (longer than 3 days). Staff contacted the Oregon Partnership for Disaster Resilience at the University of Oregon to estimate the time and cost of conducting research to create a needs assessment for food access and distribution during a prolonged disaster (see Element 5 for details). Due to the widespread impact of this issue, staff recommends completing the analysis under the guidance of the City of Eugene and Lane County Emergency Managers.

Local Food System Assessments and Research

A Community Food Security Assessment (CFSA) is a collection of data that can provide answers to questions about the ability of existing community resources to provide sufficient and nutritionally sound amounts of culturally acceptable foods to households in the community.⁵

⁴ Abby Vincent, Chris Phillips, Matt Hoss, Casey Desmond, <u>Issues in Emergency Food Distribution for Whatcom County</u>, <u>WA</u> (2008)

This is consistent with the United States Department of Agriculture definition. Food is a major part of cultural identity and as such, culture must be an integral element in food security. An example is the ability to provide kosher foods at the local level rather than relying upon global supply chains.

The result of the assessment is a community profile that highlights positive and negative outcomes of current methods to satisfy household food needs.

Most assessments include profiles of community socioeconomic and demographic characteristics, the community's food resources and production capacity, and an assessment of food accessibility (cost and availability) at the household level. These assessments should provide the basis for food security policy decisions and create the foundations for a long-term monitoring system.⁶

Descriptive studies of various components and capacities of the local food system have been completed over the last two decades. A compilation of these assessments is listed below (with available hyperlinks):

- Lane County Food Security Assessment (2009). Dan Armstrong, Lane County Food Policy Council.
- <u>The Lane County Food Policy Council and Re-Framing Food Security</u> (2008) Kara C. Smith. MS Thesis, Department of Political Science, University of Oregon.
- Planning our food future: The role of food policy councils (2005). Jessica D. Chanay. Terminal Project. Department of Planning, Public Policy and Management, University of Oregon.
- Community Food Security Assessment (2005). Natalie S. White, Kate Darby, Nathan McClintock, Sarah Graham, and Karen Pettinelli, with advisory support by Jude Hobbs and Jack Gray. Report for the Willamette Farm and Food Coalition Research Committee.
- Bringing everyone into the foodshed: Improving low-income community members' access to local food in Lane County, Oregon (2005). Kate Darby. M.S. Terminal Project, Environmental Studies Program, University of Oregon.
- Lane County food system assessment report: A compilation of findings and suggestions for future research (2003). Lauren K. Maul. Willamette Farm and Food Coalition.
- Growing the natural foods industry in Lane County: A report for the Lane County

 Sustainable Business and Jobs Project (2003). Tim Shinabarger. Program for Watershed and Community Health Institute for a Sustainable Environment, University of Oregon.

A review and synthesis of these cumulative studies has not yet been completed. The methods employed, however, rely on developing varied portraits of features in the local food system and use of different forms of publicly available data. As such, they serve as partial snap-shots of food security indicators in Lane County but do not provide an integrated data schema to track need and progress over time. All of these assessments were conducted by members of local non-profit organizations or higher education students affiliated with the University of Oregon. Studies by municipal, county, and state governments are significantly absent in this portfolio of work for community and regional food system planning.

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⁶ Lane County Food Coalition Research Committee, Community Food Security Assessment (2005).

Currently, UO Honors College Student Belinda Judelman is completing a Phase One Gap Identification of the existing assessments utilizing criteria included in Appendix G: Community Food Security Assessment Framework. Her estimated completion date is June 2010, at which time the gap identification will be incorporated into this scope as an Appendix.

Indicators and Measurements

A number of comprehensive research assessment tools have been developed and are available for local adaptation, many based on USDA recommended indicators. Appendix H: Food System Assessment Matrix is proposed as a local measurement framework. Additionally, Judelman's list of assessment criteria (Appendix G) provides a more comprehensive listing, but without identification of focus, variables or data sources.

A recommended feature to this assessment is that the information be identified and compiled in an ongoing data structure and used to inform and direct local and regional public policy. This will require a host repository for data and a formal decision making process and body to maintain and manage the data. This action could be accomplished through any number of regional entities, including the University of Oregon, Lane Council of Governments, City of Eugene, Lane County, etc. The issue to consider is the complexity of the program, which could range from the simple (a document repository) to the complex (integrated data programs that provide reports on program indicators). Further development of the indicators and measures requires a more robust scoping process than possible in this document.

Recommendations

Due to the nature of public agency work, the policy and assessment realm provides the greatest level of opportunity for future engagement. Therefore, staff recommends the following action items based on the discussion above. Estimated costs and timeline associated with various recommendations are included in Element 5: Budget and Timeline.

- 1. Review the actions identified in the final CEAP: Food and Agriculture section to prioritize future projects including, but not limited to:
 - Revision of EC 9.5250 for increased "micro-livestock" raising within the city limits.
 - o Conducting research and analysis on the local capacity for food distribution and access during a prolonged emergency.
 - o Completing an Emergency Food Distribution plan for the local area.
- 2. Staff recommends utilizing this scoping document and Judelman's Gap Identification as a basis for grant proposals to secure federal, state, or foundation funds to support the completion of a comprehensive Community Food Security Assessment (CFSA). See Element 5 for budget estimate. Program staff within the identified organizational unit for food system related services (see Element 1 recommendations) would be responsible for developing grant proposals as opportunities become available.

3. At the completion of a comprehensive CFSA and utilizing information from the Market Analysis, city staff (see above) should conduct outreach to community groups and discern the need, scope, and funding opportunities for the development of an indicator and measurement program. This would require collaboration with staff from Lane County, Lane Council of Governments, University of Oregon and the Lane County Food Policy Council among others.

Element 3: Market Analysis Plan

The broad definition of a food security market analysis plan required staff to research and develop a scope of work that provided specific elements and methods for a local food market study. Staff interviewed members of the Sustainability Commission to clarify the intent and objectives of their original recommendation.

In the process of developing a scope of work, staff met with Robert Parker, Director for the Community Service Center (CSC) at the University of Oregon, to discuss graduate research opportunities involving food markets. The CSC had received a grant from the US Economic Development Agency (EDA) to provide match funding for community sustainable economic development research projects. After discussing opportunities for leveraging funds between City of Eugene, EWEB, and Lane County staff, the attached Food Market Study Scope (Appendix I) was developed.

The overview of the project will be to characterize the local market opportunities for a select grouping of locally grown products. This will involve an analysis of the market demand and supply economics for each of the products. The objective is to identify products that can provide a generalized account of a group of local products. Additionally, the study will provide as detailed a characterization as possible of the local market demand for locally grown products. Lastly, the project will evaluate the pricing of identified products to determine the likely demand within the local institutional and retail produce market.

Budget and timeline are included in Element 5. Staff plans to finalize project agreements in February, 2010 with a final project deliverable due in August, 2010.

Element 4: Benefits and Challenges

A Food Security Plan should include steps to address the identified gaps in a local food system and should include environmental, social equity, and economic elements; typically referred to as the triple bottom line. These triple bottom line elements will be different for each community and will change over time based upon the internal capacity of a local food system and the everchanging external conditions.

Challenges

As discussed in Element One, Food Security Plans by nature are very complex, require incredible amounts of data, collaboration and funding, and will change over time. In addition to

these functional challenges, the local political environment precludes a simple agreement of 1) what food security means and 2) what the priorities for action should be.

Definitions of food security range from availability of emergency food supplies, to low-carbon diets, to organic/non-genetically modified foods, to locally produced foods, to sustainably produced food, to low-cost and wide variety of foods, to the health index and balanced diet of households and the community. Each of these definitions highlights a different facet of the food system and is invaluable to the understanding of the system. Yet, when there are such a wide variety of topics within the discipline, the creation of an overarching plan is very difficult and costly. This is evident in a literature review on existing food security related planning documents. The majority of these are either food system assessments (e.g. Alameda County, CA; Detroit, MI, Portland, OR/Southern WA area) or market analysis documents (e.g. Seattle, WA; Louisville, KY). Some are regional land-use planning documents (King County), while the more comprehensive documents are from large metropolitan areas such as New York City.

Integration

The way forward is based on incremental steps focusing on high value projects that can be integrated into a regional framework. The Advisory Committee completed a Strengths, Weaknesses, Opportunities and Threats exercise at the first meeting (see Appendix J). This exercise helped the team to identify the gaps in our research and planning documents. We believe that the recommendations in this document move the local food security discussion further in a rational and cost-effective manner.

Element 5: Budget and Timeline

In order to accomplish this goal, the Advisory Team determined that developing a budget for a comprehensive Food Security Plan based on the Food System Model (Figure 1) would require an immense level of resources, be extremely complex, and take years to complete. The alternative path was to characterize the comprehensive framework and relationships between various sections and then identify and prioritize the most cost-effective projects to pursue in the near term. Budget estimates for recommended next steps are included below. Possible funding sources, if not identified below, are contained in Appendix K: Funding Opportunities and Resources.

Recommendations for Next Steps

The Advisory Team identified specific projects seen as being crucial to the next steps for building a food security plan and which possessed the most interest, available funding, or link to existing activities. These became the recommendations within the various Elements in this scoping document. A description of each project budget and time estimates included below.

Element 1 Recommendations

Staffing and Program Unit

The position as outlined would require a .5 FTE at the Program Coordinator grade level. For FY11 the cost for a .5 FTE program coordinator, including wages, insurance and benefits, would

total \$38,900. Additional funds for program outreach, materials and supplies, vehicle, and office space would be an additional \$15,000 to \$20,000 depending upon the level of programming provided. As recommended, funding comes from solid waste license fees (nexus between fund and program activity is that the activities will increase organics diversion from the landfill and also target prevention of waste at the home level).

Element 2 Recommendations

Community Climate and Energy Action Plan (CEAP) Integration

The integration of the final recommended action items in the CEAP can be accomplished through both activities identified Element 1 and by the Sustainability Manager and/or CEAP Coordinator identifying existing organizational units with services that align with the steps required to implement the action items. Both processes will be through existing organizational positions and would require a marginal amount of staff time to integrate into annual work plans.

Initial Food Security Assessment Gap Analysis

University of Oregon Honors College and Environmental Studies student Belinda Judelman will be completing her Undergraduate Honors Thesis this spring. Her project will utilize the assessment framework in Appendix J to identify the gaps within the existing local food security assessments. Her work will be completed in June, 2010 and will inform the scope development for the Community Food Security Assessment outlined below. No financial resources are allocated for this project and minimal staff time is required for completion.

Land Use Policy Revision

City of Eugene Planning Division staff estimates that this Type V planning process would take 6-9 months to complete, require approximately 145 hrs from Planning staff @ a cost of \$60/hour, and a Materials and Supply budget of \$1,300; for a total of \$10,000. If Measure 56 Notice (a state law that requires the city to send notice to all affected property owners if a code amendment may affect permissible uses) is required, that would add an estimated \$28,500 to the total.

Disaster Food Access and Distribution Analysis + Plan

Oregon Partnership for Disaster Resilience (OPDR) staff suggest that completing a project based on the methodology in the Whatcom County report would best be accomplished through working with the Community Planning Workshop (CPW) at UO with a team of graduate students with OPDR staff support. Such a project typically costs \$50,000 and will require 6-9 months for completion. OPDR and CPW could begin the project in January 2011. Currently, this is not part of the City of Eugene Emergency Manager's work plan for the indefinite future, nor are there available resources. There exist grant opportunities to fund this type of activity and this could also qualify for an Oregon Solutions project from the Governor's Office.

Community Food Security Assessment

Completion of a comprehensive community food security assessment by a City of Eugene staff member would require the time of a Management Analyst 2 @ \$45/hr for a total of 1,000 hours over the course of 6-9 months, and a Materials and Supply budget of approximately \$2,000; for

an estimated total of \$47,000. Alternatively, the CPW program at the University of Oregon excels in this type of project; staff estimates a CPW team to take 6-9 months with a budget of \$50,000. Currently, there is no identified funding or staff resource for this project.

Indicator and Measurement Project

The scope for this project will be based on the outcomes from the CFSA, the Market Analysis, and the Distribution Analysis. If the project were to advance independent of the others, a rough estimate would be \$25,000 for staff time to work with community partners to identify the specific needs, indicators, and measurements for the project. Currently, this is a lower priority for action based on input from the Sustainability Commission and Advisory Group members. There are no resources identified for this project currently.

Element 3 Recommendations

Food Market Analysis

This is a collaborative project involving the Community Planning Workshop (CPW) at the University of Oregon, EWEB, Lane County and City of Eugene. UO Graduate students from the Planning and Public Policy Management and the Lundquist School of Business with support from program staff will take 6 to 9 months to complete the project. Minimal agency staff time is required. The funding contribution from each agency is \$10,000 and the UO providing a 1:1 match with federal Economic Development Agency funds of \$30,000; for a project total of \$60,000. The final deliverable (as outlined in Appendix I) will be available in late July, 2010. The City of Eugene contribution is funded through the FY10 Solid Waste License Fees (Fund 155) budget appropriation for personal services.

Appendix A: Food Security Advisory Committee Members

Name	Organization	Organization Description
Shawn Boles	City of Eugene	The Sustainability Commission works to create a healthy
	Sustainability	community now and in the future by proposing measurable
	Commission	solutions to pressing environmental, social and economic
		concerns to the City of Eugene, its partners and its people.
Lynne	Willamette Food and	The Willamette Farm and Food Coalition (WFFC) is a
Fessenden	Farm Coalition	community non-profit that facilitates and supports the
		development of a secure and sustainable food system in Lane
		County. The coalition connects local farmers and consumers at
		all levels (individuals, businesses, and institutions), serving as a
		matchmaker between buyers and sellers.
David Richey	Lane Council of	Lane Council of Governments (LCOG) is a one-stop
	Governments	destination for services to local governments and agencies in
		the Lane County region and beyond. Experienced LCOG staff
		serve a variety of roles to help members complete a broad range
		of projects.
Deb Johnson-	Lane County Food	The Food Policy Council works with many different parts of
Sheldon	Policy Council	the community that would need to be coordinated in order to
		develop and implement a food security plan, including farmers,
		processors, retailers, anti-hunger organizations, nutritionists,
		researchers, government representatives, and other community
		members.
David Turner	Lane County Farmers	The mission of the Lane County Farmers' Market is to further
	Market	the health of the entire community by enhancing the viability of
		producing and marketing Oregon grown fruits, vegetables,
		herbs, flowers, plants & animal products, through a democratic
		association which advances the shared values of the Market
17	EOOD C. I	community.
Karen	FOOD for Lane	FOOD for Lane County (FFLC) is a 501(c) 3 organization that
Edmonds	County	operates as the food bank for Lane County. The FFLC mission
Mike	Lane County	is to eliminate hunger by creating access to food. Lane County Economic Development Manager.
Mckenzie-	Lane County	Lane County Economic Development (vianage).
Bahr		
Karl	Eugene Water and	Municipal water and electric utility.
Morgenstern	Electric Board	The state of the s
and Nancy	- 502.00	
Toth		
	1	

Name	Organization	Organization Description
Ethan Nelson	City of Eugene-	The City of Eugene commits to promoting a sustainable future
and Anne	Planning and	that meets today's needs without compromising the ability of
Donahue	Development Dept.	future generations to meet their needs.
Ross	OSU Lane County	The Oregon State University Extension Service provides
Penhallegon	Extension Service	research-based knowledge and education that strengthens Lane
		County's economy, sustains natural resources, and promotes
		healthy communities, families, and individuals.
Dan	Mud City Press,	Mud City Press is a Eugene-based website focused on issues
Armstrong	Southern Willamette	related to the environment and food security in the Willamette
	Bean and Grain	Valley. The Southern Willamette Valley Bean and Grain
	Project, Lane County	Project is a all-volunteer citizen based organization dedicated to
	Fairgrounds Repair	a step by step strategy to rebuild the local food system. The
	Project.	Lane County Fairgrounds Repair Project is a citzen-based effort
		to transform the Lane County Fairgrounds into a zero waste,
		zero net energy campus that acts as a community resource
		center and food hub.

Appendix B: Southern Willamette Valley Food System Members

Regional food system members include: farmers, processors and wholesale distributors, grocers and other retailers, institutional food purchasers, restaurants, farmers markets, food banks and other food assistance organizations, and organizations offering agricultural support.

The following businesses currently purchase from Lane County farms:

Wholesale

Eugene Local Foods

Emerald Fruit and Produce

Glory Bee Foods

Hummingbird Wholesale

McDonald Wholesale

Organically Grown Company

Retail

Capella Market

The Kiva

Market of Choice

Red Barn Grocery

Sundance Natural Foods

Processors

Emerald Fruit and Produce

Glory Bee Foods

Grain Millers

Hummingbird Wholesale

Stahlbush Farms

Sweet Creek Foods

Truitt Brothers

Springfield Creamery

Institutional Food Buyers (currently

purchasing from local growers)

Eugene 4J School District

Springfield Public Schools

Bethel School District

Crow Applegate Lorane School District

University of Oregon

Lane Community College

Sacred Heart Medical Center

Restaurants

Adam's Sustainable Table

Belly

Café Lucky Noodle

Café Soriah

Café Yumm!

Cornucopia

Davis Restaurant

Excelsior Inn

Glenwood

Hideaway Bakery

Holy Cow Café

Koho Bistro

Laughing Planet

Marche

Mazzi's

Park Street Café

Ratatuoille Bistro

Red Agave

Food Assistance

Catholic Community Services

Food for Lane County

Gleaning Projects/Tree by Tree

Huerto de la Familia

Opportunities for growers/farm direct sales

Community Supported Agriculture Programs (17 in Lane County)

Eugene Local Foods (on-line market selling products from 25 area farms)

Farmer's Markets (10 in Lane County)

Farm to School Program (Willamette Farm and Food Coalition)

Food Hub (on-line market for all of Oregon)

Locally Grown Guide (Foods & Wines of Lane County, published by Willamette Farm and Food Coalition)

Local Food Connection event

Oregon Solutions Lane County Food Distribution Project

Southern Willamette Valley Bean and Grain Project

Appendix C: Organizations and Services working on Food Security Related Initiatives.

Aprovecho Research Center www.aprovecho.net

Aprovecho is a non-profit research and education center located outside of Cottage Grove, Oregon. Our 40 acre rural campus is the classroom for our ongoing educational programs. At Aprovecho you will experience live, working examples of appropriate technology, sustainable forestry, organic agriculture, permaculture, and the interconnectedness that is shared by these systems and with the land.

Cascadia Food Not Lawns www.foodnotlawns.com

Food Not Lawns is a loosely affiliated cluster of grassroots gardeners in and around the Willamette Valley, just west of the Oregon Cascades. We work together toward an ecologically, socially, and perpetually thriving bioregion, using theories and techniques derived from permaculture, kinship gardening, ecological design, and biodynamics. We also develop and test our own ideas, and offer a wide range of educational, organizational, and hands-on services

Cascade Pacific Resource, Conservation & Development www.cascadepacific.org

Cascade Pacific RC&D is a nonprofit organization dedicated to supporting positive environmental, social and economic changes in local communities. Serving six counties (Benton, Lane, Linn, Lincoln, Marion and Polk), projects focus on improving water quality, enhancing fish and wildlife habitat, supporting renewable energy, promoting a sustainable local food system, and creating and maintaining rural jobs.

City of Eugene Community Gardens www.eugene-or.gov/parks

The Community Gardens' mission is to provide a rewarding gardening experience for all who rent a garden plot and join the community gardens family. The rental comes with access to a plot, water, and tools. Each gardener then decides what to plant in his or her plot and how to cultivate it.

City of Eugene Composting Resources www.eugenerecycles.org/Composting

The Solid Waste and Green Building Program actively promotes composting at home and at commercial businesses. We have a variety of programs which provide education and the technical assistance necessary to help you get started if you are new to composting, or supplement your current composting efforts. This page provides tips for backyard and worm composting. It also has links to other resources for composting information.

Community Food Security Coalition (CFSC)

Based in Portland, Oregon, the CFSC has helped many cities and communities create their own food security plans nation-wide. A partnership with the CFSC would be beneficial in many aspects of the creation of an action plan. They have many resources, including assistance with federal funding streams available

Environmental Center of Sustainability (ECOS) http://www.ecoseugene.org

ECOS develops and implements integrated strategies and programs to sustainability challenges

in Oregon. Partnerships and collaborations are key to enable the networking of solutions in areas reflecting environmental, food security, economic, relocalization and cultural changes that affect our region.

Eugene Permaculture Guild www.eugenepermacultureguild.org

The Eugene Permaculture Guild seeks to educate the community and ourselves in the principles of sustainable living. We offer presentations, potlucks, an annual Plant and Seed Swap and Bio-Regional Gathering. Another goal is to create and maintain living examples of permaculture designs which incorporate efficient and productive integration of plants, animals, structures, and people.

Eugene Veg Education Network www.eugeneveg.org

Eugene Veg Education Network is devoted to educating the general public about the impact of their food choices. We believe the right information in the hands of caring people lets them make compassionate, intelligent and informed choices for themselves, the animals, and the planet. EVEN hopes to serve as a resource to provide factual information about the benefits of a plant-based diet, acting as a conduit to connect the person asking the question with an informed answer.

FOOD for Lane County www.foodforlanecounty.org

Food for Lane County works to alleviate hunger by creating access to food. We accomplish our mission by soliciting, collecting, rescuing, growing, preparing and packaging food for distribution through a countywide network of social service agencies and programs; and through public awareness, education and community advocacy.

FOOD for Lane County Gardens Program <u>www.foodforlanecounty.org/Programs/Gardens</u>

The FOOD for Lane County Gardens Program provides a multi-faceted approach to reduce hunger and fulfill the basic need for nutritious food in our community through a unique combination of services. The Churchill Community Garden, GrassRoots Garden and Youth Farm provide opportunities for limited-income adults to work with others to grow food for themselves and the food bank; education, job training and mentoring of limited-income and at-risk youth; and the creation and distribution of healthy, nutritious emergency and supplemental food to Lane County families, individuals and children.

Helios Resource Network www.heliosnetwork.org

Helios Resource Network is a nonprofit organization promoting community livability by empowering local groups and businesses working toward sustainability.

Huerto de la Familia (The Family Garden) http://www.heurtodelafamilia.org

Huerto de la Familia strives to alleviate poverty and hunger among low-income Latino families by assisting them to grow their own organic food.

Institute for Sustainability Education and Ecology http://iseesustains.org

Partners for Sustainable Schools works to integrate sustainability in all aspects of K-12 education in Lane County, providing young people with opportunities to develop life skills that build wonder, hope, and vision.

Lane Coalition for Healthy Active Youth (LCHAY) http://www.lchay.org

LCHAY's mission is to prevent childhood obesity and related disease by mobilizing the community to adopt active lifestyles and healthful nutrition.

Lane County Extension Service http://extension.oregonstate.edu/lane

The OSU Extension Service of Lane County provides Oregonians with research-based knowledge and education to strengthen communities and economies, sustain natural resources, and promote healthy families and individuals.

Lane County Extension Service Nutrition Education Program

http://extension.oregonstate.edu/lane/nutrition

The Lane County Extension Nutrition Education Program helps limited-resource individuals, children, and families learn about the importance of making healthy food choices. Classes are taught in a variety of settings from youth in local public school classrooms to adult groups in a nearby church. The Expanded Food and Nutrition Education Program (EFNEP) focuses on families including eligible parents, pregnant women, and youth in kindergarten through high school. EFNEP also serves child-care providers who are caring for children from limited-resource families.

Lane County Farmers' Market http://lanecountyfarmersmarket.org/

The Lane County Farmers' Market can trace its beginnings back to the first public market in this part of Oregon, the Eugene Producers Market, which began in 1915. Today, the Market is comprised of nearly 160 growers and producers. Membership is open to anyone who is an Oregon resident and complies with our rule that you must grow and produce anything you bring to the Market.

Lane County Food Policy Council http://www.fpclanecounty.org

Working to foster food security and food system development, the Food Policy Council is a joint citizen and government advisory body that reviews and recommends policies to strengthen the local food economy and improve access to healthy and nutritious food.

Lost Valley Educational Center www.lostvalley.org

The mission of Lost Valley Educational Center is to create and foster mutually beneficial relations between humans and all parts of the web of existence. We believe that these relationships provide a means to well-being as well as survival. In fulfilling this mission, our purpose is to create and maintain an intentional community, including affordable housing, and an educational center dedicated to three goals which guide us in all activities.

Northwest Coalition for Alternatives to Pesticides (NCAP) www.pesticide.org

The Northwest Coalition for Alternatives to Pesticides protects the health of people and the environment by advancing alternatives to pesticides.

Oregon Tilth www.tilth.org

Oregon Tilth is a nonprofit research and education membership organization dedicated to biologically sound and socially equitable agriculture. Primarily an organization of organic

farmers, gardeners and consumers, Tilth offers educational events throughout the state of Oregon, and provides organic certification services to organic growers, processors, and handlers internationally.

Oregon Department of Agriculture www.Oregon.gov/ODA/

The mission of the Oregon Department of Agriculture is 1) to ensure food safety and provide consumer protection; 2) to protect the natural resource base for present and future generations of farmers and ranchers, and 3) to promote economic development and expand market opportunities for Oregon agricultural products. The three broad policy areas of the mission statement are interdependent. Without a strong and healthy natural resource base—particularly land and water—there is little or no agricultural production to promote and market. Without assurance that the food produced in Oregon is safe, there is little chance that many agricultural products will be of interest to potential customers.

School Garden Project of Lane County http://www.schoolgardenproject.org

A grassroots, non-profit organization dedicated to fostering hands-on, schoolyard-based learning experiences for children by creating vibrant and sustainable school gardens and habitats.

Slow Food - Eugene Convivium www.slowfoodeugene.org

Slow Food is an international movement dedicated to Taste, Tradition, and the Honest Pleasures of Food. Based in New York City, Slow Food USA provides support and promotion to local chapters; each called a "convivium," that carry out the Slow Food mission on a local level. Each convivium advocates sustainability and bio-diversity through educational events and public outreach that promote the appreciation and consumption of seasonal and local foods and the support of those who produce them.

Ten Rivers Food Web http://www.tenriversfoodweb.org

A non-profit providing strategic leadership to build an economically and environmentally sustainable local food system in Benton, Linn and Lincoln Counties.

Upper Willamette Soil and Water Conservation District

Soil and Water Conservation Districts (SWCDs) are legally defined as subdivisions of state government, but they function as local units. In Oregon, there are 45 SWCDs working to put conservation efforts on the ground. The results include cleaner water, improved crop land, pastures, forests and restored wildlife habitat. The Upper Willamette District represents East Lane County.

Victory Gardens for All http://www.victorygardensforall.org

A volunteer run, community based garden assistance in a pay-it-forward model. For a small fee they will help clear your ground and plant your garden, providing soil amendments, seeds, and starts. And all they ask is that you help assist in planting the next garden. Enhancing food security, one yard at a time!

Weston A. Price Foundation, Eugene Chapter http://www.krautpounder.com

Wise Traditions in food, farming and the healing arts. The Foundation is dedicated to restoring

nutrient-dense foods to the human diet, and supports accurate nutrition instruction, organic and biodynamic farming, pasture-feeding of livestock, and community-supported farms.

Willamette Farm and Food Coalition (WFFC) http://www.lanefood.org

WFFC is a community non-profit that facilitates and supports the development of a secure and sustainable food system in Lane County. Our projects and services facilitate greater understanding of the social, economic, and environmental impacts of our food choices, and promote the purchase of locally grown and produced foods to keep our small farms viable and to strengthen the local economy. WFFC publishes the annual *Locally Grown* guide (available online) and runs the Farm to School Program in Lane County.

Willamette Valley Sustainable Food Alliance (WVSFA) http://www.wvsfalliance.org
A regional business association that promotes and supports natural food businesses in Lane County through relationships, education and sustainable business practices. The alliance has good potential to offer local business expertise to the development and implementation of a food security plan.

Appendix D: Local Food System Collaborative Projects

CAST (Communities and Schools Together)

Funded by the National Institutes of Health, CAST is a five-year project of the Oregon Research Institute and several community partners addressing childhood obesity in the Bethel School District. The project is conducting a food system assessment of the area, and also supporting efforts to get local produce into the Bethel District schools.

Farm to School http://www.lanefood.org/farmtoschool

A program of the Willamette Farm and Food Coalition, Farm to School partners include the School Garden Project of Lane County and the Lane County Extension Service Nutrition Education Program. Farm to School seeks to improve student nutrition by providing children with fresh, locally grown foods at school while simultaneously teaching them about where their food comes from. Students are given the opportunity to grow their own fruits and vegetables in a school garden, tour local farms, participate in garden-based nutrition lessons, and to sample and prepare fresh produce from their garden and the farms they visit. Currently operating in four Lane County school districts (Eugene 4J, Springfield, Bethel, Crow Applegate Lorane).

Farmland Preservation

Willamette Farm and Food Coalition is partnering with the Lane County Food Policy Council to conduct GIS mapping of Lane County's remaining high value agricultural lands, to document current food production and estimate future food production, and to create educational materials for policy makers and planners.

Food Hub http://www.ecotrust.org/foodhub

An online marketplace (developed by Portland-based Ecotrust) aimed at connecting institutional food buyers with Oregon farms. The three-tier system will include an online directory of buyers and sellers, a platform for making online purchases, and a network for aggregation and distribution. Debuts in September 2009. EWEB has given financial support, WFFC has served in advisory role and will encourage farms and institutional food buyers in Lane County to sign up and test the system.

Local Food Connection http://www.cascadepacific.org/lfc.htm

Annual farmer-chef connection event for the southern Willamette Valley, linking farmers, fishers, and food buyers. One day event in early February, hosted by Cascade Pacific RC&D, and sponsored by EWEB, Oregon Tilth, and LCC, with planning support from Ten Rivers Food Web, Willamette Farm and Food Coalition, and the Good Company (2010 will be 4th year).

Lane County Fairgrounds Repair Project: http://www.mudcitypress.com/fairgrounds.html
The Lane County Fairgrounds Repair Project is a citizen groups dedicated to transforming the Lane County Fairgrounds into a zero waste, zero net-energy campus with a focus on adding

critical food system instracture to the campus and teaching food production, preparation, and preservation.

Oregon Solutions Lane County Food Distribution Project

Initiated by EWEB, Willamette Farm and Food Coalition and Ecotrust as an initial step toward building larger markets for locally grown foods, this series of round table discussions brought farmers, distributors, and institutional food buyers together to address some of the barriers to getting local foods into our schools, colleges, and hospitals. Facilitated by Oregon Solutions, a program of the governor's office, the process identified opportunities for sales of local crops to institutions in the 2009 growing season and culminated in a written declaration of cooperation with specific commitments made by all participants of time, resources, and intent to source local.

Southern Willamette Valley Bean & Grain Project

http://www.mudcitypress.com/beanandgrain.html

A consortium of farmers, non-profit organizations, community members, and wholesale food buyers working to stimulate the cultivation and local marketing of organically grown dry beans and grains to provide year-round food resources in the Willamette Valley. In an effort to start a movement to transition agricultural acreage currently in ornamental grass seed back into food crops, two farmers in Benton County have grown a diverse array of bean and grain crops over the past three years. Other project members have worked to create local markets for these crops (to date there is more demand than product), develop buyer/seller relationships, evaluate gaps in the local food infrastructure such as processing and storage capacity, and educate other farmers about the importance of crop diversity and the economic opportunities of the emerging markets. (Ten Rivers Food Web, Willamette Farm and Food Coalition, Sunbow Farm, Stalford Seed Farms, Hummingbird Wholesale, Hunton Farm, Mud City Press.))

That's My Farmer http://www.lanefood.org/thats-my-farmer.php

That's My Farmer! is a unique partnership between 16 Eugene faith communities and 13 area farms. This annual 'meet the farmers' event is held every April to showcase local Community Supported Agriculture Programs (CSAs) and encourage people to buy direct from their farmers. Households pay at the beginning of the growing season to share the risk with farm families and give them much needed cash flow to sustain their farm businesses. In return, investing families receive a box of fresh farm products each week throughout the growing season. Most CSA programs deliver fruits and vegetables; some include products such as meat, eggs, honey, cheese and bread. All proceeds from this event benefit the **That's My Farmer Low Income Fund**, which subsidizes CSA shares for families in need. Anyone can contribute to the TMF Low Income Fund at any time throughout the year.

Tree by Tree www.ecoseugene.org/tree-by-tree/

A fruit tree planting, care and gleaning project in the Bethel-Danebo neighborhood of Eugene. Organized by ECOS (Environmental Center for Sustainability).

Urban to Farm Connection Project www.ecoseugene.org/urban-farm-connection/

A valuable model for creative cooperative food production, the Urban to Farm Connection builds teams of Eugene residents to cultivate and harvest multi-acre garden plots inside or outside the city. The teams work as cooperatives, sharing work, produce, and profits from produce sales. A project of ECOS (Environmental Center for Sustainability)

Appendix E: Food System Related Policy

Policy Category	Examples of Potential Policy-Related Action
Food Production	 Update Eugene City Code (ECC) to increase urban homesteading options.² Evaluate urban/rural reserve and county policy on rural land development to determine impacts on farming on urban fringe.*² Support collaboration of city, county, and state agencies to update farm worker health, safety, and living wage policies.*^{1, 2} Support the development of state-wide ethical livestock treatment standards for meat, dairy, and egg production. *² Oregon Department of Agriculture to establish a moratorium on livestock producers relying on the regular use of sub therapeutic antibiotics and synthetic growth hormones in healthy animals. *^{2, 3} Develop regional economic development plan that includes fruit and vegetable production (specialty crops). *^{2, 3} Establish edible landscaping on city and county-owned property. *^{2, 3} Require Planned Unit Development projects to dedicate common space for gardening, using guidelines such as LEED© Neighborhood Developments (ND) as a reference. ^{2,6}
Direct Markets	 Pass local jurisdiction resolution recognizing the importance of local, healthy, low carbon, and sustainably produced food. 1, 2, 3, 5 Specify the prioritization of local and/or low carbon foods for internal purchasing in jurisdiction's procurement policies, or as part of a service contract. 1, 2, 3, 5 Evaluate the impacts of local use of local food as an economic development strategy for the region. *1, 2, 5
Food Transportation, Storage, and Distribution Food Processing	 Review regional rail infrastructure for opportunities for enhancing direct access for agricultural products distribution.*² Examine local transportation consolidation of refrigerated trucking and alternative fuel sources. *² Develop targeted tax incentives for local food storage facilities*.² Evaluate the economic impact of increasing the number and capacity
Food Retailing Consumer Interaction, Education, and	of local food processing facilities. *1,2 Determine what (if any) economic development incentives could be provided that would: • Attract supermarkets and grocery stores to under-served neighborhoods. 2,4 • Enable current small food store owners in under-served areas to increase or carry local, healthy, and affordable food items 2,4 • Evaluate opportunities (e.g. outreach programs or regulations) that provide standards on food advertising to children in public settings (i.e., governmental offices, civic centers, schools).2
Networking	 Consolidated (city/county/state) support for:

	-		
	o an increase in the per pupil federal reimbursement rate for		
	school meals, and		
	o updating the federal Child Nutrition Act to provide schools		
	with a "commodity letter of credit" to increase local schools		
	oversight and flexibility with the use of federal meal funds. 4		
	Encourage employers and local institutions to purchase local foods		
	and promote nutrition education and healthy eating practices. * ^{2, 6}		
	• Support community efforts (including funding requests) for nutrition		
	education, gardening training, food preservation, and to establish		
	community access commercial kitchens for self-sufficiency/micro-		
	business opportunities. ²		
Food Assistance	 Create a comprehensive map of local food distribution systems.^{2, 6} 		
Community			
Health	• Encourage non-chain restaurants to provide consumers with calorie		
Health	and nutrition information on in-store menus and menu boards. ^{2, 4}		
	• Support community-based initiatives like "Healthy Corner Store". ²		
	Adopt policy supporting city/county/state health screening of children		
	for diet related disease prevention. *2		
Food Waste	Update ECC and administrative rules to divert food waste from		
Processing	landfill and into compost production and/or energy recovery. *1,2		
	• Implement a community composting initiative with composting bins		
	for residents and businesses through neighborhood networks. *1,2,3		
Government Role	Evaluate local Emergency Management plans to determine if a new		
(Local, State,	policy/plan is required to address food access during disaster		
Federal)	response.* ^{1, 2}		
	Review and incorporate food indicators in existing municipal and		
	county accountability monitoring protocols. *1, 2, 6		
	Identify city/county programs and staff that can liaison with		
	community-initiated food security efforts and collaborate with local,		
	state, and federal efforts to build sustainable local food system		
	capacity. *1, 2, 6		
	cupacity.		

* Requires city/county coordination

Sources: ¹Community planning documentation for the inception of the LCFPC; ² partner input in the Food Security Scoping process; ³Muller, M., Tagtow, A., Roberts, S. L., & MacDougall, E. (2009). Aligning Food Systems Policies to Advance Public Health. *Journal of Hunger & Environmental Nutrition*; 4:225-240; ⁴Institute of Medicine & National Research Council (2009). Local Government Actions to Prevent Child Obesity; http://www.nap.edu/catalog/12674.html; ⁵ Woodbury County Local Food Policy Resolution; ⁶ Stringer, S. M. (February, 2009). Food in the Public Interest: How New York's City's Food Policy Holds the Key to Hunger, Health, Jobs and the Environment.

Appendix F: White Paper on Urban Homesteading and Model Ordinance.

Reform of Local Land Use Laws To Allow Microlivestock on Urban Homesteads

A white paper produced by the

Sustainable Land Use Project

of the

Environmental and Natural Resources Program

University of Oregon School of Law⁷

⁷ This White Paper was prepared by Mary Christina Wood, Philip H. Knight Professor of Law and Faculty Director, University of Oregon Environmental and Natural Resources Law Program; Jeremy Pyle, JD Candidate; Naomi Rowden, JD Candidate and ENR Fellow; and Katy Polluconi, JD Candidate and ENR Fellow; in consultation with Heather Brinton, Managing Director, ENR Program. Comments on this White Paper should be submitted to enr@uoregon.edu.

Executive Summary

Over the course of the past half-century, the U.S. food system has become a vast, highly centralized mechanism for growing, importing, and distributing food to households across the country. Concern has mounted in recent years over the system's sustainability due to high rates of pollution, energy use, pesticide use, health risks, as well as the overall decline in the quality of food. In addition, given the thousands of miles that food typically travels through the global marketplace before reaching the consumer, the system's reliance on transportation networks makes it vulnerable to weather-related and other emergencies that affect travel.

As an alternative, many "urban homesteaders" are looking to their own backyards to provide as much food as possible for their own families. In doing so, households are making productive use of their private property to provide a safer, healthier alternative to the conventional food supply, as well as becoming more self-sufficient and more resilient to emergencies and food shortages. Many urban homesteaders feel that they enjoy better tasting food, live life more fully, gain greater nutrition, interact more with neighbors, and provide children a wholesome upbringing connected to nature and its bounty. All of these reasons contribute to a burgeoning nationwide movement.

Part of this urban homesteading effort involves a progression beyond growing plants to cultivating meat and dairy sources as well. Microlivestock such as chickens, ducks, geese, turkeys, quail, pygmy goats, a pig, rabbits, and bees, for example, can provide families with safe, healthy, low-impact sources of food on site. Concerns over noise, odor, and other intrusions on neighboring properties can be sufficiently allayed through education, regulation, and the law against nuisance. Because current code provisions tend to restrict these activities, however, cities responsive to their community's growing interest in urban homesteading must revise their city codes to allow microlivestock on residential lots. This white paper sets forth a model microlivestock ordinance and supporting policy and law analysis. The model code (on p. 66-67) is designed to enable community citizens to make use of their own property in a way that will enhance the quality and safety of their family's food sources, reduce their environmental impact, and help create a more sustainable, food-secure community for all.

Introduction

For the past several decades, Americans have divorced themselves from the ages-old endeavor of growing and harvesting their own food. During the recent era, the food system has experienced radical change from its traditional makeup that predominated even just a few generations ago. Today, global distribution systems deliver food thousands of miles. While increasing convenience and diversity to the consumer, the consolidation and centralization in food production has come at a high cost. The U.S. food system is highly polluting, unsustainable, vulnerable to adversity, and, in some cases, distributes products infected with food-borne bacteria that is harmful or even lethal to the unsuspecting consumer. For all of these reasons, citizens are urging their local officials to initiate regulatory and policy changes to encourage local food production on both public property and private lots. Eugene, Oregon is one such city. The purpose of this White Paper is to inform changes to the city code to allow more productive "urban homesteading" on residential lots in the city. It focuses in particular on regulations pertaining to husbandry of microlivestock.

Part I summarizes the existing city code. Part II reviews the private property interests and food policy concerns that should inform code revisions. Part III describes the widespread urban homestead movement and discusses various types of micro-livestock that are fast becoming fixtures of the urban homestead. Part IV presents basic policy choices that city officials will confront in crafting revisions to the land use code. It summarizes approaches of other city codes and provides recommendations. Part V offers a draft model code provision to allow a broader array of micro-livestock on urban lots within Eugene.

I. The Eugene City Code

Appendices Page 31

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 $^{^8}$ See generally Michael Pollan, The Omnivore's Dilemma: A Natural History of Four Meals (2006).

The current code section pertaining to "farm animals," § 5250, allows only two adult rabbits or fowl (no roosters) over 6 months of age to be kept on lots under 20,000 square feet (1/2 acre) in any residential zone. Fowl younger than six months of age are not limited in number; the code is silent, so presumably they are permitted. The code is also silent as to bees, implicitly permitting them on residential lots. The code does not allow goats or pigs (or larger livestock) on lots of less than 20,000 square feet (1/4 acre). On lots exceeding that size, however, those animals (along with cows and horses) are permitted, subject to certain restrictions providing minimum space per animal. There is no limit on the number of rabbits and fowl that may be kept on these larger lots. 10

In practice, the city manages the land use code as a "living code," a complainant-driven system. It is well-known that many microlivestockers in town raise more than 2 chickens (the formal code limit). If the owner manages the chickens in a sanitary and proper manner, the activity triggers no more perceivable harm than would the keeping of two chickens. The city does not devote "patrolling" enforcement resources to search out violations where there are no complaints. If complaints do arise, the Eugene City Code has ancillary provisions that bear upon the keeping of animals. These include provisions relating to noise (§ 4.083), annoyance (§ 4.430), confinement (§ 4.455), dead animals (§ 4.470), animal abuse (§ 4.335), animal neglect (§ 4.340), sale of animals (§ 4.485) and nuisance (§ 6.010). These would remain in place under the draft model ordinance.

II. **Food Policy and Private Property Interests**

As the City of Eugene considers revising its land use codes, several new factors should inform the policy choices. An increasing number of private property owners seek to make

⁹ Eugene City Code § 9.5250. ¹⁰ *Id.*

productive use of their own backyards to enhance household food security, food safety, sustainability, and self-sufficiency. Such emerging private property interests are compatible with, and reinforce, city initiatives towards local food resilience and sustainability. The following discussion inventories some primary concerns motivating personal food production on private property.

A. Drawbacks of the Present Food System

The current food supply is "tethered to food pipelines that extend around the globe." Dependent as it is on far away production areas, the food supply is vulnerable to abrupt shortages. When transportation systems are compromised, food delivery becomes either difficult or impossible. Due to the "on time delivery system" that prevails in the United States, supermarkets have few supplies in their storerooms. Most of their inventory is on the shelves, and during emergencies such provisions can vanish quickly. The average stock of food cities have on hand to provide for their citizens is three day's worth, ¹² and few households have backup stocks of any significant quantity. The Red Cross only recommends enough food for 72 hours, which equates to six cans of food per person. ¹³

Like virtually all communities in the United States, Eugene depends heavily on imported food products produced far away, in climates and soils non-native to the locality.¹⁴ Existing food supply chains typically contain few or no locally produced products.¹⁵ In Eugene, for example, only 5 percent of the food consumed is produced locally either through local farm markets or

¹¹ THOMAS A. LYSON, CIVIC AGRICULTURE: RECONNECTING FARM, FOOD, AND COMMUNITY 5 (University Press of New England 2004).

¹² See ABBY VINCENT ET. AL., INSTITUTE FOR GLOBAL AND COMMUNITY RESILIENCE, ISSUES IN EMERGENCY FOOD DISTRIBUTION FOR WHATCOM COUNTY, WA 13 (2008),

http://www.wwu.edu/resilience/Publications/EM Food Whatcom-IGCR 08.pdf.

¹³ *Id*. at 16.

 $[\]overline{\text{Lyson}}$, supra note 5, at 4.

¹⁵ *Id.* at 5.

home gardens, despite the abundance of farmland in close proximity.¹⁶ Harvested at distant farms (often in Mexico, China, Brazil, or New Zealand), agricultural products are then transported for processing and packaging at another location, and then transported again to large wholesale distribution centers. From there, the packaged foods are shipped to retail stores located near urban areas where consumers purchase them and transport them home. Studies have shown that the average purchased fresh food item has traveled from 1300 to 2000 miles to reach the dinner plate, requiring large amounts of energy to reach most consumers.¹⁷

Because of long-distance transport, as well as the machinery, fertilizers, pesticides, fuel, and other goods used in large-scale agricultural production, food production is the fourth largest consumer of energy in the U.S. ¹⁸ The fuel necessary for producing a given food product often greatly exceeds the caloric content of the food. One source estimates an input of 10 kilocalories (kcal) of fossil fuel energy for every one kcal of food energy produced. ¹⁹ Moreover, long-distance transport requires elaborate packaging and often refrigeration, both of which are highly consumptive. Packaging must then be dealt with by municipalities at the consumer end, either through garbage or recycling.

The far-flung transportation infrastructure involved in this food system makes it vulnerable to severe weather events and other natural disasters. For example, when a severe windstorm hit Whatcom County, Washington in 2006, transportation along I-5 was interrupted, resulting in depleted food stocks. A report analyzing the event concludes: "An emergency that reduce[s]

¹⁶ VINCENT ET AL., *supra* note 6, at 14.

¹⁷ LAUREN MAUL, LANE COUNTY FOOD COALITION, LANE COUNTY FOOD SYSTEM ASSESSMENT REPORT: A COMPILATION OF FINDINGS AND SUGGESTIONS FOR FUTURE RESEARCH 18 (2003).

¹⁸ JOHN HENDRICKSON, UNIVERSITY OF WISCONSIN-MADISON, ENERGY USE IN THE FOOD SYSTEM: A SUMMARY OF EXISTING RESEARCH AND ANALYSIS (1996).

¹⁹ Robert S. Lawrence, Director, Center for a Livable Future, Johns Hopkins Bloomberg School of Public Health, Presentation: *Peak Oil and Health: Impacts on Food and Agriculture* (Mar. 12, 2009), *available at* http://www.jhsph.edu/bin/o/q/Lawrence_Handouts.pdf. A calorie is the amount of energy required to raise the temperature of one kilogram of water one degree Celsius. A kilocalorie refers to one thousand-gram calories.

outside replenishment via transportation links such as the Interstate 5 corridor, may result in bare grocery store shelves within 1-3 days and even quicker depletion of emergency food provisions for food insecure individuals."²⁰ Not only are transportation channels for food distribution compromised by weather-related emergencies, but crops themselves are vulnerable to damage. In 1988, a severe heat wave wreaked havoc on the U.S. agricultural industry, causing over \$60 billion worth of losses. 21 Losses of grain and corn yields may contribute in the future to higher costs of meat and dairy products. Many urban homesteaders seek to address these concerns on a personal level in ways that will make the community as a whole more secure and households more resilient in face of such emergencies and rising costs.

В. Public and Individual Health Benefits of Local Food

Public health and individual benefits of a more local food system go beyond avoiding risk exposure. There is increasing evidence that growing one's own food provides major physical, psychological and social benefits through increased intake of healthy foods like fruits and vegetables, greater physical activity and social interaction, and exposure to "greenspace" in urban areas.²² Furthermore, food that is cultivated locally or in the backyard often has a higher nutritional quality compared to food produced conventionally. This is true because production methods, post-harvest handling, processing, packaging, and transportation of conventionally grown produce all contribute to nutrient loss.²³ The same kind of benefit also applies to locally cultivated meat. For example, poultry that are fed a portion of grass instead of an all-grain diet and given access to the outdoors will produce healthier meat and eggs, with higher levels of

²⁰ VINCENT ET. AL, *supra* note 6, at 4.

²¹ TOM ROSS & NEAL LOTT, U.S. DEP'T OF COMMERCE, NAT'L OCEANIC AND ATMOSPHERIC ADMIN., A CLIMATOLOGY OF 1980-2003 EXTREME WEATHER AND CLIMATE EVENTS 6 (2003).

²² Jonathan R. Leake et. al., Health Benefits of 'Grow Your Own' Food in Urban Areas, 8 ENV. HEALTH Supp. 1

^{(2009),} http://www.ehjournal.net/content/8/S1/S6.

23 Harvard Medical School, Center for Health and the Global Environment, 'Is Local More Nutritious?' It Depends, http://chge.med.harvard.edu/programs/food/documents/local_nutrition.pdf.

Omega-3 fatty acids, beta carotene, and conjugated linoleic acid (CLA), all of which help fight cholesterol, diabetes, high blood pressure, and cancer.²⁴

Many families gravitate to local scale food production for these positive reasons, as well as to avoid negative factors associated with the industrialized food system. As recent food recalls demonstrate, the system is vulnerable to food-borne disease outbreak.²⁵ In recent years, E. Coli-infected food has forced massive recalls of products containing peanuts, pistachios, meat, spinach, tomatoes, lettuce, and others. (By contrast, disease outbreaks in locally produced food systems are more isolated and therefore more contained.) In addition to food-born disease, there is harm from toxins that lace conventional foods. EPA notes that "most of the foods we eat have been grown with the use of pesticides[, which] may be present inside or on the surfaces of these foods."²⁶ The health hazards posed by pesticides include birth defects, nerve damage, and cancer, as well as endocrine disruption in humans, that causes a range of reproductive problems, brain and behavior abnormalities, immune system function, and various cancers.²⁷ Children are at even greater risk of pesticide exposure because their organs and immune system are underdeveloped and lack the same level of protection that adults do. 28 Besides accumulating pesticides, many dairy and meat also products contain antibiotics and growth hormones, both linked to adverse health effects.²⁹ These serious concerns have prompted many to seek healthier alternatives for providing food for their families.

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²⁴ American Grassfed Association, *Frequently Asked Questions*, http://www.americangrassfed.org/frequently-asked-questions/#4.

²⁵ A. Bryan Endres & Jody M. Endres, *Homeland Security Planning: What Victory Gardens and Fidel Castro Can Teach Us in Preparing for Food Crises in the United States*, 64 FOOD & DRUG L.J. 405, 408 (2009).

²⁶ U.S. Environmental Protection Agency, Pesticides: Topical & Chemical Fact Sheets, Assessing Health Risks from Pesticides, http://www.epa.gov/pesticides/factsheets/riskassess.htm.

²⁷ U.S. Environmental Protection Agency, Pesticides: Topical & Chemical Fact Sheets, Protecting Children from Pesticides, http://www.epa.gov/pesticides/factsheets/kidpesticide.htm.
²⁸ Id

²⁹ Organic Consumers Association, *EU Scientists Confirm Health Risks of Growth Hormones in Meat*, ASSOCIATED PRESS (Apr. 23, 2002), http://www.organicconsumers.org/toxic/hormone042302.cfm.

C. Family Economic Security and Freedom in Food Choice

Many urban homeowners turn to their own backyards for food cultivation to provide a buffer against hard financial times as well. Home food production is now recognized as an important economic endeavor. In her book, *Depletion and Abundance*, author Sharon Astyk notes the importance of a "domestic economy" for family security in the face of an increasingly tenuous market economy.³⁰ During 2008, 12.4 percent of Oregon households experienced food insecurity.³¹ As food prices and unemployment rise, more households can be expected to pursue home food production for this reason.³²

Some urban homesteaders are also motivated by a desire to take responsibility for producing much of what they eat. As author Michael Pollen notes in *The Omnivore's Dilemma*, the industrialized meat and dairy industry imposes deplorable conditions on animals raised for food. Moreover, factory farms holding thousands of pigs and dairy cows pollute valleys and waterways with appalling amounts of manure, as thoroughly documented in David Kirby's book, *Animal Factory*. Responsible animal husbandry on private property is a viable alternative. As stated in the popular book, *The Urban Homestead: Your Guide to Self-Sufficient Living in the Heart of the City*: "We are confident that in the coming years urban livestock is going to become more and more common, because the current situation with our food is just untenable. If you

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³⁰ SHARON ASTYK, DEPLETION AND ABUNDANCE (New Society Publishers 2008); *see also* SHARON ASTYK & AARON NEWTON, A NATION OF FARMERS: DEFEATING THE FOOD CRISIS 39 (New Society Publishers 2009) ("It is easy in our vast agricultural system to imagine that someone will always produce what is needed and make sure we get it. But as we've seen, that system has already begun to fall apart. Americans simply don't fully grasp the relationship between farming and food in any meaningful sense.").

³¹ OREGON HUNGER RELIEF TASK FORCE (citing USDA statistics), http://oregonhunger.org/the-problem.html. ³² ANNE C. BELLOWS, KATHERINE BROWN & JAC SMITH, COMMUNITY FOOD SECURITY COALITION, HEALTH BENEFITS OF URBAN AGRICULTURE (2003), http://www.foodsecurity.org/pubs.html#healthurbanag.

raise and slaughter your own meat you'll know the animal was raised in the best conditions imaginable—with air and sunlight and stimulation and healthy food."³³

Nationwide, the urban farming potential is great, as the grass lawns surrounding residences in the United States cover some 18 million acres.³⁴ In Eugene, there is a flourishing Victory Garden movement, modeled after the WWII Victory Garden strategy, that has generated hundreds of new gardens across Eugene's major neighborhoods, including low-income ones. Homeowners are planting gardens and mini-orchards, raising chickens, and finding other ways to make productive use of their land to enhance their family food security and broaden food choice. The broad interest in "urban homesteading" has produced a plethora of books, articles, websites, organizations, and other resources to encourage family self-sufficiency. Enormous leveraging opportunities (and public resource savings) exist by lifting restrictions for food production on the private land base already available, making use of the cadre of landowners eager to put their back yards to this use.

Meat and dairy food are both core parts of the American diet, yet there is no adequate and affordable local commercial food supply source to meet these nutritional demands. For example, there are virtually no local chicken producers aside from a few small family farms, which price their chickens out of the affordable range for most families (approximately \$20-27/per chicken). There is no local organic dairy. The nearest dairy, Noris Dairy, operates out of Crabtree, Oregon, east of Albany.

Average homeowners can meet nearly all of their meat and dairy nutritional needs by maintaining microlivestock that are now recognized accoutrements of the full-fledged urban

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³³ KELLY COYNE & ERIK KNUTZEN, THE URBAN HOMESTEAD: YOUR GUIDE TO SELF-SUFFICIENT LIVING IN THE HEART OF THE CITY 132-33 (Process 2008).

³⁴ LESTER R. BROWN, PLAN B 4.0: MOBILIZING TO SAVE CIVILIZATION (W.W. Norton & Co. 2009).

homestead.³⁵ Options include raising chickens, ducks, geese, turkeys, quail, rabbits, pygmy goats, and bees, and even fattening (or "finishing") a pig for a few months out of the year. While some cities in the Pacific Northwest allow various types of microlivestock, the current Eugene City Code presently is too restrictive to allow meaningful individual choice and animal husbandry.

Reforming the code to allow a broad variety of microlivestock would advance many city policies, without the expenditure of public revenue, simply by leveraging landowner initiative. Given the myriad benefits of local food production, a city policy that allows people to make productive use of their property in this manner falls squarely within the traditional values of American property law.

D. A New Balancing Test for Uses of Private Property

The municipal land use code determines what uses an owner can make of his or her property. Governed by policy choices that reflect the overriding needs of the community, it must be a dynamic set of rules that responds to change. The most basic duty of city government, exercised through its land use authority, is to provide for the essential welfare of the citizens.

The primary reason that land use codes are unduly restrictive as to animal husbandry is that they are still geared towards maintaining a sharp distinction between rural and urban life. Cities have generally prohibited microlivestock because they are considered "farm animals." An individual who wanted such an animal would have to buy a farm. That notion, however, runs counter to the growing interest of citizens in making full use of their privately owned property to provide for healthy food and family self-sufficiency.

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³⁵ See, e.g., Coyne, supra n. 27, and infra, section III).

The urban homesteading movement breaks down distinctions between farm and city life, drawing both individual and community value from productive use of property within city borders.³⁶ A new set of microlivestock breeds (such as pygmy goats) provides opportunities for creating farm value on backyard lots without intrusion to neighbors. Accordingly, city officials nationwide are revising their land use codes to lift restrictions on urban microlivestock.

Such code reform remains compatible with the nuisance framework that imbues land use codes. A nuisance is a "substantial and unreasonable interference with the use or enjoyment of land."³⁷ Determining whether a nuisance exists requires a balancing test between potentially conflicting property uses. It precludes only activities that cause "substantial harm," and even then restricts the use only if the social utility of the activity does not outweigh its harm.³⁸ In that manner, nuisance law has always sought to promote productive use of property.

Needless to say, property owners have no legitimate expectation to a perfect existence of their own design. Neighbors do cause constant irritations of one sort or another, whether it is loud stereos, barking dogs, annoying wind chimes, or smelly tobacco smoke. But these intrusions generally do not rise to the level of harm that justifies a regulatory prohibition. The same guiding principle should inform city officials in revising land use codes. New uses of property invoked by modern concerns should be prohibited only if they rise to the level of "substantial harm" to neighbors, and only if such uses are not justified by the social value of the action.

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³⁶ See Susan Orlean, *The It Bird*, THE NEW YORKER (Sep. 28, 2009); CARLEEN MADIGAN, THE BACKYARD HOMESTEAD (Storey Publishing 2009); see also Urban Homesteading, http://www.urbanhomeseading.com/ (last visited Feb. 7, 2010).

³⁷ Joseph Singer, PROPERTY LAW: RULES, POLICIES, AND PRACTICES 271 (Aspen 4th ed. 2006).

³⁸ *Id.* at 271 ("'[N]uisance is a substantial and unreasonable interference with the plaintiff's use and enjoyment of his property." (citation omitted)); *id.* at 278 ("The *Restatement (Second) of Torts* §826(a) defines land use as 'unreasonable' when the 'gravity of the harm outweighs the utility of the actor's conduct."").

In the case of raising microlivestock within city boundaries, there is generally no "substantial harm" caused to neighboring properties, as discussed in the following the sections. As the popular book, *The Integral Urban House*, explains:

Most municipal ordinances restricting livestock were made to protect urbanites from the smell, noise, flies, and general nuisance-causing behavior associated with farm animals in the city that are managed as if they were still on the farm. Systems must be constructed that allow small livestock to be raised compatibly with these urban sensibilities. ³⁹

An increasing array of urban homestead books and websites provide information on strategies that attains compatibility between food production and neighborhood concerns. Where there is the possibility of substantial harm through noise, odor, or sanitation, existing general code provisions provide ample authority to city officials to step in and abate the activity. Property owners also have other remedies such as filing a nuisance lawsuit in court.

Applying the classic nuisance test to various types of microlivestock husbandry, the social utility side of the equation has changed markedly in recent times. In view of the concerns iterated above, there is heightened value on urban homesteading as an important endeavor for community food security and sustainability. The many co-benefits of raising diverse sources of food on urban homesteads also weigh heavily in the balance. These include public health benefits, lower packaging, a reduced public recycling burden, pollution-free and antibiotic-free food choices, responsible husbandry of animals, and in many cases, enhanced neighborhood community. Shifting appropriately to reflect the changing conditions of society, the "social utility" balancing test generally supports use of urban private property for microlivestock.

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 $^{^{39}}$ Helga Olkowski et.al., The Integral Urban House: Self Reliant Living in the City 252 (New Catalyst 2008).

Revising the land use code to expand such use of private property, of course, will have tradeoffs. Some homeowners will undoubtedly object. But the objections of a few must be analyzed carefully to determine if they are truly suffering "substantial harm" and even if so, whether such impacts warrant abandoning the strategy of urban food production to create a more secure, resilient community for all. A private property owner does not have the right to exact the regulatory arm of local government for every irritation, or to find a remedy for the cultural change towards self-sufficiency. In any event, the objections of one homeowner must be balanced against the rights of the other homeowner to make productive use of his or her private property. Nevertheless, the city must have in place basic safeguards against excessive noise, disruption, smell, or disease caused by raising any animals within city limits. Recommendations along these lines are set forth below.

E. Summary

In sum, protecting the private property rights of local citizens to make productive use of their property can be an important part of any municipal strategy to meet community sustainability and resilience objectives. Local governments can capitalize on private property owners' energy and innovation to promote food security, healthier outcomes, and family self-sufficiency. To do so, however, cities will have to revise land use codes to allow a broader array of home food production, including husbandry of microlivestock.

Such code revisions should be treated with some urgency, as there is a significant lag time between the regulatory change and the production of food on urban homesteads. Families and households must create the necessary infrastructure, educate themselves on care and feeding,

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⁴⁰ Modern food policy should be aimed at other areas as well. Public places and schools should be utilized to the maximum extent possible to create edible landscaping and community gardens. Local small-scale commercial food production should be incentivized. This includes encouraging the development of small chicken farms and dairies, as well as inducing farmers to produce important staple crops of high protein beans, grains, and edible seeds. This is the focus of Willamette Valley's Bean and Grain project (*see* http://www.mudcitypress.com/beanandgrain.html).

allocate time for the ongoing effort, and wait until spring for a crop of animals to purchase. A regulatory change should be accomplished as soon as possible to begin the process of building crucial husbandry expertise within the various neighborhoods of Eugene.

III. Urban Homesteading and Micro-livestock

Urban homesteading is spreading rapidly in the United States, part of a worldwide movement known as re-localization that seeks to build local resilience on several different fronts. Many new books popularize and provide resources for the effort of transforming the urban or suburban yard into a food-producing lot. For example, The Urban Homestead and The Backvard Homestead provide excellent resource manuals for the homestead enterprise. Farm City provides a narrative of a couple engaged in urban homesteading in an impoverished area of Oakland, California.⁴¹ Their inspiring approach takes hold in a neighborhood gripped with crime and poverty. An older book, *The Integral Urban Homestead*, provides a detailed manual of animal husbandry. In addition, books and materials from the World War II Vintage provide instruction on chicken and rabbit husbandry. A growing array of popular websites and blogs promote urban-homesteading. One site, *Path to Freedom*, features a family that produces fruits and vegetables, honey, goat milk, cheese, and eggs on its .10-acre property in Pasadena. California.⁴² Also indicative of the popularity of this "back to the land" strategy within city limits is the explosive growth of backyard chickens nationwide. As a New Yorker article observes, urban chicken raising is now a "movement across North America.",43

As urban homesteading spreads, new local industries spring up to provide resources and infrastructure. Local craftsman in the Willamette Valley, for example, now provide chicken

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⁴¹ NOVELLA CARPENTER, FARM CITY: THE EDUCATION OF AN URBAN FARMER (Penguin Press HC 2009).

⁴² Path to Freedom: The Original Modern Urban Homestead, http://www.pathtofreedom.com/ (last visited Feb. 7, 2010).

⁴³ Orlean, *supra* n. 30, at 5.

coops and rabbit hutches. Local garden shops and nurseries now stock a wide variety of fruit trees and other food producing plants, and also offer training sessions and other resources for the urban farmer.

Micro-livestock provides an important food-producing component of the urban homestead. As the leading book, *The Backyard Homestead*, notes, "[t]he final step in completing a backyard homestead is the addition of animals for milk and meat." As indicated by many books and websites on the subject, micro-livestock appropriate for the typical residential urban city lot include: chickens, ducks, turkeys, geese, quail, rabbits, pygmy goats, pigs, and bees. 44 Managed together, the variety of species interacts to provide closed-loop production processes and synergies that build on Nature's own relationships. For example, rabbits and chickens produce fertilizer for the garden, the garden produces vegetables for the family, the vegetable scraps provide food for the chickens, and the chickens produce eggs. As many authors observe, animals are an integral part of the garden because they provide pest control and fertilizer. The discussion below addresses common micro-livestock accessories of the urban homestead. There are examples of city ordinances around the nation that allow for some or all of these, subject to various restrictions or conditions discussed in Section IV.

A. Chickens

1. Homestead and community value

Perhaps no form of micro-livestock is as popular on the urban homestead as the backyard chicken. ⁴⁵ Chickens are raised in virtually every region across America, from the high-density apartments of New York City, to the backyards of Eugene, Oregon, to the row houses of San Francisco, and everywhere in between.

⁴⁴ Guinea pigs are sometimes included as well.

⁴⁵ Orlean, *supra* n. 30.

One of the primary benefits to chickens is the food they yield. In this regard, people either raise them for eggs, or meat, or both. For those who use both chicken eggs and meat, the "layer" hens form the permanent fixture on the property, and the "fryers/broilers" are harvested between two and three months of age. The food yield provides considerable economic security for the urban family as well as a healthy, humane alternative to the industrial factory farms that raise chickens under appalling conditions. As Michael Pollan exposes in his tour de force, Omnivore's Dilemma, even the "organic" chickens produced by large corporate farms don't see the light of day. An American household that wants fresh eggs and responsibly raised, organic chicken meat can find few choices in the marketplace. Backyard chicken production is very much a return to the past American tradition. In WWII, government appealed to homeowners nationally to raise their own chickens for food security. This prompted the now-classic book, Chicken Raising Made Easy, by Paul Chapman (1943).

A chicken lays an average of 200 eggs a year. Thus, to obtain an average of four eggs a day, slightly more than two-dozen a week, one needs a flock of seven or eight hens.⁴⁶ An eggproducing flock does not need a rooster. Raising chickens for meat requires additional chickens. There are two options in this regard. One can buy a number of baby chicks that are already "sexed" so as to exclude the roosters, or one can continuously breed flocks themselves, but that requires a rooster. Since roosters have noise concerns and are banned by many cities (including Eugene), the most sensible land use approach for the time being is to support larger young flocks that are raised at one time, or spaced by a couple of months. Day-old chicks are generally available only for a two-month time period in the spring, so the chicken meat production must begin during that time. Two or three flocks could be raised, separated by several weeks within the overall window of time that chicks are available.

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⁴⁶ OLKOWSKI, *supra* n. 33, at 281.

Chickens have important benefits aside from food production. They are excellent insect, weed, and slug predators, helping to obviate the need for commercial slug bait, pesticides, and herbicides. They can efficiently use kitchen waste scraps.⁴⁷ Chicken manure serves as marvelous fertilizer (and is sold commercially for this purpose) and can be handled in a manner (such as the "deep litter system") that both assures sanitation and maximizes the nutrient-giving capacity.⁴⁸ Chickens provide a natural "tilling" effect on garden beds by their scratch behavior and are notorious for transforming hardened beds into rich, light soils. Chickens are also highly entertaining and accessible to children.⁴⁹ A child's first notion of where food comes from may derive from the experience of collecting an egg from a backyard coop.

2. Care and Space

Chickens require a secure coop for shelter. This is typically a simple structure made from available materials. There are countless designs for such coops in books and on the Internet.

The space needs for a chicken are minimal, about four square feet per chicken. In terms of food, chickens forage for insects, eat kitchen scraps, and devour weeds. Much of their feed thus comes from natural sources or waste. They are fed grains as well. One can purchase organic, locally grown and milled grains from Eugene Local Foods.

3. Management concerns

There are very few management concerns with hens. They cause very little noise aside from a proud cackle at the time they lay an egg. Chickens do not escape easily if confined in a fence (and their wings can be clipped painlessly for extra assurance in that regard). Chickens are not dangerous or harmful to humans in any manner. A small flock is not generally prone to

http://www.culinate.com/articles/features/Metro+chickens?page=0&pageSize=1 (last visited Feb. 7, 2010).

⁵⁰ OLKOWSKI, *supra* n. 33, at 289.

⁴⁷ OLKOWSKI, *supra* n. 33, at 252.

⁴⁸ See id. at 253-57.

⁴⁹ Jes Burns, *Metro Chickens: Backyard Flocks in the City* (April 30, 2007),

disease. When chickens and their wastes are properly managed on the urban homestead, there is virtually no odor or fly problem.⁵¹

4. Resources

Carleen Madigan, ed., The Backyard Homestead (Storey Publishing 2009).

Gail Damerow, Storey's Guide to Raising Chickens: Care, Feeding, Facilities (Storey Publishing 1995).

Helga Olkowski, Bill Olkowski, Tom Javits, and the Farallones Institute, *The Integral Urban House: Self-Reliant Living in the City* (New Catalyst Books 2008).

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 133-151 (Process 2008).

Paul W. Chapman, Chicken Raising Made Easy (Macmillan 1943).

Bucky Buckaw's Backyard Chicken Broadcast, The Sagebrush Variety Show, *available at* http://www.radioboise.org/sagebrush/bucky/ (last visited Feb. 7, 2010).

Path to Freedom: The Original Modern Urban Homestead, http://www.pathtofreedom.com/ (last visited Feb. 7, 2010).

B. Ducks and Geese

1. Homestead and community value

Many cities, including Eugene, allow backyard ducks and geese. Ducks are prized for both meat and eggs. There are many varieties of ducks available. Of these, the Muscovy is one of the most popular choices for meat, as it has 30% less fat than other ducks, ⁵² and its meat is flavorful and tender, often compared to roast beef. ⁵³ The Muscovy male is the largest species of

⁵¹ See Olkowski, supra n. 33, at 252 ("[I]f [chicken] systems are properly designed and maintained they will not produce problems with smells, noise or flies.").

produce problems with smells, noise or flies."). ⁵² Salmon Creek Ranch, *Muscovy Duckling*, http://www.salmoncreekranch.com/muscovy.html (last visited Feb. 7, 2010).

⁵³ Wikipedia, *Muscovy Duck*, http://en.wikipedia.org/wiki/Muscovy_Duck (last visited Feb. 7, 2010).

duck, attaining 12 lbs.⁵⁴ It is fast-growing and can be harvested at 3-4 months of age.⁵⁵ Geese mature to 18-26 pounds, depending on the breed, and provide delicious meat which is often served on holidays. As a source of red-like meat, ducks and geese can be a sustainable substitute for corn-fed beef, the production of which causes enormous greenhouse gas emissions.

Ducks and geese have other characteristics that enhance the urban homestead. They feed on pests, such as insects, snails, and slugs. San Francisco once had a "rent-a-duck" service that loaned Muscovies to gardeners." Muscovy ducks in particular are famous for their mosquito control, an ability that gains increasing importance in view of West Nile Virus and other mosquito-born disease. Their waste can be composted and makes excellent fertilizer. Geese are used as weeders on commercial farms, because of their proclivity to leave established plants alone and favor young shoots. Their feathers can be used to stuff jackets, pillows, and comforters, and can also be used for tying fishing flies.

2. Care and Space

As noted in *The Backyard Homestead*, keeping ducks and geese is a "relatively simple proposition." They require a fence to protect them from predators and to keep them enclosed. They forage much of their own food. Supplemental, locally produced and milled duck grain is available from Eugene Local Foods. Housing needs for ducks and geese are minimal. A small, but secure, duck/goose house gives protection from predators, and should allow 2-6 square feet per bird. Contrary to popular myth, ducks do not need a pond, though many species enjoy

⁵⁴ MADIGAN, *supra* n. 30, at 250.

⁵⁵See, e.g. Salmon Creek Ranch, supra n. 46; Zainal Abidin Md Noor, Duck Meat Production, http://www.jphpk.gov.my/English/Broiler%20duck.htm (last visited Feb. 7, 2010).

⁵⁶ MADIGAN, *supra* n. 30, at 246.

⁵⁷ *Id.* at 246.

⁵⁸ *Id.* at 250.

⁵⁹ LA

⁶⁰ COYNE, *supra* n. 27, at 153.

water. ⁶¹ A simple portable baby pool is suitable, and Muscovies in particular do well without water (they are an entirely different species from most domestic ducks). ⁶²

3. Management concerns

Ducks have no unique management concerns apart from other fowl. Properly managed, they do not intrude on neighborhood values. The only concern particular to ducks is, perhaps, the quacking. In this regard as well, the Muscovy duck is highly preferable to other species. Called the "quackless" duck, Muscovies make much less noise than other varieties and are therefore preferable for the urban setting. While aging males take on a musk-like odor, 4 this is not a concern for a young male flock raised for meat purposes, because harvest generally occurs at four months.

Geese have potentially greater concerns, because they make noise through honking.

They can also fly over the fence if their wings are not clipped. They often hiss around people, causing fright in some. Nevertheless, they remain "spanking clean" on their own (when provided with water to wash themselves) and are recommended for the urban homestead. Noise concerns are unlikely to exceed that of a dog, and in any event, anti-noise provisions of the local code should be sufficient to protect neighbors against any lasting intrusion. Containment within a suitable fence is assured by clipping wings, a painless routine for many types of fowl.

4. Resources

Carleen Madigan, ed., *The Backyard Homestead* 246-256 (Storey Publishing 2009). David Holderread, *Storey's Guide to Raising Ducks: Breeds, Care, Health* (Storey 2000).

⁶¹ MADIGAN, *supra* n. 30, at 246.

⁶² COYNE, *supra* n. 27, at 152.

⁶³ MADIGAN, *supra* n. 30, at 249.

⁶⁴ *Id*.

⁶⁵ Noor, *supra* n. 49.

⁶⁶ MADIGAN, *supra* n. 30, at 246-7.

⁶⁷ *Id.* at 247.

David Walbert, *Raising Ducks*, The New Agrarian, available at http://www.newagrarian.com/category/ducks/.

Feathersite, *Ducks*, at http://www.feathersite.com/Poultry/Ducks/BRKDucks.html.

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 151-153 (Process 2008).

Leonard Mercia, Storey's Guide to Raising Poultry: Breeds, Care, Health (Storey 2002).

C. Turkeys

1. Homestead and community value

Turkeys are marvelous accessories to the urban homestead. As *The Backyard Homestead* notes, turkeys are not difficult to raise and are appropriate for the backyard.⁶⁸ Barbara Kingsolver praises the benefits of turkeys in her popular book, *Animal, Vegetable, Miracle*.⁶⁹ Turkeys provide several functions. First and foremost, they are a traditional holiday food: 270 million turkeys are consumed as part of holiday demand in the United States and Canada.⁷⁰ Yet nearly all of these turkeys are raised on industrial factory farms run by three multinational corporations.⁷¹ They are raised in confined and deplorable conditions, subjected to inhumane treatment at every stage of life.⁷² They feed on corn that is laced with antibiotics, and their flesh is so bland that the final meat is injected with a saline solution and various enhancement oils to

It probably hatched in an incubator on a huge farm, most likely in the Midwest or the South. Its life went downhill from there. A few days after hatching -- in the first of many unnatural if not necessarily painful indignities -- it had its upper beak and toenails snipped off. . . . [I]t will do nothing but gorge on the highly fortified corn-based mash that it is offered, even though that is far removed from the varied diet of insects, grass and seeds turkeys prefer. . . . [In] the crowded conditions of industrial production, mature turkeys are prone to picking at the feathers of their neighbors -- and even cannibalizing them.

⁶⁸ *Id.* at 240-42.

⁶⁹ BARBARA KINGSOLVER, ANIMAL, VEGETABLE, MIRACLE: A YEAR OF FOOD LIFE (Harper Collins 2007).

⁷⁰ See Patrick Martins, About a Bird, N.Y. TIMES (Nov. 24, 2003),

http://www.nytimes.com/2003/11/24/opinion/about-a-bird.html?pagewanted=1 (last visited Feb. 7, 2010).

⁷¹ MADIGAN, *supra* n. 30, at 240.

⁷² See Martins, supra n. 64, describing a standard commercial turkey:

augment taste.⁷³ They bear no real resemblance to the wild turkey native to North America -- the "energetic, tasty bird that struck our ancestors as the perfect centerpiece for an American holiday."⁷⁴ The urban homesteader who raises his or her own turkeys can ensure a healthy, well-raised, and humanely taken meal.⁷⁵ He or she can chose among endangered heritage varieties that carry on the ceremonial tradition of this country's Thanksgiving holiday: these famously provide "dark, rich and succulent meat" for the table.⁷⁶

Second, the turkey provides valuable insect and slug control in the garden.⁷⁷ All ages of turkeys eat insects, consuming large quantities during the summer. This natural food source makes efficient use of ecology and lowers the need for imported grain on the urban homestead.⁷⁸ The turkey droppings provide valuable fertilizer to the garden, and the feathers are sought after for tying fishing flies.

Third, apart from the insect control, there is broad community value in small-scale production of heritage turkeys. As explained in-depth in Kingsolver's book and more summarily in *The Backyard Homestead*, the commercial corporate breeders of turkeys propagate only one strain, the Broad Breasted White, which can no longer breed naturally. As one *New York Times* commentator notes, this threatens "[t]he future of the turkey as we know it Other strains, known as heritage varieties, were developed in the 1700s and are robust and flavorful.

But they are endangered now, because there is no market for them. Food advocates urge small

⁷³ *Id*.

⁷⁴ **r** .

⁷⁵ MADIGAN, *supra* n. 30, at 240 ("By choosing to raise your own turkey for the holidays, you can ensure that your family is eating a quality bird that was raised well and slaughtered humanely.").

⁷⁶ Martins, *supra* n. 64, at 2.

⁷⁷ See Pam Maynard, Raising Chickens and Poultry for Home Pest Control, http://www.ca.uky.edu/smallflocks/Factsheets/Raising_chickens_and_poultry_for_home_pest-control.pdf; see also MADIGAN, supra n. 31 at 240.

⁷⁸ How to Raise Turkeys: The Essential Beginners Guide to Raising Turkeys, http://www.howtoraiseturkeys.com/4-reasons-why-you-should-start-raising-turkeys.html (last visited Feb. 9, 2010).

⁷⁹ MADIGAN, *supra* n. 30, at 240.

⁸⁰ Martins, *supra* n. 64.

farmers and urban homesteaders to participate in an effort to revive these varieties by raising them in backyards and on small farms. As *The Backyard Homestead* notes, "By choosing to raise a heritage variety, you can play a part in continuing the market demand for endangered birds to be kept in production."

2. Care and Space

There are many heritage varieties available for purchase including: Bourbon Red,
Standard Bronze, Narragansett, Jersey Buff, Slate, Black Spanish, White Holland, Royal Palm,
Midget White, and Beltsville Small White.⁸² The homesteader can purchase days-old poults and
raise them to harvest age, which is at about 4-6 months of age.⁸³ The timing of turkey-raising
can greatly benefit the garden and minimize the impacts to neighbors. By buying poults in May
or early June,⁸⁴ a homesteader can benefit from the intense foraging capabilities of the turkeys
(for insect and slug control) when the summer and fall garden is in full swing, and then harvest
them (freezing if necessary) at the holiday time when they reach six months of age.⁸⁵

Turkey poults have a higher natural die-off rate than chickens and require special care when very young. They should be kept separate from chickens and need separate housing. However, such housing is minimal. A small farmer's flock of turkeys (20-30) needs a simple brooder house of about 100 square feet, perhaps with an additional 80 square-foot pen; thus a

It's for this reason that maintaining genetic diversity within any species is crucial to a secure and sustainable food supply. Sadly for the turkey and for us, the rise of the Broad Breasted White means that dozens of other turkey varieties, including the Bourbon Red, Narragansett and Jersey Buff, have been pushed to the brink of extinction because there is no longer a market for them.

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⁸¹ MADIGAN, supra n. 30, at 240. See also Martins, supra n. 64:

⁸² What is a Heritage Turkey? Heritage Turkey Foundation, http://heritageturkeyfoundation.org/ (last visited Feb. 8, 2010); MADIGAN, *supra* n. 31 at 240-42; Troy Griepentrog, *Why the Midget White Turkey is the Perfect Homestead Turkey*, Mother Earth News (August 21, 2008), http://www.motherearthnews.com/Sustainable-Farming/Perfect-Homestead-Turkey.aspx (last visited Feb. 7, 2010).

⁸³ MADIGAN, *supra* n. 30, at 243.

⁸⁴ *Id.* at 242 ("Starting poults at that time enables you to grow them to the desired market weights just prior to the traditional holiday season, when the demand for turkey is strongest.").
⁸⁵ *Id.* at 243.

much smaller flock of four turkeys appropriate for the backyard requires substantially less space.⁸⁶

3. Management concerns

The Backyard Homestead advises that noise, odor, and fly-away problems are associated with turkeys. These concerns are diminished with a very small flock, and the benefits of even a few turkeys in the garden seemingly far exceeds the drawbacks. A turkey that controls insects and slugs, thereby obviating the need for pesticides, will benefit the neighbors and community children in terms of lower toxic exposure. Fly-away problems, also described in the book Farm City, may be avoided by clipping wings, a painless process commonly used by flock owners to contain their birds. Moreover, younger birds have far fewer concerns than adult birds. Meat birds are generally harvested no later than six months of age, which means that most of the impacts would be minimal.

4. Resources

Carleen Madigan, ed., The Backyard Homestead 240-45 (Storey Publishing 2009).

Heritage Turkey Foundation, http://heritageturkeyfoundation.org/.

How to Raise Turkeys: *The Essential Beginners Guide to Raising Turkeys*, http://www.howtoraiseturkeys.com/4-reasons-why-you-should-start-raising-turkeys.html.

Leonard Mercia, *Storey's Guide to Raising Turkeys: Breeds, Care, Health* (Storey Publishing, 2nd Ed. 2000).

Michigan State University Extension, *Want to Raise a Few Turkeys?* (April 21, 2000) *available at* http://web1.msue.msu.edu/imp/modpo/e1259006.html.

D. Quail

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⁸⁶ Michigan State University Extension, *Want to Raise a Few Turkeys?* (April 21, 2000), http://web1.msue.msu.edu/imp/modpo/e1259006.html (last visited Feb. 7, 2010).

⁸⁷ MADIGAN, *supra* n. 30, at 242.

⁸⁸ Across the Creek Farm, *Clipping Turkey Wings* (June 15, 2009). http://acrossthecreekfarm.blogspot.com/2009/06/clipping-turkey-wings-and-pain-in-neck.html (last visited Feb. 7, 2010).

1. Homestead value

Quail are the smallest of domestic fowl. According to *The Urban Homestead*, they are "reputedly the easiest of all to raise." Quail are a common feature of urban homesteads, as reflected in a plethora of web materials on backyard quail raising. They yield delicious meat and eggs, both prized as delicacies. Because of their small size, a meal for one person might consist of 2-3 quail. Quail are easily bred and hatched at home. They are full grown and ready for harvest by about 6-10 weeks. Thus, the meat birds have a very short (if any) backyard presence. Some people raise quail primarily indoors.

2. Care and space

Quail are raised first in brooders (which are warm boxes for chicks located in the garage or other protected enclosed area); then the breeding and/or egg laying birds are transferred to small backyard cages. Meat birds may also be kept in an outdoor pen for a couple of weeks until harvest. Meat birds require only .75 square feet of enclose pen space, and breeder birds require 2 square feet of pen space. Quail eat poultry feed and require proper sanitation, as do other types of fowl. They also require protection from predators.

3. Management concerns

Because of their small size, a homesteader can raise several dozen meat quail with virtually no disruption to neighbors. They are not noisy, do not escape their pens, and are not smelly. There are virtually no significant management concerns associated with a backyard quail flock that is kept confined.

4. Resources

⁸⁹ COYNE, *supra* n. 27, at 156.

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 156 (Process 2008).

The Beginners Guide to Raising Quail, http://www.howtoraisequail.com/.

Raising Quail for Food in Frederiction, New Brunswick, Canada, Urban Agriculture Notes, http://www.cityfarmer.org/quail2.html.

Allen Easterly, *Raising Quail: A Home Grown Delicacy*, Backwoods Home Magazine, http://www.backwoodshome.com/articles2/easterly101.html.

Mississippi Agriculture and Forestry Experiment Station, *Space Needs of Bobwhite Quail*, http://msucares.com/poultry/game/poultry_space.html.

E. Rabbits

1. Homestead value

Rabbits have tremendous value as a source of meat for the urban homestead and have only minimal space, care, and feeding requirements. Backyard rabbit production was a crucial strategy in meeting national food demands during the time of scarcity in WWII. Rabbit meat is notoriously delicious, used often in European, Asian, and Australian cuisine. It is served in some restaurants in Eugene. It is higher in protein and holds less fat than chicken, turkey, beef, lamb, or pork. The Integral Urban House provides a complete discussion on raising rabbits and recommends keeping one buck and four does (females). As the book notes, "such a herd is small enough to fit into waste spaces around the house." A doe can have four litters a year. Rabbits are culled at eight weeks of age, yielding fryers of about four pounds. One buck and four breeding does will yield roughly five pounds of dressed meat each week. Rabbits also have enormous value for producing waste that is marvelous garden fertilizer.

⁹⁰ Crusader Meat Rabbits, Commonwealth Scientific and Industrial Research Organization (July 11, 2008), http://www.csiro.au/science/CrusaderRabbits.html (last visited Feb. 7, 2010).

⁹¹ MADIGAN, *supra* n. 30, at 290-91.

⁹² *Id.* at 290.

⁹³ OLKOWSKI, *supra* n. 33, at 261.

⁹⁴ MADIGAN, *supra* n. 30, at 240.

too, and the Angora species gives a highly desirable soft wool that is obtained four times a year by gently plucking or shearing the animal.⁹⁵

2. Care and Space

Rabbits have very limited space requirements, making them a feasible endeavor for the urban homestead. As *The Integral Urban House* notes, "Rabbits are a very desirable meat animal for urban areas because they are quiet and relatively easy to maintain. Their space requirements are also naturally very small, and they may be housed in cages located in small otherwise wasted spaces around the yard." Rabbits need a simple hutch, which can hold the breeding rabbits, along with their offspring. The does and bucks are kept separate. A small outdoor run is not required, but a nice amenity. Rabbits and hutches are available for sale at Coastal Farm Supply. Rabbits require food ration and can eat supplemental scraps from the garden. Rendering and butchering rabbits can be done in a humane, clean, and quick manner. A detailed treatment of harvesting rabbits is provided in *The Integral Urban House*. 97

3. Management concerns

Properly managed, rabbits give rise to no significant concerns as to odor, noise, or escape potential. In World War II, the federal government reported: "[r]abbits are being raised in every State in the Union. They may be kept in the city backyard as well as on the farm, in fact, wherever poultry raising is permitted." 98

4. Resources

Bob Bennett, *Storey's Guide to Raising Rabbits: Breeds, Care, Facilities* (Storey Publishing, 3rd Ed. 2000).

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⁹⁵ Wikipedia, *Angora Wool*, http://en.wikipedia.org/wiki/Angora_wool (last visited Feb. 7, 2010).

⁹⁶ OLKOWSKI, *supra* n. 33, at 261.

⁹⁷ *Id.* at 272-8.

⁹⁸ See Department of the Interior Information Service, Wildlife Tips and Briefs at 6 (August 15, 1942), http://www.fws.gov/news/historic/1942/19420815.pdf (last visited Feb. 7, 2010).

Carleen Madigan, ed., The Backyard Homestead 290-91 (Storey Publishing 2009).

Gail Damerow, Barnyard in your Backyard, Storey Publishing (2002).

Helga Olkowski, Bill Olkowski, Tom Javits, and the Farallones Institute, *The Integral Urban House: Self-Reliant Living in the City* 246-79 (New Catalyst Books 2008).

House Rabbit Society, http://www.rabbit.org/.

K. Gendron, *The Rabbit Handbook* (Barron Educational Series 2000).

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 154-55 (Process 2008).

F. Pygmy goats

1. Homestead and community value

While average-sized goats require more space than is typically available on urban lots, miniature species such as the African Pygmy Goat or Nigerian Dwarf Goat are ideal for the urban setting and can provide the source of dairy for the urban homestead.⁹⁹ The Pasadena homestead featured on the *Path to Freedom* website has pygmy goats used for both milk production and manure.¹⁰⁰ Urban homesteaders in both Portland and Seattle keep pygmy goats in their backyards.¹⁰¹

A typical pygmy goat weighs 35-60 pounds, no more than an average-sized dog. ¹⁰² They are much smaller than their full size counter parts (16-24" in height) and are easy to take care of. ¹⁰³ Because of their social nature, it is best to have two pygmy goats rather than one. ¹⁰⁴

Described by the *Backyard Homestead* as producing "delicious milk," no different in taste than

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⁹⁹ MADIGAN, *supra* n. 30, at 263.

¹⁰⁰ Path to Freedom daily blog http://urbanhomestead.org/journal/ (last visited Feb. 7, 2010).

¹⁰¹ See John Metcalfe, Let's Goat Crazy! SEATTLE WEEKLY (Sept. 12, 2007), http://www.seattleweekly.com/2007-09-12/news/let-s-goat-crazy/ (last visited Feb. 7, 2010); Jim Redden, Bus-riding Pygmy Goat Finds Its Way Back Home, Portland Tribune (Oct. 30, 2008) available at

http://www.portlandtribune.com/news/story.php?story_id=121251994761290100 (last visited Feb. 7, 2010). MADIGAN, *supra* n. 30, at 263.

¹⁰³ See National Pygmy Goat Association (NPGA), *The Pygmy*, http://www.npga-pygmy.com/resources/husbandry/about_thePygmy.asp (last visited Feb. 7, 2010); *NPGA Breed Standard*, http://www.npga-pygmy.com/resources/conformation/NPGABreedStandard.pdf (last visited Feb. 7, 2010). ¹⁰⁴ MADIGAN, *supra* n. 30, at 258.

cow's milk. ¹⁰⁵ Each pygmy goat can yield 300 quarts of milk per year, ¹⁰⁶ or half a gallon of milk per day. Thus, two pygmy goats can easily provide for the full dairy needs of a family of four or five. Children with allergies to milk from dairy cows can often find a rich and pleasing substitute in goat milk. Families can produce all associated dairy products as well, including cheese, butter, and yogurt. Home pasteurizing machines are readily available for sale and easy to use. ¹⁰⁷ Producing home-grown products avoids the myriad of greenhouse gas emissions caused by the industrial dairy farms. It also saves tremendous packaging and plastic. A family consuming four quarts of commercial yogurt a week, for example, generates waste amounting to 192 plastic containers a year.

Pygmy goats provide other benefits as well. Many families keep them as pets instead of dogs. ¹⁰⁸ Unlike dogs, goats do not bite out of aggression. Some goats are born without horns, and those that have horns are often debudded by the breeder before sale. Goats are easy to handle and transport in dog kennels. ¹⁰⁹ Their manure is useful for garden fertilizer. ¹¹⁰ They are adept at brush control and provide an alternative to toxic herbicides. They are regularly used in California for vegetative suppression to lower fire risk to residences. Goats can even be used to carry supplies on backpack trips. ¹¹¹

2. Care and Space

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¹⁰⁵ *Id.* at 270.

¹⁰⁶ *Id.* at 263.

¹⁰⁷ *Id.* at 269.

¹⁰⁸ Maxine K. Kinne, *Pygmies for all Reasons*, NPGA, http://www.npga-pygmy.com/resources/husbandry/allreasons.asp (last visited Feb. 7, 2010). ¹⁰⁹ MADIGAN, *supra* n. 30, at 258.

¹¹⁰ Id. at 259.

¹¹¹ Id. at 258.

Goats eat a combination of goat ration and hay, both locally available. As noted in *The Backyard Homestead*, goats do not require "elaborate housing." Miniature goats require only a 10 square-foot shelter, such as an unused shed, that can provide protection from sun, wind, and rain. The miniature goat requires only 130 square feet outdoors. The urban homesteader should plan on having two goats to protect against loneliness. One potential problem with goats is that they are notorious for escaping flimsy enclosures. As *The Backyard Homestead* advises: "You'll also need sturdy fence – don't underestimate the ability of a goat to escape over, under, or through an inadequate fence." But, unlike cats that roam through entire neighborhoods, a proper fence will contain a goat.

Dairy goats must be regularly milked-- generally twice a day, which requires a commitment on the part of the urban homesteader. Missing a milking can put the doe in discomfort and could lead to abscess. A milking station, or "milking parlor," is easy to devise, and dairy goat suppliers provide milk stands and equipment for this purpose. The investment of time in caring for a goat may make neighborhood partnerships desirable.

3. Management concerns

Contrary to myth, goats are no smellier than dogs, as the *Backyard Homestead* points out. The exception is a buck in breeding season. For this and other reasons, the urban homesteader should keep does, not bucks. Goats, unlike some dogs, are not noisy, though they may bray when in distress. If properly confined within a sturdy fence, goats present no significant concerns for neighbor's enjoyment of property. They pose no violent tendencies.

4. Resources

¹¹² Wilco Farm Stores, Springfield,

http://www.wilco.coop/Divisions/Farm_Stores/Locations/farm_stores_springfield.asp (last visited Feb. 9, 2010). MADIGAN, *supra* n. 30, at 258.

¹¹⁴ *Id*.

¹¹⁵ *Id*.

Carleen Madigan, ed., The Backyard Homestead 258-270 (Storey Publishing 2009).

Goodbye City Life, *Pygmy Goat – Raising and Keeping Goats*, http://www.goodbyecitylife.com/animals/pygmy-goat.htm.

Irvine Mesa Charros 4-H Club, *Goats*, http://www.goats4h.com/GoatsHome.html (scroll down for specific links to information about pygmy goats).

National Pygmy Goat Association, http://www.npga-pygmy.com/.

Oregon State University Extension Service, *Dairy Goats*, http://extension.oregonstate.edu/catalog/html/ec/ec1439/.

G. Pigs

1. Homestead and community value

The Backyard Homestead gives a ringing endorsement of raising standard pigs in the backyard. Families can raise a pig during just a few months of the year to "finish" the pig before sending it off-site to a professional facility for rendering and butchering. While the book says that two pigs could be kept on a quarter-acre lot in the city, it recommends a strategy of raising one pig for slaughter in the fall and one in late winter. The urban homesteader buys the young "feeder" pig at 40-70 lbs and feeds it during the "grow-out" period, which is anywhere from 90-120 days. By the end of this "finishing process," a standard pig might reach 260 pounds, 70% of which is available for meat. (The University of Maine Extension Service notes that the ideal butchering weight is 220 pounds, which will yield 140 pounds of retail cuts of fresh and cured pork; the University of New Hampshire Extension Service puts the ideal

¹¹⁶ *Id.* at 289.

¹¹⁷ *Id.* at 286-87.

¹¹⁸ *Id.* at 289.

¹¹⁹ *Raising the Backyard Pig*, University of Maine Cooperative Extension, http://www.umext.maine.edu/piscataquis/feedpig.htm (last visited Feb. 7, 2010).

market weight at 200-250 pounds). Two standard pigs can provide pork meat for a family of four for a year. 121

Vietnamese Pot-Bellied pigs, though not addressed in the book, are allowed in Seattle and many other cities. They are within the same species as ordinary farm pigs, but are bred to be smaller, thereby requiring less feed and space. They were originally bred in Vietnam for food, but now are sold as pets and treated as such by some Americans. Because pot-bellied pigs are commonly thought of as pets, this white paper focuses on standard pigs for the urban homestead.

The Backyard Homestead describes the benefits of the small-scale, standard pig-finishing enterprise:

[H]og ownership [is] a way to provide quality meat for the family table at moderate cost. When you raise your own hogs, you select them, feed them to an exact slaughter weight, and direct the processing This gives you an assurance of quality and wholesomeness that you can have in no other way. 123

Pigs also provide a source of fertilizer for the garden, and their rooting behavior provides a natural tillage function for garden beds that lie fallow in the fall and winter. They naturally work their waste into the garden soil, enriching it and obviating the need for commercial fertilizer. ¹²⁴ In terms of community benefits, backyard pigs provide an alternative to the industrial food chain (and all of its drawbacks, including waste, pollution, use of antibiotics, and

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¹²⁰ Raising Pigs at Home, University of New Hampshire Cooperative Extension, http://extension.unh.edu/agric/AGDLEP/docs/pigraise.pdf (last visited Feb. 7, 2010).

¹²¹ MADIGAN, *supra* n. 30, at 289.

Wikipedia, *Pot-bellied Pig*, http://en.wikipedia.org/wiki/Pot-bellied_pig (last visited Feb. 7, 2010).

¹²³ MADIGAN, *supra* n. 30, at 286. The garden pig movement is spreading fast in England and other places. *See* Charles Nevin, *I Made My Garden a Pig Farm*, INTELLIGENT LIFE MAGAZINE (THE ECONOMIST Winter 2009), http://www.moreintelligentlife.com/content/charles-nevin/husbandry-tamworth-four

¹²⁴ *Id.* at 287; University of New Hampshire Cooperative Extension, *supra* n. 114 ("Composted pig manure makes an excellent addition to garden soils.").

inhumane treatment of animals), and they also provide a means to process household food waste that might otherwise end up in the garbage.

2. Care and Space

The Backyard Homestead points out that a backyard can "easily accommodate" two pigs of the standard variety, and it provides a full section on pig husbandry. As the book notes, raising pigs is far less of a commitment than goats, because of the short duration of time spent on the homestead. The space needs of a standard pig are modest – just 150 square feet of pen space per pig (the University of Maine extension service recommends a smaller pen of 75 square feet; the University of New Hampshire Extension Service specifies 10-12 square feet of space per pig at market weight). This amount of space generally keeps mud problems from developing (although space needs may be greater in low-lying areas). Attached to the pen should be a simple pig hut for retreat during bad weather. Pigs can be easily contained (within a bigger chain-link fenced area) with one strand of electric wire, a temporary, movable system often used to enclose viscous guard dogs within a yard.

Pigs eat protein ration and corn, both provided from off-site sources. They also eat scraps and garden wastes as a supplement, which provides natural and beneficial waste recycling. Homesteaders can situate a pig "patio" next to a garden, so that garden scraps and plants can easily be tossed into the pig quarters as feed.

3. Management concerns

¹²⁵ MADIGAN, *supra* n. 30, at 257.

¹²⁶ Id.

¹²⁷ University of Maine Cooperative Extension, *supra* n. 113; University of New Hampshire Cooperative Extension, *supra* n. 114.

¹²⁸ MADIGAN, *supra* n. 30, at 286.

¹²⁹ University of Maine Cooperative Extension, *supra* n. 113; University of New Hampshire Cooperative Extension, *supra* n. 114.

Pigs are not noisy and, if properly confined, do not pose significant problems for neighbors. Their most significant perceived drawback is smell: large-scale pig farms have notoriously foul odors. But the problem should not arise with just one pig in a backyard. As the New Hampshire Extension Service notes in its fact sheet, *Raising Pigs at Home*, "Pigs will stay clean if you let them." Waste can be managed appropriately, mixed with soil or straw and composted, so that it can fill a productive function in the homestead.

Standard pigs, while optimally efficient in terms of meat production, may become difficult to manage near the end of the finishing period due to their sheer weight. The author of *Farm City* recounts an escapade of her pig when it broke loose on the streets of Oakland. Clearly, the standards for enclosures must be quite specific and strict in the case of a standard pig. A locked fence containing a pen to house the pig (which may include a pig house and pig "patio" as described in *The Backyard Homestead*), or an interior electric fence (as described in the University of Maine Extension Service Fact Sheet) within an exterior chain link fence would settle most concerns. Attack dogs, after all, are routinely kept within city limits even though they are bred and trained for viciousness towards strangers. The policy benefit of a standard pig, a relatively docile animal, is that it is present on the urban homestead for a fairly short time - only a few months during the "finishing" period.

4. Resources

C.J. Mouser, Homestead.org, *Getting Started with Pigs*, http://www.homestead.org/CJMouser/GettingStartedwithPigs.htm.

Carleen Madigan, ed., *The Backyard Homestead* 286-89 (Storey Publishing 2009).

Irvine Mesa Charros 4-H Club, *Pig Information*, http://www.goats4h.com/Pigs.html.

Kelly Klober, Storey's Guide to Raising Pigs: Care, Facilities, Management, Breed Selection (Storey 1997).

¹³⁰ University of New Hampshire Cooperative Extension, *supra* n. 114.

Raising Pigs at Home, University of New Hampshire Cooperative Extension, available at http://extension.unh.edu/agric/AGDLEP/docs/pigraise.pdf.

Raising the Backyard Pig, University of Maine Cooperative Extension, available at http://www.umext.maine.edu/piscataquis/feedpig.htm.

H. Bees

1. Homestead and community value

Bees have enormous value to the urban homestead and to the broader community. They produce honey, which is a local sweetener source (other sources, such as sugar, are produced thousands of miles away). They also pollinate trees, flowering shrubs, and flowering fruits such as berries, tomatoes, squash, and the like. Bees will "fan out" through a neighborhood, pollinating far beyond their home hive. Backyard beekeepers can therefore contribute to the agricultural productivity of the broader community. Honeybees pollinate a third of the nation's food supply. By augmenting bee populations, backyard keepers may also help buffer the mysterious colony collapse afflicting the species nationwide.

2. Care and Space

Bees live in hives that are commercially available through Glorybee Foods, located in Eugene. They require monitoring for disease, and some focused management. Most backyard beekeepers, however, are prepared to assume duties after taking a beginning class. There is enormous interest in beekeeping in Eugene; indeed, the one class offered by the local beekeeper's association fills quickly.

3. Management concerns

Bees, of course, occur in the wild. While the most obvious concern is stinging, honey bees are gentle and not aggressive, unlike wasps and yellow jackets. Moreover, since they are

present in the wild, the stinging concern is not unique to backyard hives. A group of bees can "swarm," that is, leave the hive at once and settle en masse in a different location. This, however, occurs in the wild as well. Bees need a source of water, especially in warm spring and summer weather. It is important that this be provided on the home property, or the bees may swarm to neighbors' yards with open water or nearby pools. ¹³¹ It is also important to create at a 6-foot tall flyway barrier to force the bees' flight path above people's heads as they exit the hive. A flyway barrier can easily be created by placing the hive's entrance in front of a tall fence or dense shrubbery. ¹³²

4. Resources

American Beekeeping Federation, http://www.abfnet.org/.

Beekeepers, Beekeeping Meetups, Events, Clubs and Groups in Your Area, Meetup.com, http://beekeeping.meetup.com/.

Carleen Madigan, ed., The Backyard Homestead 326-29 (Storey Publishing 2009).

GloryBee Foods, Inc. based in Eugene, available online at http://www.glorybee.com/glorybee/Index.html.

Kelly Coyne and Erik Knutzen, *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* 156-161 (Process 2008).

Kim Flottum and Weeks Ringle, *The Backyard Beekeeper: an Absolute Beginner's Guide to Keeping Bees in Your Yard and Garden* (Quarry Books 2005).

L.L. Langstroth, *Langstroth's Hive and the Honey-Bee: the Classic Beekeeper's Manual* (Dover Books 2002).

Lane County Beekeepers Association, http://www.lcbaor.org/.

Oregon State Beekeepers Association, http://www.orsba.org/htdocs/bee_schools.php (most states also have their own associations).

Richard E. Bonney, Beekeeping: A Practical Guide (Storey 1993).

IV. Other City Codes and Policy Choices for Revision

¹³¹ John Caldeira, *Backyard Beekeeping*, http://outdoorplace.org/beekeeping/citybees.htm (last visited Feb. 7, 2010). ¹³² *Id*.

A. Other ordinances

In undertaking this project, we consulted several other municipal ordinances pertaining to farm animals. For purposes of comparison, we focused primarily on ordinances from Belmont, California; Pasadena, California; Portland, Oregon; Seattle, Washington; and Cleveland, Ohio, as well as a few others where pertinent. We also considered a proposed ordinance in Beaverton, Oregon, and dozens of chicken ordinances compiled in a chart in *The Backyard Homestead*. There are undoubtedly many other ordinances in the country allowing a broad variety of microlivestock, but a national survey was outside the scope of this project. The sample ordinances are sufficiently varied to illustrate an array of approaches.

It is useful to point out that the cities studied took various approaches to a number of issues explored below. Most ordinances had both sound policy features and questionable ones. In that sense, no ordinance was an "ideal" one. The discussion below draws from these various ordinances and makes recommendations. In crafting a proposed revision for Eugene and other cities, we sought to combine the strongest features of the various ordinances. In so doing, we normally opted for the maximum flexibility for the homeowner. Our rationale for this is to encourage innovation on a broad level within the city, understanding that codes may always be revised to respond to unforeseen problems. As noted at the outset of this white paper, a full slate of anti-nuisance provisions already exists in the current Eugene City Code to protect against abuse. These would not be changed.

B. Regulatory choices and recommendations

1. Scope of animals allowed

Some cities allow a fairly wide variety of micro-livestock. Seattle allows, for example, miniature potbelly pigs and miniature goats (with a license), domestic fowl, small animals

(presumably including rabbits), and bees.¹³³ All are considered "accessory use[s]" to residential use and are permitted outright. Belmont allows chickens, geese, ducks, turkeys, pigeons (not homing pigeons), dove, squabs and "similar fowl," rabbits, and pygmy goats (the code was recently amended to allow the latter).¹³⁴ Portland allows chickens, ducks, doves, pigeons, pygmy goats, rabbits, and bees.¹³⁵ Cleveland allows chickens, ducks, rabbits and bees.¹³⁶ Salem, Oregon allows pot-bellied pigs.¹³⁷ The City of Pasadena allows chickens, geese, ducks, turkeys, pheasants, doves, pigeons, squabs, rabbits, and goats (of regular size; presumably pygmy goats are also allowed).¹³⁸ San Francisco allows goats, ¹³⁹ as well as rabbits, chickens, turkeys, geese, ducks, pigeons, and game birds of any species.¹⁴⁰ Oakland allows pigeons, chickens, ducks, geese, other fowls, rabbits, goats, sheep, pigs and other animals within the city subject only to general nuisance provisions.¹⁴¹ At least 60 cities allow chickens; the ordinances are compiled in *The Backyard Homestead*. Some cities continue to prohibit various classes of animals.

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¹³³ Seattle, Washington Municipal Code, Title 9 § 9.25.052, Title 10 § 10.36, Title 23 § 23.42.052. *Available at* http://library.municode.com/index.aspx?clientId=13857&stateId=47&stateName=Washington (last visited Feb. 10, 2010).

¹³⁴ Belmont, California Code of Ordinances, Art. II §§ 5-28 to 5-59. *Available at* http://library2.municode.com/1239/home.htm?infobase=10411&doc_action=whatsnew (last visited Feb. 10, 2010). 135 Portland, Oregon City Ordinance, § 13.05.015(E) allows up to 3 of each animal without a permit; bees require a permit. Subsection (F) also provides, "due to the variety of animals covered by these regulations and the circumstances under which they may be kept, these regulations should be applied with flexibility." *Available at* http://www.portlandonline.com/auditor/index.cfm?c=28228&a=185339 (last visited Feb. 10, 2010).

¹³⁶ Cleveland, Ohio City Code, § 347.02. Available at

http://caselaw.lp.findlaw.com/clevelandcodes/cco_part3_347.html (last visited Feb. 10, 2010). However, it is unclear how this provision interacts with § 205.04, which requires permits for farm animals and bees.

¹³⁷ Salem, Oregon Revised Codes, § 119.070 (the code appears to be silent on the keeping of other animals). *Available at* http://www.cityofsalem.net/departments/legal/pages/salemrevisedcodes.aspx (last visited Feb. 10, 2010).

¹³⁸ Pasadena, California Municipal Code, §§ 6.20.010 - 6.20.310. *Available at* http://library.municode.com/index.aspx?clientId=16551&stateId=5&stateName=California (last visited Feb. 10, 2010).

¹³⁹ City and County of San Francisco, California Health Code, Art. I § 27 has the only mention of goats in the health code. It allows the keeping of two female goats for the exclusive use of the owner's family without a permit, and implies that more can be kept with a permit. *Available at* http://library.municode.com/index.aspx?clientId=14136&stateId=5&stateName=California (last visited Feb. 10,

^{2010). &}lt;sup>140</sup> *Id.* at § 37.

Oakland, California Municipal Code § 6.04.310, 6.04.020, (defining animals) *available at* http://library.municode.com/index.aspx?clientId=16308&stateId=5&stateName=California (last visited Feb. 16, 2010).

Pasadena, for example, prohibits pigs. Various cities still prohibit chickens, although a large number (perhaps even the majority of cities, though we would not know without doing a national survey) seem to allow them.

As to pigs, some municipalities (such as Seattle and Salem) allow only pot-bellied pigs. An exception is Oakland, California, which seems to allow pigs of any variety. The popular book, Farm City, chronicles an urban homestead experience of finishing two standard pigs on an urban lot in the heart of Oakland, California and calls pig husbandry the "pinnacle of urban farming." ¹⁴³ For meat purposes, *The Backyard Homestead* recommends regular pigs that are "finished" by the urban homesteader in just a matter of a few months. 144 Because of the association of pot-bellied pigs with pets, urban homestead ordinances should allow the standard pig. Actually, there is little distinction in terms of manageability or impacts between a potbellied pig, allowed in many places, and a standard pig. Contrary to the "miniature" description of pot-bellied pigs, they can grow quite large. Moreover, the impact on the urban setting (in terms of waste, noise, and smell) is quite similar between pot-bellied pigs and standard "finishing" pigs. An important difference is that the standard pig is present for a much shorter period of time than a pot-bellied pig, which stays as a pet. We believe a standard pig can be kept on an urban lot, within a firm, fixed enclosure for a few months of "finishing" without disruption to neighbors, and without raising health or safety concerns. We therefore recommend allowing one pig per lot, of either the standard or pot-bellied variety, subject to the restrictions set forth below.

There are certain limitations that seem commonly imposed with respect to some animal breeds. For example, many cities prohibit roosters due to their noise impacts. Pasadena

¹⁴² Supra n. 127, at § 9.25.052; supra n. 131, at § 119.070. ¹⁴³ Carpenter, supra n. 35, at 187.

¹⁴⁴ MADIGAN, *supra* n. 30, at 14.

prohibits male goats exceeding six months of age, presumably because of their musky odor (emitted to attract female goats). 145 Seattle and Belmont both allow only miniature goats, and require that goats of either sex be dehorned (their horn buds removed), and male miniature goats neutered. 146 Seattle

prohibits a pig greater than 22 inches in height at the shoulder or more than 150 pounds in weight. 147 Salem restricts the pig to 18 inches in height at the shoulder and 100 pounds in weight (the animal must also be spaved or neutered). 148

Recommendations: We recommend a broad array of micro-livestock to include all types of animals now deemed accessories to the urban homestead as reflected in books on the matter. progressive ordinances, and websites. Not all property owners will choose to raise each kind of animal, as each requires a separate set of expertise. However, each animal type fills certain functions on the urban homestead, and a multitude of different animals can interact in synergistically positive ways. Based on the earlier discussion of various animals, we conclude that the following are appropriate and should be allowed in urban settings: miniature goats, pigs, chickens, ducks, turkeys, geese, quail, rabbits, and bees. Some restrictions should apply to some of these animals. For example, no roosters should be allowed, due to noise impacts. Homesteaders interested in raising chickens for meat have the option of buying a pre-sexed brood that excludes roosters. Or, the City could strike a balance between noise concerns and

¹⁴⁵ Supra n. 132, at § 6.20.100; see also supra n. 128, at § 5-52 (findings, describing odor of unaltered male pygmy

goats). ¹⁴⁶ Supra n. 127, at § 23.42.052(F) (allowing young, un-neutered male goats to be kept until weaned without ¹⁴⁷ Supra n. 127, at § 23.42.052 (B).

¹⁴⁸ Supra n. 131, at § 119.070.

homesteading interests by allowing roosters under two or three months of age. At about that time, the roosters begin crowing, but they are also ready for harvest.¹⁴⁹

As to goats, they should be miniature and dehorned; males should be neutered (that is, if they are allowed at all, as they serve no milk purpose). As to pigs, we recommend allowing one female pig that is less than 250 pounds. (As an alternative, the ordinance can allow either sex, as long as the male is castrated). At all times the pig must be kept in an exterior fenced enclosure, a condition we recommend applying to any micro-livestock, as discussed more fully below. A pig should be kept in a locked and firmly enclosed pen (or an interior electric fence) of adequate size when it exceeds 150 pounds. This will still allow ample opportunity during part of the finishing period (when the pig is still below 150 pounds) for the pig to wander the enclosed backyard and root and till soil, a recognized service provided by pigs in the garden.

2. Lot Sizes and Number of Animals

Most, but not all, ordinances set limits on the number of animals that a property owner can have on a given residential lot. The restrictions are often bundled together with specifications as to lot sizes, and setbacks. Ordinances vary considerably in this respect. Often, animals are grouped together in certain categories (such as fowl) and an overall limit imposed, thereby allowing the homeowner to allocate the types of animals within the allowance. Some cities, such as Portland, have taken the approach of aggregating goats, rabbits, and various types of fowl into one category; Portland sets a total limit of three before a permit requirement is triggered. This approach of grouping very different animals (each having different benefits and impacts) is somewhat arbitrary, overly restrictive, and defeats the objective of using animals in synergy on an urban homestead. Rabbits, for example, occupy very little space and are kept

¹⁴⁹ OLKOWSKI, *supra* n. 33, at 281.

¹⁵⁰ Supra n. 129, at § 13.05.015(E) ("A person keeping a total of three or fewer chickens, ducks, doves, pigeons, pygmy goats or rabbits shall not be required to obtain a [permit]").

within a hutch, adding no real cumulative impact to the fowl kept on site. Moreover, chickens and turkeys have separate sorts of impacts because of their size. We recommend establishing separate categories and limits for chickens, turkeys, geese, ducks, rabbits, bees, goats, and pigs. Seattle, Washington has taken roughly this approach, though it aggregates all fowl.

The tables below summarize various city codes with respect to classes of micro-livestock.

Conditions such as structural requirements, management and care, and permits are discussed in separate sections below and are not reflected in these charts.

a. Chickens and Other Fowl

A large number of cities across all regions of the United States allow homeowners to keep an unspecified number of chickens, subject to general nuisance standards. *The Backyard Homestead* presents a sampling of 42 cities that allow unrestricted numbers of chickens (in 36 different states), and there are undoubtedly more such cities nationwide. Examples include: Oakland, California; Juneau, Alaska; Anaheim, California; Denver, Colorado; Hartford, Connecticut; New Haven, Connecticut; Atlanta, Georgia; Chicago, Illinois; Indianapolis, Indiana; Topeka, Kansas; New Orleans, Louisiana; Baltimore, Maryland; Biddleford, Maine; Detroit, Michigan; Minneapolis, Minnesota; Billings, Montana; Omaha, Nebraska; Reno, Nevada; Concord, New Hampshire; Buffalo, New York; Toledo, Ohio; Pittsburgh, Pennsylvania; Charlston, North Carolina; Memphis, Tennessee; San Antonio, Texas; Salt Lake City, Utah; Richmond, Virginia. The information in the chart below is adapted from *The Backyard Homestead*, which provides a compilation of over 60 ordinances permitting backyard chickens. The cities below were selected to show varying degrees of flexibility. Ordinances prohibiting chickens were omitted from this chart but can be found in *The Backyard Homestead*, p. 349-52.

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¹⁵¹ MADIGAN, *supra* n. 30, at 349-352 (compiling chicken ordinances).

(It should be noted that the information gained from the ordinance chart provided in *The* Backyard Homestead is taken as current and has not yet been checked for changes).

Chickens and Other Fowl

City	Fowl type	Numbers allowed	Lot Size	Setbacks	Other/notes
43 cities (sampling discussed above)	Chickens	No limit or limit unspecified			See discussion above
Milwaukee, Oregon ¹⁵²	Chickens	50			Requires neighbor consent (not recommended as a policy in this paper)
Oakland, California ¹⁵³	Chickens, ducks, geese, and "other fowls"	No limit	No specification	Enclosure must be 20 feet from any dwelling	The fowls must not cause a nuisance
Mobile, Alabama ¹⁵⁴	Chickens	25		200 feet from residence	Permit required
Belmont, California ¹⁵⁵	Chicken, goose, duck, turkey, pigeon, dove, squab, or "similar	20 adults (no specification for juveniles); but limit also applies to rabbits	None specified	No coop or cage within zoning code setbacks	

¹⁵² Milwaukie, Oregon Municipal Code § 19.402.3(C), available at http://www.qcode.us/codes/milwaukie/ (last visited Feb. 10, 2010).

153 Supra n. 135, at §§ 6.04.310, 6.04.320

154 Mobile, Alabama Municipal Code § 7-103, available at

http://library.municode.com/index.aspx?clientId=11265&stateId=1&stateName=Alabama (last visited Feb. 16, 2010). 155 Supra n. 128, at § 5-32.

	fowl"				
Seattle, Washington ¹⁵⁶	"Domestic fowl"	3 + 1 per 1,000 square feet over minimum lot size (or 5,000 square feet); ¹ / ₄ acre lot would allow 9 fowl	See column to left		
San Francisco, California ¹⁵⁷	Chickens, turkeys, geese, ducks, doves, pigeons, "game birds of any species	4 (but aggregate limit also applies to house pets and rabbits)	None specified	Coops must be 20 feet from door or window of building used for residence	
Cleveland, Ohio ¹⁵⁸	Chickens, ducks	Tied to lot size	1 per 800 square feet (limit includes rabbits)	5 feet of side yard line; 18 inches back yard line; no coops/hutches in front or side yard	For lot of 4,800 square feet, permits total of 6 fowl/rabbits. Application & license required.
Pasadena, California ¹⁵⁹	Chickens, geese, ducks, turkeys, pheasants,	10 (but the limit also includes rabbits, which are		50 feet of property line/100 feet of any residential	

¹⁵⁶ Supra n. 127, at § 23.42.052. 157 Supra n. 133. 158 Supra n. 130, at § 347.02 (general requirements) and § 205.04 (license requirements). 159 Supra n. 132, at §§ 6.20.030, 6.20.040.

	doves, pigeons, "similar fowls"	permitted)		dwelling	
Portland, Oregon ¹⁶⁰	Chickens, ducks, doves, pigeons	3 of this category allowed without permit	Unspecified	15 feet from other residences	More allowed with permit

Recommendation:

<u>Chickens</u>: Eugene's limit of two fowl presents a strict limit on home food production without apparent justification. There is much added benefit in terms of egg production that comes from allowing additional hens, but only nominal chance of increased burden on neighbors, assuming proper management. In nearby Springfield, a citizen can keep up to 4 chickens on any size of lot.¹⁶¹ It is widely known that many people keeping chickens in Eugene are in violation of the limits, indicating a regulatory change is necessary.

Because chickens are ideal for the backyard, useful for both meat and eggs, and have few impacts in the urban setting, we recommend the approach of many cities described above -- placing no numerical limits on the number of chickens that can be kept. Enclosure and sanitation requirements, discussed below, will ensure the minimization of impacts and standards of animal care. Because no commercial production is allowed on residential lots, homeowners will raise just enough chickens to feed their family, and there will be no large concentrations of chickens that could cause neighborhood problems. A general nuisance provision, as described below, will suffice to protect neighbors from any adverse impacts.

¹⁶⁰ Supra n. 129, at § 13.05.015.

¹⁶¹ Springfield, Oregon Municipal Code § 5.408(1), available at http://www.qcode.us/codes/springfield/.

As an alternative, if numerical limits are thought necessary, we recommend a limit applicable only to adult chickens over 6 months of age. The six-month demarcation separates the layers from the meat chickens. Fryer and roaster hens are harvested at 3-5 months of age. ¹⁶² As younger chickens, they have fewer impacts. Laying hens do not begin production until about 6 months of age. ¹⁶³ In this manner, a permanent flock of laying chickens would be subject to numerical limits, but a temporary flock of meat-producing chickens would not be. In this alternative, we recommend eight adult chickens and no specified limit on chickens up to the age of six months. This approach effectively allows homesteaders a flock that will produce approximately two-dozen eggs a week, ¹⁶⁴ and an unspecified number of younger hens to satisfy the meat needs of a family.

Turkeys: Currently, a residential lot in Eugene could have two adult turkeys, although that limit also applies to chickens in aggregate manner. Because of their very different functions, both in terms of meat production and in the garden, we recommend treating these and other fowl (such as ducks and geese) separately in the ordinance. We recommend allowing two adult turkeys over six months of age (since, at present, a homeowner could legally have that number) and up to four turkeys younger than six months of age. (It should be noted that some cities allow a far greater number of turkeys as indicated above). In that manner, a homeowner will be able to raise a small flock for ceremonial dinners and have the benefits of a few younger turkeys in the garden when it matters most during the growing season. It is unlikely that a homeowner would raise many chickens and turkeys at the same time, as they must be kept in separate areas of the garden due to potential disease transfer. The presence of young turkeys is not likely to cause an adverse impact on neighbors, because the period in which they are allowed on the property is

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¹⁶² MADIGAN, *supra* n. 30, at 224.

¹⁶³ OLKOWSKI, *supra* n. 33, at 282.

¹⁶⁴ *Id.* at 281.

only six months out of a year, and their size is small during much of that time. In any event, a broad anti-nuisance provision, as described below, will suffice to protect neighborhood concerns.

<u>Ducks:</u> Because of their distinct benefit to the urban homestead, particularly for insect control and meat production, we recommend that the limits for ducks be separately established and not included in an overall limit for "fowl." In particular, two adult ducks of any species should be allowed on the premises (as they are currently allowed under Eugene law). To encourage home meat production, however, there should be separate limits on younger ducks. Because the Muscovy duck is fast growing, has no substantial noise impact, and yields very desirable meat, we recommend allowing a flock of 12 young ducks under the age of four months at any given time.

Geese:

Currently, a residential lot in Eugene could have two adult geese, although that limit also applies to chickens and other fowl in aggregate manner. We recommend allowing two adult geese over six months of age (since, at present, a homeowner could legally have that) and up to four geese younger than six months of age. (As noted above, some cities allow a far greater number of geese). In that manner, a homeowner will be able to raise a small flock for ceremonial dinners. As is the case with turkeys, the presence of young geese is not likely to cause an adverse impact on neighbors, because the period in which they are allowed on the property is only six months out of a year, and their size is small during much of that time. In any event, a broad anti-nuisance provision, as described below, will suffice to protect neighborhood concerns.

Quail

We recommend allowing quail with no numerical restrictions. Due to their small size, quiet nature, and pen confinement, as well as the fact that they mature and are harvested at foursix weeks, backyard quail are unlikely to cause any adverse effects to neighbors. Because a quail provides only a few ounces of meat, an urban homesteader must raise larger numbers of this type of bird (as opposed to other fowl) to contribute to self-sufficiency.

b. **Rabbits**

The following chart compiles restrictions pertaining to rabbits in the sampled cities. Undoubtedly, many cities that we did not explore allow rabbits as well.

City	Numbers allowed	Lot Size	Setbacks	Other/notes
Oakland ¹⁶⁵	No limit	Not specified	None imposed	Subject only to nuisance provision
Belmont ¹⁶⁶	20 adults; unspecified number of juveniles (includes fowl)	Not specified	Comply with standard city setbacks for hutches	
Cleveland ¹⁶⁷	1 rabbit per 800 square feet of property (grouped with other animals)	See column to left	No coops within five feet of side yard line or 18 inches of rear yard line; no coops in front yard	
Seattle ¹⁶⁸	3 (limit is separate from fowl limit but includes goats as	Lots over 20,000 feet have greater allowance	None specified	

¹⁶⁵ Supra n. 135. ¹⁶⁶ Supra n. 128. ¹⁶⁷ Supra n. 130.

¹⁶⁸ Supra n. 127.

	"small animals")	(4 animals)		
Pasadena ¹⁶⁹	10 (but limit applies to fowls as well)	None specified	50 feet to any property line, and 50 feet of any inhabited structure	
Portland ¹⁷⁰	3 allowed without permit (limit includes fowls and goats however)	None specified	15 feet setback from any residence (not applicant's) – unclear whether this applies to less than 3 rabbits	More allowed subject to permit
San Francisco ¹⁷¹	4 (includes dogs, cats, and all fowls)	None specified	Coops not closer than 20 feet from any door or window of building used for human habitation	Note: it appears coops can be inside a building

Recommendation:

Since rabbits are a valuable source of meat having virtually no significant impacts on neighbors if properly managed, we recommend a numerical limit of six adult rabbits. This allows homesteaders to implement the "one buck - four doe" system that yields five pounds of dressed meat a week, as described in The Integral Urban House, as well as one to keep Angora rabbit for purposes of wool production. 172 Eugene already allows two adult rabbits, and does not specify the regulatory treatment for juvenile rabbits. We would allow an unspecified number of

¹⁶⁹ Supra n. 132. ¹⁷⁰ Supra n. 129. ¹⁷¹ Supra n. 133.

¹⁷² OLKOWSKI, *supra* n. 33, at 261.

juvenile rabbits under the age of 12 weeks (the standard harvest time is 8 weeks). We would not impose setback limitations, as one of the main efficiencies associated with rabbits is that they may occupy otherwise wasted spaces. Rabbit waste is valuable for garden compost, and should not pose odor concerns if managed properly. Any concerns associated with odor from rabbit urine would be met with the general nuisance provision which requires property owners to ensure that odors are not detectable beyond property lines. Some cities have setback requirements from residences, but those are likely standard setbacks and are not tailored to concerns associated with a home rabbitry.

Goats c.

The following chart compiles restrictions for the examined cities pertaining to goats. Undoubtedly, many cities that we did not explore allow goats as well.

City	Goat type	Numbers allowed	Lot Size	Setbacks	Other/notes
Oakland ¹⁷³	Not limited	No limit	Not specified	None imposed	Subject only to nuisance provision
Pasadena ¹⁷⁴	Not limited	2	Not specified	1 goat – 100 foot setback from residence (not owner's); 2 goats – 200 foot setback	No male goats exceeding 6 months of age
Portland ¹⁷⁵	Pygmy allowed without permit; other goats subject	3 pygmy goats (but note: grouped with other animals subject to same	None specified	15 feet setback (for goat structure) from any residential dwelling ¹⁷⁶	

Supra n. 135.
 Supra n. 132, at § 6.20.100.
 Supra n. 129.

¹⁷⁶ It is unclear from the regulation whether this setback applies in the case of less than three animals.

	to permit	numerical limit)			
San Francisco ¹⁷⁷	Not limited	2	None specified	None specified	No male goats allowed
Seattle ¹⁷⁸	Miniature goats	3 (but limit applies to all "small animals") – can have 4 on lots of over 20,000 square feet	None specified	None specified	Males must be neutered; all must be dehorned. License and fee required.
Kalispell ¹⁷⁹	Pygmy goats	2	None specified	None specified	None specified

Recommendation:

In light of their outstanding value for dairy production, we recommend that the City of Eugene allow two pygmy goats on residential lots. Two goats are necessary for companionship and provide full diary for a household of four. While some cities allow standard goats, we see no reason at this time for following suit. Pygmy goats are far easier to handle, are treated as household pets, and have no significant management concerns. Because they are even more benign than dogs in terms of impacts (no barking, no biting), and have minimal shelter needs, we see no reason for imposing setback requirements.

d. **Pigs**

Supra n. 133, at § 27.
 Supra n. 127, at § 23.42.042 (general requirements) and § 9.25.052 (license requirements).
 Kalispell Municipal Code, Chapter 4, Article I, available at http://qcode.us/codes/kalispell/ (last visited Feb. 16, 2010).

As noted above, a homesteader seeking to produce pork will likely chose to "finish" a standard pig for a few months in a pen on their property, and then send it off-site to a commercial butchering facility, as described in the book, *The Backyard Homestead*. Most cities that allow pigs on urban property specify that the pig must be the pot-bellied miniature variety. Oakland is an exception, allowing the standard pig.

Recommendation:

For the reasons set forth in section IV.B. above, we recommend the Oakland approach of allowing this animal on urban lots. However, we would limit the allowable number to just one. in order to ensure manageability and restrict impacts. A household seeking more pork can raise more than one pig a year at alternate times. We recommend limiting the weight of the pig to 250 pounds, which yields ample pork yet does not threaten manageability. We also recommend a fencing requirement.

Bees e.

Bees are currently allowed in Eugene, with no mention in the City code. Most cities allow bees, but some limit the number of hives allowed on residential lots, and some impose setbacks and flyway conditions. Seattle, for example, permits beekeeping "outright as an accessory use," but limits the number of hives to four on lots of less than 10,000 square feet. It imposes a 25-foot setback from any lot line (with some exceptions). 180 Cleveland allows bees but sets a limit of one beehive for each 2,400 square feet and imposes a setback requirement of 10 feet from any dwelling on another parcel. 181

Recommendation:

¹⁸⁰ Supra n. 127, at § 23.42.052. ¹⁸¹ Supra n. 130, at § 347.02(d).

Eugene's current approach of allowing bees without restriction is well-founded. Fashioning restrictions on bees is inherently difficult because of the varying nature of property. Property owners are likely to go into beekeeping with a fair amount of trepidation, and it is unlikely any property owner will over-extend his or her property for the keeping of bees. Moreover, the mentorship program in Eugene (offered through Lane County Beekeepers' Association) is robust and promotes beekeeping in a manner compatible with neighborhood values. This privately-offered, free-of-charge, widely used community service is likely to prevent a significant number of problems. We believe the general nuisance provision discussed below will suffice to protect neighbors against any intrusions associated with beekeeping. We therefore recommend that the City revise its ordinance only to make clear that bees are allowed, but not to impose any additional restrictions other than a prohibition against Africanized bees. Some cities impose water ad flyway requirements. We believe that since lots in Eugene vary so much in their natural characteristics, the city's currently flexible approach which sets forth no specific requirements is well-advised. However, if the City wishes to impose water/flyway requirements, it could adopt the following language: "Bees must have access to water on site at all times, and the hives must have a 6' flyway barrier on the entrance side, which may consist of a wall, fence, dense vegetation, or a combination thereof."

3. Physical Enclosures/Structures/Setbacks

Most ordinances provide setbacks for structures housing farm animals. These vary widely, with no apparent rationale. Seattle's ordinance also requires a 10-foot setback from other lots. Eugene has a setback of 25 feet from residences (not the owner's) and 10 feet from interior lot lines. We recommend adjusting these limitations to a 15-foot setback from residences (not the property owner's), and a 5-foot setback from interior lot lines to increase

¹⁸² Supra n. 127, at § 23.42.052(c).

flexibility for the homeowner. These minimal changes should not have any significant impacts to neighbors.

Most, but not all, cities have a requirement to fence in the animal. Eugene's reads as follows: "Fencing: Shall be designed and constructed to confine all farm animals to the owner's property." We recommend retaining this provision, as it strikes the right balance between specificity and generality. Some city codes specify dimensions and particulars with respect to chicken coops and other housing for micro-livestock. This is unnecessary and ill-advised, as the coop structures and other containment systems vary widely. Eugene does not specify housing requirements for animals, but nevertheless adequately provides for animal welfare in section 4.340, which requires that domestic animals have "access to [an] enclosed structure sufficient to protect the animal from wind, rain, snow or sun and which has adequate bedding to protect against cold and dampness." 184 That provision is sufficient and very much like the one adopted by the City of Belmont: "Such enclosure shall be of sufficient size to safely and adequately house, maintain, and exercise the animals and fowl, and provide adequate shelter from the elements and from other animals." ¹⁸⁵

Sanitation 4.

Many ordinances have general provisions regarding sanitation. Of the ones we examined, Eugene's strikes the most optimal balance between specificity and generality. We recommend retaining the current provision as is (except to add the term "microlivestock"), which states the following:

 183 Eugene City Code, supra n. 3, at \S 9.5250. 184 Id. at \S 4.340.

¹⁸⁵ Supra n. 128, at § 5-32.

"Sanitation: Proper sanitation shall be maintained for all farm animals. Proper sanitation includes:

- (a) Not allowing farm animal waste matter to accumulate;
- (b) Taking necessary steps to be sure odors resulting from farm and *microlivestock* animals are not detectable beyond property lines, and;
- (c) Storing all farm animal food in metal or other rodent-proof containers.

5. **Permit or No-Permit/Inspection**

One of the policy choices any city must make is whether to require a permit in order to keep micro-livestock of the sorts mentioned above on urban lots. Only a few municipalities have opted for permits. Portland is one of them. It requires the owner to obtain a permit to operate a "specified animal facility" which houses more than a total of three chickens, rabbits, ducks, doves, pigeons, or pygmy goats. 186 Cleveland, Ohio, also requires a permit for coops and other structures from the Department of Building and Housing and a 2-year license from the Department of Public Health. 187 These regulations are overly bureaucratic, and most cities simply allow the specified animals outright without a permit. This is the method of Seattle and Pasadena, for example.

There are many reasons to not require a permit, and few reasons to support a permit system. First, a permit unduly strains government resources. Most cities face budget constraints and cannot add the extra personnel to implement a permit program. One might argue that permit fees could pay for part of the program, but permit fees will dissuade property owners from creating urban homesteads with micro-livestock – indeed, one of the most compelling reasons to

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¹⁸⁶ Supra n. 129, at § 13.05.015. ¹⁸⁷ Supra n. 130, at § 347.02(i).

engage in the enterprise is to create monetary savings in household food use. Second, there is no harm associated with micro-livestock that rises to the level of harm requiring a permit. General nuisance provisions discussed below will suffice to protect neighborhood values. Other, far more dangerous activities are not subject to a permit, such as gun ownership by private property owners, the keeping of attack dogs, or the use of hazardous chemicals at home. One exception to this rationale might be the keeping of a standard sized pig. Because the pig must be housed in a firm, durable pig pen, and because pigs involve some hazards due to their size and temperament, a permit requirement may be reasonable in that instance. The City of Oakland, however, does not require a permit for standard pigs, and that choice is also a reasonable one. It is unclear what benefit a permit requirement would add. A middle-of-the-road strategy might be to require a license for standard pigs, similar to a dog license. Ultimately, however, we recommend against a permit or license requirement, even for pigs, until such point as experience shows its necessity.

A related issue is inspection authority. Some cities, like Portland, subject the homeowner to inspection "at any reasonable time." This certainly seems excessive and a severe intrusion into the privacy expectations of homeowners. Such a provision would no doubt dissuade many people from raising urban livestock, thereby defeating the policy goals outlined at the outset of this white paper. Any concerns about compliance with the law can be handled as they normally are, with enforcement flowing from neighbor complaints. For these reasons, we recommend that the City not provide for random inspection authority in its regulations.

6. Neighbor Notice and Consent

Portland, Oregon has an unusual requirement of notifying neighbors within 150 feet of property lines of the presence of micro-livestock exceeding certain numbers. 189 We find this

¹⁸⁸ *Supra* n. 129, at § 13.05.015(C). ¹⁸⁹ *Id.* at § 13.05.015.

provision to be ill-advised and unnecessary, bound to stir up neighborly squabbles. Because there can be no rational basis for a "neighbor's veto" under the law in advance of a particular activity, requiring prior notification of neighbors is arbitrary. Moreover, it may simply present a tool for neighbors to seek retribution for wholly unrelated disputes. If a nuisance develops in association with the micro-livestock, property owners of neighboring lots have sufficient venues to seek enforcement through the enforcement office of the relevant department.

7. Animal Harvest and Management

Harvesting animals for meat on the property is directly allowed in many ordinances, and the remaining ones are silent on the matter, meaning that the activity is not prohibited. The policy choice is whether to expressly mention slaughter or not. The benefit of doing so is that the city can impose basic standards, most of which apply to visual shielding from neighbors. We recommend following the direction of Charlotte, North Carolina. Its relevant code provision states: "Slaughter. Any slaughter of any livestock or poultry not regulated by state law or otherwise forbidden or regulated shall be done only in a humane and sanitary manner and shall not be done open to the view of any public area or adjacent property owned by another." It should be noted that Eugene City Code section 4.335, pertaining to animal abuse, should be amended to make clear that harvest of micro-livestock for personal food consumption does not violate the section. A suggested revision to the current language of that section is italicized: "Any practice of good animal husbandry, *including harvest or use of animals or animal products for consumption as food*, is not a violation of this section."

8. Commercial Activities

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¹⁹⁰ Charlotte, NC Code of Ordinances § 3-102 (c)(4). *Available at* http://library.municode.com/index.aspx?clientId=19970&stateId=33&stateName=North%20Carolina (last visited Feb. 10, 2010).

Urban homesteading is geared to providing sustenance on the family level. A multitude of other concerns arise when one engages in commercial activity. We recommend that the City of Eugene follow the direction of many other cities by prohibiting the sale of any dairy or meat from the micro-livestock covered under this section. Prohibiting commercial sale also provides a natural ceiling to the numbers of animals that will be maintained by the property owner in cases where numerical limits are not specified (such as chickens). We do, however, recognize the need to take a broad look at micro-businesses that can provide food on the neighborhood level and encourage the city to explore that dimension of food security. Such an inquiry, however, is beyond the scope of this memo. If the city decides to allow micro-businesses involving meat and dairy, other provisions of the code will need revision.

It should be noted that section 4.485, pertaining to commercial sale of baby chicks, ducklings, goslings and rabbits, needs adjustment. It forbids sale of less than 12 birds or rabbits to an individual person. This is not complied with currently, and, if followed, would force urban homesteaders to buy 12 or more of a species despite numerical limits in the regulations.

9. General Nuisance Provisions

Most cities have nuisance provisions in their regulations governing home livestock.

These offer adequate protection for neighbors. Eugene has such provisions, relating to odor, public health, sanitation, noise, carcass management, and animal containment, in sections 4.430, 4.455, 4.470, and 6.010. We recommend leaving these provisions in place. For cities drafting new ordinances, we recommend the following provision, adapted from ordinances of Oakland, California and Pasadena, California: 191

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¹⁹¹ Supra n. 132, at § 6.20.120; supra n. 135, at § 6.04.310.

It is unlawful and shall constitute a public nuisance for any person to keep within the limits of the city any animal which unreasonably disturbs the peace and comfort of the inhabitants of the neighborhood in which such animal is kept, or interferes with any person in the reasonable and comfortable enjoyment of life or property, or creates a significant risk of injury to life or property.

V. Recommendation

We recommend adjusting the provision of the code that currently restricts the ability of Eugene citizens to engage in microlivestock husbandry on urban homesteads. We recommend that Eugene City code 95.250 be amended as follows:

9.5250: Farm Animal and Microlivestock Standards

- 1) Purpose: The regulations of this section are established to permit the keeping of farm animals, microlivestock, and bees to promote the goals and benefits of urban homesteading, including productive use of private property, personal food choice, family subsistence, community food security, sustainability, and animal welfare, in a manner that prevents nuisances to occupants of nearby properties and prevents conditions that are unsanitary or unsafe.
- 2) Microlivestock allowed: The following are allowed on any residential lot under 20,000 square feet subject to the restrictions herein: chickens, turkeys, geese, ducks, quail, rabbits, pygmy goats, pigs and bees. The microlivestock under this section shall not be raised or harvested for commercial purposes.
 - (a) Chickens: There are no roosters allowed.
 - (b) Turkeys are limited to 2 adult animals (over 6 months of age), and 4 younger fowl.
 - (c) Geese are limited to 2 adult animals (over 6 months of age), and 4 younger fowl.
 - (d) Ducks are limited to 2 adult animals (over 6 months of age), and 12 younger fowl.
 - (e) Quail are allowed without restriction as to number.
 - (f) Rabbits are limited to 6 adult animals (over 6 months), with no restrictions on younger animals. Rabbits shall be kept in a hutch or fenced enclosure.

- (g) Pygmy goats are limited to 2 female animals and nursing offspring. Pygmy goats shall be kept in a fenced yard or enclosure. All adult pygmy goats must be dehorned.
- (h) Pigs are limited to 1 female, up to 250 lbs. of weight. The pig must be kept in a fenced yard or enclosure, and if its weight exceeds 150 lbs., such enclosure must be kept locked at all times.
- (i) Bees are permitted on the property. Africanized bees are not permitted.
- 3) Chickens (no roosters), turkeys, geese, ducks, quail and other fowl, rabbits, pygmy goats, pigs, cows, horses, sheep, goats, emus, llamas, and bees are allowed in AG and R-1. There is no limit to the number of fowl or rabbits of any age permitted in AG and R-1 provided they are on a development site that contains at least 20,000 square feet and they meet the standards herein.
- 4) Sanitation: Proper sanitation shall be maintained for all farm and microlivestock animals. Proper sanitation includes:
 - (a) Not allowing animal waste matter to accumulate;
 - (b) Taking necessary steps to ensure odors resulting from farm and microlivestock animals are not detectable beyond property lines; and
 - (c) Storing all food in metal or other pest-proof containers.
- 5) Fencing: Fencing shall be designed and constructed to confine all farm and microlivestock animals to the owner's property.
- 6) Setbacks: All structures that house farm animals or microlivestock shall be located at least 15 feet from all existing residences (except the animal owner's) and at least 5 feet from interior lot lines.
- 7) Minimum Lot Size Requirements:
 - (a) No minimum lot size for animals kept pursuant to section 2.
 - (b) Minimum lot size of 20,000 square feet for standard size cows, horses, sheep, goats, emus, and llamas.
 - (c) Minimum area per standard size animal over 6 months of age: Cows and horses: 10,000 square feet. Standard size sheep, goats, emus, and llamas: 5,000 square feet.
- 8) Harvesting of animals: Fowl and rabbits may be slaughtered on site in a humane and sanitary manner and not open to view of any public area or adjacent property owned by another. Pigs and other large animals shall not be slaughtered on site.

Appendix G: Community Food Security Assessment Framework.

From: Belinda Judelman, Undergraduate Honors Thesis. University of Oregon, 2010.

POPULATION PROFILE

Demographic Characteristics

Total Population (Number) Citizenship

Age Total Households

Race/Ethnicity People/Household

Socioeconomic Characteristics

Employment Status Number of total occupied housing units by

Income ZIP Code

Poverty Status Median annual family income

Total number of persons by ZIP Code

Percentage of single parent households

Number of persons living below the poverty

Percentage of Households spending more

line by ZIP Code than 30% of their income on shelter

Number of homeless

PROFILE OF FOOD SOURCES

Number and location of community gardens

Average farm size

(in relationship to low-income or highdensity Neighborhoods)

Top five crops (hectares)

Number and location of school-based Percentage of Organic farms

gardens Extent of producers' debt

Number and location of community- Average age of farmers

supported agriculture programs, waiting lists

Contribution of agriculture to the region's

Number and location of farms Economy

Number and location of dairies and fisheries Existence of local policies or regulations

Number and location of food manufacturers around food, agriculture, and land usage

and distributors Measures of food imports/exports to and

Total area of farms (hectares) from the city

PROFILE OF FOOD DISTRIBUTION

Availability of authorized food stamp

retailers

Location of supermarkets and convenience

stores

Number, type, and location of retail food

Number of people who use charitable food

resources on a monthly basis

Number of Wholesalers

Percent of household income that is spent on

food

Number of Farmer's markets

Locally-grown fruits and vegetables that are

most widely available

Existence of food buying cooperatives or community-owned food retail outlets

Number of community Kitchens

Percent of eligible people enrolled in food

assistance programs

PROFILE OF COMMUNITY FOOD ASSISTANCE PROGRAMS

Federal Food Assistance Programs—Number and Location

Number and location of Food Stamp Number and location of TEFAP and CSFP

distribution sites Program application sites

Number and location of WIC clinics Number and location of WIC Farmers'

Market Nutrition Program sites Number and location of schools with

National School Lunch Program Number and location of Food Distribution

Program on Indian Number and location of schools with School

Breakfast Program Reservations (FDPIR) sites

Number and location of Child and Adult Number and location of elderly nutrition

Care Food Program (CACFP) providers programs

Service Program sites

Number and location of Summer Food

Program

Federal Food Assistance Programs—Participation

Participation in Food Stamp Program Participation in TEFAP distribution

Participation in WIC Farmers' Market Participation in WIC Program

Nutrition Program Participation in National School Lunch

Program Participation in Commodity Supplemental

Food Program (CSFP) Participation in School Breakfast Program

Participation in Food Distribution Program Participation in CACFP

on Indian

Participation in Summer Food Service Reservations (FDPIR)

Participation in Meals On Wheels Program

Emergency Food Assistance Providers

Number, location, participation in, and times of operation of food banks, soup kitchens

Number, location, participation in and times of operation of food pantries

Number, location, participation in and times of operation of emergency kitchens

Shelters w/ meals for residents

Mobile Kitchens

Food Rescue Programs (see diversion)

TRANSPORTATION

Number of vehicles per occupied housing unit by ZIP

Number, type, routes, frequency, and per ride cost of public transportation resources (buses, trains, subways)

Number, type, routes, frequency, and per ride cost of para-transit resources (store shuttles, taxis, etc.)

Transportation available for food shopping Walkability

FOOD DISPOSAL AND RECOVERY

Specific Waste disposal, recycling, composting rates

Percentage of food surplus that is donated

. Number of local gleaning programs

Amount of food collected from local/regional gleaning programs

OTHER

Health/nutrition outreach/referral services

Food / nutrition related projects

Prevalence of dietary-related disease

Rates of obesity/overweight

Rates of Low birth weight

Existence and nature of local policies around

food, agriculture, and land usage.

Appendix H: Food System Assessment Matrix

Category	Focus	Variables	Data Collection
			Sources/Process
Community or	Spatial	TBD	Census tract data,
Neighborhood built	characteristics of		(LCOG)
environment	neighborhoods		
characteristics	Food outlets	Food grocers, restaurants, fast	Public health data,
		food establishments, schools, institutions	(LCOG)
	Public and private	TBD	TBD
	transportation		
Socioeconomic	Demographics	Income, employment, vehicle	Census tract data,
makeup		ownership	ODOT data (LCOG)
Community hunger	Emergency food	Emergency food distribution	WFFC, FFLC,
resources and services	service information	outlets, food pantries,	LCFPC,
		government food assistance	Catholic Community
		outlets, community-based outlets	Servcies,
		(e.g., faith-based assistance,	The Lotus Project
		gleaning, community and school	
		gardens, senior centers)	
Population health	Obesity and	TBD	TBD (LCOG)
indicators	malnutrition related disease incidence		
Community health and	Quality of	TBD	Lane County Survey
nutrition	diets/nutritional		(City of Eugene,
	status of		Springfield, Lane
	households		County)
	Hunting/fishing	TBD	Fish and Wild Life
	food acquisition		registrars
			(LCOG)
Community Food	Health and	TBD	CAST
Health Services	nutrition outreach		
	and referral system		
	Community	TBD	CAST, LCHAY,
	food/nutrition		WFFC
	projects		
Conventional food	Retail food sector	Employees, sales, wages, types	TBD (LCOG)
system		of stores, drinking places, prices,	
		type of foods, point of origin	
	Food wholesale	Employees, wages, wages, types	TBD

	sector	of firms	
	Food manufacturing	Employees, wages, value-added, types	TBD
	Institutional food services	Hospitals, schools, senior centers, employee food services	TBD
Community-based local food system	Production	Local/regional agriculture status (numbers, acres of farms, products (e.g., corn, soybean, chickens, eggs), scale of agriculture, historical and current changes, etc. Gaps in locally produced food system (staples; seasonal variation of fruit/vegetables; % produced locally compared to consumption Local storage capacity and processes	Market analysis study
		Nutritional qualities of local products (organic, genetically altered)	
		Safety monitoring of local foods	
	Processing	Agricultural inks to local /regional processors distributors	
	Distribution	Links of products to local/regional distributors	
	Transportation modes	Rail, truck, etc.	
Community food institutional resources	Public and private sector institutions	University programs, research centers, foundations, consumer organizations, environmental organizations	TBD
Community food economic development	Food System and Activity	Entrepreneurial urban agriculture, food processing, business development, educational services	Market analysis study
Environmental food	Waste	Disposal/recycling/Composting	Market analysis
system Activity	Water	Water quality and purification facilities	study

Air	Air Quality measures	
Land	Contamination areas due to pesticides, fertilizers, hazardous waste	
	Land use	

Appendix I: Market Analysis Scope of Work

Market Analysis and Implementation Strategies to Develop Local Markets for Local Produce in the southern Willamette Valley in Lane County

Background

The topic of community food security and re-localization of food systems are gaining local and national attention. The purpose of this project is to provide a better understanding of local opportunities for growing, processing, and consuming more food items locally. This is accomplished by conducting an economic and consumer analysis of the local market.

Several community groups are actively working on the food security issue, and the City of Eugene, Lane County, and Eugene Water and Electric Board (EWEB) have taken formal action supporting, in principle, additional study of the issue. Directly, these actions are manifested in the City of Eugene Food Security Plan Scoping Project, the Lane County Fairgrounds Evaluation, and the EWEB/Oregon Solutions Food Hub Project. This project will compliment these efforts, but will proceed independently of them.

While local support exists related to increasing the understanding and operation of a local food system, little information is available on what opportunities exist, what is economically feasible, and the barriers to establishing new food markets locally.

In collaboration with the City of Eugene, Lane County, and EWEB, the University of Oregon's Community Planning Workshop developed this proposal to address a crucial first step in the process: a local market assessment. This scope of work describes how CPW would approach the project, a project schedule, and a project budget.

Project understanding and approach

The core objective of this project is to characterize the demand and supply elements of the local food market and identify future opportunities to increase local production and consumption based on increased population and use of local products.

This project will focus on a market analysis for selected local food products. The emphasis will be on transitional products—those that have the market potential to attract interest from public or private investor in the near term (1-5 years). The results of this study should provide foundational information that will be useful to explore topics related to food security and the local food system.

The specific elements of this study include:

- 1. Evaluate the market potential (i.e., the capture rate) of consumers and institutional buyers for selected produce items;
- 2. Identify price elasticity's of retail and institutional buyers for selected produce items;

3. Identify existing capacity and current and/or future gaps in the local supply chain, including agricultural infrastructure (e.g., processing and storage facilities) and the economic/operational factors influencing pricing.

Conduct an economic analysis of the key barriers to increasing local purchase and consumption of locally grown produce items. Our work plan intends to capitalize on current funding opportunities to complete the research project—and will involve contributions from the City of Eugene, Lane County and EWEB to match funds from a UO economic development grant.

Due to the lack of local market data, a good deal of exploratory research is required. Our work program includes a range of primary and secondary data collection activities that should address the core objectives of the market assessment. However, we anticipate that there will be some areas where no useful data exist. In these instances, we will assess the importance of the data and propose methodologies for future phases of the project.

Proposed work program

The CPW team will work under the direction of Robert Parker, CPW Director, Amanda West, CPW Project Coordinator, and Tom Osdoba, Director of the Center for Sustainable Business Practice. The CPW team will include faculty from the Department of Planning Public Policy and Management and the Lundquist College of Business, graduate students from both the Community and Regional Planning and MBA Programs at the University of Oregon.

Robert Parker will serve as project director and will be responsible for overall coordination of the UO team, review of products, contractual issues, and quality control.

Task 1: Project Kickoff

After execution of agreements with the project funding partners, we will meet with their representatives to review the project goals and objectives, the project approach and schedule. The purpose of this discussion is to refine our understanding of the project and ensure that the work program will result in the desired products. At this early stage, we will gather any relevant data and documents.

CPW will facilitate a discussion at the kick off meeting on key questions the funding partners want the research team to explore. CPW will work with the funding partners to prioritize this list of questions and agree on a final list that will be addressed during this project. We will also work with the funding partners to identify potential participants for the expert panel (See Task 3).

We will also prepare a draft outline of the final report for review for discussion at the kickoff meeting. This task may result in a refined work program, methodology, or project schedule.

Product(s): Draft report outline

Schedule: January 2010

Meetings: One with project partners,

Task 2: Literature Review

To inform the project as a whole, educate the team, and develop a basic understanding of the food product market in the southern Willamette Valley, we will conduct a literature review. Literature included in this review will include that recommended by the client groups, ODA, and others. The literature review will examine three main topic areas. These include:

1. Identification of particular products to examine in more detail in the demand analysis.

2. Provide an overview of national trends in consumer preference for food products, as well as regional food spending, demographic and socio-economic variation.

Product(s): Literature review chapter

Schedule: February 2010

Meetings: None

Task 3: Technical Input and Review

To inform our research, we will meet with a panel of experts. These experts may include representatives of the Oregon Department of Agriculture, Oregon State Cooperative Extension, Oregon State University, and other technical experts. We propose to meet with the technical panel twice during the project: once in February to get input and suggestions about the project approach, and again in May or June to review our findings and get input on implementation strategies.

Product(s): Minutes from meetings summarizing key points, directions for

research, and feedback from preliminary results

Schedule: January 2010; June 2010

Meetings: One meeting before conducting the literature review and one

to share preliminary results

Task 4: Supply Analysis

The supply analysis will focus on the southern Willamette Valley in Lane County and accomplish two objectives. The first is to provide an overview of food production and associated infrastructure within the southern Willamette Valley. The second objective is to identify end markets for 4-6 select locally produced products. CPW will work with the funding partners to identify the products and explore potential criteria for selection including (but not limited to) (1) market viability, (2) suitability for growth and processing locally, and (3) other factors as identified by CPW and the project sponsors. The emphasis will be on products where markets can be developed or expanded in the near term (1-5 years). CPW will also use data from the Literature Review (Task 2) and Demand Analysis (Task 5) to help inform the choices. The overview will:

• Detail the current status of agriculture in the southern Willamette Valley, including acreage, type of crops, number of farms, economic value of products, if they are available. Use the Census of Agriculture and ODA data, identify acres of farmland by type and capacity

- Detail the type, size and location of processing and storage facilities within the local area. Identify the year built, annual through-put, and capacity for each facility. Include these in geo-code database.
- Identify what the local market penetration level is for a sample of typical locally grown products. This step will be based on existing data sources, as well as interviews with growers, buyers (grocery chains), and members of the technical panel. Product selection will be a result of discussions with project partners and from initial research conducted through the literature review and the demand analysis

Product(s): Report chapter summarizing existing and potential supply,

geo-code database, and descriptive maps.

Schedule: February-April 2010

Meetings: One with the Technical Advisory Team and the project

partners.

Task 5: Demand and Price Elasticity Analysis

Demand analysis is performed in advance of a project to determine whether implementing a project is reasonable. Factors that affect demand include general socioeconomic trends in the market area, current and projected participation trends, current and projected activity by user groups, use in comparable markets, and future use as indicated by potential customers. This task will include basic analysis of demand and market trends, and more focused analysis of the price elasticity of the selected produce crops.

Base Demand Research and Market Trends

This research will identify general socioeconomic trends and local food market trends in the southern Willamette Valley. We recognize that good local data may not be available, so the research will rely on readily available consumer expenditure reports and interviews with local grocers. This step will include a description of end markets for a sample of high value locally produced products.

A key issue in this research will be market segmentation and price elasticity for various products. We will explore price and income elasticity data, food budget shares, and other data generated by the USDA Economic Research Service. This research will allow a better understanding of price points needed to increase local share of consumption of the key products identified in Task 4.

This data source will be important, and we should consider offering non-disclosure agreements for data access, and reporting only aggregated information. We can also look to indirect data sources, such as shelf space/retail space allocation shifts, possibly differentiating between standard and specialty retail, and include volumes from farmer's markets. The UO team will review trade publications to identify appropriate indicators for indirect measures.

According to OregonProspector, more than \$525 million dollars is spend in Lane County each year for food consumed at home. The research will include a more detailed evaluation of the total annual economic value of food purchases within the study area. It will provide detail on the types of foods purchased and household food budget as percentage of the Area Median Income. Using PSU population estimates for the region, the research will determine what the total value of household spending would be in 5, 10, and 20 years. This is intended to be a high-level analysis that provides an indication of the size of the Eugene and Lane County food market. To accomplish this task, CPW will use consumer expenditure data for Eugene and Lane County from Claritas or a similar data vendor that provides disaggregated expenditure data for classes of food products. If Claritas data are used, CPW will use the five-year projection (probably for 2015) of consumer expenditures to document the market size. To the extent data allow, we will use population projects, combined with assumptions about price and income trends, to estimate the market size in 2030.

Price Elasticity Analysis

A key objective of this study is to better understand local price elasticity's for the selected crops. The Price Elasticity of Demand (PEoD) measures the rate of response of quantity demanded due to a price change and is calculated as follows:

PEoD = (% Change in Quantity Demanded)/(% Change in Price)

This task will require some local research. We will focus on two markets: institutional and consumer. We will gather data on both through personal interviews or surveys. The initial research will focus on institutions and produce managers at grocery chains. We may chose to conduct an optional consumer survey if the quality of the information that is available is not of sufficient detail to understand price elasticity's.

Institutional Survey

This task will start with a review of a survey of local buyers and producers conducted for EWEB by The Good Company. We will talk with EWEB and Good Company staff to better understand the purpose and scope of their work and to identify any gaps that exist in their survey. We will build the survey from those discussions and focus on the information gaps.

This online survey will potentially investigate current food sources for institutional buyers. It will determine the average monthly monetary value of purchases, what types of products are purchased, and where these purchases are occurring. It will also investigate institutional buyer interest in local products, and what requirements these purchases would need to meet (e.g. food quality/quantity restrictions, certification, price elasticity, and insurance and delivery requirements). The survey will focus on non-retail institutional buyers, such as schools, hospitals, and other large buyers.

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http://www.oregonprospector.com/ed.asp?cmd=demognei2&selcounty=41039Lane+County&report=Consumer_Expenditures

Consumer Survey (Optional)

This online survey will investigate current food sources for individual consumers. It will determine the average monthly monetary value of purchases, what types of products are purchased, and where these purchases are occurring. It will also investigate customer interest in local products. CPW will work with the client groups to determine the specific methods (i.e., sample frame, sample size, etc) and the content. If the client groups desire a mailed survey, we propose selecting a random sample of 1,400 registered voters in Eugene and stratifying that sample by age.

Supply Chain Analysis

As local and regional food production gains increasing prominence in our thinking about agriculture in the Lower Willamette Valley, one critical element is a robust and ongoing focus on supply chains and system efficiencies. This focus could contribute to cost savings, improved linkages between producers and end users, and greater economic resilience among farmers. These benefits become tangible as the scale of activity increases, and the consideration of these opportunities can help bolster the institutional support necessary for investments in supporting infrastructure and consumer outreach and education.

The initial focus will be on a select number of products, likely reflecting early traction in the marketplace; ultimately this analysis could be expanded based on production factors (such as soil suitability) to a broader range of products. It will also incorporate work EWEB is involved in on farm operation efficiency (e.g. energy efficient water pumps, etc)

Product: Report chapter; appendices summarizing survey results

Schedule: March – May 2010

Meetings: None

Task 6: Case Studies

To better understand the issue of food re-localization, we will conduct three case studies of other areas that are working to implement food security plans and re-localize their food systems. These case studies will identify best practices for food re-localization programs that may act as models for next steps for Eugene and Lane County. The case study analysis will directly evaluate the economic impacts local communities found (including changes in food economic activity locally, affordability of local food products, and related public policy enacted to stimulate food economic activity.)

Product: Case Study Appendix Schedule: February-April 2010

Meetings: None

Task 7: Prepare Implementation Strategies

The CPW team will use the results of Tasks 2 through 6 to identify key opportunities, barriers, and issues. This information will be provided to a team of students in the MBA program to develop ideas for implementation that will include potential business models, funding, locations,

and other factors. The implementation strategies will address both short-term actions (1-3 years) and longer term actions (4-6 years).

Inclusion of explicit business strategy development is a fundamental value to this effort, as it helps individual farmers and producers to understand not only their own market opportunities, but the potential value associated with cooperative approaches to marketing and buying production inputs. Individual farmers have strong cultural identification, but their ability to engage in collaborative business models is essential to deeper connections with their customers, particularly when seeking to offer higher value products or to create enduring producer-customer relationships. Further, advanced business planning could contribute substantial value to producers, and to processing and storage enterprises, by identifying new or emerging finance options, based on reorientation among capital investment markets, both in terms of sustainability in general and local food in particular.

Product: Implementation Strategies Chapter

Schedule: April-June 2010

Meetings: Two meetings each with growers/producers and processors

Task 8: Draft and Final Products

CPW will provide draft products for review by the client group throughout the project. We propose to consolidate all of the work on this project into a single report. We will provide a draft report in late June for review by the client group, and will provide a final report by August 2010. The CPW team will be available to present the findings to the client group and the client group's respective elected board, commission, or council if the opportunity arises.

Schedule: June-August 2010

Meetings: Presentation to client groups

Product: Draft and final report

Project Schedule

Table 1 presents our proposed project schedule. CPW proposes to initiate work on the project in January 2010 and to complete the project by September 2010.

Table 1. Proposed Schedule

Task	Description	Schedule
1.	Draft Report Outline	January
2.	Literature Review	February-March
3.	Technical Input Meetings	January and June
4.	Supply Analysis	February-April
5.	Demand Analysis	March-May
6.	Case Studies	February-April
7.	Economic Benefits Analysis	April-June
8.	Implementation Strategies	April-June
9.	Draft and Final Report	June-August

Proposed budget

The budget for this project is \$60,000. CPW will contribute \$30,000 in funds from our EDA University Center grant, and each of the partners will contribute \$10,000.

Appendix J: SWOT Outline

Strengths

Natural Resources

• Climate (long growing season), soil, ecosystem, water

Farms/Gardens

- Longevity with organic and small farming community
- CSA's
- Active community gardens

Processing/Storage/Distribution

Some distribution infrastructure in place: Organically Grown Company, Emerald Fruit and Produce, Hummingbird Wholesale, Glorybee Foods (unfortunately Grain millers is not selling locally – they bring oats in from afar, process them and sell them in the global market)

<u>Users (institutions, municipalities, individuals)</u>

Organizational Capacity and Experience

- Mature, knowledgeable presence (WFFC, LCFPC, FFLC, OSU Ext, EWEB)
- Food for Lane County is an active and effective food bank for low income residents, practiced at redistribution of food.
- Academic support OSU/UO/LCC growing knowledge bank
- Grocery stores and markets interested in purchasing locally (should this be under the Users section above?)
- Demographics of local farmers (cultivating young farmers)
- Education is strong (gleaners, 4H, CS, Green Schools, School gardens)
 - o Good skills to teach self-sufficiency

Additional Strengths

- Market dynamics, difficult economy=lack of grass seed sales, new restrictions on field burning is additional burden to grass seed production, local food production begins to look better.
- Emergency preparedness, who's working on this as it relates to long term food security? Oregon Partnership for Disaster Resilience

Weakness

Natural Resources

 Climate: warmer, wetter in winter, dryer in summer, soils declining, ecosystem, water supply declining

Farms/Gardens

- Lack of market motive to produce locally
- Small number of farmers
- Demographics of local farmers (aging population)
- Demographics and legal status of farm workers

Processing/Storage/Distribution

Infrastructure lacking

Users (institutions, municipalities, individuals, private companies?)

- Loss of self sufficiency skills
- Chain stores not buying locally

Organizational Capacity and Experience

- Organizational resources and capacity lacking to properly look at the issue of food security.
- Improved communication and synergy needed between organizations.
- Previous lack of formal local government involvement
- Code/policy that make it difficult to grow food in urban context
- Lack of communication between existing private food business concerning reaction to food crisis.

Additional Weaknesses

- Lack of up to date and complete food assessment
- Food security definition needs clarity-working local food system? Buy local? Sustainable?

Opportunity

Natural Resources

Farms/Gardens

- Field burning ban-possibly incentivize farmers to increase crop diversity, bigger incentive is the tanking price of grass seed
- Federal \$ for converting
- Labor

Processing/Storage/Distribution

- On-line food hub type activities > market (Food Hub partnership with Ecotrust, Eugene Water & Electric Board, Cascade Pacific RC&D, Willamette Farm and Food Coalition)
- Oregon Solutions Project
- As yet no year-round farmers' market

<u>Users (institutions, municipalities, individuals)</u>

Organizational Capacity and Experience

- Fed government in multiple branches are interested and partnering emphasis
- Improve adult education through OSU Extension Master Gardener Program, youth education through-School Garden Project, Farm to School program, Food For Lane County
- Promote more urban gardens through Victory Gardens, City of Eugene Community Gardens, OSU Extension Service, neighborhood gardens, open private and public spaces
- Land use planning activities to protect high value farmland through rural preservation

Additional Opportunities

• Market dynamics

- Economic downturns
- Increasing petroleum prices versus distance of transport favors local production

Challenge

Natural Resources

- Climate change-insects, noxious weeds, disease, fire
- Petroleum price increasing and volatile
- Future water availability

Farms/Gardens

- Political reality of federal subsidies/policies for Ag
- Labor
- Need better business plans for new farmers
- Lack of risk mitigation for farms-high risk
- Land use (farm requires \$)

Processing/Storage/Distribution

- Finding private parties to invest in infrastructure
- Lack of infrastructure

<u>Users (institutions, municipalities, individuals)</u>

- Short term view of chain stores
- Increased population in Oregon is focused on Willamette Valley I-5 Corridor
- Institutions often have to focus on bottom line when buying food

Organizational Capacity and Experience

- More local=reduced choices=need for greater education on benefits of local purchases and how to prepare and eat local foods.
- Lack of resources and funding for organizations in this recession period (ex. OSU Extension Service in jeopardy)

Additional Challenges

- Market dynamics
- Economic downturn

Appendix K: Funding Opportunities and Resources

USDA--Community Food Security Coalition Competitive Grant Program

The USDA's Community Food Projects (CFP) Competitive Grants Program provides the major funding source for community-based food and agriculture projects nationwide.

The CFP program is administered by the Cooperative State Research Extension and Education Services (CSREES) of the U.S. Department of Agriculture (USDA). It supports projects that:

- help meet the food needs of low-income people,
- increase the self-reliance of communities in providing for their own food needs, and
- promote comprehensive responses to local food, farm, and nutrition issues, and/or...
- meet specific State, local, or neighborhood food and agriculture needs for infrastructure improvement and development, long-term planning, or the creation of innovative marketing activities that mutually benefit agricultural producers and low-income consumers.

Funding preference is given to projects that develop linkages between two or more sectors of the food system, support the development of entrepreneurial projects, involve public and for-profit as well as nonprofit entities, and promote multi-system, interagency approaches with multi-stakeholder collaborations that build the long-term capacity of communities to address their food and agricultural problems.

Only private non-profit organizations are eligible to receive CFP funds directly, but collaborations with public and private, for-profit entities are recommended. Applications will be evaluated by reviewers from the food security community. Applicants may request up to \$300,000 for projects of up to three years' duration. CFP funds requested must be matched dollar for dollar with non-federal resources. Projects should be planned to use a one-time infusion of federal funds to become self-sustaining.

Program information can be found at: http://www.csrees.usda.gov/funding/rfas/community_food.html

USDA--Sustainable Agriculture Research and Education (SARE) Grants Western Region

SARE is a USDA competitive grants program that supports agricultural systems that are economically viable, environmentally sound and socially responsible. Grant applications consistent with the goals listed below have the best chance of being funded. Program information can be found at: https://wsare.usu.edu/grants/

Promote *good stewardship* of the nation's natural resources by providing site-specific, regional and profitable sustainable farming and ranching methods that strengthen agricultural competitiveness; satisfy human food and fiber needs; maintain and enhance the quality and productivity of soil; conserve soil, water, energy, natural resources and

fish and wildlife habitat; and maintain and improve the quality of surface and ground water.

- Enhance the *quality of life* of farmers and ranchers and ensure the viability of rural communities, for example, by increasing income and employment, especially profitable self-employment and innovative marketing opportunities in agricultural and rural communities
- Protect the *health and safety* of those involved in food and farm systems by reducing, where feasible and practical, the use of toxic materials in agricultural production, and by optimizing on-farm resources and integrating, where appropriate, biological cycles and controls.
- Promote crop, livestock and enterprise *diversification*.
- Examine the regional, economic, social and *environmental implications* of adopting sustainable agriculture practices and systems.

Economic Development Assistance (EDA) Programs:

EDA's mission is to lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy. In implementing this mission pursuant to its authorizing statute, the Public Works and Economic Development Act of 1965, as amended (42 U.S.C. § 3121 et seq.) (PWEDA), EDA advances economic growth by assisting communities and regions experiencing chronic high unemployment and low per capita income to create an environment that fosters innovation, promotes entrepreneurship, and attracts increased private capital investment.

Eligible applicants for and eligible recipients of EDA investment assistance include a(n): (i) District Organization; (ii) Indian Tribe or a consortium of Indian Tribes; (iii) State, a city or other political subdivision of a State, including a special purpose unit of a State or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions; (iv) institution of higher education or a consortium of institutions of higher education; or (v) public or private non-profit organization or association acting in cooperation with officials of a political subdivision of a State.

EDA solicits applications for the planning assistance for to help support planning organizations, including District Organizations and Indian Tribes, in the development, implementation, revision or replacement of comprehensive economic development strategies (CEDS), and for related short-term planning investments and State plans designed to create and retain higher-skill, higher-wage jobs, particularly for the unemployed and underemployed in the nation's most economically distressed regions.

Program information can be found at:

http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42952

Walmart Foundation State Giving Program

The Walmart Foundation State Giving Program awards grants at the state and regional level for programs that give individuals access to a better life. State Advisory Councils in each state, as well as Washington, DC and Puerto Rico, determine how best to distribute State Giving Program funds. The program provides grants of \$25,000 and up in the following categories: Education grants support programs that address the educational needs of underserved young people, ages 12-30. Job Skills Training grants promote professional training, counseling, and support services to help people improve their work-related skills. Health grants strive to improve access to healthcare and promote healthy lifestyles. Environmental Sustainability grants support programs that are designed to help people become more sustainable as well as programs that enhance the environment. Applications may be submitted between February 1 and August 20, 2010.

Program information can be found at: http://walmartstores.com/CommunityGiving/8168.aspx

Farmers Market Promotion Program (FMPP)

The Farmers Market Promotion Program (FMPP) was created through a recent amendment of the Farmer-to-Consumer Direct Marketing Act of 1976. The grants, authorized by the FMPP, are targeted to help improve and expand domestic farmers markets, roadside stands, community-supported agriculture programs, agri-tourism activities, and other direct producer-to-consumer market opportunities. Approximately \$5 million is allocated for FMPP for Fiscal Year 2010 and \$10 million for Fiscal Years 2011 and 2012. The maximum amount awarded for any one proposal cannot exceed \$100,000. Entities eligible to apply include agricultural cooperatives, producer networks, producer associations, local governments, nonprofit corporations, public benefit corporations, economic development corporations, regional farmers market authorities and Tribal governments.

Program information can be found at: http://www.ams.usda.gov/AMSv1.0/FMPP