



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CLACKAMAS, COUNTY OF
Task: Submit Application - BTOP	Applicant Name: Mr. David Cummings

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A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	096992656
CCR # (CAGE)	3UFZ9
Legal Business Name	CLACKAMAS, COUNTY OF
Point of Contact (POC)	PHYLLIS WEST 5037425410 Ext. phyllisw@co.clackamas.or.us
Alternate POC	LANE MILLER 5037425442 Ext. lanem@co.clackamas.or.us
Electronic Business POC	PHYLLIS WEST 5037425410 Ext. phyllisw@co.clackamas.or.us
Alternate Electronic Business POC	LANE MILLER 5037425442 Ext. lanem@co.clackamas.or.us

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	Mr.
First Name	David
Middle Name	
Last Name	Cummings
Suffix	
Telephone Number	503-655-8525



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Fax Number	
Email	davidcu@co.clackamas.or.us
Title	Chief Information Officer

Additional Contact Information of Person to be Contacted on Matters Involving this Application:

Project Role	Name	Phone	Email
Secondary Point of Contact	Mr. David , DeVore	5037234996	daviddev@co.clackamas.or.us

Environmental Point of Contact

Prefix: Mr. Name: DeVore, David Suffix: Telephone Number: 503-723-4996 Title: Deputy CIO
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Organization Classification

Type of Organization	County Government
Is the organization a small business?	No
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No

Authorized Organizational Representative

AOR Name	WEST, PHYLLIS
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Result	Applicant Authorized
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Project Title and Project Description

Project Title: Clackamas Broadband Innovation initiative

Project Description: The Clackamas Broadband Innovation Initiative (CBII) is a 180 mile ring/spur fiber optic network designed to provide low cost point to point middle mile network access to 159 community anchor locations throughout the County while providing backhaul abilities to any private broadband provider desiring to use the network.

CCI Priority Checklist

The following items were selected from the CCI Priority Checklist:

1. This project will deploy Middle Mile broadband infrastructure to community anchor institutions.
2. The project will deploy Middle Mile broadband infrastructure and has incorporated a public-private partnership among government, non-profit and for-profits entities, and other key community stakeholders.
3. This project will deploy Middle Mile broadband infrastructure in economically distressed areas.
4. This project will deploy Middle Mile broadband infrastructure to community colleges.
5. This project will deploy Middle Mile broadband infrastructure to public safety entities.
6. This project will deploy Middle Mile broadband infrastructure and either includes a Last Mile infrastructure component in unserved or underserved areas or has received commitments from one or more Last Mile broadband service providers to utilize the Middle Mile components. Any Last Mile components in rural areas do not exceed 20% of the total eligible costs of the project.
7. This project will deploy Middle Mile broadband infrastructure and the applicant has proposed to contribute 30 percent or more in non-federal cost match.

Comprehensive Community Infrastructure Components

The following items were selected from the Comprehensive Community Infrastructure Components:



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Middle Mile

BIP Applicants

Have you also applied to BIP for funding in the sample proposed funded service area?

- No

If Yes, please provide the project title and Easygrants ID number:

Title of Joint BIP Application:

Easygrants ID:

Other Applications

Is this application being submitted in coordination with any other application being submitted during this round of funding?

- Yes

Easygrants ID	Project Title
702	Sandy Broadband Infrastructure Project (Sandy, OR)

If YES, please explain any synergies and/or dependencies between this project and any other applications.

The CBII will coordinate with the city of Sandy (an existing municipality located in Clackamas County). The Sandy Broadband Infrastructure Project was awarded a Round 1 BIP grant/loan combination of \$749,085. The project will provide broadband service to the underseved rural area of Sandy, OR. It will improve and expand wireless Internet service provided by SandyNet, a municipal Internet service provider operated by the City of Sandy.

SandyNet would utilize the CBII for high capacity backhaul to the public internet and be able to expand its footprint to an additional 3908 households and a population of 10,306, most of whom are located in unserved and underserved areas. SandyNet anticipates serving an additional 1075 addresses and 8 strategic locations with its 8 Mbps service within 3 years of upgrading its system. SandyNet will have access to a pair of fibers at two tower locations for connection back to the internet at whatever backbone speed it requires.



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Individual Background Screening

Is the Applicant exempt from the Department of Commerce requirements regarding individual background screening in connection with any award resulting from this Application?

- Yes, Applicant is exempt because it is a unit of a state or local government

If the answer to the above question is "No," please identify each key individual associated with the Applicant who would be required to complete Form CD-346, "Applicant for Funding Assistance," in connection with any award resulting from this Application:

Name	Title	Employer

B. Executive Summary, Project Purpose and Benefits

Essay Question

Executive Summary of the proposed project:

Clackamas County encompasses 1,879 square miles in northwestern Oregon. The northwestern part of the county contains the most population, due to its close proximity to the city of Portland. Central and southern Clackamas County contains smaller towns that are rural in nature and which make up the underserved areas of the county. Most of the eastern portion of the county consists of the Mt. Hood National Forest. Included in this immediate vicinity are the communities of Sandy, Welches and Rhododendron, which lie along Highway 26, the main route to Mt. Hood from the Portland area. Despite the fact that Mt. Hood is one of the major tourist destinations in the Pacific Northwest, these areas remain underserved by broadband providers. The towns of Estacada, Colton, Molalla, and Canby are also removed from the population centers and are in rural areas.



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The county’s economy is in transition. Traditionally the timber industry has provided a significant base for jobs; however many of these jobs have been eliminated in recent years and the rural areas of the county are therefore experiencing double-digit unemployment. The county needs desperately to stimulate economic development by bringing in modern, higher-paying, and sustainable jobs. Without expanding the local economy through newer industries the county’s economic base will continue to weaken.

From a broadband perspective, the county is served in piecemeal fashion by over 20 broadband providers. These consist of tier-one voice and data carriers, large cable TV MSOs, independent telephone companies, and locally owned cable franchises. Service in the rural areas is generally regarded to be “slow and unreliable...too narrow for our needs...and substandard.” With each provider serving small pockets of the county, there is no synergy or economy of scale contributing to the growth of broadband county-wide. A perfect example of this problem is SandyNet, which is a small ISP operated by the City of Sandy, and also a Round 1 BIP last-mile award recipient. With no available middle-mile infrastructure available in Clackamas County, SandyNet’s backbone connection suffers due to lack of capacity and redundancy. Quoting from SandyNet’s letter of support, the new Clackamas Middle Mile network “will provide a critical connection to the Internet for our ISP, allowing for redundancy and additional capacity to meet future growth. This additional middle mile capacity is critical to our ability to accommodate our anticipated new customers.”

To address this critical shortage of readily available broadband transport throughout the county, the County’s master communications planning exercise resulted in the development of the Clackamas Broadband Innovation Initiative (CBII), which forms the basis of this application. The proposed fiber optic middle mile network will provide badly needed infrastructure in the areas of the County where more bandwidth is significantly needed, and it will link the rural parts of the county with the non-rural areas. In keeping with the goals of BTOP’s Round 2 emphasis on “Comprehensive Community Infrastructure”, the project links together a total of 158 community anchor institutions including schools, a Community College, public safety facilities, hospitals, and other government facilities. Just as important, the project will also offer dark fiber capacity to the various local broadband providers at very affordable rates. By offering a county-wide redundant fiber optic ring, the county will enable providers from within the county and beyond to access a previously unreachable customer base. Doing so will truly make Clackamas County a more Comprehensive Community.



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A new county-wide middle mile infrastructure is expected to provide immediate benefits. The county’s Business and Economic Development group has voiced strong support of the project: “This project will be instrumental to our business recruitment and marketing efforts [and is] critical to level the playing field for our rural communities to compete and attract employers without the location and infrastructure advantages offered by the Portland Metro Area.” The application also includes letters from two private-sector employers explaining how the new infrastructure will immediately improve their ability to do business and compete with companies in more urban areas. One of these is a developer who would like to expand an industrial park by an additional 125 acres in the Estacada area, which would result in an immediate influx of new jobs.

The project has received full support from all of the anchor institutions and government facilities in the County. Most prominent among these has been the Clackamas Education Service District (ESD) which operates and oversees 91 schools (k-12 as well as a community colleges) in Clackamas County. Clackamas ESD has provided much-needed expertise and leadership in the network design. It has also offered a connection into its newly-renovated and expanded 4000 square-foot data center. By establishing a peering point at the ESD’s data center, the CBII will have access to not only all the schools in the county, but will also be collocated with ESDs in Portland and Multnomah County. The data center also hosts peering points for service providers such as Qwest, Comcast, and Integra, as well as corporations such as Google, Yahoo, Microsoft, and Akamai. The contributions of Clackamas ESD provide real value to the feasibility of the network and represent a perfect example of how the ARRA can foster cooperation of local government agencies working together.

In addition to Clackamas ESD, the other anchor institutions have also contributed as partners by including their own cost to fund the network gear required to light the backbone fiber. It should be noted that this represents a significant revision and improvement over the previous application submitted for Round 1. The Round 1 infrastructure consisted of dark fiber only, without network connections, but the Round 2 application provides in-kind matching for the cost of the network electronics.

The CBII will provide 108 pairs of fiber on the ring and 72 pairs of fiber on the spur portion of the network. Initially the County will deploy a 10 Gigabit backbone with Gigabit service to several County facilities. The City of Sandy’s public broadband wireless system, SandyNet, will initially provision a 1 Gigabit connection to the public internet for backhaul purposes.



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The Clackamas ESD will be able to provide schools higher speed access to the Internet and all of the high capacity applications that can be realized from more bandwidth. Included in these are distance learning and virtual classroom applications. Higher capacity data connectivity and online video training can be provided between fire stations and police locations, enabling greater access to graphic-intensive data, and the ability for greater sharing of information between the County and the municipalities. The Oregon Department of Transportation will be provided with fiber pathways needed to implement Intelligent Transportation System traffic monitoring and video monitoring along high traffic corridors.

The County will implement the CBII through the resources of its Technology Services unit. The department has a headcount of over 50 employees, and an annual budget of over \$12 Million. Technical Services has demonstrated capabilities in providing network administrative services, project management, budgeting, procurement, billing, and client services. The County's TS unit also provides a variety of technical infrastructure and service support, including call center, security, central operations, network transport and communications, maintenance and service response.

The CBII will meet all of the NOFA's nondiscrimination and interconnection requirements. The County's Network Management Policies will be nondiscriminatory and focused on uniform help desk support for all users of the CBII and quick service response in the event of any fiber cuts or infrastructure problems. Additionally, all of the policies and its commitment to meet all nondiscrimination and interconnect requirements will be prominently posted on the County's CBII Web site with notification to all users of any changes in these policies prior to any effect of such changes.

The middle mile service area which the CBII addresses is estimated to contain 97,834 households and 3,651 businesses. The project is estimated to cost \$11,148,130, covering 180 miles. It is expected that over 120 direct and indirect jobs will be created from the construction of the project and its initial operation. Once the fiber is built out and connected to the anchor institutions, it is conservatively estimated that dark fiber leases by service providers will lead to an indirect subscriber count of approximately 20,000 subscribers over an 8-year period.

Project purpose:



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As indicated throughout the Application, multiple BTOP statutory purposes, objectives and goals will be met by the CBII. As examples, broadband access and support to schools will be significantly enhanced through the CBII. Organizations and agencies that provide access, equipment and support services to facilitate greater use of broadband service, such as the public libraries, to low income, unemployed, aged and otherwise vulnerable populations will be provided with enhanced broadband services. The eastern and southern portions of Clackamas County include a significant portion of its low income and aged population. Additionally, access to and use of broadband service is greatly improved for public safety agencies through the CBII. The high capacity infrastructure will link a variety of fire districts and police locations (16 fire and 5 police locations) interconnected along the ring, which will enhance the capabilities for both first responders and internal communications between locations for emergency operations.

In addition to BTOP-mandated purposes, State of Oregon goals will be furthered by providing linkages for the Oregon Department of Transportation for expansion of Intelligent Transportation Systems (ITS) devices for traffic monitoring. These include CCTV cameras, variable message signs and weather stations, and systems in highly traveled corridors that now lack sufficient broadband to be fully effective. Traffic monitoring capabilities include video systems in highly traveled, tourism-rich corridors that now lack sufficient broadband to enable such systems. With the presence of Mt. Hood within Clackamas County as a huge draw for outdoor activities and other types of tourism, the availability of high capacity broadband services along the corridor leading to these destinations is critical, since tourism is a significant contributor to job maintenance and creation in Clackamas County.

All in all, the cost benefit of the project is exemplary in that it serves multiple BTOP purposes in a highly cost-effective and technologically proven way, while providing myriad broadband-related benefits to multiple populations, both immediately upon the inception of the CBII and for many years to come.

Recovery Act and Other Governmental Collaboration:

There is a significant amount of governmental collaboration that has occurred to design and develop the CBII up to this point. Because of the aggregation of demand that will occur over the CBII, as well as enhancements to a variety of organizational networks and applications, great efficiencies will be gained by use of the Network.



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As an example of leveraging of Recovery Act or other state or federal development programs, Clackamas County has undertaken a coordinated approach to economic recovery in order to maximize the benefits of ARRA in the community. The CBII is one key element of an emerging economic development strategy that will leverage ARRA resources, other state and county resources, as well as attracting private investment. Funds focused on workforce development, renewable energy, affordable housing, and health care access will also be invested in the underserved communities the CBII seeks to reach. The coordination and leveraging of ARRA resources in these distressed areas is intended to provide the maximum opportunity for communities who are in serious need of economic recovery.

The CBII will also provide capabilities to the Oregon Department of Transportation (ODOT) that currently aren't available for Intelligent Transportation System and traffic monitoring capabilities in high seasonal traffic corridors. This will further leverage federal transportation initiatives undertaken by ODOT including faster data feeds for weather stations, pavement sensors, and variable message signs. In addition, the CBII adds the capabilities to fully utilize the CCTV cameras enabling full motion video and non-delayed pan/tilt/zooming.

Fit with BTOP CCI Priorities:

The CCII meets and exceeds the CCI priorities as follows:

1. This project will deploy Middle Mile broadband infrastructure to community anchor institutions.

The CCII extends to virtually all anchor institutions in Clackamas County. There are a total of 159 anchor institutions connected in the network, with categories as follows:

- Medical: 4
- School (k-12): 90
- Community College: 3
- Library: 10
- Public Safety: 36
- Public Housing: 1
- Community Support: 3
- Other Government Facilities: 11
- Total Institutions: 158



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2. The project will deploy Middle Mile broadband infrastructure and has incorporated a public-private partnership among government, non-profit and for-profit entities, and other key community stakeholders.

The project represents a partnership between the Clackamas County Government’s Information Department and all of the county’s constituent organizations. In addition to partnerships within the county, the County Government has partnered with the City of Sandy and has received letters of support from all other city governments in Clackamas County. At the state level, the Oregon Department of Transportation has given a letter of support and plans to utilize the new middle mile fiber for traffic control and safety systems.

3. This project will deploy Middle Mile broadband infrastructure in economically distressed areas.

The CCII will provide much-needed Middle Mile connections into the rural and aging populations of southern and eastern Clackamas County. These areas are bordered by the Mt. Hood National Forest and economic growth opportunities are much needed. These areas include Sandy, Welches, Rhododendron, Estacada, Colton, and Molalla.

4. This project will deploy Middle Mile broadband infrastructure to community colleges.

Among the number of 91 educational institutions listed above are Clackamas Community College and Oregon Institute of Technology. Fiber optic cable connections will be brought into these two campuses and will provide much-needed connections to middle mile infrastructure that will connect students at these schools to increased Internet backbone bandwidth.

5. This project will deploy Middle Mile broadband infrastructure to public safety entities.

There are a total of 12 Law Enforcement facilities and 23 Fire/Rescue stations on the list of community anchor institutions. These include police and sheriff stations, correctional facilities, and fire/rescue stations.



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6. This project will deploy Middle Mile broadband infrastructure and either includes a Last Mile infrastructure component in unserved or underserved areas or has received commitments from one or more Last Mile broadband service providers to utilize the Middle Mile components. Any Last Mile components in rural areas do not exceed 20% of the total eligible costs of the project.

This project provides last mile connections to over 150 community anchor institutions and provides Middle Mile capacity throughout the county. The Middle Mile capacity will be open to any and all Last Mile service providers to lease new fiber for customer connections. In addition, the project has received a commitment from the City of Sandy, whose SandyNet network functions as a last mile provider in the city of Sandy. The City of Sandy is a Round 1 BIP grantee and will utilize middle mile fiber connections provided by this project to increase the Internet backhaul capacity for SandyNet.

7. This project will deploy Middle Mile broadband infrastructure and the applicant has proposed to contribute 30 percent or more in non-federal cost match.

The project does deploy Middle Mile fiber optic broadband infrastructure throughout all areas of the county. The project includes the network equipment to light up the new fibers and allows for spare fibers to be leased by last mile service providers to reach residential customers. The County will provide a mix of cash and in-kind matching funds totaling 30% of the project total.

Is the applicant seeking a waiver of the Buy American provision pursuant to section x.Q of the NOFA?

- No

Is the applicant delinquent on any federal debt?

- No

If Yes, justification for delinquency:

Are you seeking a waiver of any requirement set forth in the NOFA that is not mandated by statute or applicable law?

- No

Is the applicant a current recipient of a grant or loan from RUS?

- No



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C. Partners

Are you partnering with any other key institutions, organizations, or other entities for this project?

- Yes

If YES, key partners are listed below:

<p>Project Role: Other Name: Knapp, Joe Phone: 5036685533 Email: joeknapp@sandynet.org Address 1: 39250 Pioneer Blvd. Address 2: Address 3: City: Sandy State: Oregon Zip Code: 97055 Organization: SandyNet Organization Type: City or Township Government Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Dennison, Milt Phone: 5036754000 Email: mdenniso@clackesd.k12.or.us Address 1: 13455 SE 97th Avenue Address 2: Address 3: City: Clackamas State: Oregon Zip Code: 97015 Organization: Clackamas Education Service District Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No</p>

Description of the involvement of the partners listed above in the project.



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Clackamas County has established a variety of key partnerships with other local governments, public agencies, educational institutions, public safety entities, libraries, fire districts and service providers, indicating a wealth of support for the CBII in Clackamas. These partnerships indicate the project’s universally agreed importance for job creation and growth, overall economic development, and access to community anchor institutions.

A number of these entities have provided individual letters of support (over 50 in total) which are included as attachments. Some of these include: the Clackamas County Coordinating Committee; the City of Molalla; the City of Sandy; the Villages at Mt. Hood; the Library Information Network of Clackamas County; the Colton School District; Oregon City Public Schools; Canby School District; Oregon Trail School District; the Colton Rural Fire Protection District; and the Estacada Rural Fire District. Beyond this, a number of other entities are represented by the facilities described herein that will be connected to CBII interconnection points.

One of the project’s key partners is the Clackamas Education Services District (ESD), which has provided network expertise and guidance in the technical development of the network. As a more tangible asset, Clackamas ESD will contribute access to its regional data center. The data center was completed in 2008 at the cost of \$1.6 Million and houses 4000 square feet. The data center is the collection point and Internet Service Provider (ISP) for all the public K-12 schools in Clackamas County as well as Clackamas Community College, Marylhurst University, Clackamas County Library, and Clackamas County government. The CESD Data Center also has fiber connections to Multnomah Education Service District (MESD) and Portland Public Schools (PPS). Currently there are three telecom providers located in the CESD Data Center: Qwest, Comcast and Integra. They provide redundant paths to the Internet thru Cogent, Time Warner, Integra, Northwest Access Exchange (NWAX) in Portland and the Seattle Internet Exchange (SIX) at the Westin Building in Seattle. The CESD Data Center also peers with many large companies like Google, Yahoo, Microsoft, and Akamai as well as all the K20 Schools in Washington.

The CESD Data Center is used in the region to house the student information system for Clackamas County, Multnomah County and Portland Public Schools. It also houses the financial system for all the Schools in Clackamas County as well as others. The CESD Data Center is also used to co-locate servers and for disaster recovery for districts and agencies in this region.



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The CESD Data center is offering cloud services to all the agencies in the region. With the multiple paths of redundancy and the generated backup power, the data center is the ideal place to house this service and many more for our region. The center has the potential to save schools and agencies significant costs in both hardware and energy. The majority of schools and agencies in Clackamas County cannot use these services because of the lack of bandwidth and fiber connectivity to their facilities. If funded, the CBII would eliminate the bandwidth bottlenecks to the schools and agencies around the county, enable more users to take advantage of this under-utilized resource.

D. Congressional Districts

Applicant Headquarters

- Oregon

Project Service States

Oregon

Project Service Areas

Oregon - 5

Oregon - 3

Will any portion of your proposed project serve federally recognized tribal entities?

- No

Indicate each federally recognized tribal entity your proposed project will serve.



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Have you consulted with each of the federally recognized tribal entities identified above?

- No

E. Service Area Details

Is the applicant seeking a waiver for providing less than 100% coverage of a service area?

- No

Project Details

Service Area Type: Middle Mile
Service Area Name: Clackamas County Oregon
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,879
Total Population in Proposed Service Area: 265,209
Total Number of Households in Service Area: 97,834
Total Number of Businesses in Service Area: 3,651
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 158
Unemployment Rate in the Service Area: 10
Median Income in the Service Area: 42,455
Estimated Percentage of Households with Access to Broadband: 70
Estimated Percentage of Households Subscribing to Broadband: 35

F. Community Anchor Summary

Community Anchor Summary



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Schools (k-12)	90
Libraries	10
Medical and Healthcare Providers	4
Public Safety Entities	36
Community Colleges	3
Public Housing	1
Other Institutions of Higher Education	0
Other Community Support Organization	3
Other Government Facilities	11
TOTAL COMMUNITY ANCHOR INSTITUTIONS	158
Historically Black colleges and Universities	0
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	0
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	0

G. Project Benefits



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Demographics

Jobs	
How many direct jobs-years will be created from this project?	58
How many indirect jobs will be created from this project?	20
How many jobs will be induced from this project?	43

Methodology used to estimate jobs:

The job-year estimates were calculated using the guidelines suggested by the Council of Economic Advisors. Details are found at:
<http://www.whitehouse.gov/administration/eop/cea/Estimate-of-Job-Creation/>

This report gives the following:

Simple Rule for Estimating Job-Years Created by Government Spending:

- \$92,000 of government spending creates 1 job-year;
- 64% of the job-years represent direct and indirect effects;
- 36% of the job-years are induced effects.

We have estimated that the expenditure of the entire capital budget for this project (\$11,148,330) divided by \$92,000, will create a total of 121 FTEs. Following the guidelines of the report, 36% of the FTEs will be induced jobs (43 FTEs) while 64% will be direct/indirect jobs (78 FTEs). Of the 78 combined direct and indirect jobs we estimate that 75% (58 FTEs) will be direct jobs, with the remaining 25% (20 FTEs) being indirect jobs.

Project Impact:

The CBII project will have a significantly positive impact on the citizens of Clackamas County. With Broadband increasingly viewed as a utility no less important than water and power, the county and its citizens cannot continue to prosper in the long term with inadequate broadband services. A middle mile infrastructure linking the economically depressed areas of the county with the more economically advantaged areas will be crucial in providing the first step in opening up more economic opportunities in the county. The county has received letters of support from not only its constituent agencies, but also prospective employers and economic development officials, explaining that a county-wide infrastructure will be a tremendous catalyst for economic growth.



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The CBII middle mile infrastructure will provide cost-effective and affordable access to any potential service provider. Such providers will be able to lease capacity on the network to gain access to potential business and residential subscribers without incurring the expense required to build their own facilities. Without a commonly available middle mile infrastructure, the existing service providers in the county will continue to operate in isolation and not be able to achieve the required economies of scale needed to offer more affordable broadband services to a wider community of users. If such an infrastructure is built, it will attract new service providers who may not otherwise be able to afford to access the more densely populated areas in the Willamette River area. The county would thus be able to sustain the longer term operation of the network by initially collecting revenue from service providers in this area of the county.

In addition to the middle mile benefits of the project, the county will be providing critically needed last mile connectivity to the schools, libraries, public safety facilities, and other government organizations in the county. Without these upgraded connections, the students of the Clackamas ESD and Clackamas Community College will not be provided with the bandwidth needed for advanced applications crucial to today's education environment. The county has received letters of support from all the municipalities and school districts in the county expressing the need for increased bandwidth access.

Vulnerable Populations:

Despite its proximity as a suburb to Portland, the diverse demographics of Clackamas County contain a significant number of vulnerable populations. The statistics quoted below are from 2007, which pre-dates the global economic crisis; therefore it can be assumed that these statistics have worsened in the last three years.

Poverty level (County-wide): 9.5%

Children younger than 18 (23% of population): 13% in poverty

People with a disability (14% of population): 6% in poverty

Single women with children under 18 (9% of population): 36% in poverty

Students eligible for free/reduced lunch – 28% or 16,181 students

Population receiving Food Stamps – 9%

Veterans – 15.1% of population

Disabled: 7.5% of population

21-64 yrs. old: 15.1% disabled

Over 65 yrs. old: 38.8% disabled



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Level of Need:

The Clackamas Broadband Innovation Initiative (CBII) will address compelling economic problems in Clackamas County and will provide significant value-add by enhancing the inadequate broadband service offerings in the county.

Currently, the county is served by a checkerboard of existing service providers, including major Tier One voice and data carriers, large Cable TV MSOs, independent telephone companies, and locally owned cable franchises. With nearly 20 separate providers in the county, there is no comprehensive service provider tying together the far-flung and economically disparate areas of the county. The northwest areas of the county are suburbs of Portland, but the southern and eastern areas are much more rural and underserved, with double-digit unemployment. The incumbent service providers are not providing high capacity broadband services to the majority of these residents. In addition, a commonly available middle mile infrastructure is not available in these areas.

Within the underserved portions of the County, there are isolated broadband islands, with modest levels of service and a number of unserved and underserved areas in the gaps between the broadband islands. As part of the long-range communications plan for Clackamas, the County has designed the CBII, a high capacity, fiber optic, middle mile infrastructure that will be available to multiple users on nondiscriminatory terms, both at its inception and in the future. This middle mile infrastructure will serve as the bond to bring together these economically disparate areas of the county, providing the much-needed Comprehensive Community which does not currently exist in the county today. As such, it will provide a proven, cost effective and technically feasible solution to solve existing broadband-related problems and address new economic opportunities. The CBII is designed in a fiber optic ring which will provide highly reliable, fault tolerant operation, with a spur into the most unserved and underserved areas of the County.

The CBII has multiple interconnection points designed along the fiber ring. These points provide interconnection to a variety of community anchor institutions, public safety entities and service providers. Specifically, the community anchor institutions include schools, libraries, public safety agencies such as fire districts, police departments and sheriff's offices. Also included are transportation locations operated by both the County and the Oregon Department of Transportation (ODOT). These community anchor institutions currently face a variety of limitations in the level of broadband service that can be accessed, based on on technical



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limitations of the current middle mile and last mile infrastructure, or affordability based on the price that has been presented to them by existing providers. The existing situation also creates an equity issue with similar community anchor institutions located in more highly served areas of the County, where they have been able to achieve higher capacity broadband access, or been able to achieve such access in a more affordable way (in some cases, through the development of County or institution-owned fiber infrastructure that has already demonstrated the capacity, technical and cost benefits that the CBII would now help distribute on a greater County-wide basis).

To help address this immediate need, a service provider that will interconnect to the CBII at its inception for delivery of service directly to consumers and businesses in unserved and underserved areas is SandyNet. SandyNet is a unit of an incorporated municipality, the City of Sandy, that was developed to provide broadband access at affordable rates to those that were not well served or were unserved in and around the City of Sandy in the eastern part of Clackamas County. SandyNet would utilize the CBII for high capacity backhaul to the public internet and be able to expand its footprint to an additional 3908 households and a population of 10,306, most of whom are located in unserved and underserved areas. SandyNet anticipates serving an additional 1075 addresses and 8 strategic locations with its 8Mbps service within 3 years of upgrading its system.

The CBII is designed to provide multiple interconnection points along the fiber ring. Most of these points are located in the lower density, eastern and southern part of Clackamas County. The CBII would provide uniform high capacity, middle mile access throughout Clackamas County.

H. Technology

Technology Type

Indicate the technology that will be used to deliver last mile services. The following items were selected:

Wireline - Fiber-optic Cable

Other:

Technology Questions



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Methodology for Area Status:

The proposed funded service area consists of all of the census tracts in Clackamas County that lie East of the Willamette River. Each Census Tract was determined to be underserved or unserved by applying anecdotal information on which areas of the County are the least served by a broadband provider. With this information in hand, we made contact with the providers in the areas most likely to be underserved or unserved. The telephone providers in the County that were contacted claim to offer DSL service above the threshold of 768 kbps forward and 200 kbps return throughout their entire service area. This is contrary to the beliefs of many of the project participants but was taken as evidence that these areas are served above the minimum thresholds spelled out in the NOFA.

A portion of the middle mile infrastructure areas and corresponding census tracts are along the Highway 26 corridor between the City of Sandy and Government Camp. We applied the addresses in these census tracts to the Shop for Service tool on Verizon’s website as Verizon is the broadband provider for this area. This site told us if broadband service is available and the available speeds for each address we entered.

Description of Network Openness:

The CBII will clearly be an open Network that meets all of the NOFA’s nondiscrimination and interconnection requirements, including adherence to the principles contained in the FCC’s Internet Policy Statement; not favoring any lawful internet applications and content over others; displaying Network management policies in a prominent location on the County’s Web page consistent with the NOFA’s requirements; connecting to the public internet, both directly and indirectly; and offering interconnection on extremely reasonable rates and terms.

From its inception, the Network will have activated services for the County, the Clackamas ESD and associated school districts and SandyNet, all provided with interconnections on the same terms and conditions of \$250 per month. Other public entities will come on board at the same terms and conditions, able to use the fiber infrastructure that they leased on a revenue-neutral basis to the County (all revenue will be reinvested in the Network), including libraries, fire districts and other community anchor institutions and public safety entities.

Commercial providers , will be charged a higher rate, but still well below market rates for connectivity, at \$1,000 per month per pair, with all revenue reinvested in the Network. Any



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entity, for lawful purposes, will be able to have access to a pair or more of fiber. The County’s network oversight will ensure that entities do not interfere with each other’s provisioning of service. As noted in the response to Service Offerings for Middle Mile Project, the County is employing reasonable differentials between the access cost for public entities, where the County is otherwise involved in budget matters and public policy initiatives with these entities, versus commercial providers that will gain profit from the provision of services. However, the County will not discriminate in any way among public entities or among commercial for-profit entities.

The County’s Network Management policies will also be nondiscriminatory and focused on uniform help desk support for all users of the CBII and quick service response in the event of any fiber cuts or infrastructure problems. Each entity, including the County for its own service provisioning, will be responsible for all Network transport equipment from the demarc point where the CBII terminates in each facility.

Finally, all of these policies will be prominently posted on the County’s Web site, consistent with the requirements of the NOFA. The County will also immediately notify all CBII users of any changes in those policies prior to their occurrence and prior to any effect that they would have on those users. The County anticipates no detrimental effects of any policies on any users going forward, unless such users are not utilizing the Network for lawful purposes. The County will terminate use of the CBII for any user it determines to be using the Network for the transport of unlawful content.

System Design:

The Clackamas Broadband Innovation Initiative (CBII) network design would provide for Middle-Mile services to anchor institutions as well as back-haul network capacity needed by Last Mile broadband providers. The network will provide high speed connectivity between the remote areas of Clackamas County and the urban core areas. One of the largest issues in providing service to the remote areas of the County is the cost of getting high bandwidth back haul connectivity to these locations. Providing this will enable and promote service providers to establish a presence and provide high speed broadband services to areas of the County that are currently underserved or unserved. This will also allow for a cost effective means for private providers to offer broadband to areas of the County currently only served by a single provider, thus promoting competition.



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The entire fiber optic ring/spur network will be comprised of dark fiber that is activated or lit by each of the entities, as part of the in-kind matching contribution of the application. The fiber path is detailed on the network map upload but can be described as follows: Starting at the County offices in Oregon City go North through downtown, continuing North to the Clackamas Education Service District offices located in Clackamas on 97th. From there travel East passing through the Cities of Damascus and Boring and continuing to Sandy. From Sandy West and then South to Estacada then going East passing through Colton and into Molalla. From Molalla going North through Mulino, Canby and back to the County offices in Oregon City. Also from Sandy there will be a spur running East on Hwy 26 terminating at the junction of Hwy 26 and Hwy 35. This spur will pass through the communities of Wemme, Welches, Zig-Zag, Rhododendron and Government Camp.

These paths were chosen to maximize the opportunity for Service Providers to provide services to the underserved and un-served areas of the County as well as to enable as many public agencies as possible easy access to the fiber.

Key Network Components that Enable Connectivity - The network will provide dark fiber between an area of the County where service providers have a strong presence and the remote areas of the County where the local citizens are currently under-served or not served. For public agencies the network will provide a dark fiber connection between each agency such as dedicated Fire network, a dedicated Police network, a dedicated schools network and so forth. Key network components are merely fiber optic cables with splice locations and demarcation points at each of the 158 facilities, including SandyNet tower locations and ODOT camera locations. The network equipment required for lighting the fiber at each user location is included in this grant application as part of the in-kind matching funds.

The CBII will not deploy any wireless technology but in the case of wireless providers such as SandyNet, the CBII network will provide the backhaul from/to the last mile provider and the Internet. Although these questions are pertinent to SandyNet and other potential wireless providers served by this network, these parameters will be determined by each last mile wireless provider as they begin offering service in the County.

The County's strategy of providing a fiber optic middle mile network is to allow each of the entities to determine their own needs as they relate to technologies, bandwidth, redundancy, ISPs, security etc. As these needs change over the years, the facilities can upgrade their



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equipment as their budgets dictate to fulfill their needs on a real time basis as opposed to having to negotiate new terms with the County for their interconnection.

The County’s CBII network will be extremely scalable as new fiber optic rings and spurs can connect to the proposed network at virtually any location passed by the network to provide connectivity to new locations as needed in the future.

Is the applicant seeking a waiver pursuant to section IX.C of the NOFA so as to sell or lease portions of the award-funded broadband facilities during their life?

No

I. Project Budget

Project Budget		
	Federal Grant Request	Match
Last Mile	0	0
Middle Mile	7,804,181	3,344,649
Total	7,804,181	3,344,649

Project Budget Total: \$11,148,830

Match Percent: 30.0%

Projects Outside Recommended Funding Range:



Outside Leverage	
Applicant is providing matching funds of at least 20% towards the total eligible project costs?	Yes
Matching cost detail	Clackamas County will provide a 30% matching contribution to the project. This will consist of a combination of cash and in-kind contributions. The matching contribution may be broken down as



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	<p>follows:</p> <table> <tr> <td>Total Project</td> <td>\$11,148,830</td> </tr> <tr> <td>30% Match</td> <td>\$3,344,649</td> </tr> </table> <p>Matching details: -----</p> <table> <tr> <td>Cash provided by county (internal funds)</td> <td>\$519,069</td> </tr> <tr> <td>County staffing costs (in-kind):</td> <td>\$505,580</td> </tr> <tr> <td>County network equipment (in-kind):</td> <td>\$2,320,000</td> </tr> </table> <p>-----</p> <table> <tr> <td>Total match amount:</td> <td>\$3,344,649</td> </tr> </table> <p>For the cash contribution toward the total match, the county will use internal funds that are currently available; therefore there will be no need to obtain financing or special terms and conditions. The cash amount of \$519,069 represents 15.5% of the total matching amount and 4.7% of the overall project total. The cash contribution will be used to defray part of the cost of the fiber optic cable infrastructure construction.</p> <p>The county will obtain in-kind matching funds from two sources. The constituent agencies within the county government who will be using the fiber will each be responsible for funding their own network gear which will light up the fiber infrastructure and provide the high speed data connections. In addition, the county's Technology Services Department will contribute staffing costs required to manage the network during and after its construction. Both of these costs are allowable as matching contributions according to the rules of the NOFA.</p> <p>The total amount of in-kind matching funds from these two sources is \$2,825,580. This amount represents 84.5% of the matching amount and 25.3% of the overall project total.</p>	Total Project	\$11,148,830	30% Match	\$3,344,649	Cash provided by county (internal funds)	\$519,069	County staffing costs (in-kind):	\$505,580	County network equipment (in-kind):	\$2,320,000	Total match amount:	\$3,344,649
Total Project	\$11,148,830												
30% Match	\$3,344,649												
Cash provided by county (internal funds)	\$519,069												
County staffing costs (in-kind):	\$505,580												
County network equipment (in-kind):	\$2,320,000												
Total match amount:	\$3,344,649												
Unjust enrichment	This project is not receiving, nor has Clackamas County applied for, any other federal support for non-recurring costs related to this project.												



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Disclosure of federal and/or state funding sources	<p>Clackamas County has not received nor has it requested any federal or state funding for any projects or activities related to the CBII. The various schools and school districts do receive E-rate money related directly to connectivity. The E-rate percentages average approximately 58% for those schools that are eligible with the average monthly reduction equaling approximately \$691.00 per month for connectivity to the Educational Service District’s ISP. The schools wouldn't need this level of E-rate support once connected to the CBII.</p>
Budget reasonableness	<p>The costs for the CBII project are extremely reasonable, given the reach of the network and the average cost experienced for builds of this type, both within the Portland Metropolitan Area region as well as nationally. The average fiber material costs for a large bundle of 108 fiber pairs on the ring and 72 fiber pairs on the Highway 26 spur is consistent with national averages for large bulk buy projects. The average per-foot cost (including not only the fiber optic cable but all of the associated materials required for construction) is \$3.52. In addition, the labor cost is also very much in-line with local and national averages for predominantly aerial construction. The labor cost is \$3.75 per foot which also includes both the labor for hanging the fiber optic cable, as well as the associated activities required for a complete system.</p> <p>For Round 2 of the Application, Clackamas County has worked with two well established and well respected firms to develop cost estimates and route plans. These firms are Engineering Associates, a Professional Engineering firm specializing in telecommunications engineering for over 50 years, and North Sky Communications, a locally-based, experienced, and respected telecommunications specialty contracting firm. By working with these experienced firms, Clackamas County can be assured of using having reasonable and accurate pricing estimates.</p> <p>Clackamas County has also had preliminary discussions with state and local entities, the private power utility, private broadband providers etc. who have shown high levels of interest in utilizing the network but have not been able to make a final commitment as of the time of this</p>



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	<p>Application. In addition, Clackamas County will further expand the network into more remote areas of the County not served by this or other networks. The network can also be expanded to serve additional anchor tenants in areas of the County including Gladstone, Johnson City, Lake Oswego, and West Linn, as well as the I-5 corridor and to the neighboring counties of Multnomah and Washington.</p> <p>The costs for end user network switching gear, as well as testing and monitoring gear, have been included based on the experience of the Technology Services Department in years of working with this type of equipment. Engineering costs are forecast at 10% of the overall project, which is consistent with industry standard practices for projecting engineering costs for Wide Area Networks. Overall, the cost of approximately \$38,000 per mile for 180 miles of infrastructure, which at the outset will have interconnection points for 158 facilities, indicates a highly efficient, cost-effective infrastructure, well within the range of the most cost-effective national averages for such builds. Due to its ability to absorb numerous additional service providers and interconnections, the network will only prove more and more cost-effective over time.</p>
Demonstration of need	<p>For some time, Clackamas County has been working on a long-range communications plan which includes a County-wide fiber optic middle mile network. As can be seen by the demonstrations of support for the project, there is a significant equity issue between the more urbanized sections of the County and the less dense sections of the County and the opportunities afforded to the residents, businesses and community anchor institutions in the respective portions. Like many local governments, while Clackamas County has been able to envision and plan for needed infrastructure, it has had significant impacts on its budget that have not allowed the development of the majority of such infrastructure. Clackamas has developed some fiber connections for certain key locations, based on the limited funding available.</p> <p>Clackamas County has some internal funds available and has been</p>



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	able to gather a significant in-kind matching contribution, totaling over \$3 Million. However there is not sufficient funding available to finance the entire scope of the project. Accordingly, without federal funding available under the BTOP Program, Clackamas will not be able to proceed with the CBII within the period of the BTOP funding's availability (the next two to three years) or within any type of near-term planning horizon, even though the CBII is needed now.
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Funds to States/Territories

States	Amount of Federal Grant Request
Oregon	7,804,181

Funds to States/Territories Total: \$7,804,181

J. Historical Financials

Matching Funds			
	2007	2008	2009
Revenue	378,385	367,560	353,046
Expenditures	351,799	319,225	337,389
Net Assets	959,059	1,008,478	1,024,448
Change in Net Assets from Prior Year	26,586	48,335	15,657
Bond Rating (if applicable)	not available	not available	Moody's Aa3

K. Project Readiness

BTOP Organizational Readiness



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As demonstrated by the resumes of the management team and the description of their overall capabilities, Clackamas County is fully prepared to implement, manage and maintain the CBII infrastructure, as well as operate broadband services as one of the service providers on the Network. Clackamas County Technology Services is currently set up to provide administrative services, including project management, budgeting, procurement, billing and client service. It also is established to provide a variety of technical infrastructure and service support, including call center, security, central operations, network transport and communications, maintenance and service response. Clackamas County Technology Services also currently provides a wide range of application services that would be distributed over the broadband service that it will oversee and provide, as well as providing support to other users of the CBII.

Simply stated, Clackamas County will extend its current capabilities related to Wide Area Network and middle and last mile infrastructure and service support, including current workings with a variety of community anchor institutions and public safety entities, to operation, oversight and maintenance of the CBII. More detail can be found in the Overview of the Technology Services Department for FY 2010 (starting July 1, 2009) included as an upload under "Management Team Resumes and Organizational Chart".

Construction and Vendor Contracts

The County has done a significant amount of detailed work related to the system design and construction requirements and as such can quickly craft a quick turnaround Request For Proposal (RFP) detailing all of the construction and installation work that needs to be done to develop the CBII Network. The County is already aware of interested vendors that are qualified to respond to the RFP and would have the capabilities to construct the Network well within the required timeframes and meet all required specifications as ultimately described in the RFP. Vendors have indicated that such a project would both help maintain jobs as well as create new jobs. The County is prepared to issue a quick turnaround RFP immediately upon notification of grant award and anticipates that initial construction could begin within the first quarter after grant award.

Customer Base

The County's "customer base" is the entire population of Clackamas County. Although the CBII specifically is yet to be built, the Technical Services department and the entire county government itself already has a working relationship with the customer base it hopes to serve



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with the new network. While the project is being constructed, and after it has been completed, the county’s existing infrastructure and support systems can be fully leveraged to make the project a success.

Licenses, Regulatory Approvals and Agreements

The CBII will utilize existing pole runs for the middle mile infrastructure. The County already has access to all of the poles to attach the infrastructure through an existing Facilities Attachment Agreement with Portland Gas and Electric (PGE). The County also manages much of the right-of-way that the Network will traverse, with allied entities such as ODOT and municipalities within the County managing other portions of the right-of-way. Additionally, the extensions into the community anchor institutions, once they leave the middle mile infrastructure and enter the property, are owned and controlled by the community anchor institution up to and including the facility being connected. The City of Sandy owns and controls the property designated for the placement of antenna, towers and other infrastructure that would be connected to the middle mile infrastructure in order to provide wireless broadband services to residents and businesses.

In summary, all necessary permits, agreements, approvals, etc., related to the CBII’s construction have already been, or would be readily, obtained so that there is no impediment to beginning the process of constructing and installing the CBII after grant award and completing it, well within the required two year timeframe.

SPIN Number

Not applicable - Clackamas County does not have an FCC Universal Service Fund Service Provider Identification Number (SPIN).

L. Environmental Questionnaire

Project Description

This project is primarily the construction of a large fiber ring around part of Clackamas County with a major spur up Hwy 26 on Mt. Hood and many minor last-mile connections to key institutions. Most of the fiber is aerially-mounted on existing poles owned by Portland General



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Electric (PGE) with some in existing underground conduit. Therefore, most of the fiber installation will not disturb the surrounding environment. In the few locations that require new conduit to be installed, either by trenching or bore, all is in existing rights-of-way with no disruption of protected environments.

Property Changes

There is no planned clearing, fencing, excavating or disturbing of property other than the trenching / bore identified in section I above. All fiber is in previously-disturbed rights-of-way along current roadways. The Hwy 26 spur does go through the Mt. Hood National forest all in the rights-of-way along Hwy 26 or identified streets for last mile to key institutions. Please see the project map for specific detail.

Buildings

No buildings are planned to be constructed or modified as part of this project. All of the fiber is to be located within previously disturbed rights-of-way.

Wetlands

Given the numerous waterways in Clackamas, the proposed fiber pathway passes through several wetland areas (see project map). In all these areas, the pathway is aerial on pre-existing poles with NO property disruption.

Critical Habitats

A portion of the fiber pathway runs along Hwy 26 into the Mt. Hood National Forest, which is a critical habitat. However, most of the pathway is aerial on existing poles, some is in existing conduit, and one segment (slightly less than a mile) is new trenching along Hwy 26. However, this trenching is in previously-disturbed rights-of-way as are all the poles & conduit currently in place. There will be NO actual critical habitat property disturbed.

Floodplain

As with the wetlands, the numerous waterways in Clackamas require the proposed fiber pathway pass through several 100- and 500-year floodplain areas (see project map). In all of these areas, the proposed pathway is aerial on pre-existing poles with NO property disruption.



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Protected Land

The proposed fiber pathway does pass through the Mt. Hood National Forest on Hwy 26, however the pathway is mostly aerial on current poles or in conduit – all in previously disturbed rights-of-way with no property disruption in protected lands. (see project map).

Coastal Area

N/A. This project is not within any coastal zone areas.

Brownfield

According to the EPA web site, there are 2 current brownfields that the proposed fiber pathway runs adjacent to. The 2 sites are:

- 1175 NW 3rd Ave, Canby, 97013
- 213 W Main St, Molalla 97038

For both sites, the fiber is aerial on current poles with NO disruption to the property.

There are also 3 RCRA Corrective Action sites along the fiber pathway:

- 11843 SE Hwy 212 Clackamas 97015
- 16540 SE 130th St Clackamas 97015
- 13626 S Freeman Rd Mulino 97042

All three of these locations are also aerial on current poles with NO property disruption.



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Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name	File Name	Uploaded By	Uploaded Date
Service Offerings and Competitor Data	Clackamas CCI Service Offerings and Competitor Data - final 3-25-10.xlsx	Cummings, David	03/25/2010
Network Diagram	Clackamas Network Diagram - 1 of 2.pdf	Cummings, David	03/25/2010
Network Diagram	Clackamas Network Diagram - 2 of 2.pdf	Cummings, David	03/25/2010
Build Out Timeline	Clackamas Build-out Timeline - final - 3-25-10.docx	Cummings, David	03/25/2010
List of Community Anchors and Points of Interest	Clackamas Anchor Detail and POI-final - 3-26-10.xlsx	Cummings, David	03/26/2010
Management Team Resumes and Organization Chart	Clackamas County Resumes.pdf	Cummings, David	03/26/2010
Management Team Resumes and Organization Chart	Clackamas Technology Services ORG Chart.pdf	Cummings, David	03/23/2010
Management Team Resumes and Organization Chart	FY10 - Clackamas Tech Services dept narrative.doc	Cummings, David	03/23/2010



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CLACKAMAS, COUNTY OF
Task: Submit Application - BTOP	Applicant Name: Mr. David Cummings

Management Team Resumes and Organization Chart	FY09 - Clackamas Tech Services dept narrative.doc	Cummings, David	03/23/2010
Government and Key Partnerships	Clackamas Govt and Key Partnerships_Support Letters.pdf	Cummings, David	03/26/2010
Historical Financial Statements	2007 Clackamas Audited Financial Report.pdf	Cummings, David	03/23/2010
Historical Financial Statements	2008cafr-original_Part1.pdf	Cummings, David	03/23/2010
Historical Financial Statements	2008cafr-original_Part2.pdf	Cummings, David	03/23/2010
Historical Financial Statements	2008cafr-original_Part3.pdf	Cummings, David	03/23/2010
Historical Financial Statements	2008cafr-original_Part4.pdf	Cummings, David	03/23/2010
Historical Financial Statements	2008cafr-original_Part5.pdf	Cummings, David	03/23/2010
Historical Financial Statements	Clackamas Draft Financial Report FY 2009.pdf	Cummings, David	03/23/2010
Budget Narrative	Clackamas Budget Narrative - final - 3-	Cummings, David	03/25/2010



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CLACKAMAS, COUNTY OF
Task: Submit Application - BTOP	Applicant Name: Mr. David Cummings

	25-10.docx		
Detailed Budget	Clackamas Detailed Budget-final.xlsx	Cummings, David	03/24/2010
Pro-forma Forecast	Clackamas Pro Forma Financial Projections - final 2 - 3-25-10.xlsx	Cummings, David	03/25/2010
Subscriber Estimates	Clackamas Subscriber Estimates - final - 3-25-10.xlsx	Cummings, David	03/25/2010
Dashboard Metrics	Clackamas Key Metrics Dashboard - final - 3-26-10.docx	Cummings, David	03/26/2010
Service Area Data	Clackamas Service Areas Summary.xlsx	Cummings, David	03/23/2010
Network Maps	Clackamas Network Map.pdf	Cummings, David	03/23/2010
BTOP Certifications	Clackamas Signed BTOP Authorization-P West.pdf	Cummings, David	03/23/2010
SF-424 C and D	Clackamas-Form 424-signed.pdf	Cummings, David	03/24/2010
Supplemental Information	Clackamas PGE Contract - Original.pdf	Cummings, David	03/26/2010
Supplemental Information	Clackamas_Combined_Project_Maps.pdf	Cummings, David	03/23/2010



Broadband USA

**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date:		Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CLACKAMAS, COUNTY OF	
Task: Submit Application - BTOP		Applicant Name: Mr. David Cummings	



**Broadband Technology Opportunities Program
Public Computer Centers Program – Sustainable Adoption Program**

Submitted Date: 6/3/2010 10:26:12 AM		Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CLACKAMAS, COUNTY OF	
Task: Submit Due Diligence - CCI Applications		Applicant Name: Mr. David Cummings	

Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name
Round 2 CCI Due Diligence Documentation



**Broadband Technology Opportunities Program
Public Computer Centers Program – Sustainable Adoption Program**

Submitted Date: 6/3/2010 10:26:12 AM		Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CLACKAMAS, COUNTY OF	
Task: Submit Due Diligence - CCI Applications		Applicant Name: Mr. David Cummings	

Round 2 CCI Due Diligence Documentation



**Broadband Technology Opportunities Program
Public Computer Centers Program – Sustainable Adoption Program**

Submitted Date: 6/3/2010 10:26:12 AM		Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CLACKAMAS, COUNTY OF	
Task: Submit Due Diligence - CCI Applications		Applicant Name: Mr. David Cummings	

Round 2 CCI Due Diligence Documentation



**Broadband Technology Opportunities Program
Public Computer Centers Program – Sustainable Adoption Program**

Submitted Date: 6/3/2010 10:26:12 AM		Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CLACKAMAS, COUNTY OF	
Task: Submit Due Diligence - CCI Applications		Applicant Name: Mr. David Cummings	

Round 2 CCI Due Diligence Documentation



**Broadband Technology Opportunities Program
Public Computer Centers Program – Sustainable Adoption Program**

Submitted Date: 6/3/2010 10:26:12 AM		Easygrants ID: 5884	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CLACKAMAS, COUNTY OF	
Task: Submit Due Diligence - CCI Applications		Applicant Name: Mr. David Cummings	

Round 2 CCI Due Diligence Documentation

To preserve the integrity of the uploaded document, headers, footers and page numbers have not been added by the system



May 8, 2010

Anthony Wilhelm
Deputy Associate Administrator
Infrastructure Division, Office of Telecommunications and Information Applications
National Telecommunications and Information Administration
United States Department of Commerce
Washington, D.C.

CONFIDENTIAL

Dear Mr. Wilhelm:

Clackamas Community College (CCC) is extremely enthusiastic to offer support to Clackamas County for their request to fund a public broadband fiber ring linking urban and rural areas of the county under the Broadband Technology Opportunity Program (BTOP).

CCC serves more than 40,000 students through three campuses located in Clackamas County and our service district reaches far into rural areas of the county via three Outreach centers at Clackamas County high schools. These College Outreach Centers are primarily engaged in supporting Remedial and Basic Skills Education, much of it in the form of Computer Skills, GED and English as a Second Language programs. These programs are increasing their utilization of web-based learning and testing resources that require reliable high-speed broadband connections. High-speed broadband connections are still too costly to provide to these more rural student populations with their average cost per site of \$13,000 (one-time) and \$800 monthly on-going fees. The BTOP represents a unique opportunity to help level this middle/last mile cost barrier.

Currently, CCC spends approximately \$32,000 per year for shared transport 100Mb/1Gb fiber provided via Comcast I-Net to connect two main campus locations to each other and to our Internet Service Provider. By awarding Clackamas County the BTOP funding the College would be able to utilize the planned ring's dark fiber that will be allocated for education, thus allowing the College to save approximately \$160,000 over the coming five years. The combination of the one-time charges and recurring monthly charges has made it cost prohibitive to extend the College's electronic reach into the more rural areas of Clackamas County and the potential savings represents a significant dollar amount that could be redirected to benefit the students attending from across the county.

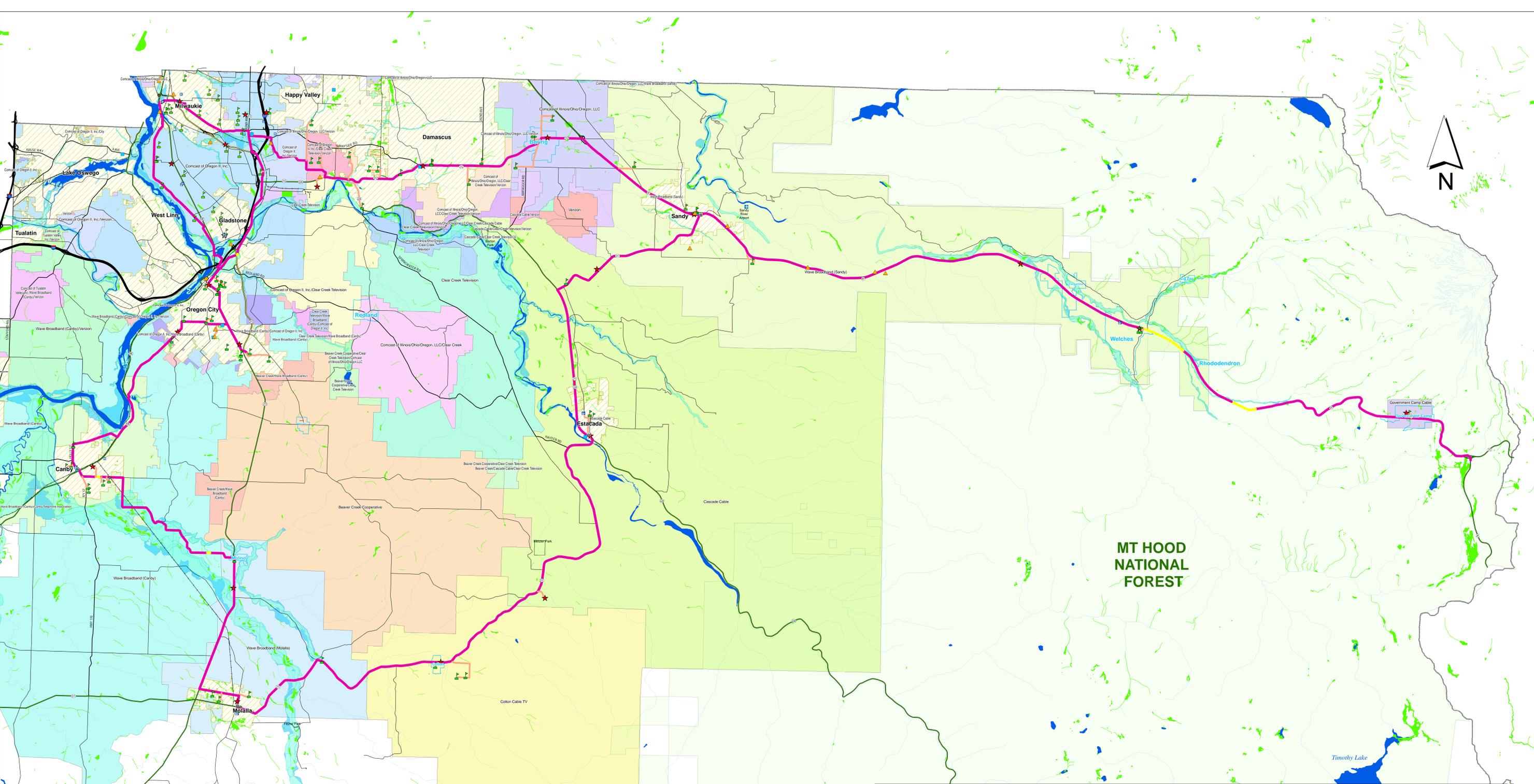
Looking into the future, if Clackamas County were awarded the BTOP funding this would also open up the possibility of greatly increasing remote learning via this expanded and dedicated broadband capability. This expanded capability would positively impact both the whole College and more specifically the Outreach Centers and other county high schools. Currently, CCC closely partners with county high schools, through other college programs such as Advanced College Credit (ACC). ACC provides county high school students with transferable college credits, prior to their starting college, thus reducing the cost of college tuition for thousands of Clackamas county parents every year.

We believe Clackamas County's application for BTOP funding will meet these goals and benefit our local community. We hope your will see fit to award these funds to Clackamas County so we can continue to build our technology future.

Sincerely,

A handwritten signature in black ink, appearing to read 'CWilton', written in a cursive style.

Courtney Wilton, Vice President of College Services
Clackamas Community College



Clackamas County Proposed Fiber Ring Cable Providers and Environmental Features

Anchor Institutions	Fiber Ring	FEMA 2008
<ul style="list-style-type: none"> ◆ County Courthouse ■ City Halls ■ Hospital ■ Schools ★ Fire Stations ■ Police Stations ■ Library ■ Aquatic Park ▲ County/Other Facilities 	<ul style="list-style-type: none"> — Aerial — Last Mile — Underground 	<ul style="list-style-type: none"> — 500 Year Flood Zone — 100 Year Flood Zone — NWI Wetlands

0 2 4 8 Miles

CLACKAMAS COUNTY
GEOGRAPHIC INFORMATION SYSTEMS

DEPARTMENT OF INFORMATION SERVICES/GEOGRAPHIC INFORMATION SYSTEMS
121 LIBRARY COURT
OREGON CITY, OREGON 97045

The information on this map was derived from digital databases from Clackamas County's GIS. Care was taken in the creation of this map but is provided "as is". Clackamas County cannot accept any responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. Although information from Land Surveys may have been used in the creation of this product, in no way does this product represent or constitute a Land Survey. Users are cautioned to field verify information on this product before making any decisions.

**U.S. Department of Commerce
Broadband Technology Opportunities Program
Authentication and Certifications**

1. I certify that I am the duly Authorized Organization Representative (AOR) of the applicant organization, and that I have been authorized to submit the attached application on its behalf.
2. I certify that I have examined this application, that all of the information and responses in this application, including certifications, and forms submitted, all of which are part of this grant application, are material representations of fact and true and correct to the best of my knowledge, that the entity(ies) that is requesting grant funding pursuant to this application and any subgrantees and subcontractors will comply with the terms, conditions, purposes, and federal requirements of the grant program; that no kickbacks were paid to anyone; and that a false, fictitious, or fraudulent statements or claims on this application are grounds for denial or termination of a grant award, and/or possible punishment by a fine or imprisonment as provided in 18 U.S.C. §1001 and civil violations of the False Claims Act.
3. I certify that the entity(ies) I represent have and will comply with all applicable federal, state, and local laws, rules, regulations, ordinances, codes, orders and programmatic rules and requirements relating to the project. I acknowledge that failure to do so may result in rejection or deobligation of the grant or loan award. I acknowledge that failure to comply with all federal and program rules could result in civil or criminal prosecution by the appropriate law enforcement authorities.
4. I certify that the entity(ies) I represent has and will comply with all applicable administrative and federal statutory, regulatory, and policy requirements set forth in the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements ("DOC Pre-Award Notification"), published in the Federal Register on February 11, 2008 (73 FR 7696), as amended; DOC Financial Assistance Standard Terms and Conditions (Mar. 8, 2009); the Department of Commerce American Recovery and Reinvestment Act Award Terms (Apr. 9, 2009); and any Special Award Terms and Conditions that are included by the Grants Officer in the award.
5. I certify that any funds awarded to the entity(ies) I represent as a result of this application will not result in any unjust enrichment of such entity(ies) or duplicate any funds such entity(ies) receive under federal universal service support programs administered by the Universal Service Administrative Corporation (USAC).
6. I certify that the entity(ies) I represent has secured access to pay the 20% of total project cost or has petitioned the Assistant Secretary of NTIA for a waiver of the matching requirement.

3-23-10
Date

Phyllis West
Authorized Organization Representative Signature

PHYLLIS WEST
Print Name

FINANCE MANAGER
Title



PHYLLIS R. WEST
FINANCE MANAGER

DEPARTMENT OF FINANCE
PUBLIC SERVICES BUILDING
2051 KAEN ROAD | OREGON CITY, OR 97045
P. 503.742.5410 F. 503.742.5401

phyllisw@co.clackamas.or.us

CERTIFICATION REGARDING LOBBYING LOWER TIER COVERED TRANSACTIONS

Applicants should review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, "New Restrictions on Lobbying."

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

NAME OF APPLICANT

Clackamas County

AWARD NUMBER AND/OR PROJECT NAME

5884 / Clackamas Broadband Innovation Initiative

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Steve Wheeler, County Administrator

SIGNATURE

DATE

5-10-10

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> B a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> A a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> A a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Clackamas County 2051 Kaen Road Oregon City, OR 97045 Congressional District, if known: OR - 5		5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:
6. Federal Department/Agency: NTIA	7. Federal Program Name/Description: BTOP CFDA Number, if applicable: _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i> Hal Heimstra Ball Janik, LLP 1455 F Street, NW, Suite 225 Washington, DC 20005	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i>	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: <u>Steve Wheeler</u> Print Name: <u>Steve Wheeler</u> Title: <u>County Administrator</u> Telephone No.: <u>(503) 655-8581</u> Date: <u>5-10-10</u>	
Federal Use Only:		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM
Federal Request and Match Verification

Name of Applicant Organization Clackamas County, Oregon
DUNS Number 096992656
Easy Grants # of Submitted Application 5884

As an Authorized Organizational Representative of the entity listed above, I verify that

(i.) The amounts in the "Grant Request" column from the budget table submitted by the entity I represent in response to Question 44 on page 17 of the Broadband Infrastructure Application completely and accurately reflect the amount of the organization's Federal grant request to NTIA; and

(ii.) The amounts in the "Cash \$" and "In-kind \$" fields submitted by the entity I represent in response to Question 52 on page 19 of the Broadband Infrastructure Application completely and accurately reflect, respectively, the organization's cash and in-kind matching contributions for the proposed project.

Signature of authorized person Steve Wheeler Date 5-10-10
Print name of authorized person Steve Wheeler
Title or position County Administrator

Clackamas County Broadband Initiative

Application # 5884

5/11/2010

Additional Network Narrative in response to issue # 16 (Benefits)

There will be many networks utilizing the fiber infrastructure. County Government, Local Government, Oregon Department of Transportation, Public Safety Police, Public Safety Fire, Education K-12, Education College and Business. Each of these networks will be allocated a block of dark fiber to use for their respective networks.

The primary Co-location sites for inter-connect will be the Clackamas Education Service District building, Clackamas County DSB, Clackamas Community College and Sandy Net building.

Initially the connections points will be at 1 Gigabit Ethernet. It is expected that long term these will be increased to 10 Gigabit Ethernet. With each agency being allocated a block of dark fiber they will have the flexibility to create a network to their specific needs. They will be able to establish high speed connectivity between each of their locations as well as to have high speed connectivity to their ISP.

Co-location points on the network will primarily be provided at the Clackamas Education Service District building, Sandy Net building and the County Development Services building.

(Please see the **Additional Network Diagram** for more information)

Clackamas County Broadband Initiative
Application #5884
05 / 11 / 2010

Operational Readiness Details #18

As demonstrated by the resumes of the management team and the description of their overall capabilities, Clackamas County is fully staffed and prepared to implement, manage and maintain the CBII infrastructure, as well as operate broadband services as one of the service providers on the Network.

Clackamas County Technology Services is currently set up and providing like services to internal and external systems users. Examples of current users are all internal county departments (20) and staff (~2000) plus outside agencies such as Vector Control, Clackamas County Tourism, Clackamas County Fair, the Milwaukee Center, Healthy Start, City of Wilsonville law enforcement, Sabin Center, City of Lake Oswego, just to name a few. Our help desk consists of a sophisticated call center operation that is supported by 15 rotating technical staff members with a wide range of technical expertise from the desk top level to the high end systems administration and telecom/networking applications. This includes system administration, desk top support, field service administrators, and call center specialists.

Out staff utilizes the iET Applix Call Center software package to monitor, store, schedule and track call center tickets from callers on a 24/7 basis. We will also be contracting with one of our local communications vendors to help support our call center tickets when problems arise along the fiber ring that require onsite maintenance . This contractor will be determined via a future RFP with the selection process being a vendor on our current bid list of vendors that the county currently does business with that can provide high quality on-call support and repair services along the entire fiber plant.

The Clackamas County Technology Services central operations reside on the Redsoils campus in Oregon City which is in the heart of the County fiber ring. The county maintains three data centers located in separate redundant office buildings one of which is an EOC center. This insures redundant processing in case of a major power interruption. The county has also designed redundancy into all of its networking, data storage and critical application service configurations and actively engages with the county's Continuity of Operations (COOP) Center bi-yearly COOP exercises to insure the integrity of communications within the county.

Clackamas County has a full service Finance Department that will work daily with the Technology Services Procurement Officer (TSPO) to handle purchasing, billing and audit tracking for purposes of running the daily financial business of the Fiber Ring. This includes a fully staffed procurement division that works daily with the TSPO. Sales will be handled through the County's Economic Development Department which works hand in hand with the Technology Services Administrative staff. Also, our Partners (Clackamas Education District and SandyNet) will also serve as sales / service agents for customers they support .

Technology Services has a staff of 50+ providing a large array of technical infrastructure and service support services, including systems security, central operations, network transport and telecommunications, Web / Application development, GIS, database support, PC & peripheral support, technology consulting, camera & access security, server support, maintenance and service response. Clackamas County Technology Services currently provides a wide range of application services that would be distributed over the broadband service that it will oversee and provide, as well as providing support to other users of the CBII.

The County Technology Services Operations Systems Support area is serviced by 6 full time Network and Systems Administration staff with access to three other highly technical Field Support Analysts. This is in combination with 4 Telecommunications staff supporting the County Phone System (we act as our own phone company) and all fiber / copper low voltage wiring for the County. This will be supplemented by a local contracting company to help with servicing and performance of the fiber plant throughout the county. The size and depth of this partner to be determined at the time of the RFP process. This bid process to be governed by and strictly enforced by the County Networking and communications standards.

Simply stated, Clackamas County will extend its current capabilities related to Wide Area Network, middle and last mile infrastructure and service support, including current relationships with a variety of community anchor institutions and public safety entities; to operation, oversight and maintenance of the CBII. More detail can be found in the Overview of the Technology Services Department for FY 2010 (starting July 1, 2009) included as an upload under "Management Team Resumes and Organizational Chart".

Clackamas County Technology Services maintains service level agreements with user departments and outside agencies (IGA's & MOU's) to maintain a wide array of services and required service levels for daily and continuance of operations. The Technology Services department meets monthly with department/agency representatives to maintain effective communications and insure the Call Center and other Technology Support Teams are maintaining a high degree of professional service.

Examples of Service level agreements severity level parameters are as follows:

Severity Levels and Response Parameters

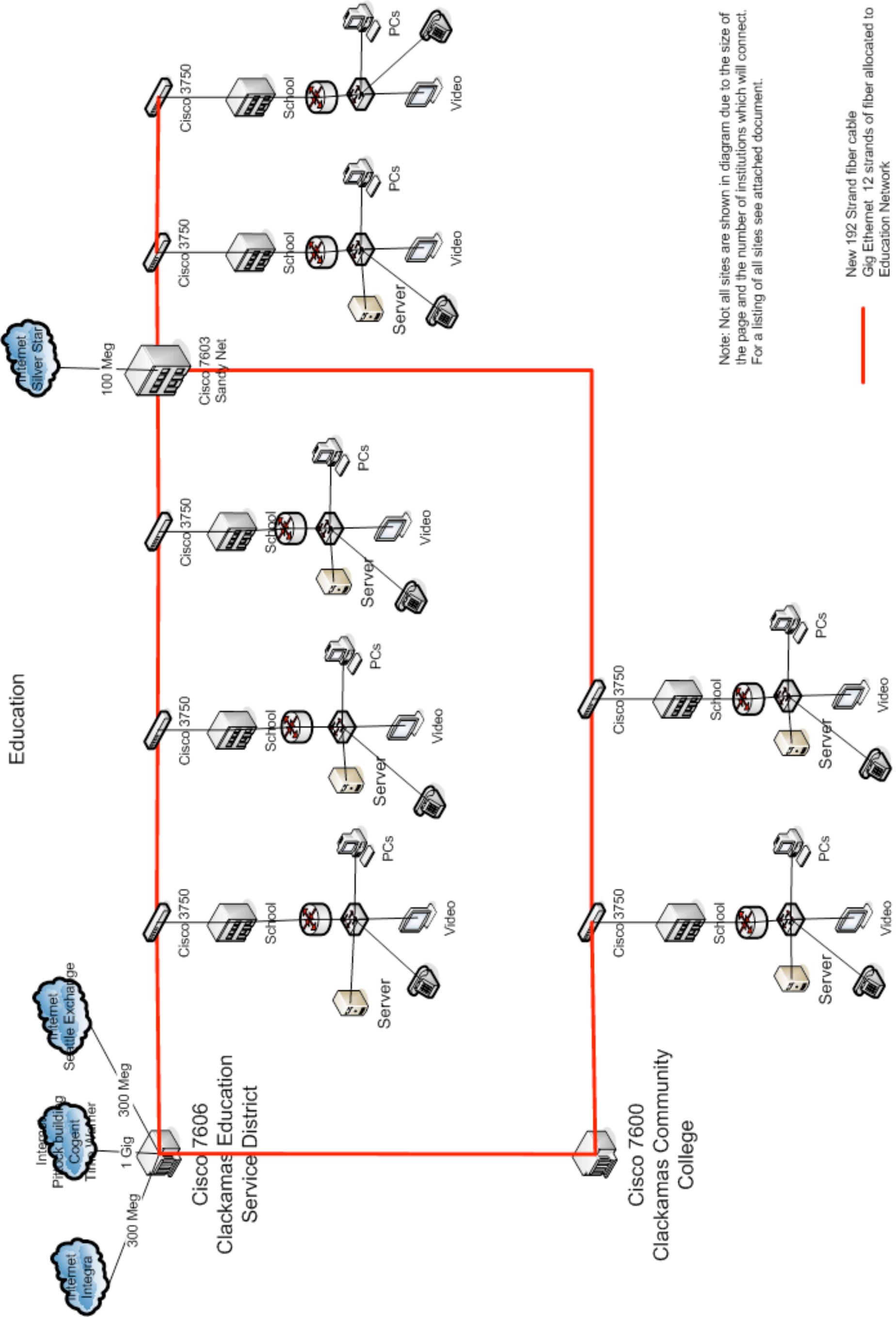
Table 1 (source: T.S. Department) Problem Requests		
Severity Level	Description	Response Time to Customer**
Emergency	Business Halted –Critical component down, multiple users affected. No work around exists.	2 hrs
High	Business Impacted - Critical component (s) degraded. Multiple or single user affected. No work around exists.	4 hrs
Medium	Multiple, non-critical components	1 business day

	down or degraded. Multiple or single users affected. Work-around exists.	
Low	Non-critical problem or requirement. Little or no impact to business or to users.	1 business day

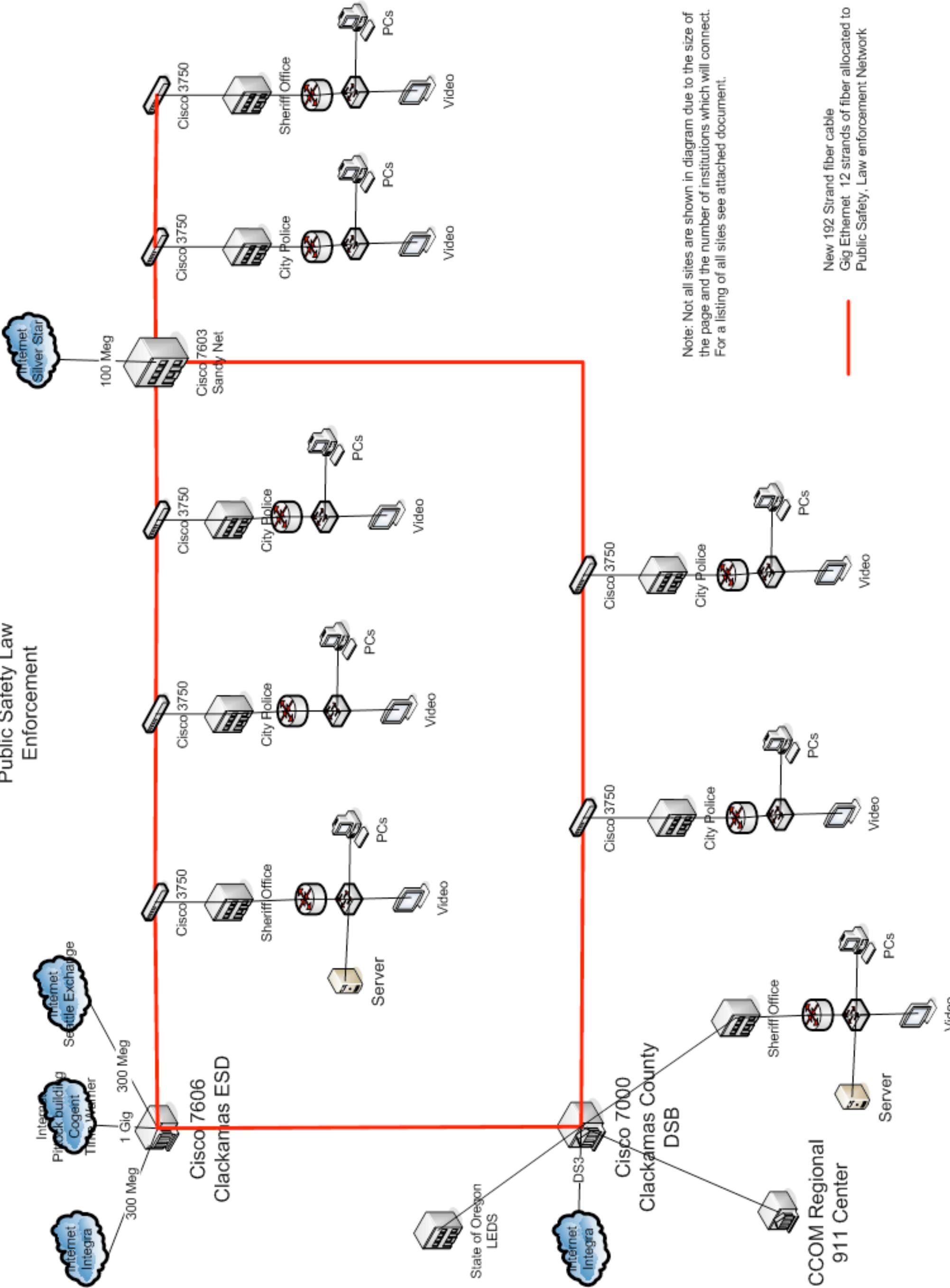
**NOTE: Response Time is the time between the receipt of a call or on-line request and the time that an IT Support employee begins working the issue. Due to the wide assortment of problems that can occur, and the tactics needed to resolve them, response time IS NOT defined as the time between the receipt of a call and the problem being resolved. After a technician has had the opportunity to troubleshoot the problem, the technician will give the user an estimated resolution timeframe. It is up to the technician and the user to negotiate and set any necessary deadlines.

A few examples of Service types of standards enforced by the county are as follows:

- [Business Continuation Planning](#) (PDF)
- [PC Config rev 9](#)
- [Cable and Terminations](#)
- [Surge Protection Devices](#)
- [PC Wks LAN Setup](#)
- [Electronic Mail Exchange Server](#)
- [Laptop Standard](#)
- [Hubs and Routers](#)
- [PC Applications Software rev 4](#)
- [LAN Admin](#)
- [Internet Standards and Guidelines](#)
- [Imaging Specification and Documentation](#)
- [Server Minimum Configuration](#)
- [UPS devices](#)
- [LAN Software Maintenance](#)
- [MS Email Setup](#)
- [Intranet Standards and Guidelines](#)
- [GIS Internet Map Server Standards](#)



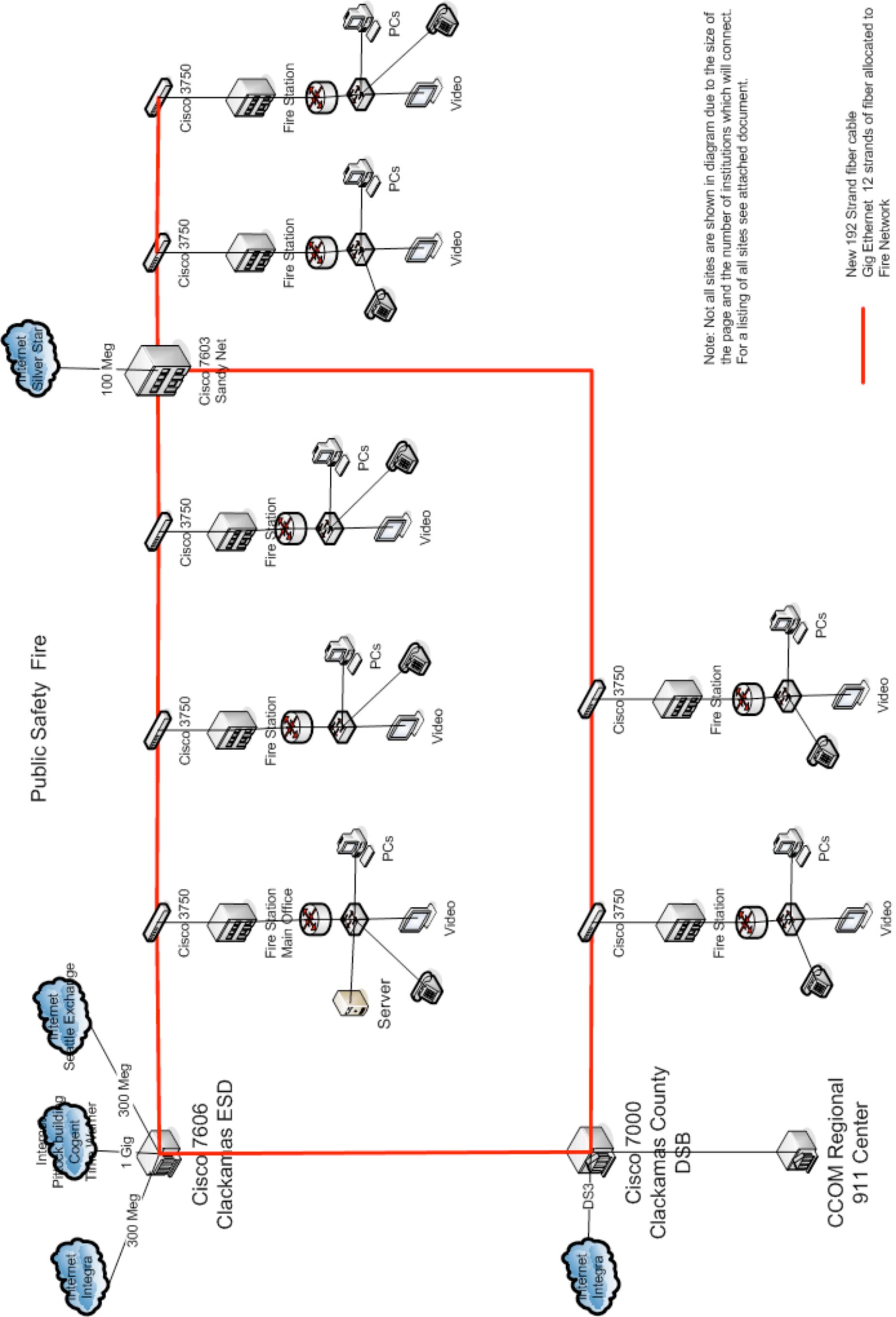
Public Safety Law Enforcement

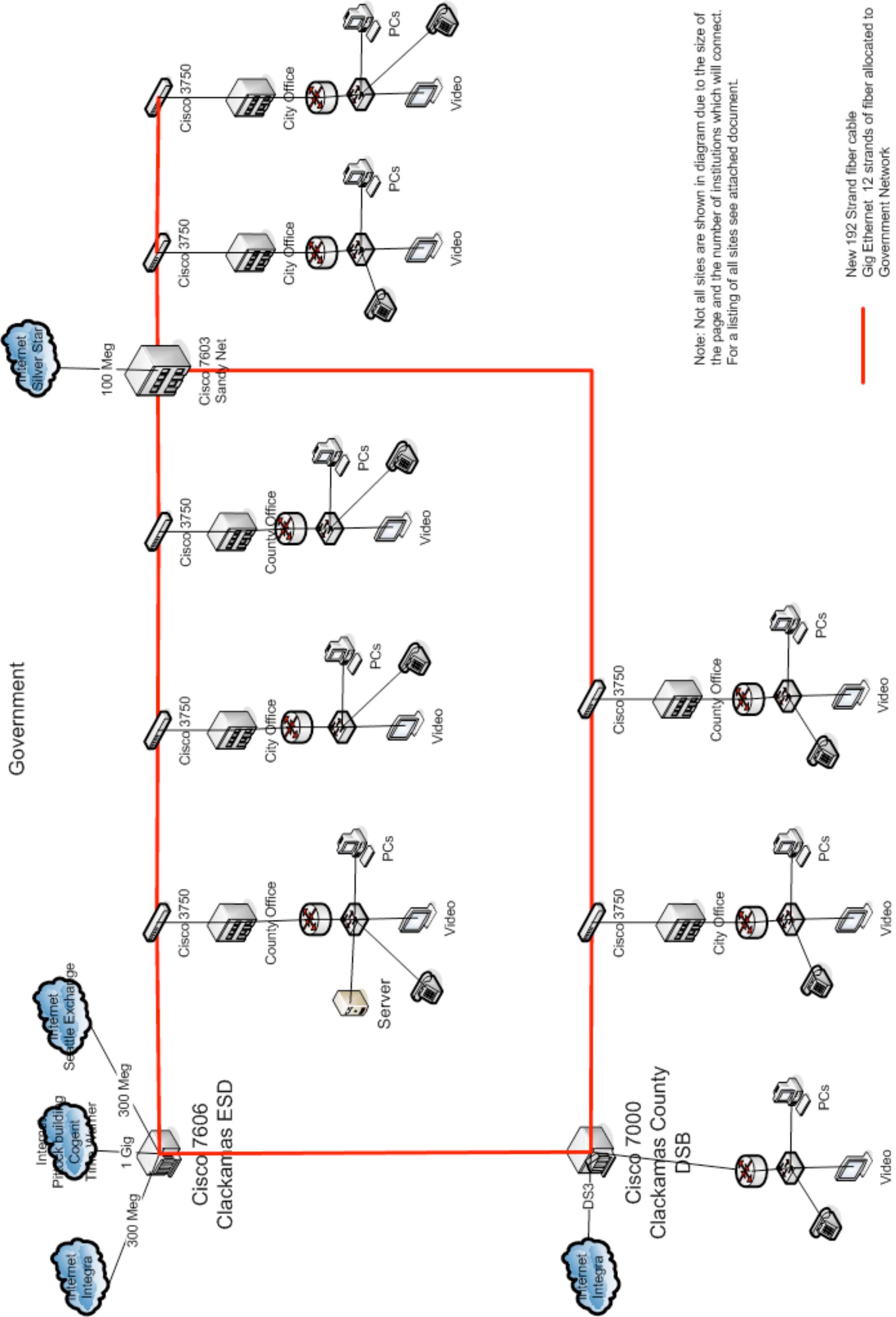


Note: Not all sites are shown in diagram due to the size of the page and the number of institutions which will connect. For a listing of all sites see attached document.

New 192 Strand fiber cable
Gig Ethernet 12 strands of fiber allocated to
Public Safety, Law enforcement Network









Bob Cozzie
Director

DEPARTMENT OF COMMUNICATIONS

COMMUNICATIONS AND EMERGENCY OPERATIONS CENTER
2200 KAEN ROAD | OREGON CITY, OR 97045

Anthony Wilhelm
Deputy Associate Administrator
Infrastructure Division, Office of Telecommunications and Information Applications
Herbert C. Hoover Building (HCHB)
U.S. Department of Commerce / NTIA
Washington, D.C. 20230

May 7, 2010

Dear Mr. Wilhelm,

We are writing to express our support for the request submitted by Clackamas County for funding under the Broadband Technology Opportunities Program (BTOP). Clackamas County's proposal to extend a public fiber broadband ring linking the urban and rural areas of our county, as well as providing access to public safety, educational, transportation, and health care providers throughout the county meets the goals of BTOP.

As a local 9-1-1 Public Safety Answering Point (PSAP) and public safety dispatch center, we understand how important any infrastructure investments are to the well being of a community. The BTOP is a critical funding source for seriously needed technological infrastructure in our community and provides a rare opportunity for local, state, and federal government to establish partnerships with private sector providers that can benefit all involved, while also having a positive overall economic impact.

Clackamas County's proposal links a wide range of educational institutions, dispatch, police and fire responders, and traffic safety facilities through this robust broadband fiber ring and will allow us to improve public safety and information to assist citizens.

The opportunities provided by the BTOP are rare and should be optimally leveraged for public benefit and long-term sustainability. We believe Clackamas County's application for BTOP funding will meet these goals and benefit our local community. We hope you will see fit to award these funds to Clackamas County so we can continue building our technological future.

Sincerely,

Robert E. Cozzie, Jr.
Director

CERTIFICATION REGARDING LOBBYING

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, "New Restrictions on Lobbying." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

NAME OF APPLICANT

Clackamas County

AWARD NUMBER AND/OR PROJECT NAME

5884 / Clackamas Broadband Innovation Initiative

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Steve Wheeler, County Administrator

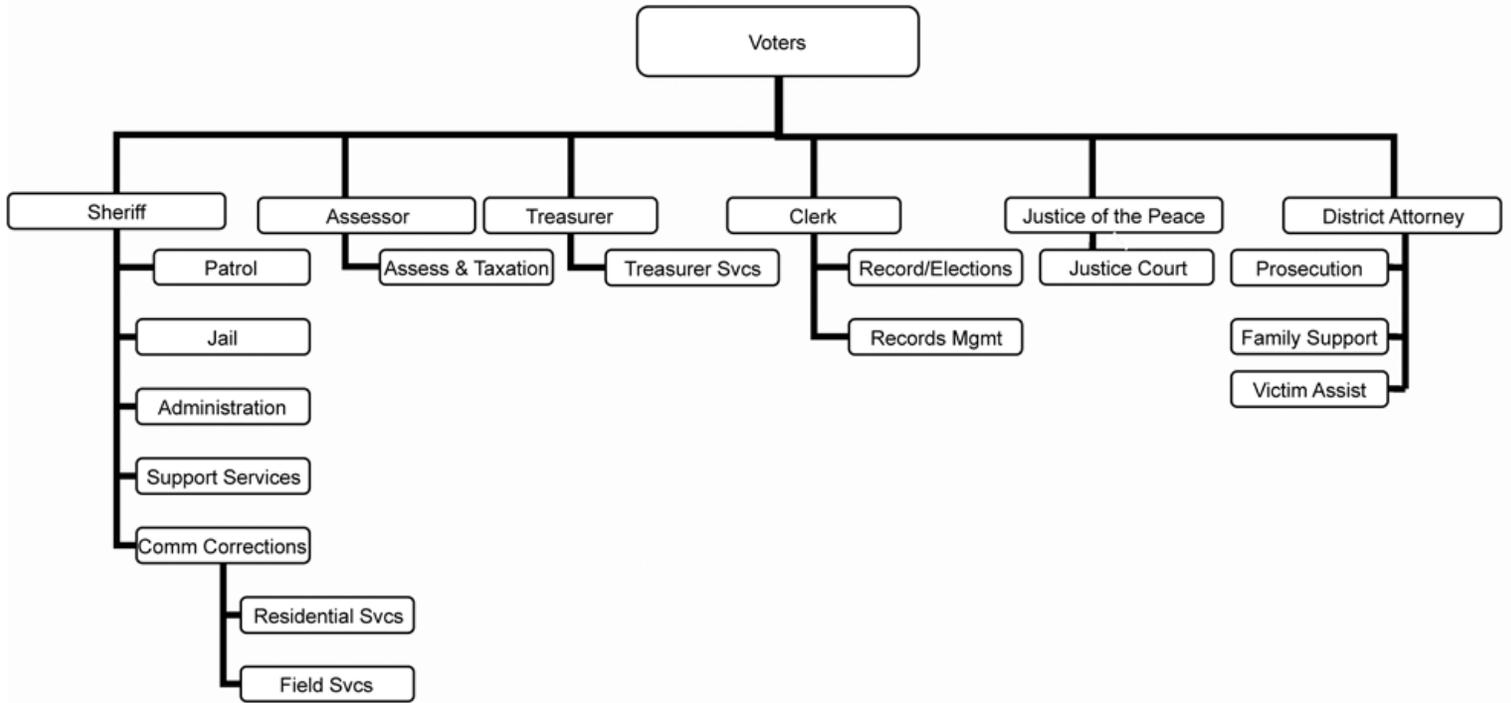
SIGNATURE

Steve Wheeler

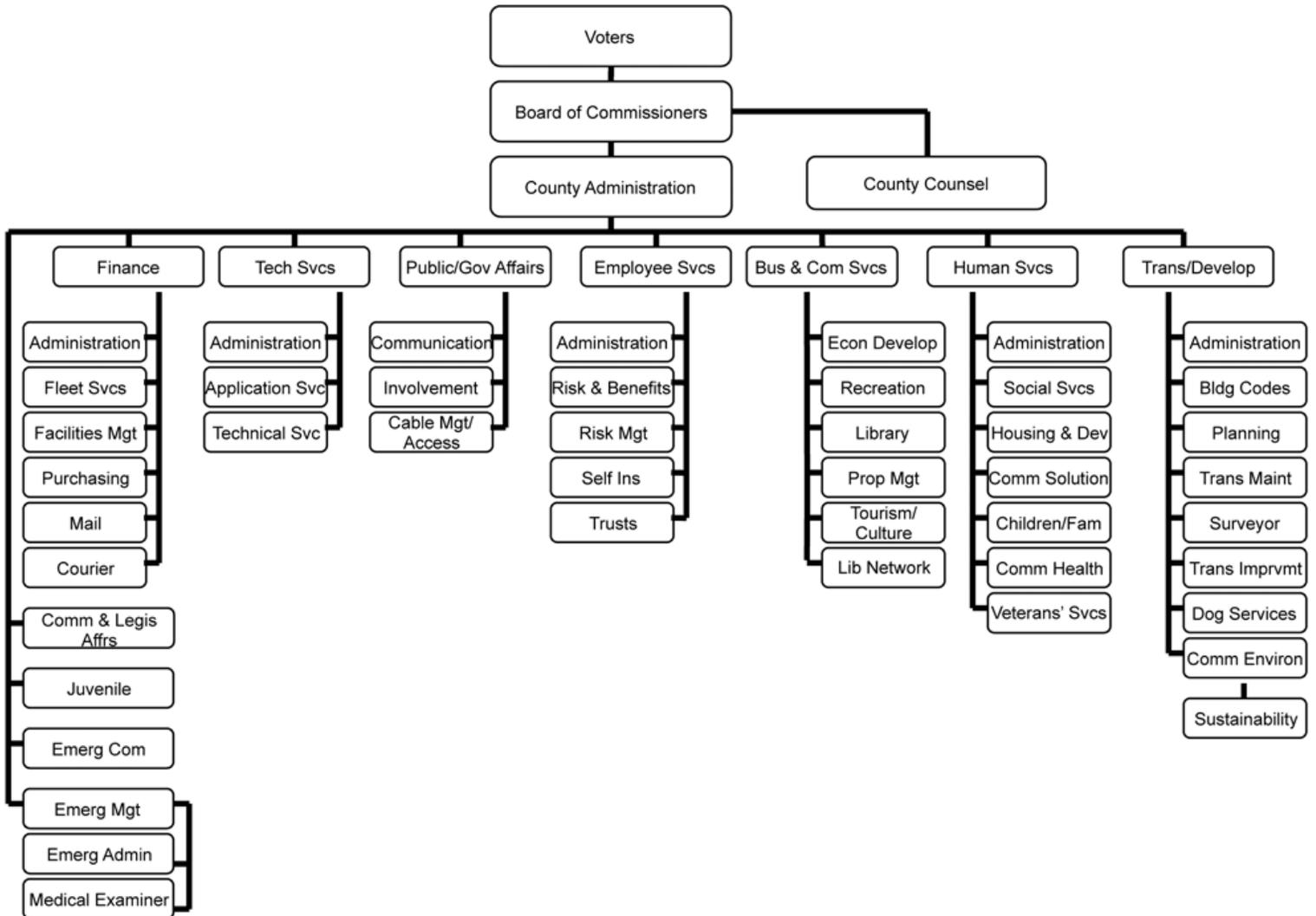
DATE

5-10-10

Clackamas County Elected Officials



All Other Departments



TECHNOLOGY SERVICES
 Dave Cummings
 Chief Information Officer
 0216

Sheryl Smith .6
 Administrative Services

Dave DeVore
 Deputy Information Officer

Shirlene Campbell - .4

Eric Bohard
 Applications Services Manager

Katie McClaran
 ERP Systems Manager

Les Eschweiler
 Data Comm Services Manager

GIS Support
 0256

Doc Imaging
 0230

Applications Support
 0226

Peoplesoft Project
 0228

Mike Davidson
 Tech Services
 0227

Aian Hammond
 System Support
 0229

Ron Sander
 Telecom Support
 1223

Planmap/Cmap

Data Base Administration

Mark Garlington
 Teresa Asch
 Mike Marvin
 Lynn Gates

Debbie Paxon
 Projects & Procurement

System Administration

Telephone, Radio
 Data Cabling

ORMAP

Systems Projects

WEB
 Dan Zeazas

Hardware
 Richard Kelly

Greg Johnson
 Chris Fricke
 Frank Berry
 Julio Cabrera

Bill Graham
 Pat Ramirez
 Rod Kraft

Data Maint & Dist

Pat Greene
 Jeff Goodpastor

Felipe Morales
 Amber Myers
 Mark McBnde
 Dan Gering - Tourism
 VACANT

Call Center
 Randy Kargel

Networking
 Stafford Rau

Telecom Design
 Diane Conners

Ken Wheeler

Jon McDowell
 DJ Storm - .5
 Eric Laufer

Corinne Welters
 Jim Bauer

Hardware
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Comprehensive Community Infrastructure Budget Narrative Template

Applicant Name: Clackamas County, OR

EasyGrants Number: 5884

Organization Type: County Government

Proposed Period of Performance: Sept 30, 2010 – Dec 31, 2012

Total Project Costs: \$11,148,830

Total Federal Grant Request: \$7,804,181

Total Matching Funds (Cash): \$1,024,649

Total Matching Funds (In-Kind): \$2,320,000

Total Matching Funds (Cash + In-Kind): \$3,344,649

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 30%

1. Administrative and legal expenses - \$612,580

- Provide a breakout of position(s), time commitment(s) such as hours or level-of-effort, and salary information/rates with a detailed explanation, and additional information as needed.

The Clackamas Broadband Innovation Initiative contains a total of \$612,580 in Administrative expenses, The majority of these costs (\$505,580, or 82.5%) consist of cash matching contributions by the county in the form of professional services. This includes a full-time project manager for 3 years, as well as professional services by existing county personnel. An existing network engineer is projected to spend 25% of his time for 3 years on the project, and the department manager is projected to spend 20% of his time over a 3-year period.

Staff	Level of Effort	Years	Rate	Total Cost
Project Manager	100%	3	\$99,706/yr	\$299,118
Department Manager	20%	3	\$32,924/yr	\$98,772
Network Engineer	25%	3	\$35,897/yr	\$107,690



TOTAL:				\$505,580
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Outside of the professional service costs, this category also includes a total of \$17,000 in Network Management software and hardware: \$10,000 for network management software and \$7,000 for its associated server. This \$17,000 cost represents 3.2% of the Administrative cost of the project. In addition to the Network Management cost, the Administrative category also includes a fiber splicing machine and fiber optic test equipment. These items will be necessary for maintenance and administration of the initial network as well as the long term operation of the network. These items total out to \$90,000. A table summarizing these costs is shown below.

Item	Unit Cost	No. of Units	Total Cost
Open NMS Software	\$10,000	1	\$10,000
Log Server	\$7,000	1	\$ 7,000
Fiber Optic Test Equipment	\$60,000	1	\$60,000
Fusion Splicing Machine	\$30,000	1	\$30,000
TOTAL:			\$107,000

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

The County calculated the expected time to be spent by its Technical Services personnel on the build-out and administration of the project. One person would be hired as a full-time Project manager; the other costs are determined by calculating a percentage of a FTE (Full Time Equivalent) for existing personnel. As described above, an existing network engineer is projected to spend 25% of his time for 3 years on the project, and the department manager is projected to spend 20% of his time over a 3-year period.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

In-Kind Source n/a

2. Land, structure, rights-of-way, appraisals, etc. – n/a



- Provide description of estimated costs, proposed activities, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

3. Relocation expenses and payment - n/a

- Provide explanation for the relocation, description of the person involved in the relocation, method used to calculate costs, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

4. Architectural and engineering fees - \$1,183,084

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

The County has worked with Engineering Associates, a Professional Engineering firm specializing in telecommunications, while preparing this application. In addition, the County has worked with North Sky Communications, an experienced telecommunications specialty contracting firm, in analyzing and determining the route of the fiber optic cable. Through the collaboration of these two professional firms, Clackamas County has obtained an estimate of the engineering costs of the project. The estimated cost for the outside plant engineering is \$1,183,084, which is 10.6% of the entire project, or 16.8% of the outside construction budget. On a per-unit basis this amount equates to \$6547 per mile. Both of these figures are well within commonly used budgetary guidelines for outside plant engineering.

The outside plant engineering cost includes the following tasks:

- Field engineering including staking of new cable routes



- Construction drawings and specifications for new cable routes
- “Make ready” work for all aerial cable routes
- On-site inspection during cable construction phase
- As-built drawings and project closeouts
- Resident Engineering for multiple construction crews

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No matching funds will be contributed toward this cost.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

No matching funds will be contributed toward this cost.

5. Other architectural and engineering fees – n/a

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

No additional Architectural or Engineering fees are included in the project. All such costs are noted in Section 4 above.

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

6. Project inspection fees – n/a

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.



n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

7. Site work – n/a

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

8. Demolition and removal – n/a

- Provide description of estimated fees, rates explanation of proposed services, and additional information as needed.

n/a



- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

9. Construction - \$7,033,166

- Provide description of estimated fees, rates, explanation of proposed services, state whether the work is being completed by the applicant or an outside contractor, and additional information as needed.

The bulk of the project's costs will be in the fiber optic cable construction. All of this cost (\$7,033,166 or 63.1%) is allocated in the Construction category. The total route footage of the new ring is 954,100, or approximately 180 miles. The route distances, route details, and estimated costs have been determined by working with North Sky Communications, a locally-based, experienced, and respected telecommunications specialty contracting firm.

The line items in the "Detail of Project Costs" worksheet show separate costs for materials (\$3,358,432) and labor (\$3,577,875). These line items include all associated costs with installing the fiber optic cable along the route. These include: fiber optic cable, new strand wire (where required), attachment hardware for existing pole lines, building entrances (all in existing buildings), fiber terminations in buildings, fiber optic cable testing, etc. In addition, the route does contain a few areas where underground construction will be required. A separate line item has been established for the cost of underground construction (\$96,859). The initial route analysis has identified a total of 12,846 feet (2.4 miles) of underground construction. This per-foot cost includes all labor and materials associated with trenching, boring, installing conduit and pull boxes, etc. These areas have been identified by an initial field survey and are specified on the Network Map document.

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

The County will provide all of its matching cash contribution as an offset for the cost of the outside plant construction. This amount (\$519,069) represents 7.4% of the total cost of the construction. The county has these funds available from internal sources; no financing or debt will be required to raise this amount. A letter from the County committing to this cash match has been included as part of the application.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

None of the county's matching contribution for this particular category is in-kind; all matching funds for the Construction category come from cash contributions.

10. Equipment - \$2,320,000



- Provide a list of equipment in the form of a table with description, number of units, unit cost, state whether it is being purchased or leased, and additional information as needed.

The equipment category represents the second-largest category in terms of project expense. The category includes \$2,320,000, which represents 20.8% of the total project amount.

This category includes all of the Ethernet switching equipment which will be connected to the new fiber network. These Ethernet switches will be located at the anchor institutions and will be used for the broadband connections to the end users in the anchor institutions. A total of 160 switches will be located in these locations. Each switch will be equipped with optical transceivers which connect to the fiber backbone, for a total of 320 optical transceivers.

A table of all items in the Equipment category follows. Each entry can be matched to a line item in the "Detail of Project Costs" worksheet.

Description	Unit Cost	Units	Cost	Notes
Ethernet switches	\$8500	160	\$1,360,000	Purchased by anchor institutions
Optical transceivers	\$3000	320	\$960,000	Purchased by anchor institutions
Totals			\$2,320,000	

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No cash matching contributions are included in this category.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

All of the Ethernet switches at the anchor institutions will be purchased by different county government departments. This will include schools, public safety, county government offices, etc. As such these items are shown as in-kind matching contributions in the total amount of \$2,320,000.



11. Miscellaneous – n/a

- Provide additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

13. Contingencies - \$0

- Contingencies are an unallowable expenditures under BTOP.

15. Project (program) income - \$0

- The value for this line-item on the SF-424C is \$0. Please do not provide an estimated Project (program income) on the SF-424C.



Addendum

- Very few indirect costs are allowable through BTOP. If any allowable indirect costs and/or fringe benefits are included in the budget, please provide a copy of your existing Negotiated Indirect Cost Recovery Agreement (NICRA), if available. If the NICRA is applied accordingly in the budget, there is no need to justify the costs. If a NICRA is not available or is not consistent with the rates/calculations in the budget, please provide an explanation of how the amounts were calculated. Please clearly list the manner in which indirect costs are calculated in the budget.

Note: Verify that indirects are calculated correctly and are eligible BTOP costs. To clarify, reasonable indirect costs under BTOP are only allowable for Full Time Employees (FTEs) associated with the construction, deployment, or installation of facilities or equipment used to provide broadband service.

n/a

BTOP Comprehensive Community Infrastructure Detailed Budget

Please complete the General Budget Overview and Detailed Project Costs worksheets.

Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants should not alter the layout of the provided templates, except to insert additional line-items as needed in the Detailed Project Costs worksheet.

Important Update - 3/19/2010: This template has been updated with the addition of a new column in the Detailed Project Costs worksheet. The new column, titled "Cash Match Percentage" allows Applicants to specify the percentage of the line item cost that will be provided by the cash match. This column is only relevant if "Cash Match" is selected in column C (the "Match" column). If "Cash Match" is selected in column C, Applicants should specify a percentage in the Cash Match Percentage field--100% means that the line item will be paid for entirely from the cash match, 0% means that it is paid for entirely from the federal request, any other amount will allocate the costs between the federal request and the cash match.

Note that *it is not required for Applicants to use this updated template*. Applicants that submit their detailed budget using the previously available template will not be penalized. In the previous version of this template, selecting "Cash Match" in column C indicates that 100% of the line item cost will be paid from the cash match.

General Budget Overview

Budget	Federal Funding Request	Matching Funds (Cash)	Matching Funds (In-Kind)	Budget TOTAL	Last Mile Allocation	Middle Mile Allocation	Allocated TOTAL
Network & Access Equipment (switching, routing, transport, access)	\$0		\$2,320,000	\$2,320,000	\$0.00	\$2,320,000.00	\$2,320,000
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)	\$6,514,097	\$519,069		\$7,033,166	\$0.00	\$7,033,166.00	\$7,033,166
Buildings and Land – (new construction, improvements, renovations, lease)				\$0			\$0
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)				\$0			\$0
Billing and Operational Support Systems (IT systems, software, etc.)	\$10,000	\$0		\$10,000	\$0.00	\$10,000.00	\$10,000
Operating Equipment (vehicles, office equipment, other)				\$0			\$0
Engineering/Professional Services (engineering design, project management, consulting, etc.)	\$1,183,084	\$505,580		\$1,688,664	\$0.00	\$1,688,663.50	\$1,688,664
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)	\$97,000			\$97,000	\$0.00	\$97,000.00	\$97,000
Site Preparation				\$0			\$0
Other				\$0			\$0
TOTAL BROADBAND SYSTEM:	\$7,804,181	\$1,024,649	\$2,320,000	\$11,148,830	\$0	\$11,148,830	\$11,148,830
Cost Share Percentage:	70.00%	9.19%	20.81%				

DETAIL OF PROJECT COSTS

PLEASE COMPLETE THE TABLE BELOW FOR THE DIFFERENT CATEGORIES OF EQUIPMENT THAT WILL BE REQUIRED FOR COMPLETING THE PROJECT. EACH CATEGORY SHOULD BE BROKEN DOWN TO THE APPROPRIATE LEVEL FOR IDENTIFYING UNIT COST

		Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
NETWORK & ACCESS EQUIPMENT						\$2,320,000	\$0	\$2,320,000	\$2,320,000		
Switching	Ethernet Switch	In-kind Match		\$8,500.00	160	\$1,360,000		\$1,360,000.00	\$1,360,000	10. Equipment	Vendor quote
	SFP transceiver modules	In-kind Match		\$3,000.00	320	\$960,000		\$960,000.00	\$960,000	10. Equipment	Vendor quote
						\$0			\$0		
Routing						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Transport						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Access						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
OUTSIDE PLANT						\$7,033,166	\$0	\$7,033,166	\$7,033,166		
Cables	Fiber Cable - materials	Cash Match	15.4557%	3.52	954100	\$3,358,432		\$3,358,432	\$3,358,432	9. Construction	Contractor estimate and quote
	Fiber Optic Cable - labor	No Match		3.75	954100	\$3,577,875		\$3,577,875	\$3,577,875	9. Construction	Contractor estimate and quote
						\$0			\$0		
Conduits						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Ducts	Underground Duct Construction			\$7.54	12846	\$96,859		\$96,859	\$96,859	9. Construction	Contractor estimate and quote
						\$0			\$0		
						\$0			\$0		
Poles						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Towers						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Repeaters						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other						\$0			\$0		
						\$0			\$0		
						\$0			\$0		

		Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
BUILDINGS						\$0	\$0	\$0	\$0		
New Construction						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Pre-Fab Huts						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Improvements &						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
CUSTOMER PREMISE EQUIPMENT						\$0	\$0	\$0	\$0		
Modems						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Set Top Boxes						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Inside Writing						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
BILLING SUPPORT AND OPERATIONS SUPPORT SYSTEMS						\$10,000	\$0	\$10,000	\$10,000		
Billing Support						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Customer Care						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other Support						\$0			\$0		
	Open NMS Software	No Match		10000	1	\$10,000		\$10,000	\$10,000	1. Admin and Legal	Vendor quote
						\$0			\$0		

		Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
OPERATING EQUIPMENT											
Vehicles						\$0	\$0	\$0	\$0		
						\$0			\$0		
						\$0			\$0		
Office Equipment /						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
PROFESSIONAL SERVICES						\$1,688,664	\$0	\$1,688,664	\$1,688,664		
Engineering	Outside Plant Engineering			1.24	954100	\$1,183,084		\$1,183,084	\$1,183,084	4. Architectural and engr.	Consulting Engineer estimate
						\$0			\$0		
						\$0			\$0		
Project						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Consulting						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Other	Project Manager	Cash Match	100.00%	99706	3	\$299,118		\$299,118	\$299,118	1. Admin and Legal	1 FTE per year for 3 years
	Network Engineer	Cash Match	100.00%	35897	3	\$107,690		\$107,690	\$107,690	1. Admin and Legal	25% FTE per year for 3 years
	Management Oversight	Cash Match	100.00%	32924	3	\$98,772		\$98,772	\$98,772	1. Admin and Legal	20% FTE per year for 3 years
						\$0			\$0		
TESTING						\$97,000	\$0	\$97,000	\$97,000		
Network						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
IT System						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
User Devices						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Test Generators	Fiber test Equipment	No Match		60000	1	\$60,000		\$60,000	\$60,000	1. Admin and Legal	Vendor quote
	Fusion Splicing Machine	No Match		30000	1	\$30,000		\$30,000	\$30,000	1. Admin and Legal	Vendor quote
						\$0			\$0		
Lab						\$0			\$0		
						\$0			\$0		
						\$0			\$0		
Servers/Computer	Log Server	No Match		7000	1	\$7,000		\$7,000	\$7,000	1. Admin and Legal	Vendor quote
						\$0			\$0		
						\$0			\$0		

	Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
OTHER UPFRONT COSTS					\$0	\$0	\$0	\$0		
Site					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
Other					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
PROJECT TOTAL:					\$11,148,830	\$0	\$11,148,830	\$11,148,830		

SF-424C Cross-check Totals	
1. Admin and Legal	\$612,580
2. Land, structures	\$0
3. Relocation expenses	\$0
4. Architectural and engr.	\$1,183,084
5. Other archit. and engr.	\$0
6. Inspection fees	\$0
7. Site work	\$0
8. Demolition/removal	\$0
9. Construction	\$7,033,166
10. Equipment	\$2,320,000
11. Misc.	\$0

Matching Contribution Cross-check Totals	
Federal Funding Request	\$7,804,181
Cash Match Contribution	\$1,024,649
In-kind Match Contribution	\$2,320,000

Approach to allocating Last Mile and Middle Mile costs:

This is entirely a Middle Mile project, so all of the costs have been allocated to Middle Mile.

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Item 1: Community College Letters of Support

Please provide additional and/or updated letters of interest from your targeted community colleges, having them detail or confirm interest in your specific service offerings or enhanced service offerings enabled by your project, as well as existing market failure in one or more of the following ways, in order of priority: If you cannot provide confirmation or documentation from CAIs, please provide any other documentation or evidence that supports the claim that current service providers or the current infrastructure are inadequate to serve the needs of the existing market.

Response:

In the interim since the application was submitted, the Oregon Institute of Technology has decided to relocate its campus to Wilsonville, moving further west in the county and therefore off the proposed fiber ring. However, the CBII will greatly improve educational opportunities over the status quo by serving the Clackamas Community College. Clackamas Community College is the primary higher education institution for the entire county, with enrollment numbers in excess of 40,000 students. It also serves county high school students via three College Outreach Centers. Please see "[5884 - Letter of Intent - Clackamas Community College 051110.pdf](#)" for more specific details.

Item 2, Vague Service Data:

The information you provided on page 21 of your application lacks sufficient clarity. Please provide a service map summarizing the information provided on page 21, specifically in the second and third paragraphs.

Response: The file "Full Network Map with Cable Districts - 051010.pdf" has been uploaded to illustrate this information. The map shows the service territories of all the service providers in the county.

Item 3, Methodology for Area Status Uncomprehensive.

Please elaborate on what you mean by "anecdotal information." In addition, please expand on your description of area status methodology in general. More information on is needed to verify the level of need in your PFSA.

Response: The term "anecdotal information" was used to refer to the general knowledge that the county's staff has regarding the availability of broadband in the county. The county did not do a door-to-door survey of all residents to determine the availability of broadband. Rather, since they are employees of the county government and are familiar with service trends and economic patterns throughout all areas of the county, they were able to use this knowledge as a basis to determine the area's broadband status.

The broadband providers in the rural areas of the county all state that they offer broadband service meeting the minimum standard of 768 kbps downstream and 200 kbps upstream. However many of the people in the rural areas of the county have disputed this claim. Even if the minimum standard of 768 kbps / 200 kbps is offered throughout these areas of the county, the county as a whole will qualify as Underserved as defined in the NOFA. More detail on why

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the area qualifies as Underserved is provided in the response to the following item in the S.I.R., "Discrepancy in Level of Service Classification."

As a final point explaining our methodology for determining the area's status, the county employs a separate commission which manages the cable franchise operators in the county. The manager of this commission, Debbie McCoy, has been involved in all aspects of the planning and execution of this application. She has extensive knowledge of the cable companies' service offerings as well as extensive feedback from the residents of the county in relation to the services provided by the franchise holders.

Item 4, Discrepancy in Level of Service Classification.

You state throughout your application that your PFSA is underserved, but on page 40 you also stated that the area is "served above the minimum thresholds spelled out in the NOFA." Please account for this discrepancy.

Response: The sentence in question (actually found on page 23) is clarified as follows. The definition of an underserved area as stated in both the Round 1 and Round 2 NOFA has three criteria, any one of which can qualify the area as underserved. We are conceding that the first criteria (50% of households have access to broadband) may be true based on the information provided by the providers. However we are contending that neither of the second and third criteria are true – 3 Mbps service is not advertised throughout the county and the rate of subscribership to broadband is less than 40%. This information matches the information provided in Section E, Service Area Details. In that section we classified the area as Underserved with an estimated percentage of households with access to broadband of 70% and an estimated percentage of households subscribing to broadband equal to 35%.

When using the phrase "minimum thresholds spelled out in the NOFA" we were referring to the minimum thresholds of the definition of broadband service, which the NOFA defines as 768 kbps downstream and 200 kbps upstream. We are not saying that the entire **area** is served above the minimum thresholds defining an underserved area.

Item 5: Application Completeness

Missing Forms: Your application is missing the following form(s): AOR Certification.

Response:

The file "Clackamas Signed BTOP Authorization-P West.pdf" was uploaded on March 23, 2010 in the original application submission. It is re-submitted as a Due Diligence upload.

Item 6: Additional Forms

Additional Forms: Now that you are in Due Diligence please fill out the following forms and upload them to EasyGrants: CD 511, CD 512, SF LLL and Federal/Match Verification Form.

Response:

The forms are signed by the County Administrator, who is ultimately responsible for all phases of grant performance and compliance. All requested forms have been uploaded.

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Item 7, Budget Narrative:

The budget narrative you provided in your application does not sufficiently provide a breakout of the costs in section 1. Please provide a chart of the staffing costs similar to the sample provided in the CCI Applicant Guidance. You have indicated Staff salaries as an In-kind match. Please note this is considered a cash match.

Please update your Budget Narrative and upload the revised document to EasyGrants. Please update your Detail of project costs document to reflect the change in the matching funds designation. For guidance and additional information regarding the budget narrative please review the Round 2 Grant Guidance for Comprehensive Community Infrastructure:

http://www2.ntia.doc.gov/html/files/BTOP_CCI_GrantGuidance_100301.pdf .

Response: The changes have been made as requested. The Budget Narrative now includes charts showing the details of the staffing costs (Clackamas Budget Narrative – Rev2 – 5-13-10 – Due Diligence.doc). In the Detail of Project Costs document, we have re-classified lines 104, 105, 106 as “Cash Match”. These lines include Project Manager, Network Engineer, and Management Oversight and are highlighted in yellow. The amounts in the spreadsheet match those shown in the Budget Narrative document. In the “General Budget Overview” tab the total of these three lines (\$505,580) has been moved from Column D, Matching Funds (In-Kind) to Column C, Matching Funds (Cash). The document title of the revised budget spreadsheet is “Clackamas Detailed Budget – Rev2-5-13-10 – Due Diligence.xls”.

Item 8, Missing Partner Detail:

In the Executive Summary, you indicated that you have at least one established partnership for this project that you did not then list in the Partner section of your application. Therefore you have not defined their role as either a contractor, sub-recipient, in-kind third party contributor, or other. Specifically, I refer to your statement on page 8 indicating that "the other anchor institutions have also contributed as partners."

Please provide all the detail requested in the Partners section of the application for each specified partner or contractor that will be instrumental in deploying this project if it were to be awarded, specifically noting their role as either a contractor, sub-recipient, in-kind third party contributor, or other. Partners may have different reporting responsibilities under U.S. grants law, depending on what role they play in the federal project. Refer to the NTIA CCI Grant Guidance document Section 8 (pgs 39-43) for guidance on selecting a

Response: Our use of the word “partner” in this sentence from the Executive Summary was meant in a more general sense of the word, as opposed to the specific definition of “partner” as used in the BTOP application. When we said “other anchor institutions have also contributed as partners” we should have said “in-kind contributors” rather than “partners”. The 158 anchor institutions are all planning to purchase their own networking electronics to light the fiber being built in the project. This makes them in-kind contributors, and this forms the basis of the

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\$2,320,000 of in-kind matching funds shown in the budget and cost documentation. As regards the specific definition of the word “partner” as used in the application and CCI guidance, that number remains at two, as specified in Section C, “Partners”. These partners continue to be SandyNet and Clackamas Education Service District.

Item 9, Involvement of Regional Development Organization:

The Clackamas County Business and Economic Development Department provides a letter of support, but it not clear if it was involved in planning your proposal. Please indicate the level of involvement, if any, of the Clackamas County Business and Economic Development Department in crafting your proposal.

Response: The Clackamas County Business and Economic Development Department is heavily involved in developing the proposal and generating interest for potential economic growth. A letter describing the Department’s focus is expected early next week (week of 5/17/10).

Item 10, Few Public Safety Entity Letters of Support Substantiating Level of Need and Financial Sustainability:

Other than fire districts, you provided few letters of support relative to the number of public safety entity subscribers you anticipate buying services directly and indirectly on your network. Please provide additional letters of interest from your targeted public safety entities, having them detail or confirm interest in your specific service offerings or enhanced service offerings enabled by your project. If you cannot provide confirmation or documentation from public safety entities, please provide any other documentation or evidence that supports the claim that current service providers or the current infrastructure are inadequate to serve the needs of the existing market.

Response: We have included an additional letter from the County’s 911 Communications Director (“Letter of Support – 911 Center.pdf”). He refers to the “seriously needed technological infrastructure” that will be made possible by the BTOP grant. We have also contacted the Clackamas County Sheriff and the Chief of Police for Molalla; these letters are expected early next week (week of 5/17/10).

Item 11, Project Timeline.

On page 51, you estimate receiving a grant on 10/15/10 and your project timeline follows from that starting point.

If you receive a grant sooner than 10/15/10, are you able to move the rest of your project timeline up in accordance with that changed start date?

Response: Yes, we will be able to move the timeline up accordingly. The project start date was arbitrarily chosen based on an educated guess as to when the project may be awarded. If the award date occurs sooner, the schedule can be moved forward accordingly.

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Item 12, Request for Proposals.

You indicated that you were ready to craft an RFP detailing all of the construction and installation work that needs to be done to develop the CBII Network.

Have you made any progress on drafting these RFPs?

Response: In the weeks since the application was submitted, the RFPs have not been further drafted because the project has not yet been awarded, and the progress of the application has not been known. With the project now moving into the Due Diligence phase, and thus the likelihood of funding appearing to increase, the RFP work can now be started in earnest. The county has done a number of such RFPs in the past and is confident that preparing the RFP will take no longer than 30 days. However, without a BTOP grant the project will not be able to move forward.

Item 13, Pro-forma Financial Statements:

Values in your pro forma statement do not flow through all statements properly. Specifically, Plant in Service and Depreciation are not presented in the Balance Sheet and Income Statement. Additionally, the capital expenditures on the Statement of Cash Flows does not equal the value of the project.

Please revise the pro-forma financials statements (Balance Sheet, Income Statement and Statement of Cash Flows) for each year one through eight and re-submit the full pro-forma financial statement set as well as revised assumptions that explain in detail the methods used to estimate the project's future financial performance and position. Prior to submission please review that the three pro-forma statements properly tie to each other and were prepared reasonably in accordance to GAAP or GASP 34. Please update (insert statement to be updated) or provide a detailed explanation behind the difference and resubmit.

Response: The Pro Forma sheets have been edited as requested ("Clackamas Pro Forma Financial Projections – Rev 5-13-10 – Due Diligence.xls"). Numerous values in all of the sheets have changed for this submittal, due to the guidance provided in Item 7, "Budget Narrative". Specifically this refers to the fact that staff salaries should be re-classified, not as part of the "in-kind" match, but instead part of the "cash" match. This results in an additional amount of \$505,580 being capitalized, and thus has an extensive effect on the Income Statement, Balance Sheet, and Statement of Cash Flows.

On the Income Statement, the amounts previously shown for Amortization have been re-classified as Depreciation. On the Balance Sheet, the amount for Plant in Service had been previously shown as Amortizable Assets (Net of Amortization). It has been re-classified as Plant in Service in the new Pro-Forma. Also the Accumulated Depreciation has been linked to the depreciation values shown on the Income Statement. On the Statement of Cash Flows, the Capital Expenditures consist of the total Project Value (\$11,148,830), minus the revised in-kind match (\$2,320,000). This results in a total capital expenditure of \$8,828,830, which equals the sum total of the Capital Expenditures shown in Years 1 and 2.

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Item 14, The source of the required Match:

The relationship, terms and areas of responsibility of entities providing the capital funds match to support the project as required by the NOFA was not specific in the application.

Please submit a response that details the sources, including quantities, unit costs and support of reasonableness, of the in-kind match of \$2,825,580.

Response: A supplementary spreadsheet entitled “Estimated costs – Round 2 – Full System – Rev - 5-13-10 - Due Diligence.xls” showing these details has been submitted. The areas highlighted in Yellow show the unit costs, quantities, and descriptions for the elements comprising the matching amount . It should be noted that the in-kind match has been reduced from \$2,825,580 to \$2,320,000 based on the guidance received in item 7, Budget Narrative. Specifically, this refers to the fact that staff salaries need to be re-classified as part of the cash match, as opposed to the in-kind match.

Item 15, Missing Network Information: In your Network Diagram and Network Maps attachments it was determined that insufficient network information exists to account for your new network infrastructure and its bandwidth capacity. In the network diagram(s) please provide detail where the fiber ring will connect to Sandynet. Indicate the capacity of the network backbone, key network nodes/aggregation points, and endpoints with other Last Mile networks. The network must also identify segments of the network that are provided via IRU with other MM/LM providers. On the network diagram(s), capacity information should be placed with the network connection point on the diagram it is associated with.

Response: The network diagrams have been enhanced as requested and consolidated into the new file: “Additional Network Diagrams.pdf”. The file has been uploaded.

Item 16, Missing Wholesale Design Detail:

In the Network Diagram attachment and Technology section of your application it was determined that insufficient network design and business plan detail exists to support your proposed wholesale services.

On your Network Diagram and in the form of a text narrative, please provide additional information on such items as availability of: co-location services, dark fiber, wavelengths, and various speeds of commodity Internet access. Detail systems to support the provisioning and management of wholesale services. Please provide evidence of these wholesale elements in both a technical narrative as well as supporting line items in your project budget and pro-forma to substantiate your assertions.

Response: A separate text narrative, “Additional Network Narrative.docx” has been uploaded to explain the information requested. In addition, the “Additional Network Diagrams.pdf” document referenced in the previous item also has information in response to this question.

Item 17, Missing Project Readiness Documentation:

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In the Project Readiness section of your application it was determined that insufficient information exists to determine the state of readiness associated with your project. Please provide supporting documentation, such as non-binding LOI, MOUs, and/or master service agreements (MSAs), from Public/Private Partners, Community Anchor Institutions, preferred construction firms or vendors, and other MM/LM providers required to complete or support the proposed project. Please provide agreements with LM Providers or other organizations that will ensure the completion of lateral fiber and/or wireless access from the MM backbone network to the targeted population and Community Anchor Institutions.

Response: The Clackamas Community College and 911 Communication Center letters have been uploaded as evidence of intent to use the proposed network. We are unable to provide LOIs, MOUs, or MSAs from potential partners prior to the award of the project. This is due to internal regulations from the Clackamas County Purchasing/Procurement Department. Procurement policies do not allow such agreements prior to award (even when they are non-binding) due to collusion/conflict of interest concerns.

Item 18, Missing Operational Readiness Detail:

In your response to the Operational Readiness subsection BTOP Organizational Readiness section of your application it was determined that insufficient information exists to determine the level of support for sales, operational, and billing support systems.

Please resubmit a response to the Operational Readiness sub section BTOP Organizational Readiness section that describes the current back office systems and operations that the County currently has in place that will be leveraged for this project, i.e., the location and description of key network operations, operations support and service desk/customer relationship management systems that will provide operations support to targeted customers/end users. Identify if the systems are in place today and describe your agreement/partnerships with existing network operators that are required to meet required service level agreements. Please explain any proposed supporting organization's current capabilities. Please reflect key operational readiness milestones in your revised Build-Out Timeline.

Response: The document "BTOP Operational readiness Re-Write.docx" has been uploaded to provide this additional information.

Item 19, Discrepancy in the number of CAIs to be served.

On page 4 you state that 159 CAIs will be served by the project, but later (e.g. page 11) state that that number is 158. Please correct this discrepancy.

Response: The correct number is 158, as shown in Section F, "Community Anchor Summary", page 18. The number in the Project Description on page 4 (159) was incorrectly stated.

Item 20: Vulnerable populations

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If it is available, please provide updated vulnerable population data.

Response:

No more recent data is available; 2007 data is the most current.

Item 21, Vendors

You state that you are aware of interested vendors that are qualified to respond to an RFP. How did you become aware of these vendors' interest?

Response: Clackamas County was a Round 1 BTOP applicant, so our intention to build this project has been publically known for almost a year. With the project described on the Broadband USA website since August 2009, the county has been contacted by numerous vendors of all descriptions. Although sometimes the interest can be overwhelming, some of the vendors have proven to be good potential contractors and vendors who could provide labor and materials to construct the project.

Item 22: Missing operational readiness detail

Resumes for Stafford Rau and Elissa Gertler are submitted but not represented on the organization chart. Please elaborate what roles and responsibilities they will have in the proposed deployment.

Response: Stafford Rau is represented on the "County Org Chart.pdf", which has been uploaded. He is found on Page 2, Technology Services, as Networking Support, reporting to the Data Communications Service Manager. He will provide Technical Services-Networking support in the CBII. Elissa Gertler is the Director-Public / Government Affairs. Her position appears in the Level II County chart (under "All Other Departments), but this chart consists only of office titles and does not contain specific names. This position reports to the County Administration and is at a peer level with the CIO / Head of Technical Services. She is responsible for all public/governmental communication, involvement, and cable management/access services, and will continue in this role in the CBII.

Clackamas County Enterprise Fiber System Estimated Costs	ROUND 2 (rev 5-13-10 for DD)				TOTAL	FUNDING TOTAL
	Main Ring North Sky Estimate	26 Spur North Sky Estimate	224 Ring North Sky Estimate	Last Mile ~ \$10/ft		
Estimated Distance / ft	414,216	153,120	86,064	300,700	954,100	
Material Costs	\$1,700,000		\$350,000	\$1,307,000	\$3,357,000	
Labor Costs	\$1,718,000		\$460,000	\$1,400,000	\$3,578,000	
Engineering Costs	\$693,750		\$112,500	\$375,000	\$1,181,250	
Maintenance Gear (see below)		\$107,000			\$107,000	
Networking Gear (see below)		\$2,320,000			\$2,320,000	
Staffing (see below)		\$505,580			\$505,580	
Underground Contingency			\$100,000		\$100,000	
TOTAL	\$7,044,330		\$1,022,500	\$3,082,000	\$11,148,830	\$11,148,830 <<< TOTAL PROJECT
30% Match					\$3,344,649	
Grant Request					\$7,804,181	\$7,804,181 <<< GRANT REQUEST
In Kind Contribution - SITES		Network Equipment at sites			\$2,320,000	\$2,320,000 <<< In-Kind Total
County Contribution - CASH		Cash			\$519,069	
County Contribution - STAFFING		Staffing Costs for 3 years (classified as part of Cash match)			\$505,580	
County Contribution - TOTAL					\$1,024,649	\$1,024,649 <<< Cash Total
Matching Contribution - TOTAL					\$3,344,649	\$3,344,649 <<< TOTAL MATCH

Maintenance Gear			
Equipment	Number	Costs	Total
Monitoring / Log Server	1	\$7,000	\$7,000
Fiber Test Equipment	1	\$60,000	\$60,000
Fusion Splicer	1	\$30,000	\$30,000
OpenNMS Software	1	\$10,000	\$10,000
TOTAL			\$107,000

Network Gear			
Equipment	For ~ 160 Sites Number	Costs	Total
Cisco Catalyst 3750G-12 Switch	160	\$8,500	\$1,360,000
SFP GBIC Module (2 ea/site)	320	\$3,000	\$960,000
TOTAL			\$2,320,000

Staffing				
Position	FTE	Cost per year	Number Years	Total
Project Manager (3 year contract)	1.00	\$99,706	3	\$299,118
Network Engineer	0.25	\$143,586	3	\$107,690
Management Oversight	0.20	\$164,620	3	\$98,772
TOTAL				\$505,580

BTOP Comprehensive Community Infrastructure Pro Forma Financial Projections

Please complete the Income Statement, Balance Sheet, Cash Flows, and NPV-IRR Table worksheets. Key assumptions used to formulate these financial projections should be listed in the Key Assumptions worksheet. Please note that these are **project-specific** projections, in contrast to the historical financial information which is provided at the organizational level.

Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants may make adjustments to the format of the templates as necessary to provide the most effective presentation of the data for their specific project, but should not remove major headings (*e.g.* Revenues and Expenses on the Income Statement) or provide less detailed information than would be required to complete the provided templates.

Income Statement

	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Revenues								
Broadband Offerings								
Wholesale Data (a)	\$ 109,500	\$ 368,250	\$ 494,250	\$ 524,250	\$ 554,250	\$ 584,250	\$ 614,250	\$ 644,250
Retail Data	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Dark Fiber (b)	\$ -	\$ -	\$ 25,000	\$ 37,500	\$ 62,500	\$ 75,000	\$ 87,500	\$ 100,000
Collocation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other (list specific services)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Network Driven Revenues								
Video Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Voice Services (local/toll/long distance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other (list specific services)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Universal Service Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Installation Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues	\$ 109,500	\$ 368,250	\$ 519,250	\$ 561,750	\$ 616,750	\$ 659,250	\$ 701,750	\$ 744,250
Expenses								
Backhaul	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Network Maintenance/Monitoring ©	\$ 42,000	\$ 73,500	\$ 79,000	\$ 82,750	\$ 90,250	\$ 90,250	\$ 90,250	\$ 90,250
Utilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sales/Marketing (d)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Customer Care (d)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Billing (d)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate G&A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 42,000	\$ 73,500	\$ 79,000	\$ 82,750	\$ 90,250	\$ 90,250	\$ 90,250	\$ 90,250
EBITDA	\$ 67,500	\$ 294,750	\$ 440,250	\$ 479,000	\$ 526,500	\$ 569,000	\$ 611,500	\$ 654,000
Depreciation (e)	\$ 147,147	\$ 299,368	\$ 299,368	\$ 299,368	\$ 299,368	\$ 299,368	\$ 299,368	\$ 299,368
Amortization								
Earnings Before Interest and Taxes	\$ (79,647)	\$ (4,618)	\$ 140,882	\$ 179,632	\$ 227,132	\$ 269,632	\$ 312,132	\$ 354,632
Interest Expense (f)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Before Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Property Tax (g)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Taxes (g)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income	\$ (79,647)	\$ (4,618)	\$ 140,882	\$ 179,632	\$ 227,132	\$ 269,632	\$ 312,132	\$ 354,632

Income Statement Notes:

(a) **Wholesale Data Revenues** – Wholesale Data Revenues in Year 1 represent seventy-four (74) community anchor institutions connected throughout the year at an access rate of \$250.00 per month (No anchors were connected in the first quarter of Year 1. In the 2nd quarter of Year 1, 22 anchors were connected at \$250.00 per month for 9 months. In the 3rd quarter of Year 1, 28 additional anchors were connected at \$250.00 per month for 6 months; and in the last quarter of Year 1, 24 additional anchors were connected at \$250.00 per month for 3 months, for a total access revenue for Year 1 of \$109,500.00).

In Year 2, an additional 85 anchor institutions are added for a total access revenue of \$368,250.00 (In the first quarter of Year 2, 17 anchors were connected at \$250.00 per month for 12 months. In the 2nd quarter of Year 2, 17 additional anchors were connected at \$250.00 per month for 9 months. In the 3rd quarter of Year 2, 25 additional anchors were connected at \$250.00 per month for 6 months; and in the last quarter of Year 2, 26 additional anchors were connected at \$250.00 per month for 3 months, for a total access revenue for additional anchors for Year 2 of \$146,250. The revenue from existing anchors (74) at \$250.00 per month for 12 months equates to a total of \$222,000.00 for Year 2).

Year 3 - 8 represents total revenues of the new 159 anchor institutions completed by Year 2 at \$250.00 per month for 12 months. Beginning with Year 3 and running through Year 8, 2 anchors were added during the 1st and 2nd quarter respectively; 3 anchors were added during the 3rd and 4th quarter respectively. The annual revenue was prorated based on the quarter the anchors were brought on line. By the end of Year 8, 219 anchors were connected.

(b) **Dark Fiber Revenue** - In Year 3 two (2) service providers are added to the network (at a cost to each one of them of a one time fee of \$15,000 [with \$500 realized and \$14,500 deferred]) with access services provided at \$1,000 per month for 12 months (\$12,000) each. In Year 4 one (1) more service provider was added (at a cost of a one time fee of \$15,000 [with \$500 realized and \$14,500 deferred]) with access services provided at \$1,000.00 per month for 12 months (\$12,000). In Year 5 we added more 2 service providers (at a cost to each one of them of a one time fee of \$15,000 [with \$500 realized and \$14,500 deferred]) with access services provided at \$1,000 per month for 12 months (\$12,000) each. In Years 6 - 8 we added 1 service provider per year, under the same terms outlined above, for a total of 8 service providers by the end of Year 8. \$500/year per provider is recognized as revenue from the deferred revenue account.

(c) **Network Maintenance/Monitoring** – Network maintenance/monitoring are comprised of oversight of the network, preventative and demand maintenance, relocation of network facilities, etc. and equates to an initial annual expense of \$42,000 in Year 1, escalating higher as more community anchor institutions and service providers are interconnected to the network.

(d) **Sales/Marketing, Customer Care, Billing and other Administrative Expenses** - The County has the capabilities to assume sales/marketing (outreach), customer care, billing and other general and administrative expenses within existing operations (See FY 2009 and FY 2010 budgetary financial statements for documented capabilities), so no additional expense is shown here.

(e) **Depreciation Expense** – The depreciation expense is a straight-line amortization calculated over a 30 year projected life of a fiber network (total cost of \$8,828,830).

(f) **Interest expense** – No interest expense is shown, since no debt is being assumed to construct or operate the network.

(g) **Tax Expense** – The County, as a government entity, is tax exempt.

(Due Diligence) The amounts previously shown for Amortization have been re-classified as Depreciation.

Balance Sheet

	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Assets								
<i>Current Assets</i>								
Cash	\$ 67,500	\$ 362,250	\$ 831,500	\$ 1,324,000	\$ 1,878,000	\$ 2,459,000	\$ 3,082,000	\$ 3,747,000
Marketable Securities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prepayments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Assets	\$ 67,500	\$ 362,250	\$ 831,500	\$ 1,324,000	\$ 1,878,000	\$ 2,459,000	\$ 3,082,000	\$ 3,747,000
<i>Non-Current Assets</i>								
Long-Term Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortizable Asset (Net of Amortization)								
Plant in Service (a)	\$ 4,414,415	\$ 8,828,830	\$ 8,828,830	\$ 8,828,830	\$ 8,828,830	\$ 8,828,830	\$ 8,828,830	\$ 8,828,830
Less: Accumulated Depreciation	\$ (147,147)	\$ (446,516)	\$ (745,884)	\$ (1,045,252)	\$ (1,344,621)	\$ (1,643,989)	\$ (1,943,357)	\$ (2,242,726)
Net Plant	\$ 4,267,268	\$ 8,382,314	\$ 8,082,946	\$ 7,783,578	\$ 7,484,209	\$ 7,184,841	\$ 6,885,473	\$ 6,586,104
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Non-Current Assets	\$ 4,267,268	\$ 8,382,314	\$ 8,082,946	\$ 7,783,578	\$ 7,484,209	\$ 7,184,841	\$ 6,885,473	\$ 6,586,104
Total Assets	\$ 4,334,768	\$ 8,744,564	\$ 8,914,446	\$ 9,107,578	\$ 9,362,209	\$ 9,643,841	\$ 9,967,473	\$ 10,333,104
Liabilities and Owners' Equity								
<i>Liabilities</i>								
<i>Current Liabilities</i>								
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ 29,000	\$ 42,500	\$ 70,000	\$ 82,000	\$ 93,500	\$ 104,500
Total Current Liabilities	\$ -	\$ -	\$ 29,000	\$ 42,500	\$ 70,000	\$ 82,000	\$ 93,500	\$ 104,500
<i>Long-Term Liabilities</i>								
Long Term Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Long Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Long-Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Owner's Equity</i>								
Capital Stock	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Paid-In Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retained Earnings (b)	\$ 4,334,768	\$ 8,744,564	\$ 8,885,446	\$ 9,065,078	\$ 9,292,209	\$ 9,561,841	\$ 9,873,973	\$ 10,228,604
Total Equity	\$ 4,334,768	\$ 8,744,564	\$ 8,885,446	\$ 9,065,078	\$ 9,292,209	\$ 9,561,841	\$ 9,873,973	\$ 10,228,604
Total Liabilities and Owner's Equity	\$ 4,334,768	\$ 8,744,564	\$ 8,914,446	\$ 9,107,578	\$ 9,362,209	\$ 9,643,841	\$ 9,967,473	\$ 10,333,104

Balance Sheet Notes:

(a) **Amortizable Asset (Net of Amortization)** – Amortizable Asset includes \$7,804,181 in BTOP Grant Funds (as requested) and \$1,024,649 from the County’s matching funds to construct, install and activate the network less the annual amortization of the Asset. Please note, Year 1 represents a 50% distribution of the BTOP grant and the county matching funds, less the amortization of the asset of \$147,147. In Year 2 the remaining 50% of the grant funds are distributed and combined with the County's matching funds, less amortization, for a total asset of \$8,382,314 at the end of Year 2. The In-Kind contribution of \$2,320,000 is recorded and amortized in the departments which purchase the equipment.

(b) **Retained Earnings** – The Retained Earnings includes Net Income.

(Due Diligence) The amount for Plant in Service had been previously shown as Amortizable Assets (Net of Amortization). It has been re-classified as Plant in Service in the new Pro-Forma. Also the Accumulated Depreciation has been linked to the depreciation values shown on the Income Statement.

Statement of Cash Flows

	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Beginning Cash	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CASH FLOWS FROM OPERATING ACTIVITIES:								
Net Income	(79,647)	(4,618)	140,882	179,632	227,132	269,632	312,132	354,632
<i>Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities</i>								
Add: Depreciation	147,147	299,368	299,368	299,368	299,368	299,368	299,368	299,368
Add: Amortization	-	-	-	-	-	-	-	-
<i>Changes in Current Assets and Liabilities:</i>								
Marketable Securities	-	-	-	-	-	-	-	-
Accounts Receivable	-	-	-	-	-	-	-	-
Inventory	-	-	-	-	-	-	-	-
Prepayments	-	-	-	-	-	-	-	-
Other Current Assets	-	-	-	-	-	-	-	-
Accounts Payable	-	-	-	-	-	-	-	-
Other Current Liabilities (a)	-	-	29,000	13,500	27,500	12,000	11,500	11,000
Net Cash Provided (Used) by Operations	\$ 67,500	\$ 294,750	\$ 469,250	\$ 492,500	\$ 554,000	\$ 581,000	\$ 623,000	\$ 665,000
CASH FLOWS FROM INVESTING ACTIVITIES:								
Capital Expenditures (b)	4,414,415	4,414,415	-	-	-	-	-	-
Amortizable Asset (Net of Amortization)	-	-	-	-	-	-	-	-
Long-Term Investments	-	-	-	-	-	-	-	-
Net Cash Used by Investing Activities	\$ 4,414,415	\$ 4,414,415	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CASH FLOWS FROM FINANCING ACTIVITIES:								
Notes Receivable	-	-	-	-	-	-	-	-
Notes Payable	-	-	-	-	-	-	-	-
Principal Payments	-	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-	-
Additional Paid-in Capital ©	4,414,415	4,414,415	-	-	-	-	-	-
Additions to Patronage Capital Credits	-	-	-	-	-	-	-	-
Payment of Dividends	-	-	-	-	-	-	-	-
Net Cash Provided by Financing Activities	\$ 4,414,415	\$ 4,414,415	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Cash	\$ 67,500	\$ 294,750	\$ 469,250	\$ 492,500	\$ 554,000	\$ 581,000	\$ 623,000	\$ 665,000
Ending Cash	\$ 67,500	\$ 362,250	\$ 831,500	\$ 1,324,000	\$ 1,878,000	\$ 2,459,000	\$ 3,082,000	\$ 3,747,000

Statement of Cash Flow Notes:

(a) deferred revenue

(b) Capital Expenditure of the installation, construction and development of the network

(c) Additional Paid in Capital is the grant funds and county match

(Due Diligence) On the Statement of Cash Flows, the Capital Expenditures consist of the total Project Value (\$11,148,830), minus the revised in-kind match (\$2,320,000). This results in a total capital expenditure of \$8,828,830, which equals the sum total of the Capital Expenditures shown in Years 1 and 2.

NPV/IRR Table

	Net Present Value	Internal Rate of Return
Without BTOP Funding	\$0.00	0.00%
With BTOP Funding	\$2,564,930	15.15%

Revenue Assumptions		
Factor	Specific Metric Used in Analysis	Rationale (Cite Basis)
Customers Passed		
Anchor Institutions - Segment A	74 anchor institutions connected in Year 1	Anchor Institutions are aware of project and will be ready to commit to connect as soon as possible. Expecting to add 2 or 3 more per quarter during years 3-8.
Anchor Institutions - Segment B	85 anchor institutions connected in Year 2	Anchor Institutions are aware of project and will be ready to commit to connect as soon as possible. Expecting to add 2 or 3 more per quarter during years 3-8.
Businesses	n/a	Middle Mile - all these customers are indirect
Households	n/a	Middle Mile - all these customers are indirect
Last Mile Providers	Year 4 - one provider; Year 5 - two more providers	Once the network is established within the county, third party providers will want to access subscribers throughout the county.
Other		
Take Rate (should likely vary across 8-Year Forecast)		
Anchor Institutions - Segment A	100% take rate within 159 initial anchor institutions	All anchor institutions have committed to use the network; 100% take rate expected
Anchor Institutions - Segment B	100% take rate within 159 initial anchor institutions	All anchor institutions have committed to use the network; 100% take rate expected
Businesses	n/a	
Households	n/a	
Last Mile Providers	40%	Projecting that at approx. 8 providers out of the 20+ service providers in the area will commit to leasing capacity on the network.
Direct Customer Connections		
Customer Segment A	74 anchor institutions connected in Year 1	Since this is a Middle Mile project, the only Direct Customer Connections will be anchor institutions.
Customer Segment B	85 anchor institutions connected in Year 2	Since this is a Middle Mile project, the only Direct Customer Connections will be anchor institutions.
Other	n/a	
Average Revenue per User (may vary across 8-year forecast)		
Anchor Institutions - Segment A	\$250 per anchor institution per month	This rate has been negotiated with the county's anchor institutions.
Anchor Institutions - Segment B	\$250 per anchor institution per month	This rate has been negotiated with the county's anchor institutions.
Businesses		
Households		
Last Mile Providers	one time fee of \$15,000 plus \$1000 per month	This is a reasonable monthly rate for the amount of fiber to be leased.
Other		

Expense Assumptions		
Factor	Specific Metric Used in Analysis	Rationale (Cite Basis)
Network Expenses		
Backhaul		
Maintenance	Year 1 ramp-up expense: \$42,000. Grows to \$73,500 the next year and levels in subsequent years.	Network oversight costs, preventive and on-demand maintenance, relocation of network facilities.
Utilities		
Leasing		
Depreciation		
Other		
Sales & Marketing		
Advertising	n/a	The County has the capabilities to assume sales/marketing (outreach), customer care, billing and other general and administrative expenses within existing operations, so no additional expense is shown here.
Commissions	n/a	
Salaries	n/a	
Other	n/a	
Customer Care & Billing		
Systems	n/a	The County has the capabilities to assume sales/marketing (outreach), customer care, billing and other general and administrative expenses within existing operations, so no additional expense is shown here.
Personnel	n/a	
Other	n/a	
General & Administrative		
Professional Services		
Insurance		
Non-Network Utilities		
Travel		
Supplies		
Miscellaneous		
Interest Expenses		
Debt Instrument A		
Debt Instrument B		
Taxes		

Federal Tax Rate	n/a	The County, as a government entity, is tax exempt.
Other Tax Rates		



Dave Cummings
Chief Information Officer

Technology Services

121 Library Court Oregon City, OR 97045

Project Title: Clackamas Broadband Innovation Initiative (CBII)
Project ID: 5884

Subject: Additional Environmental Information – Due Diligence
Date: May 12th, 2010

The Clackamas Broadband Innovation Initiative (CBII) is a 180 mile ring/spur fiber optic network designed to provide low cost point to point middle mile access to 158 community anchor locations throughout the County while providing backhaul abilities to any private broadband provider desiring to use the network.

The general design of the fiber route consists of 2 interconnected rings and a large spur. The primary ring starts in Oregon City, proceeding North into the City of Clackamas then East through the cities of Damascus and Boring continuing to Sandy. From Sandy it continues South to Estacada moving East to Colton and into Molalla. From Molalla it moves North through Mulino into Canby and back East to Oregon City. The 2nd Ring starts from the primary ring off I-5 in Clackamas, proceeding West down Hwy 224 into Milwaukie. It next proceeds South through Oak Grove and Gladstone and reconnects to the primary ring in Oregon City. The 3rd component is a large spur that starts in Sandy off the primary ring, continues East on Hwy 26 through the communities of Wemme, Welches, Zig-Zag, Rhododendron and ends just past Government Camp. All along the whole fiber route, there are many small spurs to provide last mile connection to the anchor institutions.

This project has many goals including providing critical broadband communications infrastructure to key community centers, link fire/life/safety services, expand educational and medical service opportunities, promote economic development as well provide cost-effective backbone options to service providers. The CBII project also has some additional goals and general guidelines such as maintaining high speed communications, minimizing costs at all levels, maintaining non-discriminatory access to services and absolute minimal impact to the environment. In support of these goals, the CBII project was designed using current utility poles already in place owned by Portland General Electric (PGE) which the County has an agreement in place for such use. This allows the project to utilize current resources to reduce costs and minimize impact to the surrounding environment.

To further demonstrate the minimal impact approach to environmental impact utilized in this project, the following project facts are referenced:

Aerial Pathways

- Of the 180 miles of proposed fiber pathways, 98.4% of the pathway is aerial.
- All of the aerial pathway is on pre-existing poles owned by Portland General Electric.
- No new poles are to be installed.

Underground Pathways

- Of the 180 miles of proposed fiber pathways, 1.6 % of the pathway is underground in 5 locations.
- Of the 2.95 miles of underground pathway, only 1.4 (7450ft) miles (45%) is new construction
- 1 location is in existing conduit, no disruption to any property.
 - o Map: welches_rev8.11
Welches, on Hwy 26 Starting - from E. Salmon River Road – to E. Road 10 (1.55 miles / 8200ft)
This pathway does cross into Mt. Hood National Forest which is critical habitat, however NO new disruption on environment occurs – all in existing conduit.
- 4 locations require new underground conduit via trenching or boring:
 - o Map: canby_rev8x11
Canby, on SE Township Road - from South Pine to South Redwood Street. (.21 miles / 1100ft)
This pathway is in no environmental zones.
 - o Map: gladstone8x11 and oregoncity8.11
Oregon City, on Clackamas River Road - crossing of Hwy 213 (.06 miles / 350ft)
This pathway is in 100 Year Flood Zone
 - o Map: w_mulino_rev8.11
Mulino, on S. Mulino Road - from East of S. Airport Road to West of Fish Road.
This is near Mulino Airport so no poles are allowed in landing path. (.23 miles / 1200ft)
This pathway is in no environmental zones.
 - o Map: welchesrhody_8.11
Rhododendron, on Hwy 26 – from E. Henry Creek Rd to point between Tollgate Road and Road 26. (.9 miles / 4800ft)
This pathway is in the Mt. Hood National Forest which is critical habitat. The project is planning on bore along Hwy 26 in right-of-way to minimize environmental impact.
- No new poles are to be installed.

Bridge Crossing

For all bridge crossings, it is planned to use aerial pathways on pre-existing poles along the bridge way. If circumstances require an alternative pathway, new 2” conduit will be utilized attached to the bridge.

Property Changes

There is no planned clearing, fencing, excavating or disturbing of any property other than the trenching / bore identified in the Underground Pathways section above.

Building

No buildings are planned to be constructed or modified.

Wetlands

Given the numerous waterways in Clackamas, the proposed fiber pathway passes through several wetland areas. In all of these areas, the pathway is aerial on pre-existing poles with NO property disruption.

Critical Habitats

A portion of the fiber pathway (Hwy 26 Spur) runs along Hwy 26 into the Mt. Hood National Forest, which is a critical habitat. However, most of the pathway is aerial on pre-existing poles. One segment is underground in pre-existing conduit and one segment (.9 miles) is new conduit via boring. This is in previously disturbed rights-of-way along Hwy 26. There will be NO new critical habitat property disturbed. (see the Underground Pathway section above)

Floodplain

Given the numerous waterways in Clackamas, the proposed fiber pathway passes through several 100 and 500 year floodplains. In all of these areas, the proposed pathway is aerial on pre-existing poles with NO property disruption.

Protected Land

A portion of the fiber pathway (Hwy 26 Spur) runs along Hwy 26 into the Mt. Hood National Forest, which is a protected land. However, most of the pathway is aerial on pre-existing poles. One segment is underground in pre-existing conduit and one segment (.9 miles) is new conduit via boring. This is in previously disturbed rights-of-way along Hwy 26. There will be NO new critical habitat property disturbed. (see the Underground Pathway section above)

Coastal Area

N/A. This project is not within any coastal zone areas.

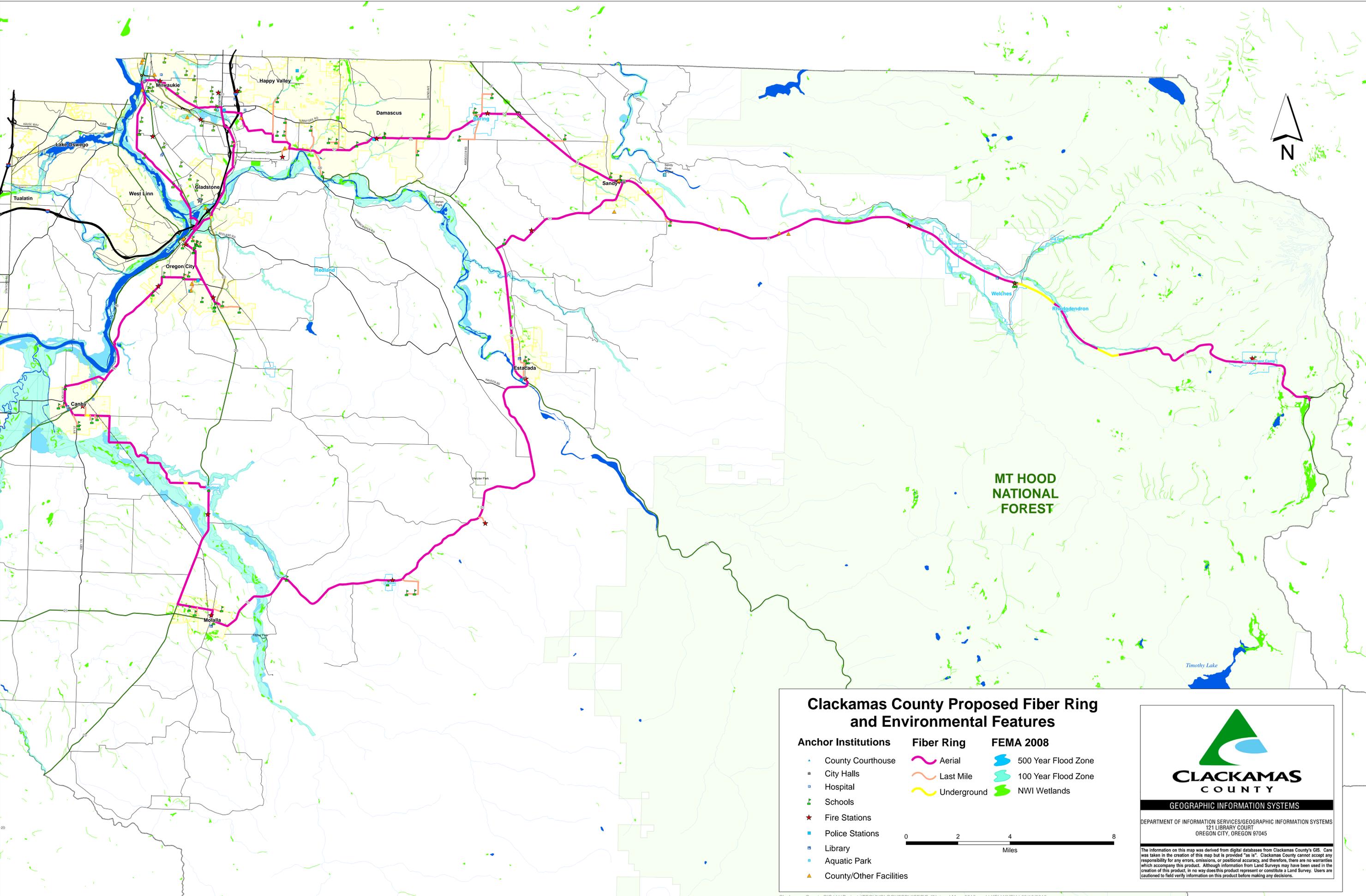
Brownfield

According to the EPA web site, there are 2 current brownfields along the proposed fiber pathways:

1175 NW 3rd Ave, Canby 97013

213 W Main St, Molalla 97038

Both locations are on aerial pre-existing poles with NO property disruption.



Clackamas County Proposed Fiber Ring and Environmental Features

Anchor Institutions

- County Courthouse
- City Halls
- Hospital
- Schools
- Fire Stations
- Police Stations
- Library
- Aquatic Park
- County/Other Facilities

Fiber Ring

- Aerial
- Last Mile
- Underground

FEMA 2008

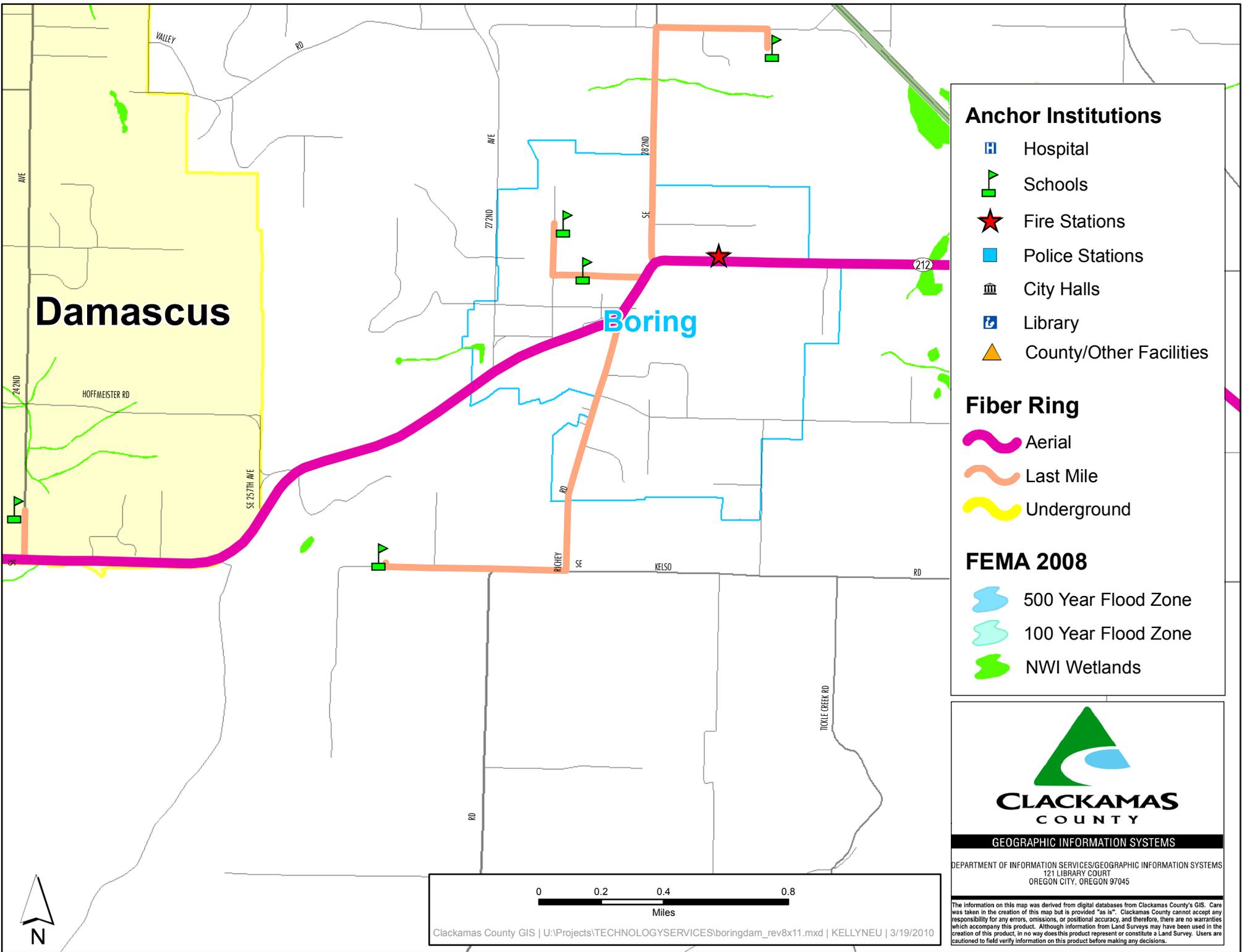
- 500 Year Flood Zone
- 100 Year Flood Zone
- NWI Wetlands



CLACKAMAS COUNTY
GEOGRAPHIC INFORMATION SYSTEMS

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Anchor Institutions

- Hospital
- Schools
- Fire Stations
- Police Stations
- City Halls
- Library
- County/Other Facilities

Fiber Ring

- Aerial
- Last Mile
- Underground

FEMA 2008

- 500 Year Flood Zone
- 100 Year Flood Zone
- NWI Wetlands



CLACKAMAS COUNTY

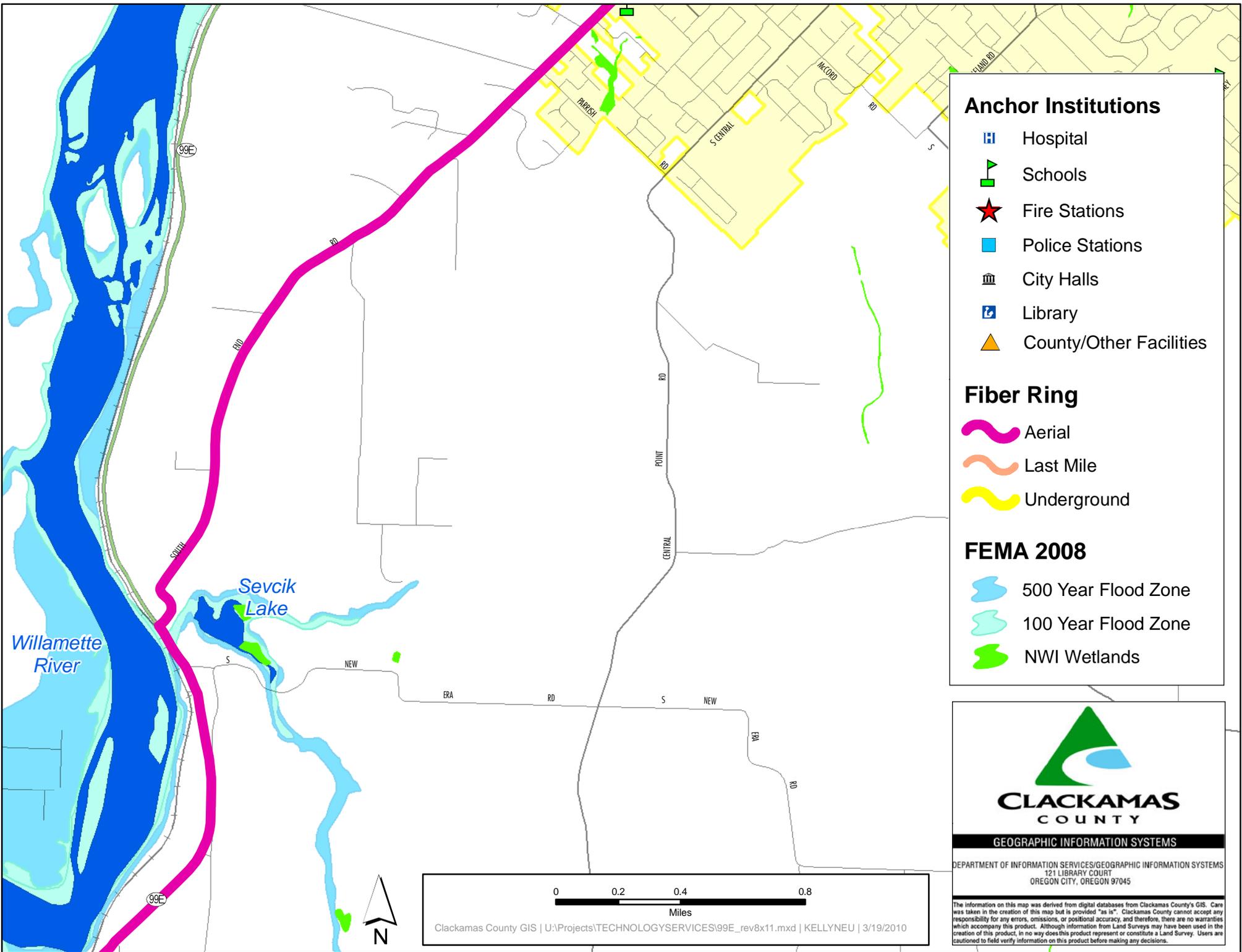
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Miles

Clackamas County GIS | U:\Projects\TECHNOLOGYSERVICES\Boringdam_rev8x11.mxd | KELLYNEU | 3/19/2010

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Anchor Institutions

-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

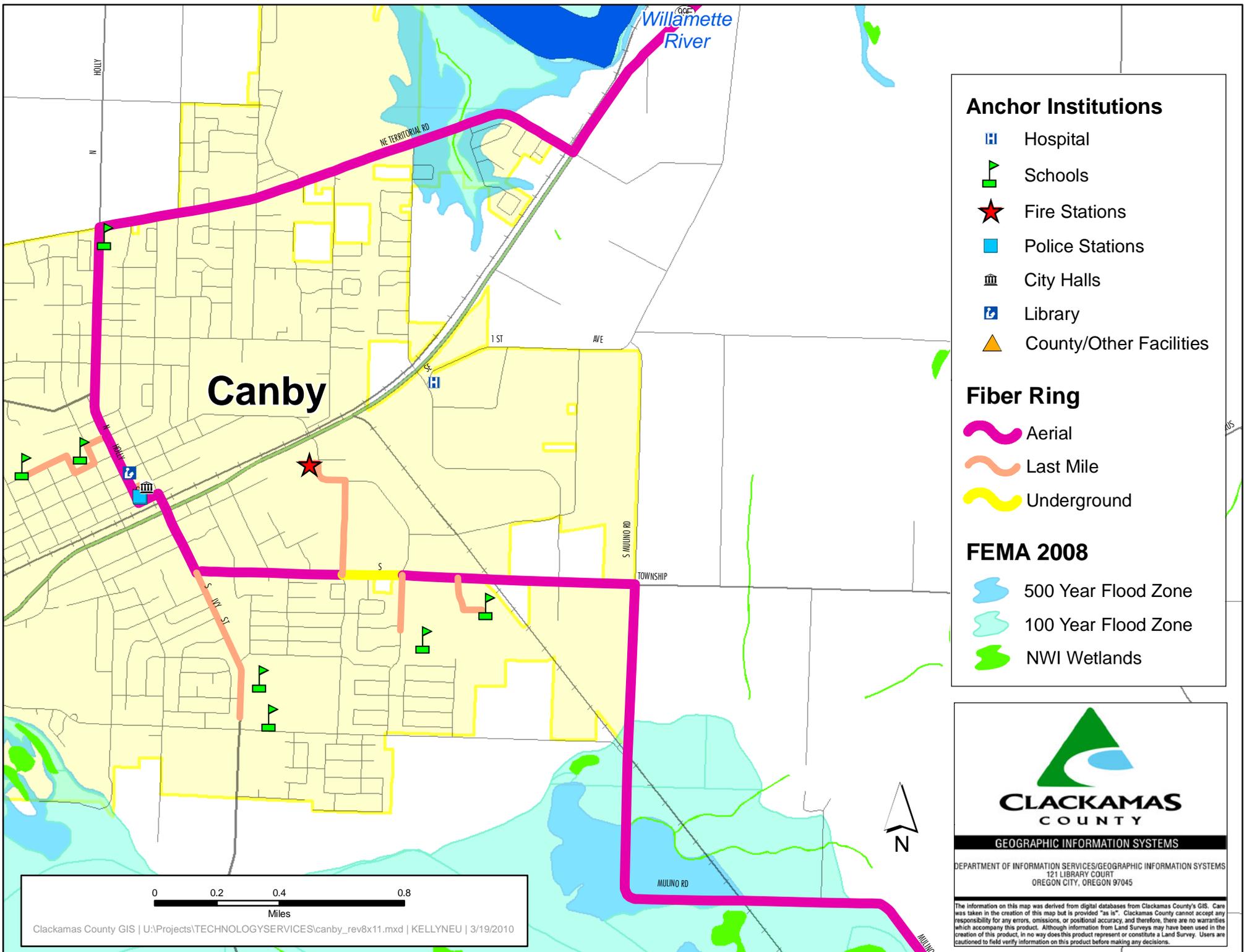
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Miles

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Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

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0 0.2 0.4 0.8
Miles

Clackamas County GIS | U:\Projects\TECHNOLOGYSERVICES\canby_rev8x11.mxd | KELLYNEU | 3/19/2010

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Anchor Institutions

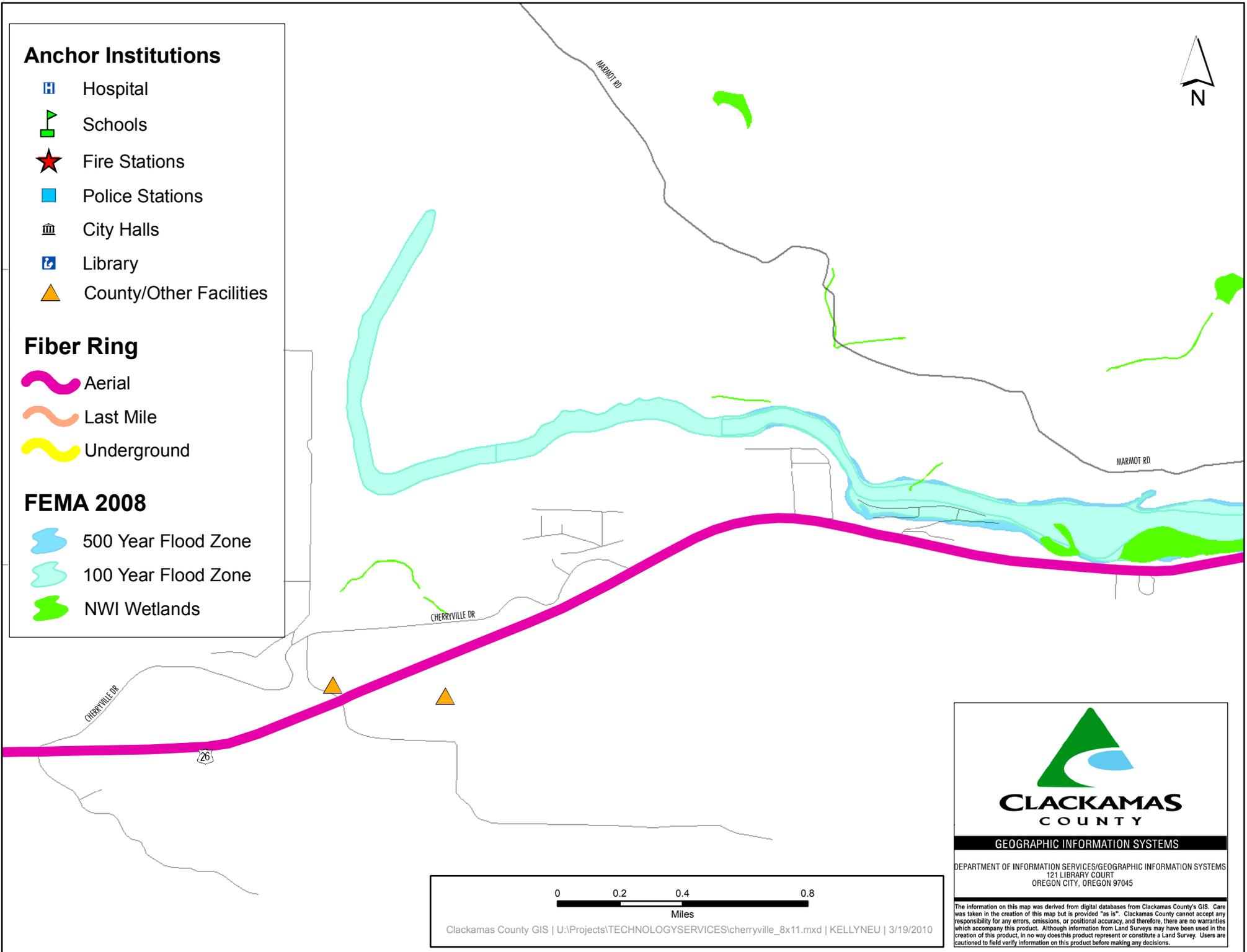
-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



0 0.2 0.4 0.8
Miles
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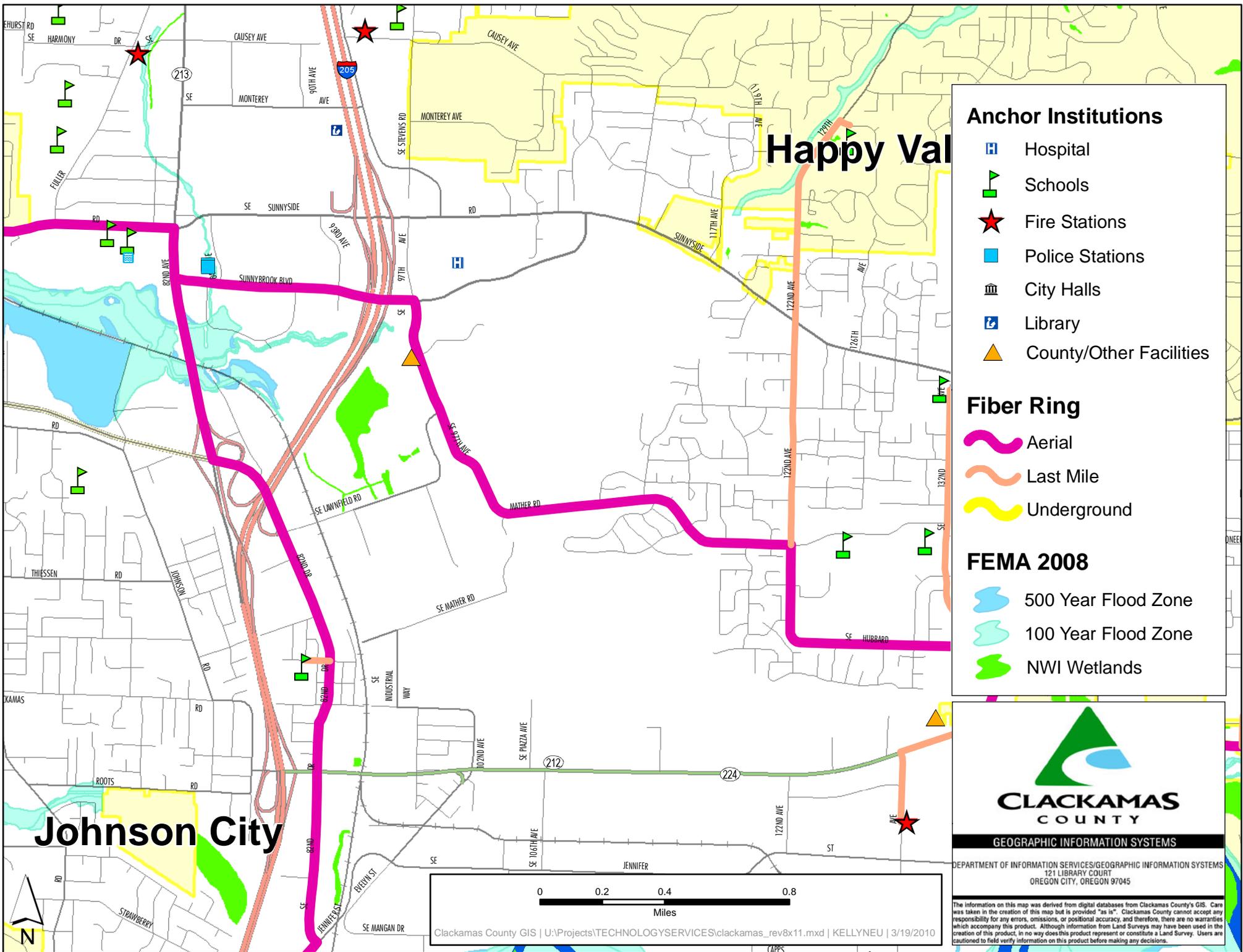


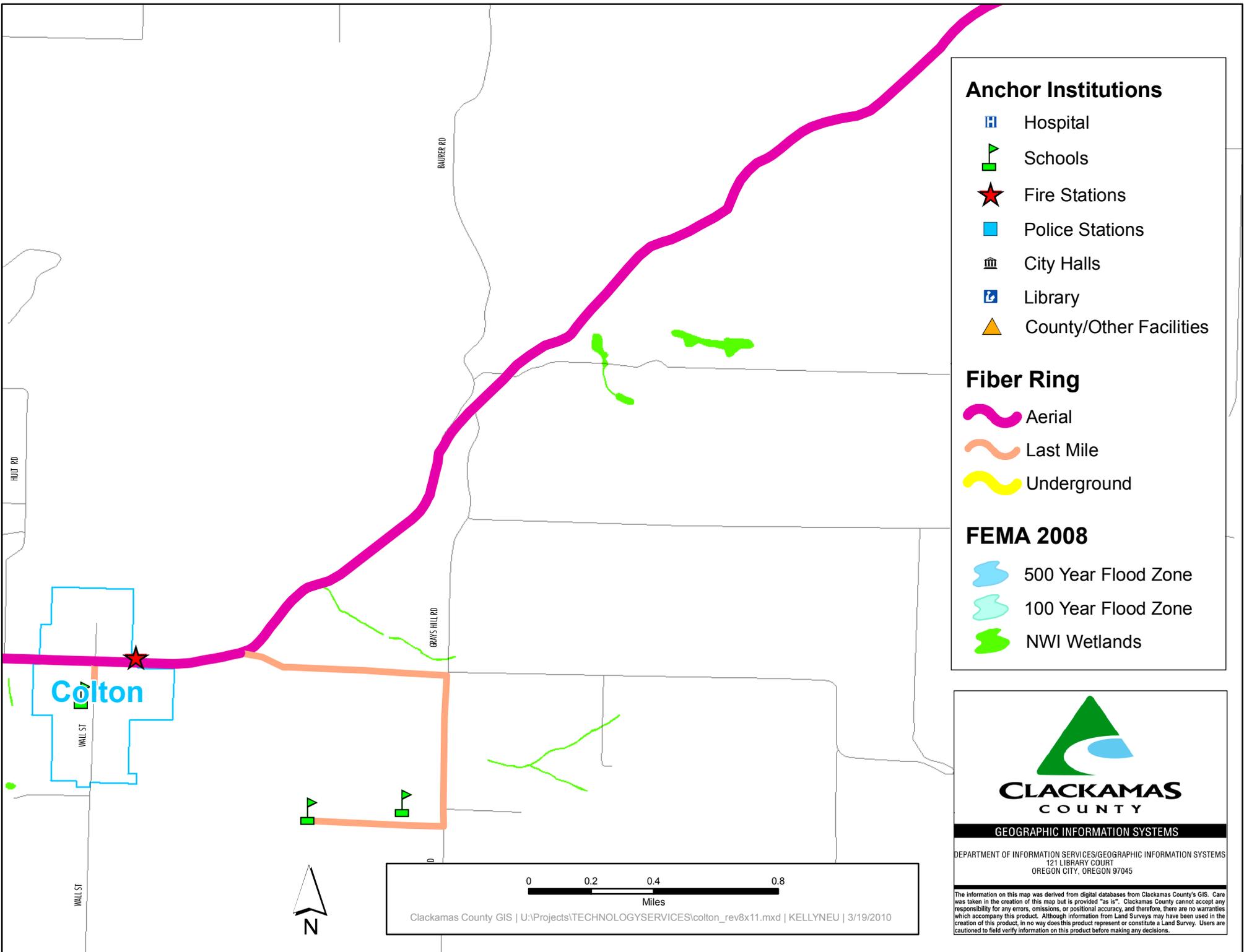
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Anchor Institutions

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-  Schools
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Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

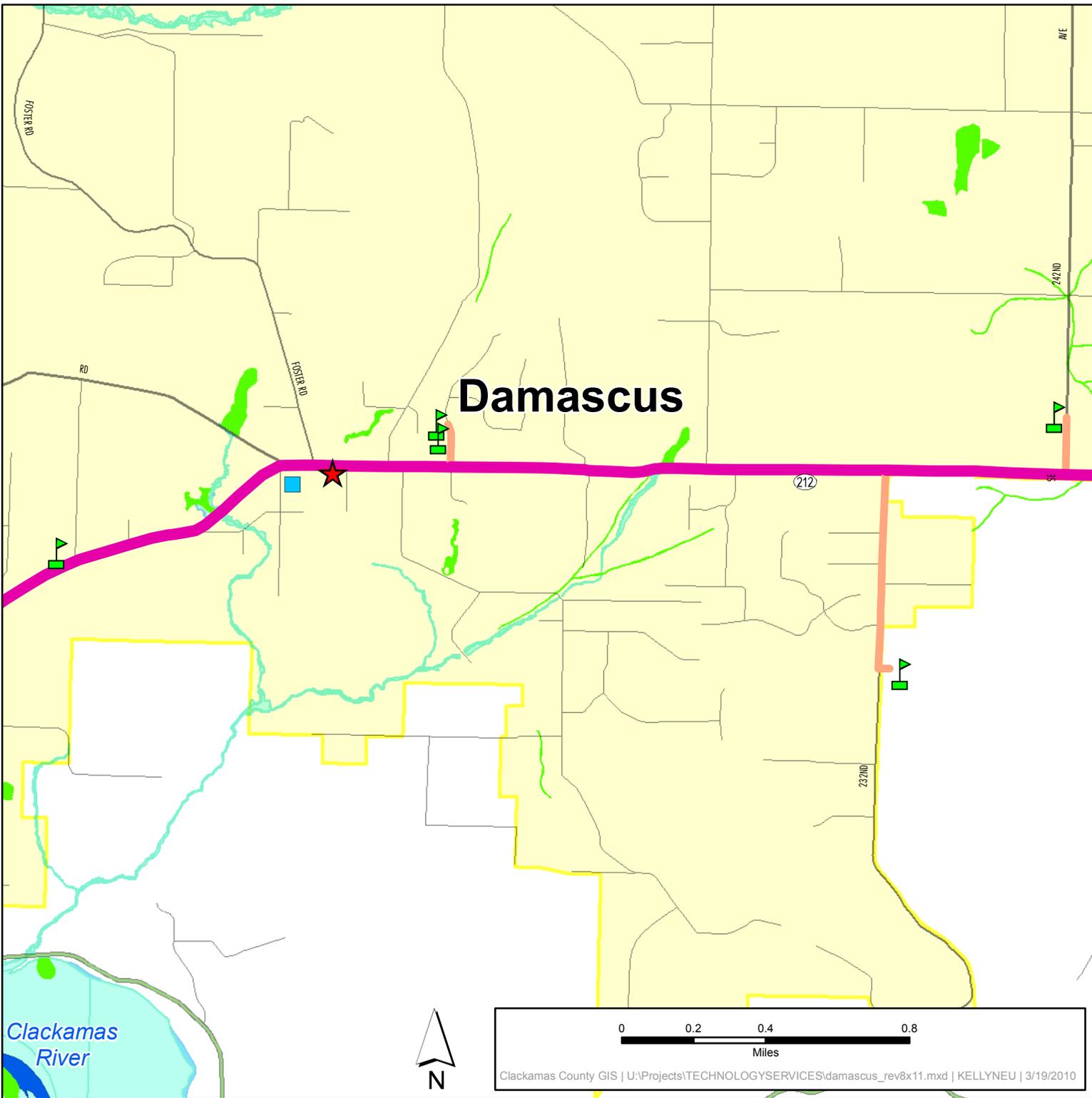
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Miles

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Fiber Ring

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FEMA 2008

-  500 Year Flood Zone
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-  NWI Wetlands



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0 0.2 0.4 0.8
Miles

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Anchor Institutions

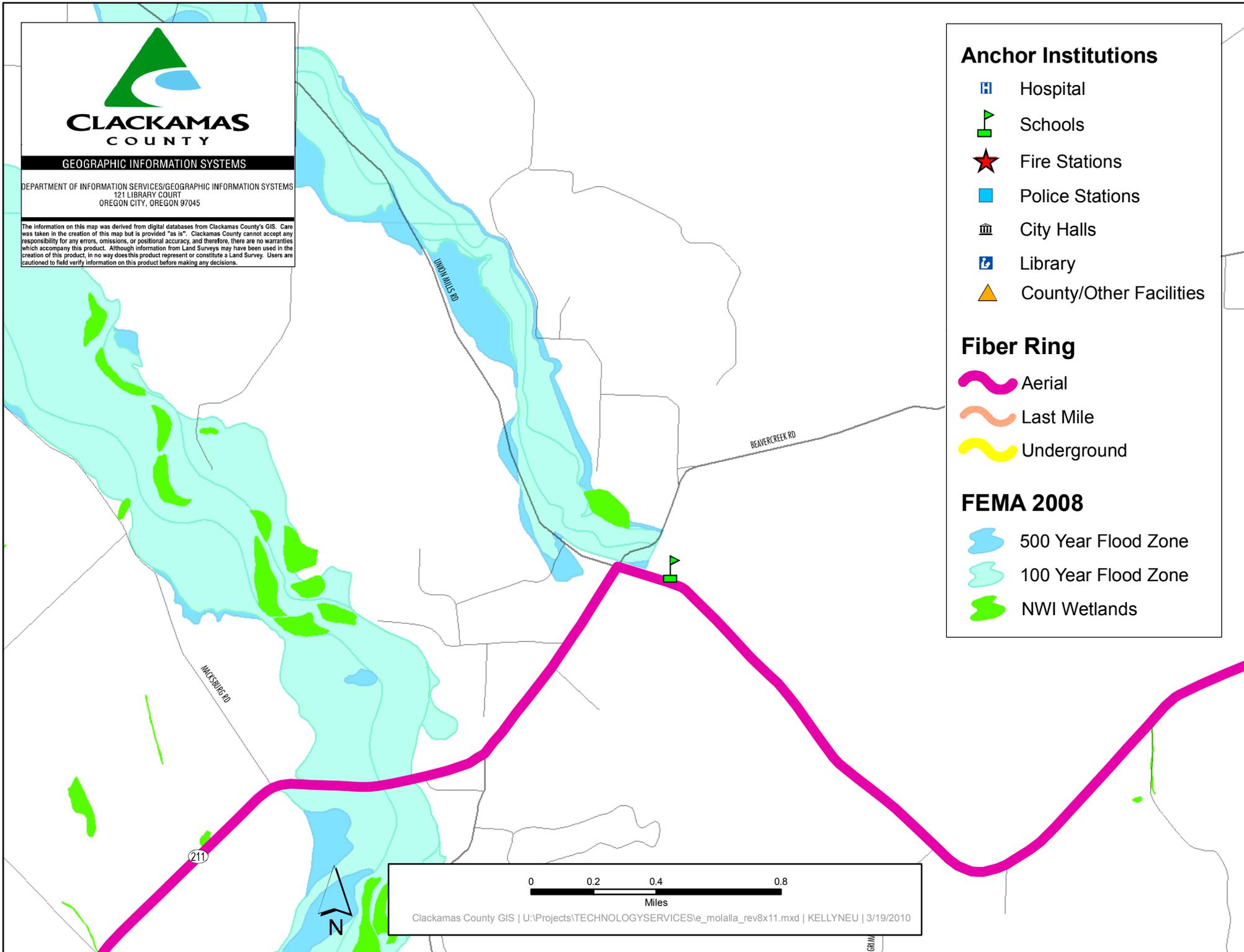
-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

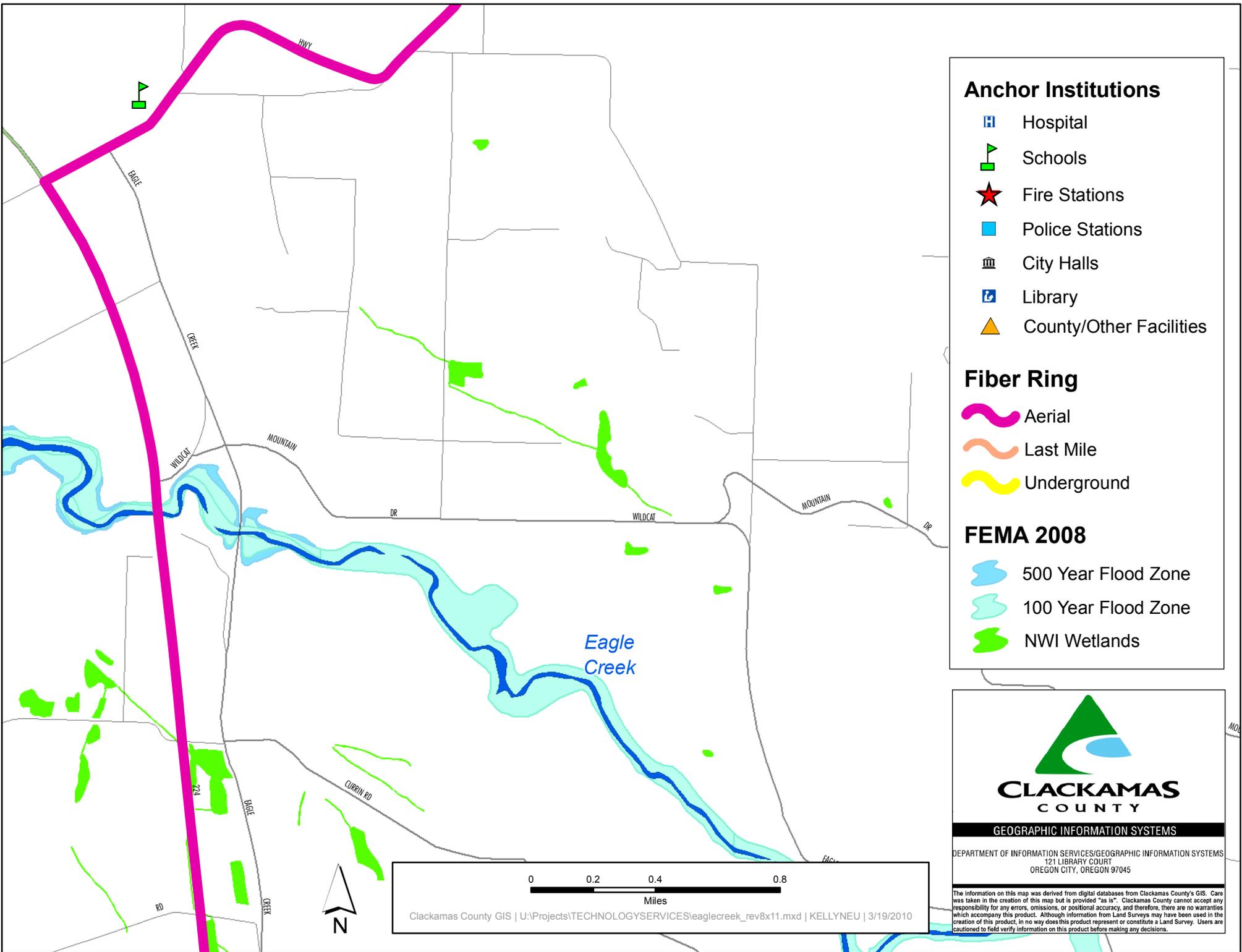
-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



0 0.2 0.4 0.8
Miles
Clackamas County GIS | U:\Projects\TECHNOLOGYSERVICES\ie_molalla_rev8x11.mxd | KELLYNEU | 3/19/2010



Anchor Institutions

-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
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Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

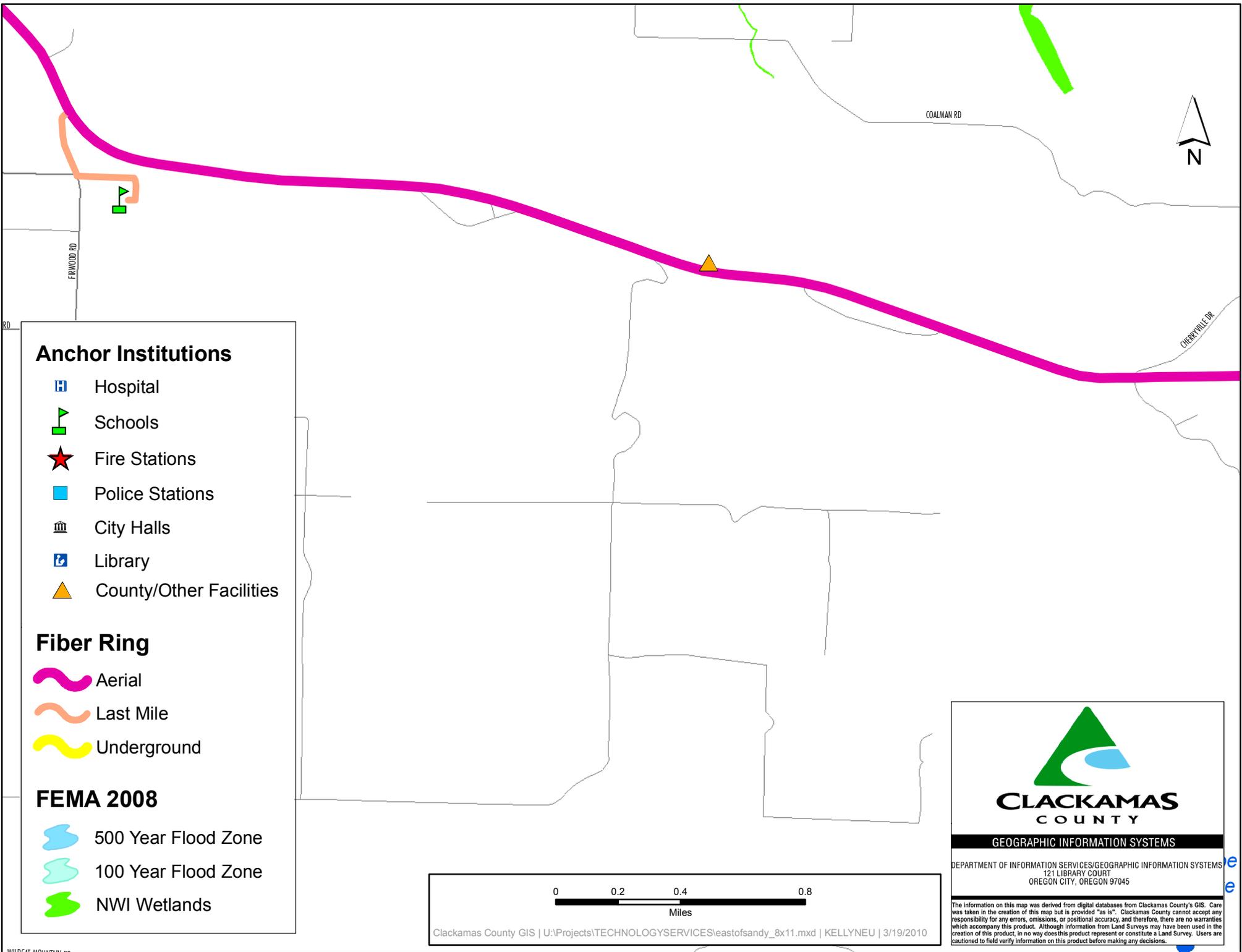
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0 0.2 0.4 0.8
Miles

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Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

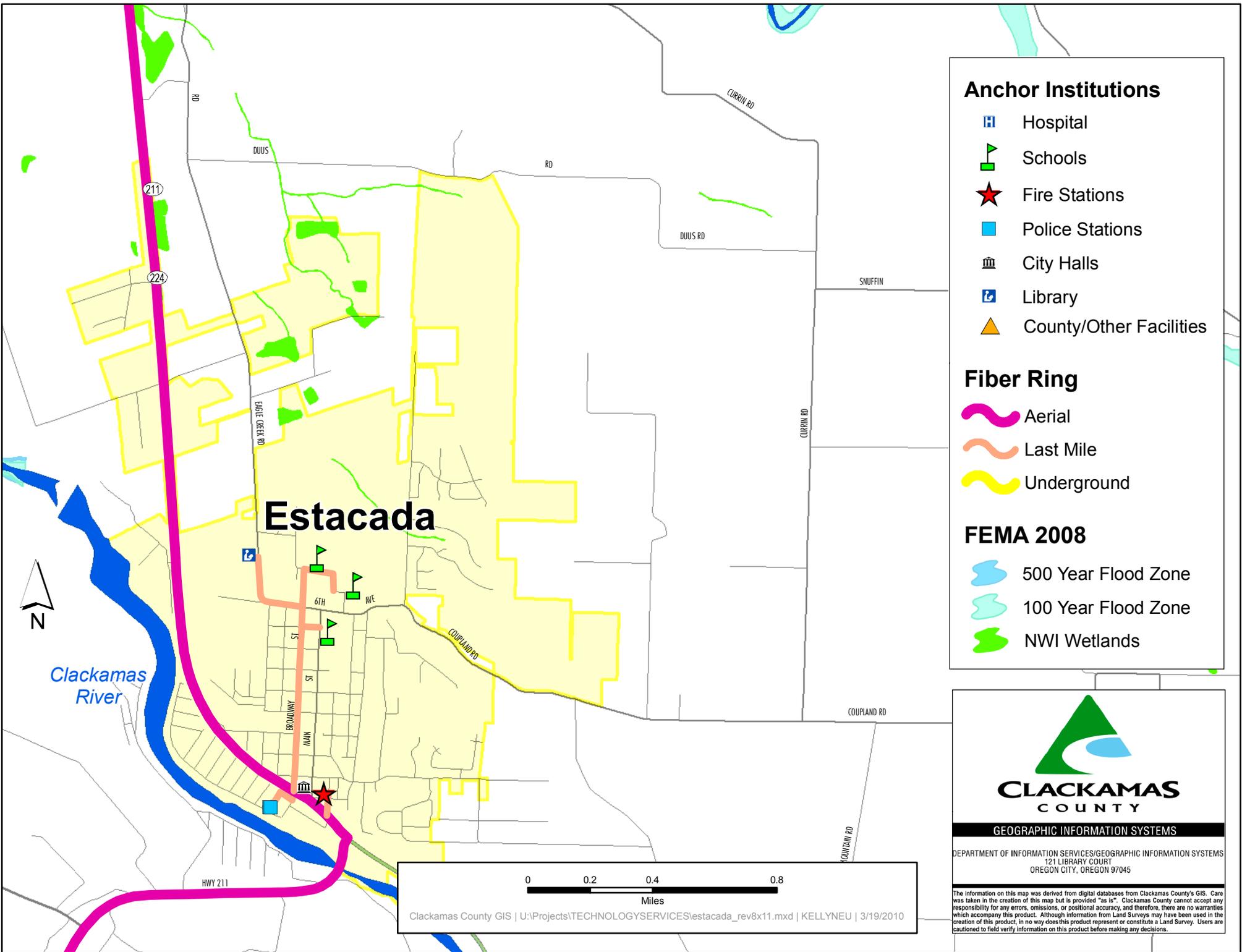
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Miles

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Anchor Institutions

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- Library
- County/Other Facilities

Fiber Ring

- Aerial
- Last Mile
- Underground

FEMA 2008

- 500 Year Flood Zone
- 100 Year Flood Zone
- NWI Wetlands

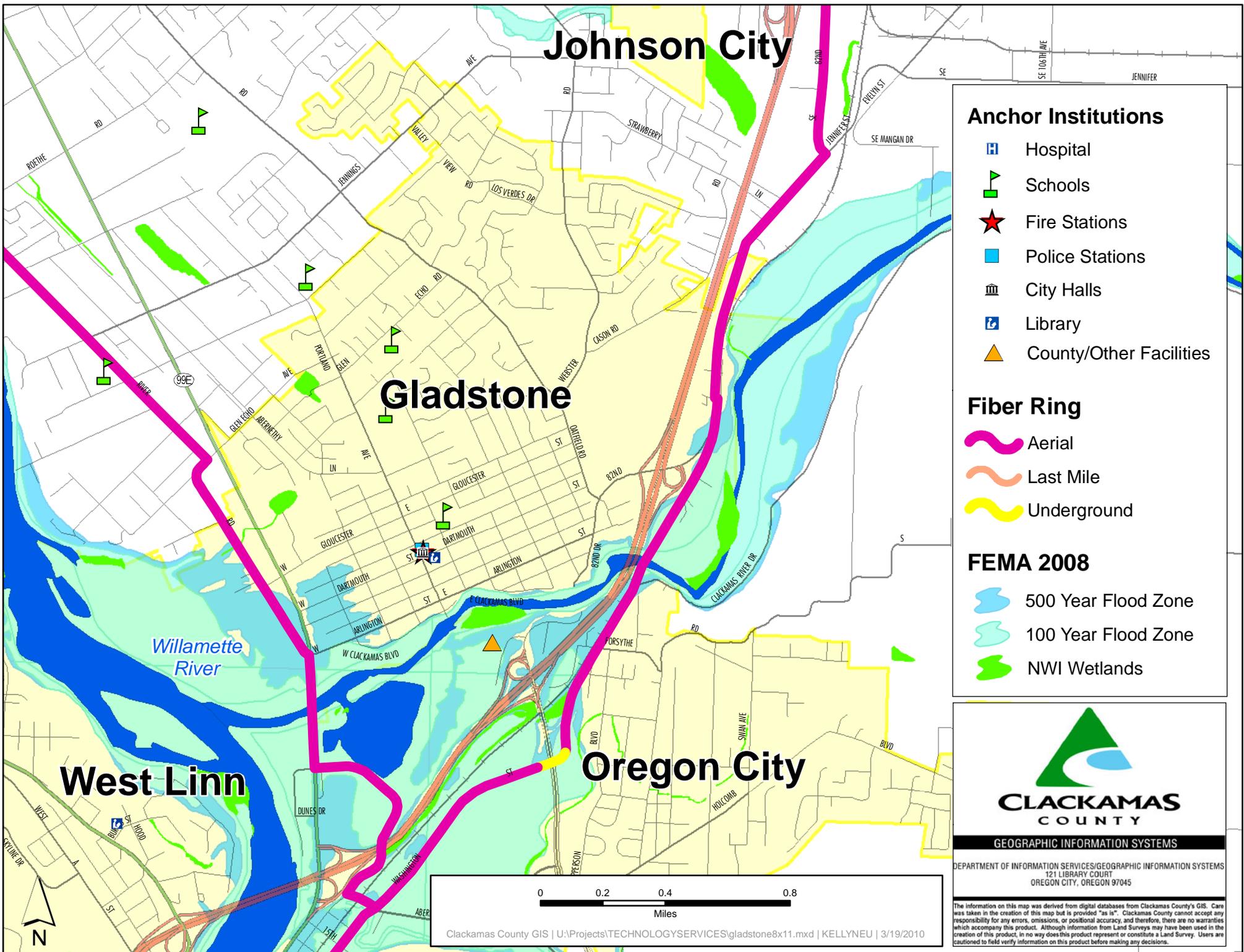


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Fiber Ring

- Aerial
- Last Mile
- Underground

FEMA 2008

- 500 Year Flood Zone
- 100 Year Flood Zone
- NWI Wetlands



CLACKAMAS COUNTY

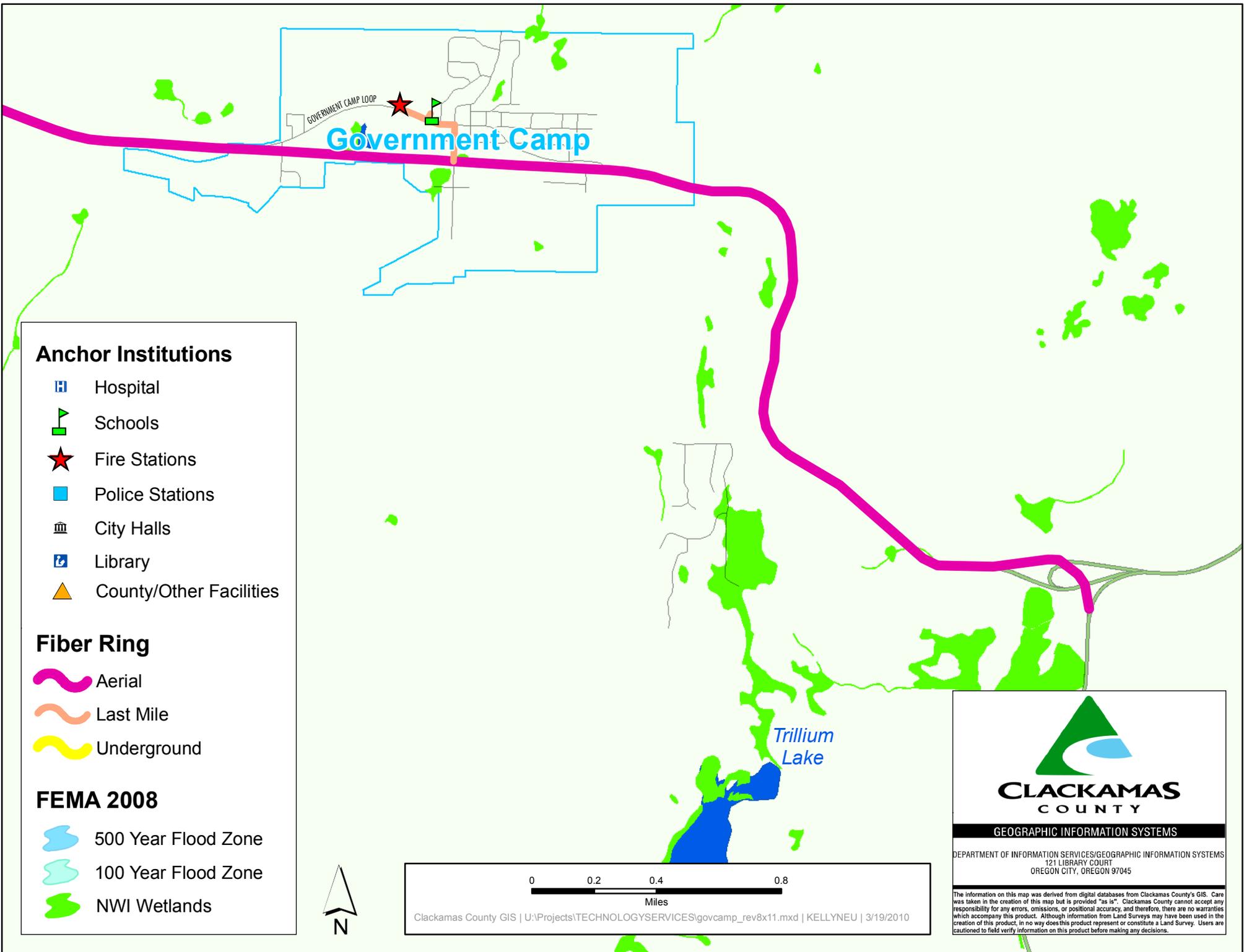
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0 0.2 0.4 0.8
Miles

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Anchor Institutions

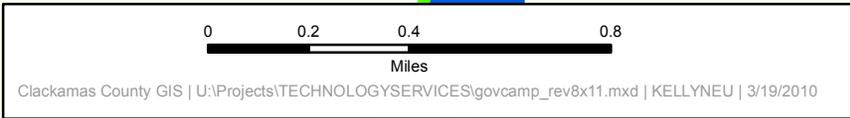
-  Hospital
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-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands

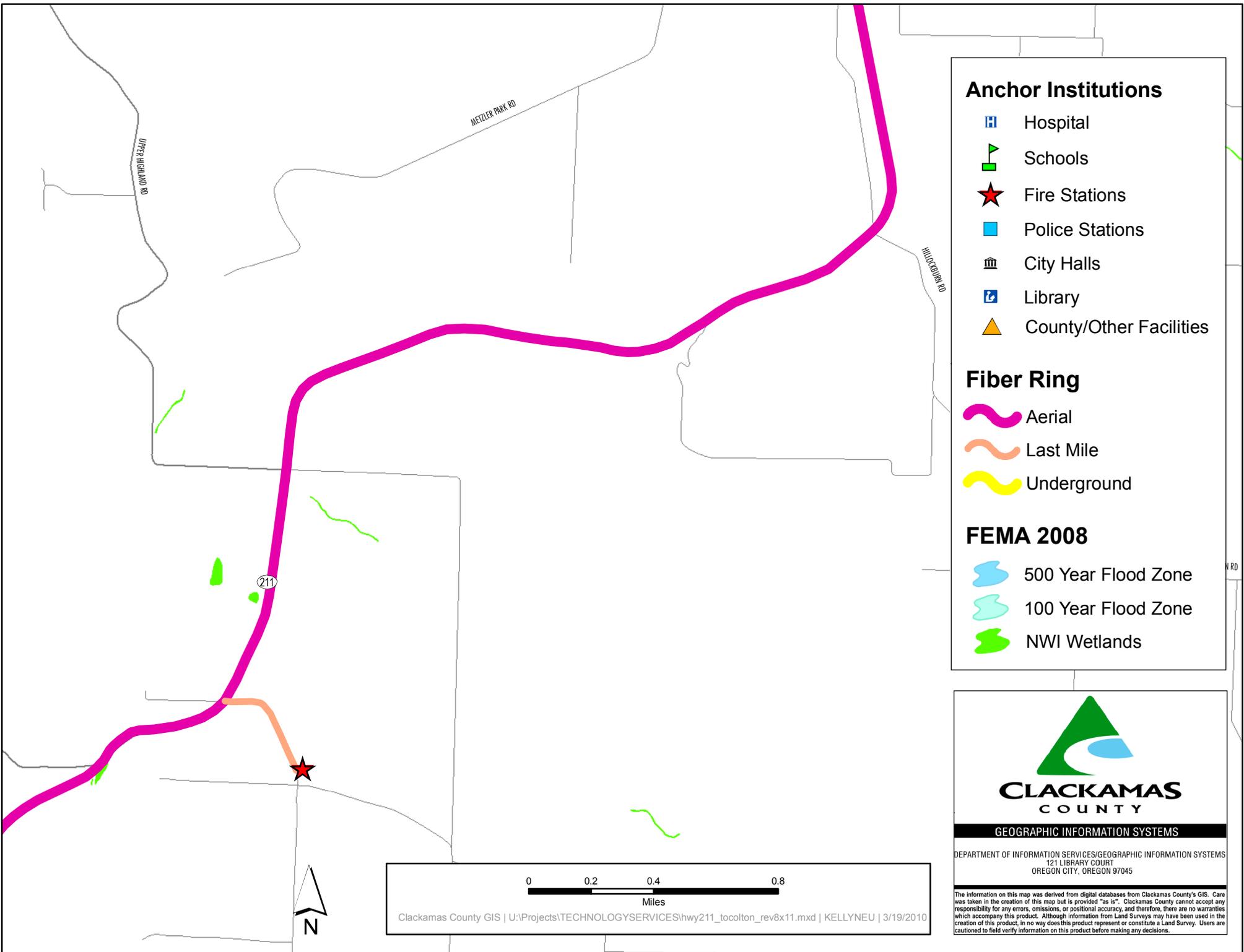



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Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

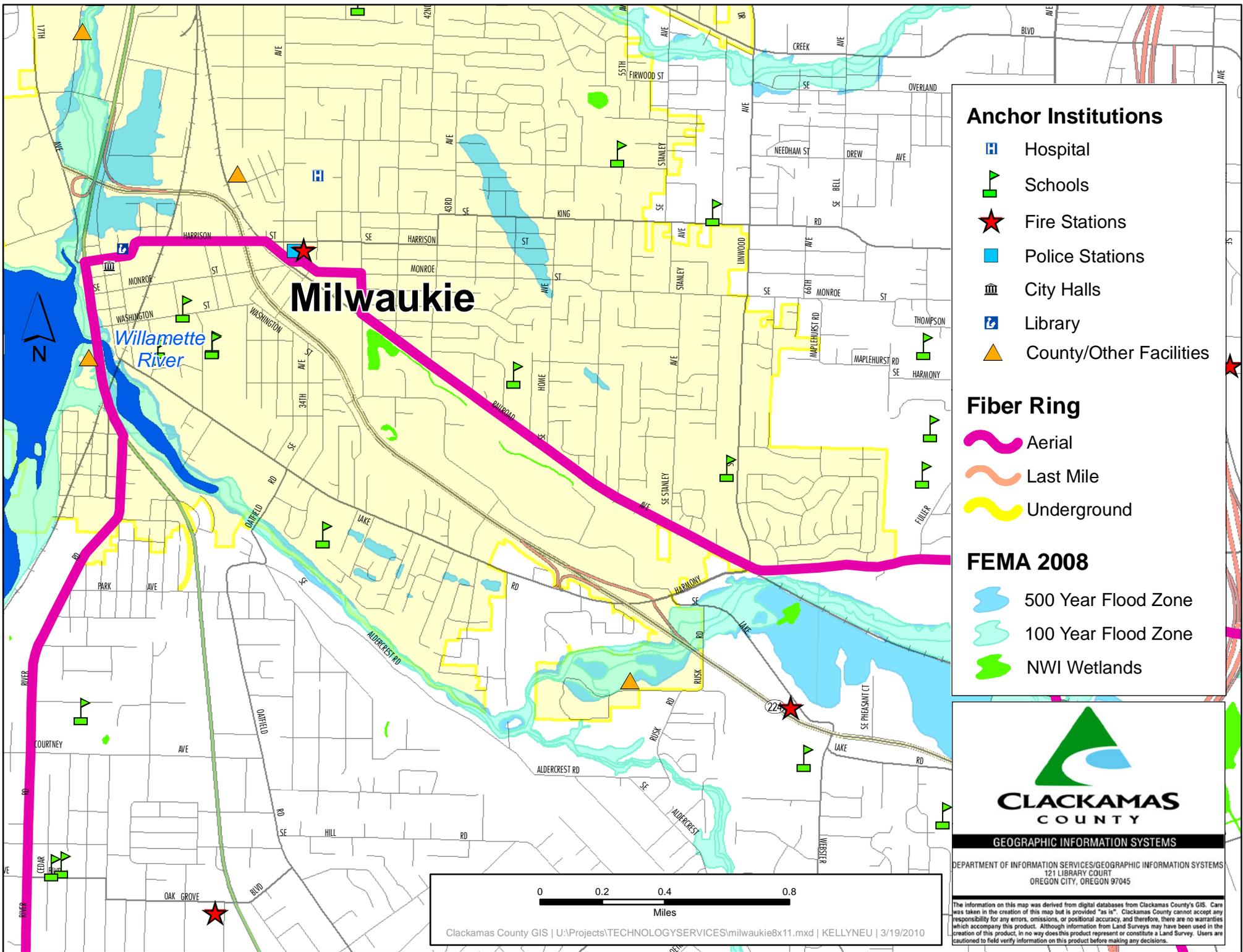
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Fiber Ring

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-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

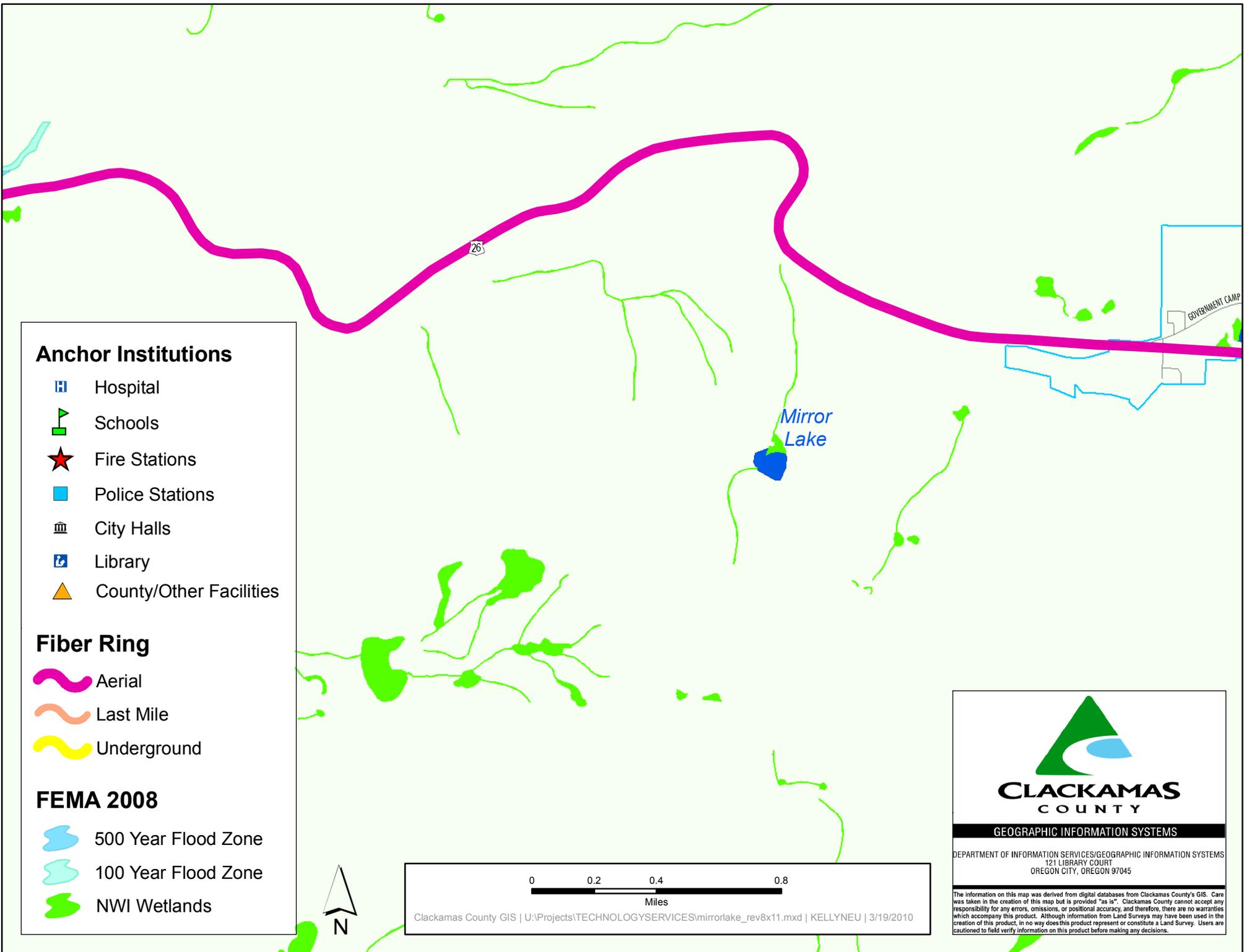
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Fiber Ring

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-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



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Miles

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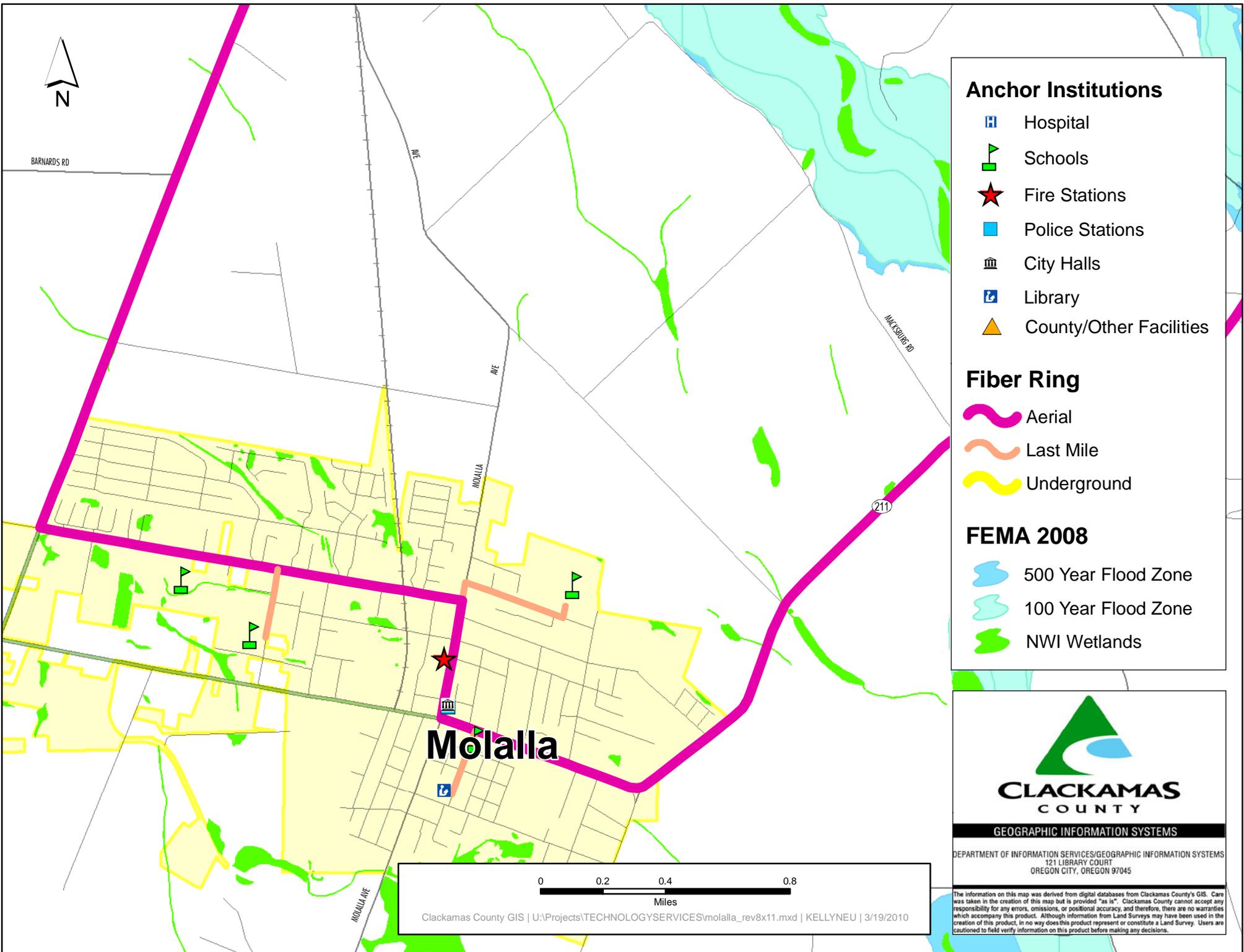


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Fiber Ring

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-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

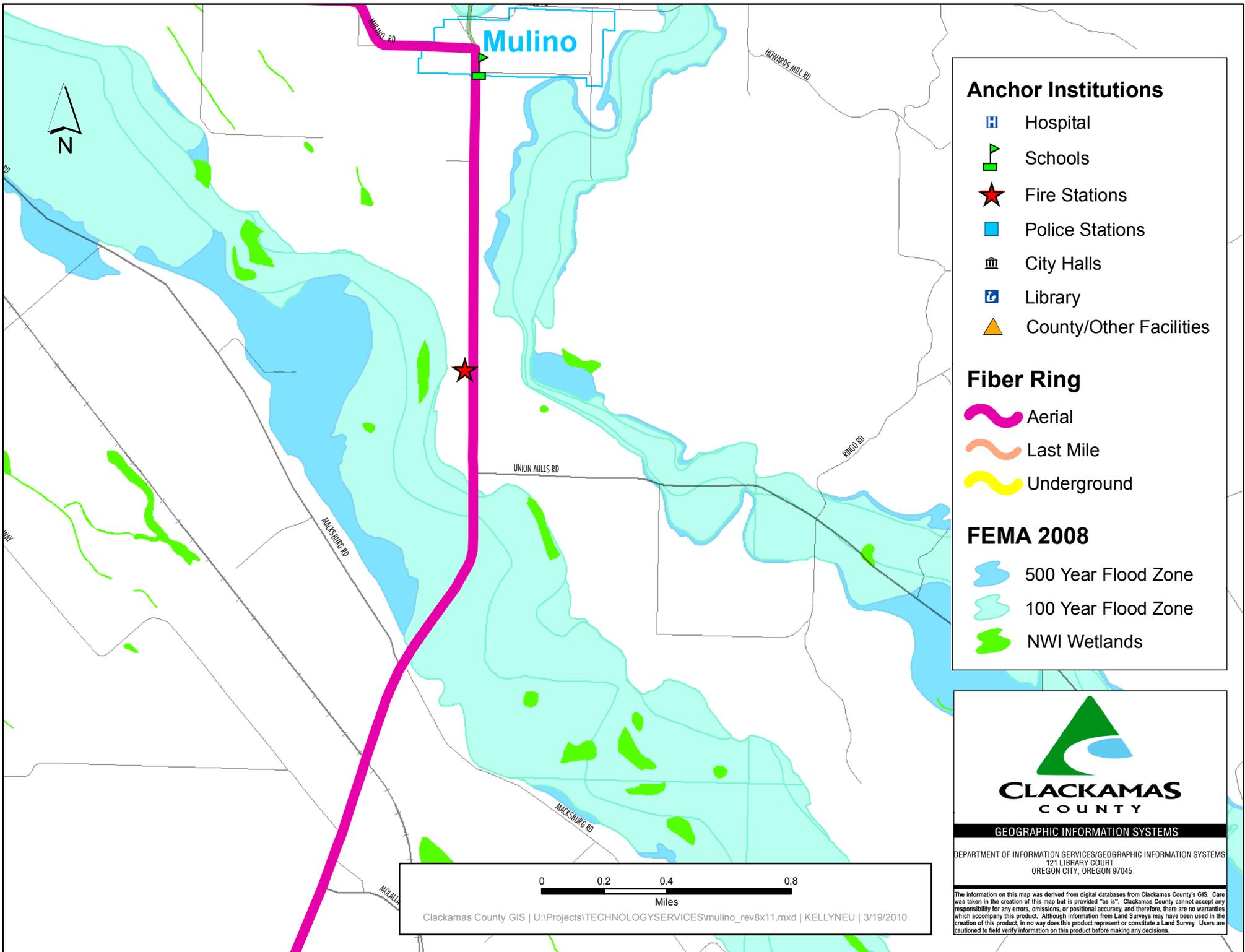
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0 0.2 0.4 0.8
Miles

Clackamas County GIS | U:\Projects\TECHNOLOGYSERVICES\molalla_rev8x11.mxd | KELLYNEU | 3/19/2010



Anchor Institutions

-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

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-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



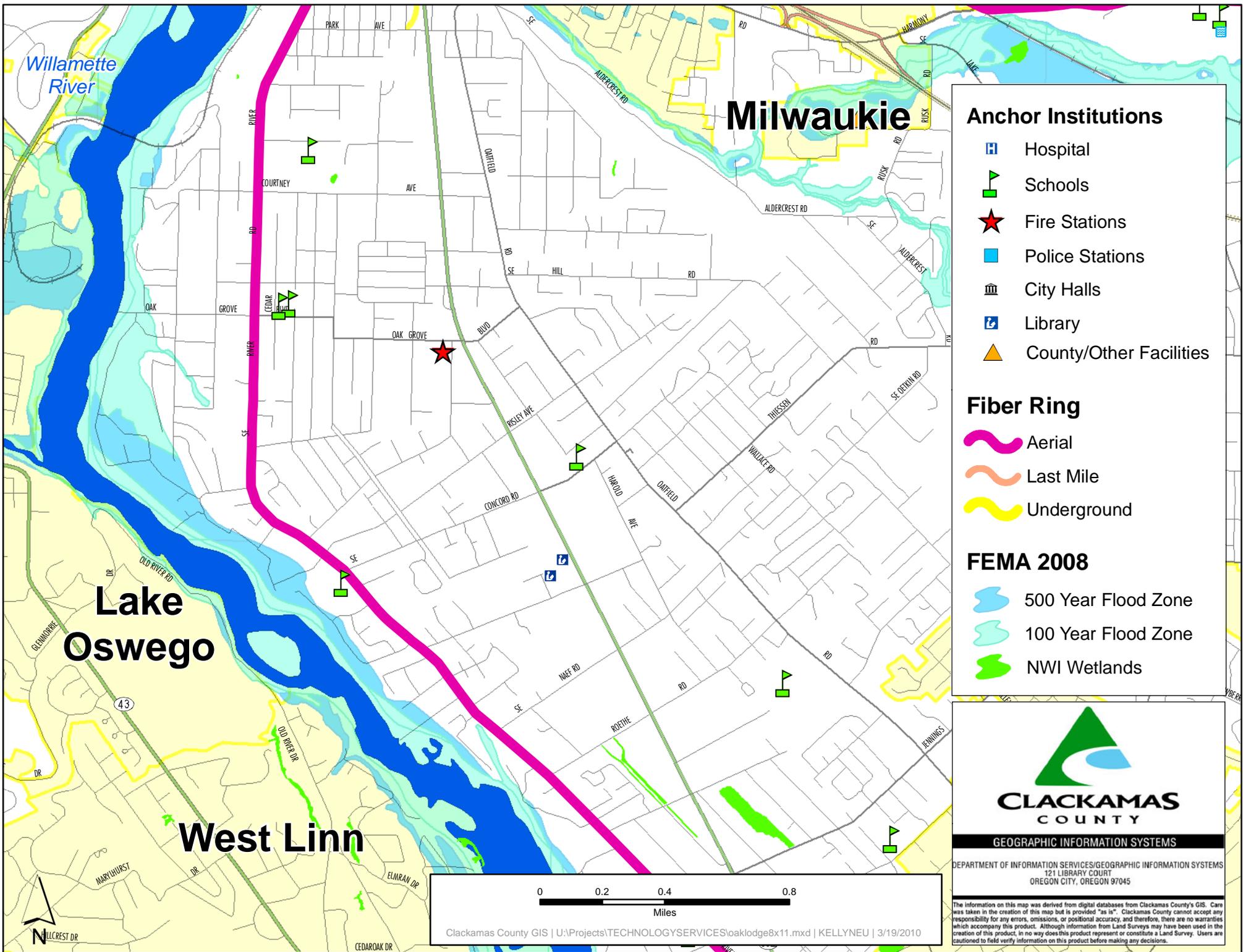
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0 0.2 0.4 0.8
Miles

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- Anchor Institutions**
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 -  Fire Stations
 -  Police Stations
 -  City Halls
 -  Library
 -  County/Other Facilities
- Fiber Ring**
-  Aerial
 -  Last Mile
 -  Underground
- FEMA 2008**
-  500 Year Flood Zone
 -  100 Year Flood Zone
 -  NWI Wetlands



CLACKAMAS COUNTY

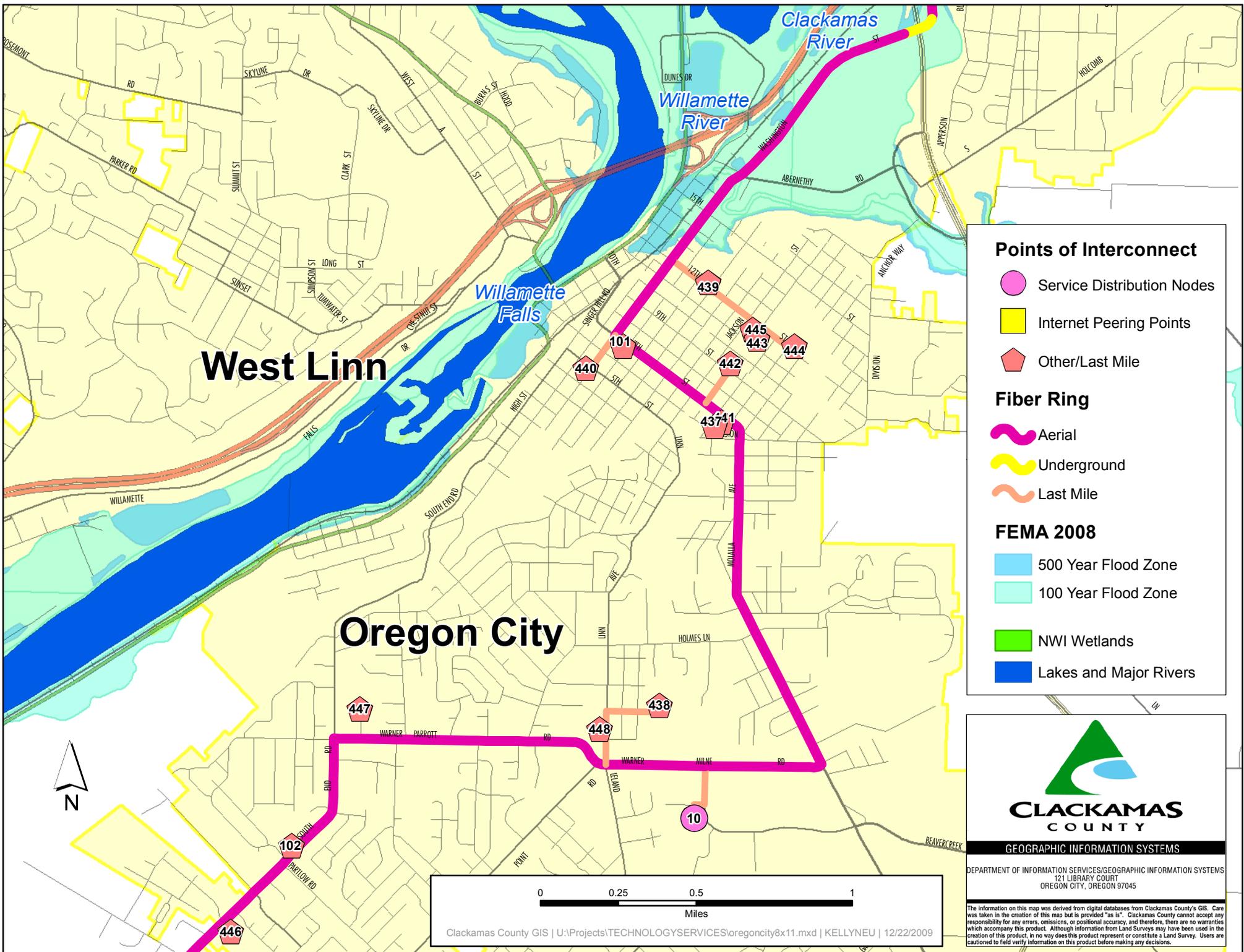
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Miles

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Points of Interconnect

- Service Distribution Nodes
- Internet Peering Points
- Other/Last Mile

Fiber Ring

- Aerial
- Underground
- Last Mile

FEMA 2008

- 500 Year Flood Zone
- 100 Year Flood Zone
- NWI Wetlands
- Lakes and Major Rivers



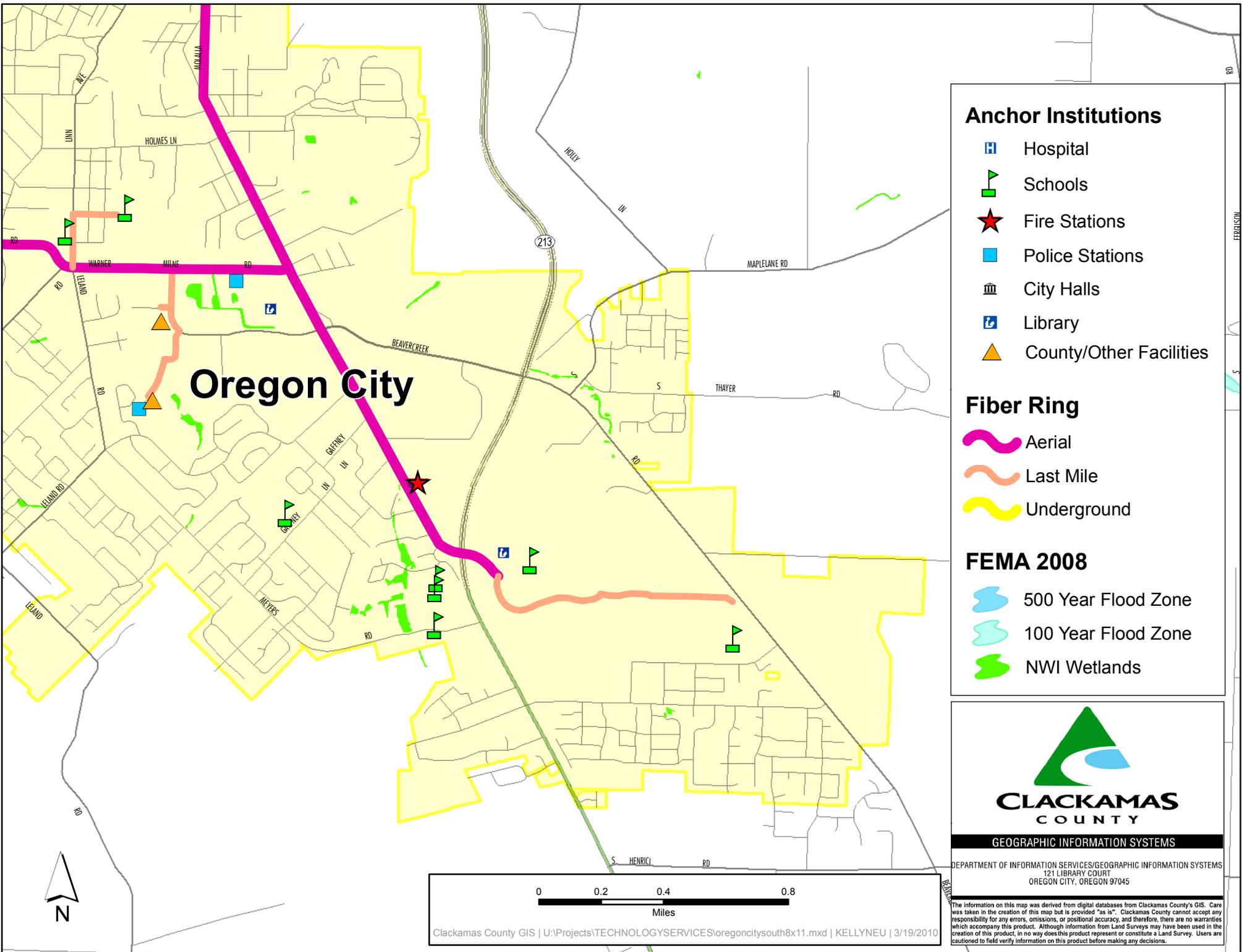
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OREGON CITY, OREGON 97045

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Miles

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FEMA 2008

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CLACKAMAS COUNTY

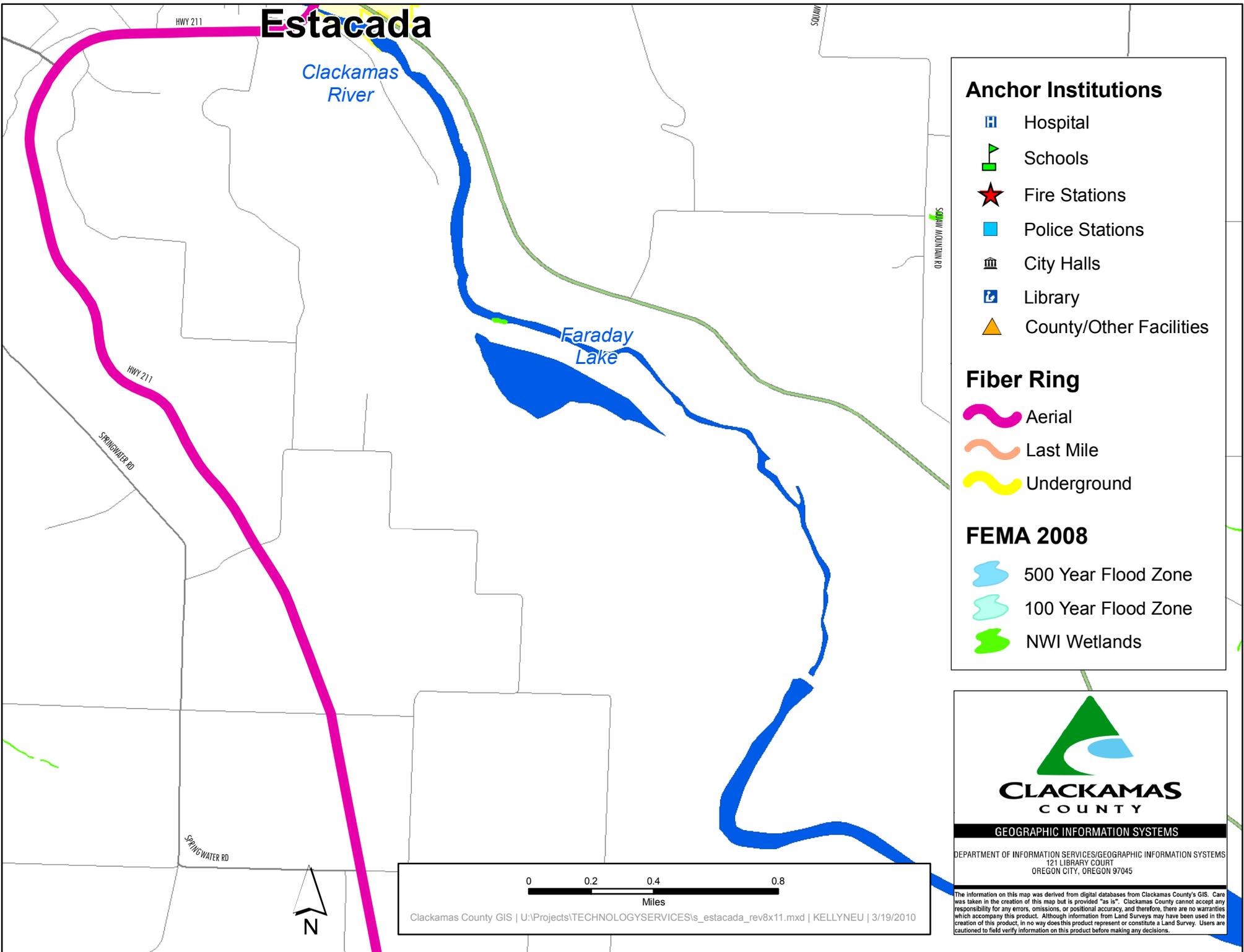
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0 0.2 0.4 0.8
Miles

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Estacada

Clackamas River

Faraday Lake

HWY 211

HWY 211

SPRINGWATER RD

SPRINGWATER RD

Anchor Institutions

-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

-  Aerial
-  Last Mile
-  Underground

FEMA 2008

-  500 Year Flood Zone
-  100 Year Flood Zone
-  NWI Wetlands



CLACKAMAS COUNTY

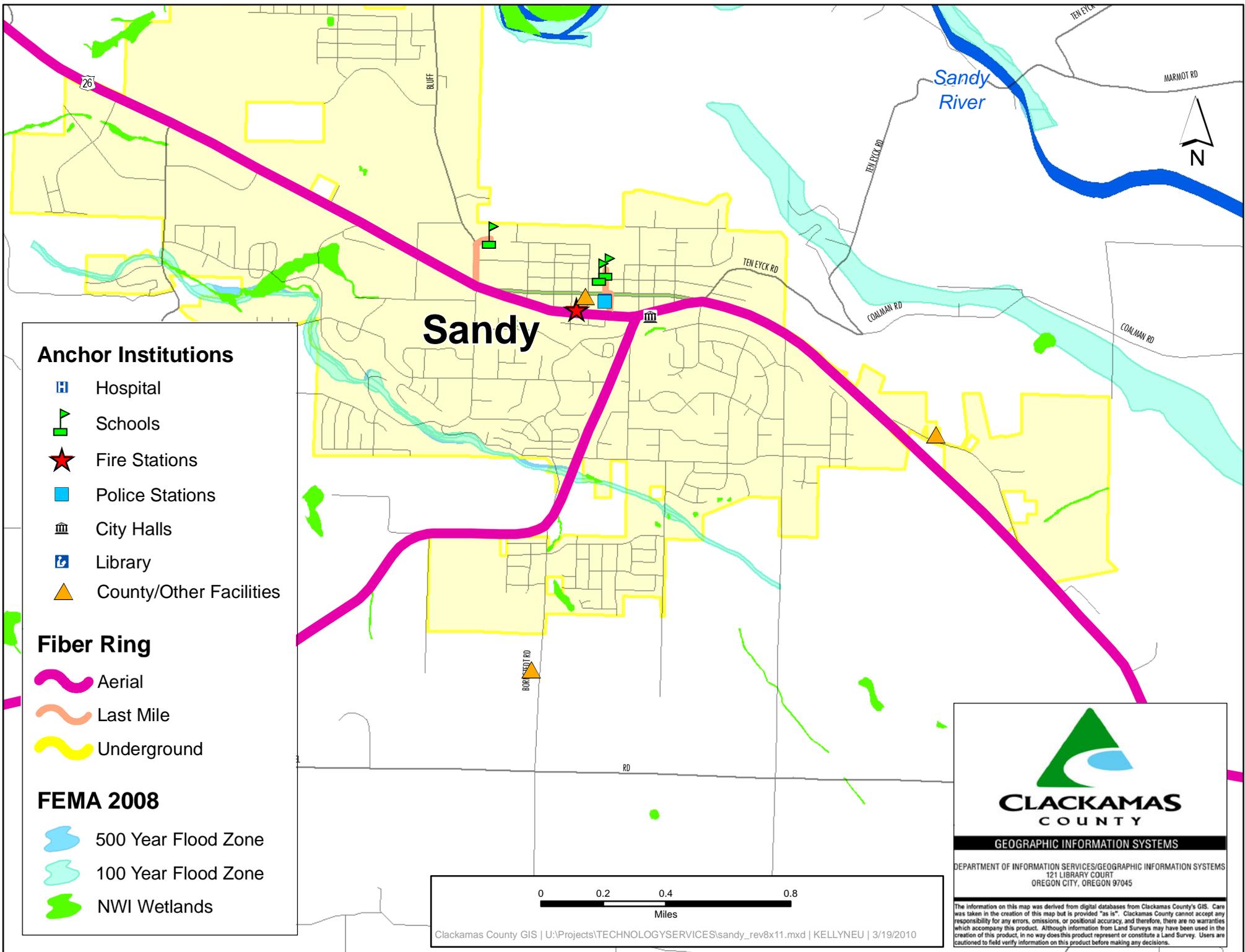
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DEPARTMENT OF INFORMATION SERVICES/GEOGRAPHIC INFORMATION SYSTEMS
121 LIBRARY COURT
OREGON CITY, OREGON 97045

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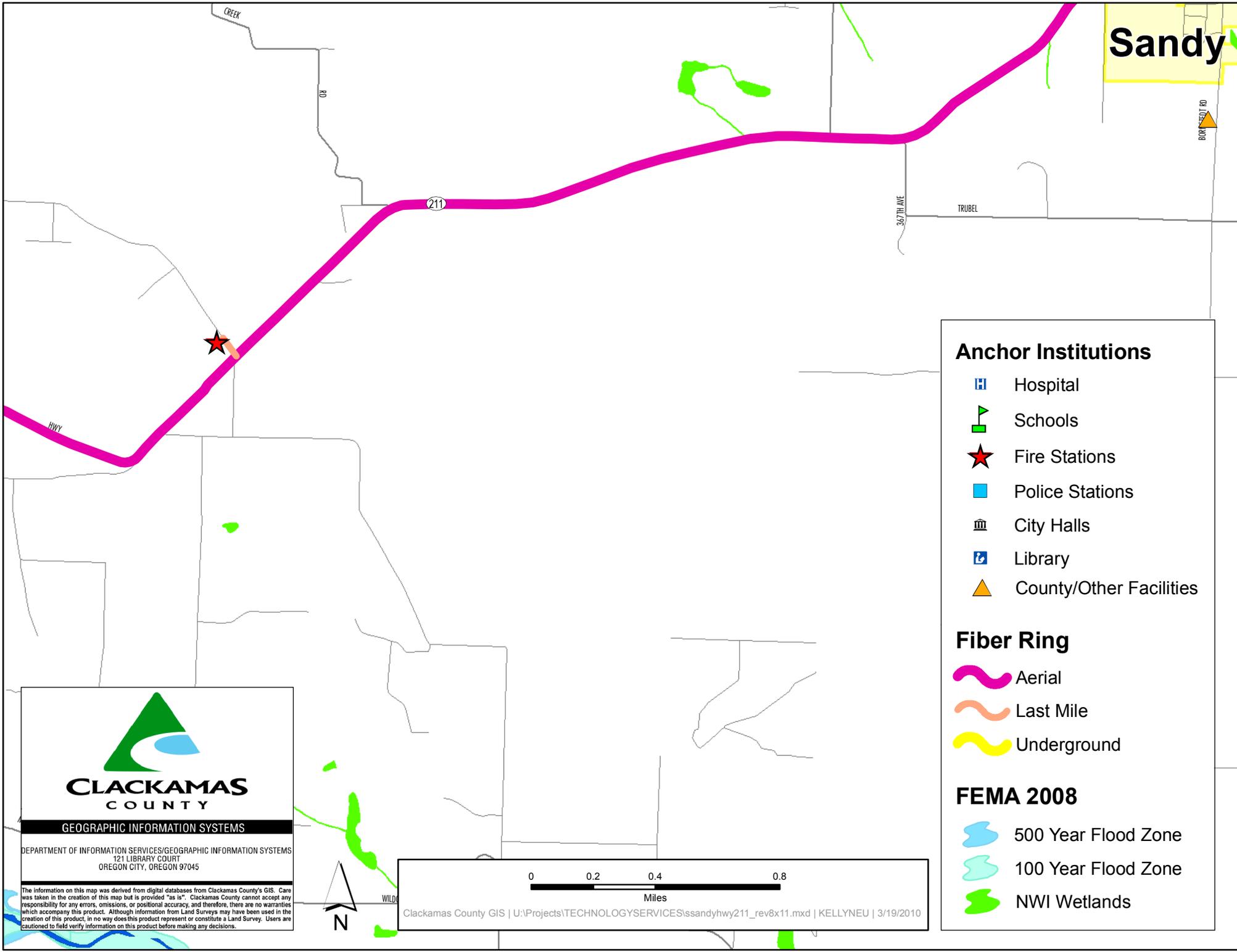

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Sandy



Anchor Institutions

-  Hospital
-  Schools
-  Fire Stations
-  Police Stations
-  City Halls
-  Library
-  County/Other Facilities

Fiber Ring

-  Aerial
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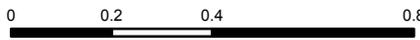


CLACKAMAS COUNTY

GEOGRAPHIC INFORMATION SYSTEMS

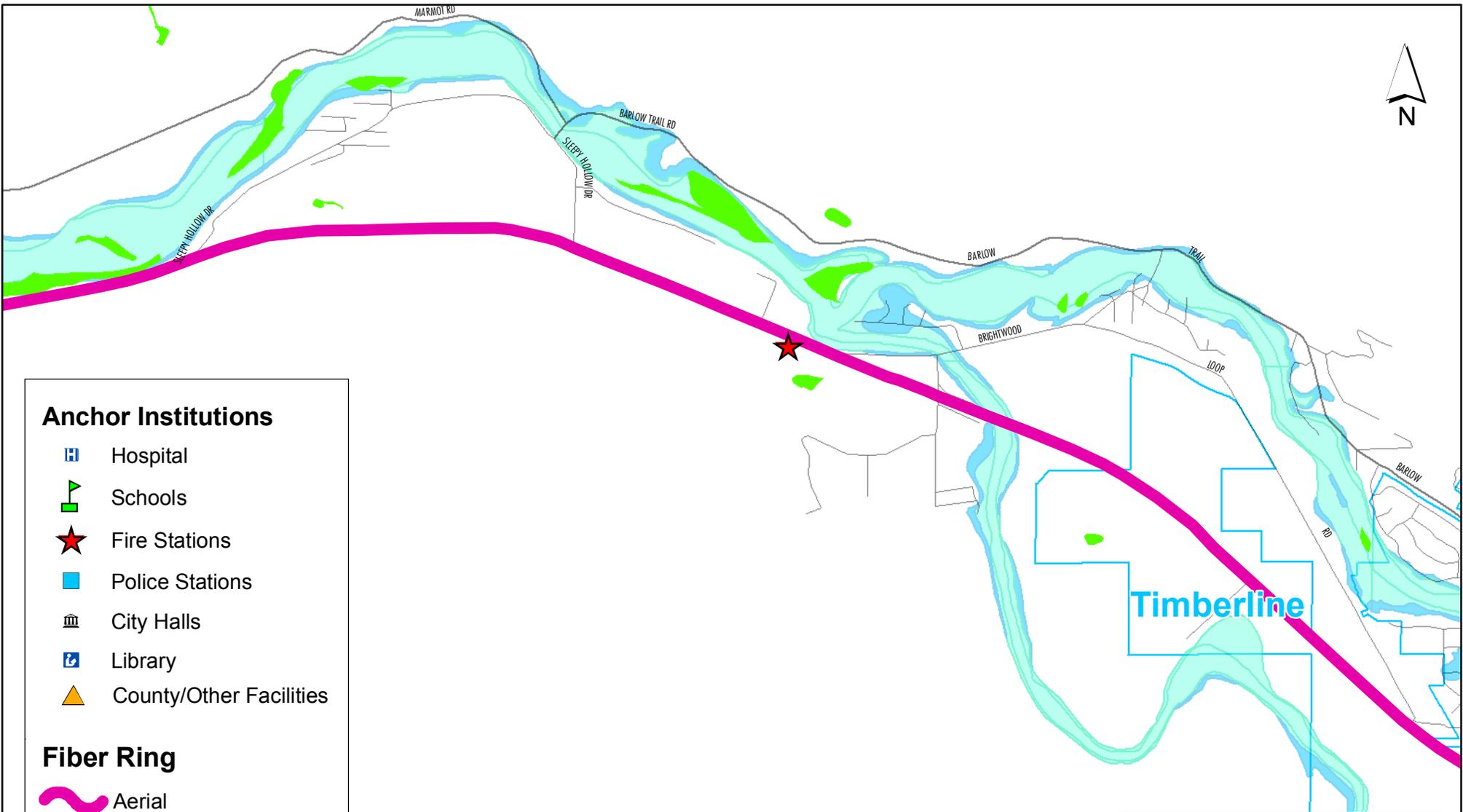
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Anchor Institutions

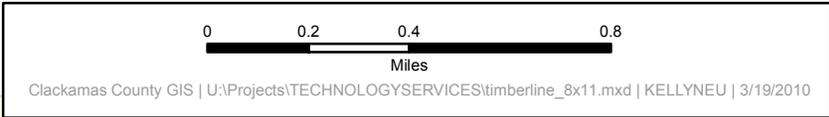
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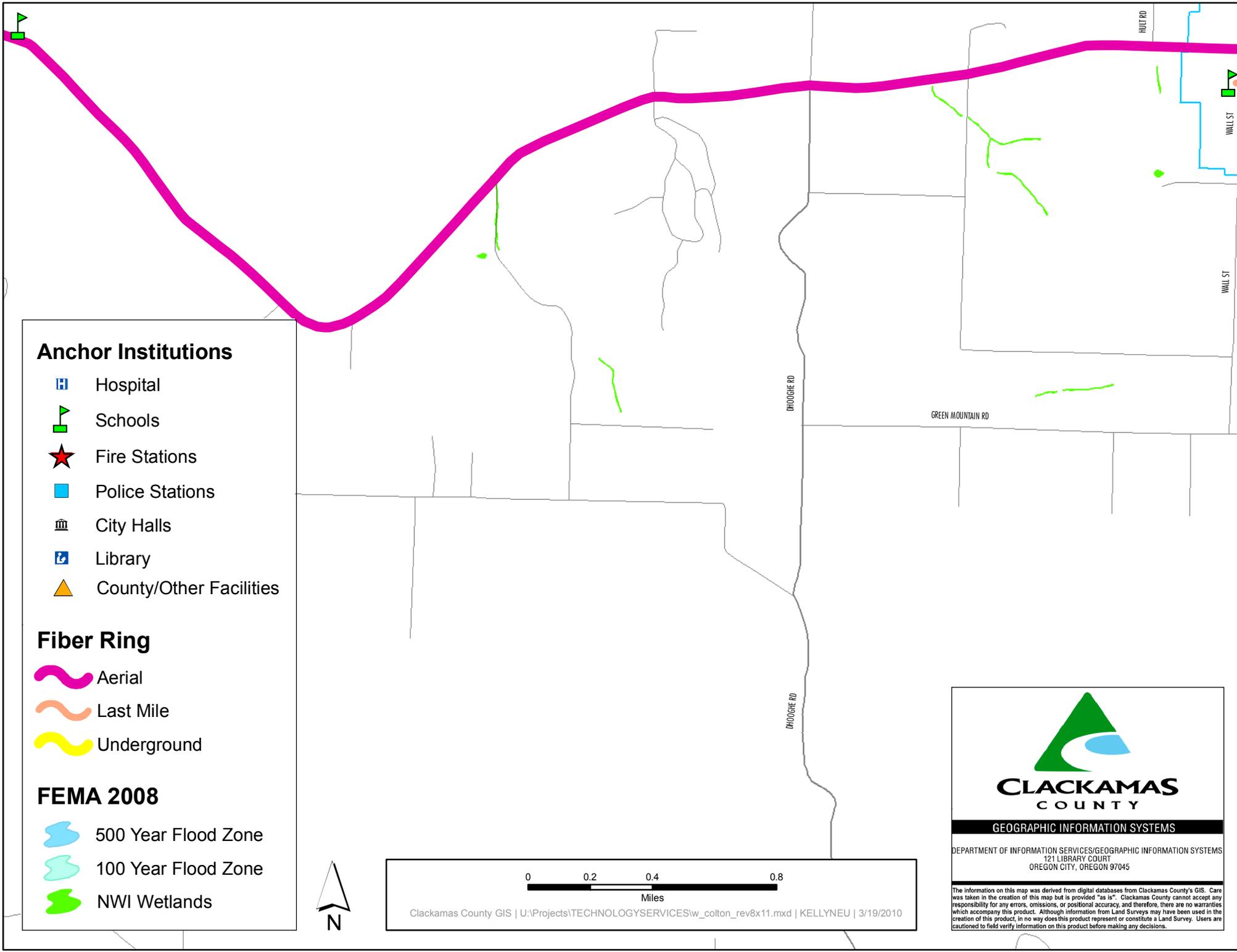



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Anchor Institutions

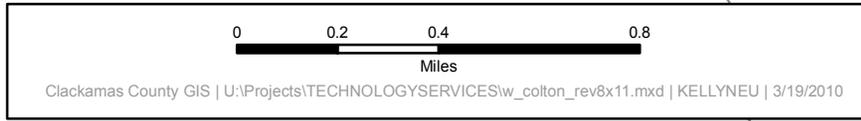
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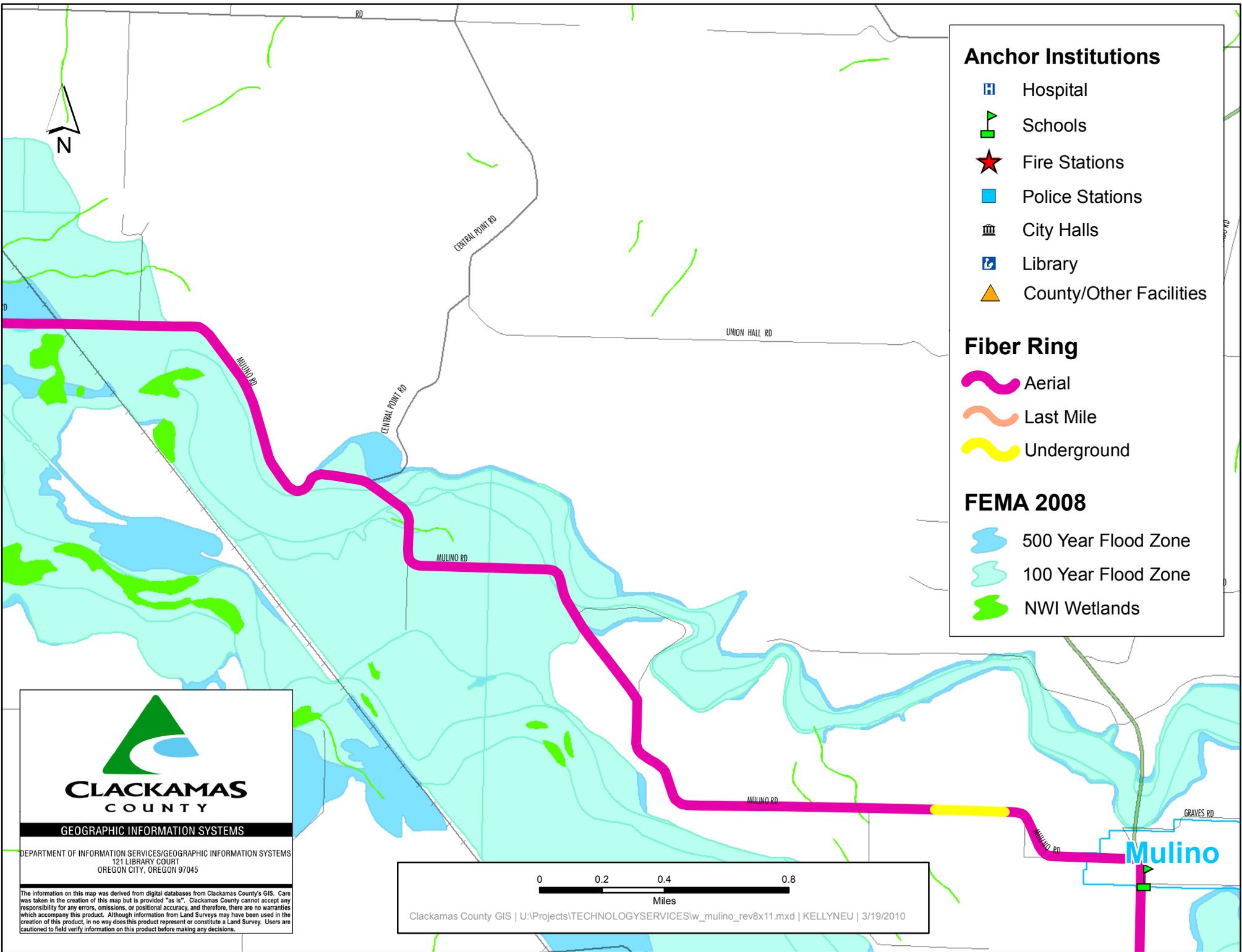



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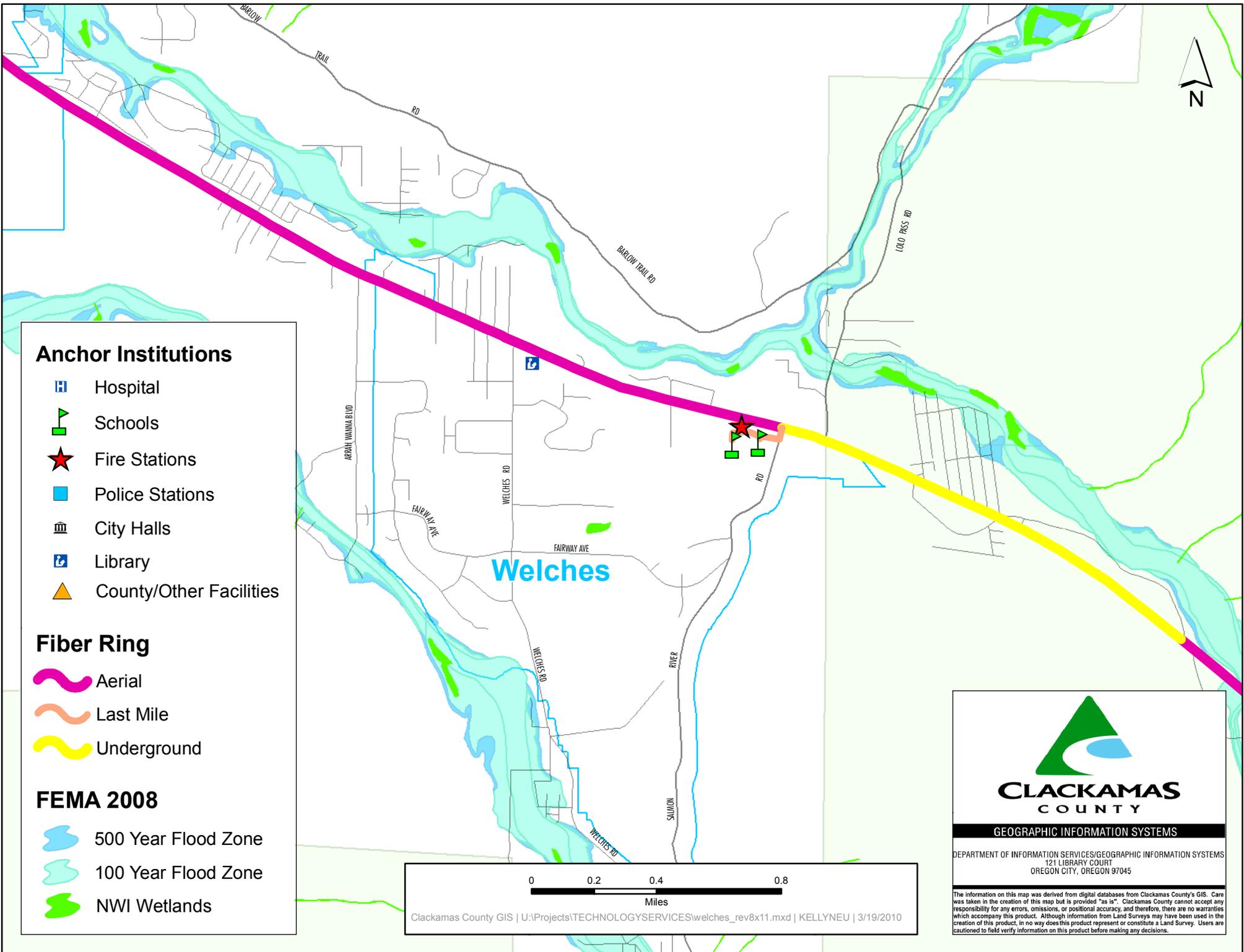
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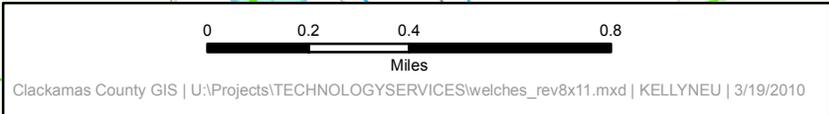
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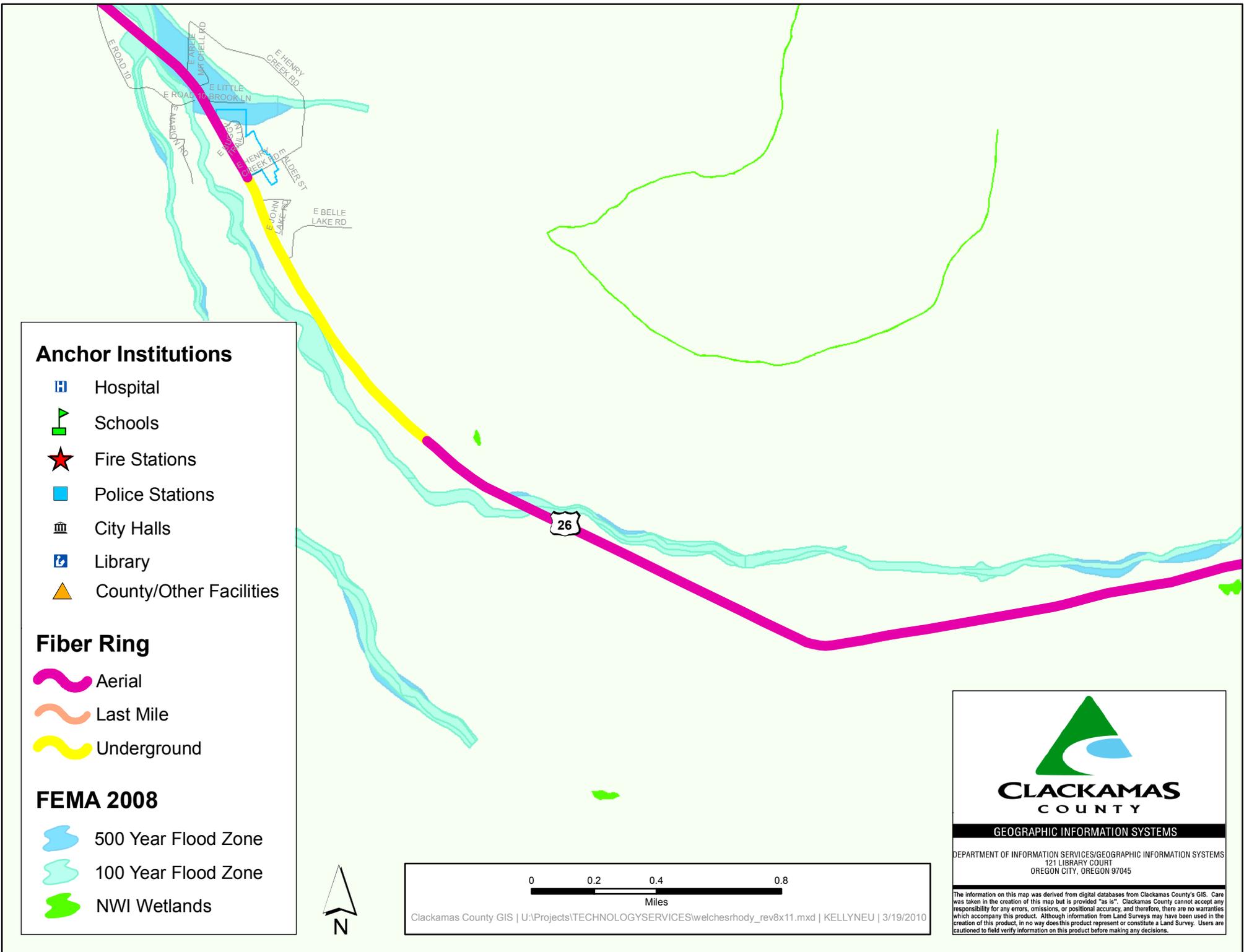



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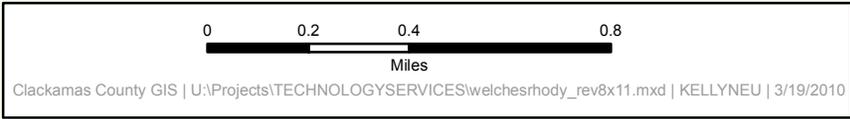
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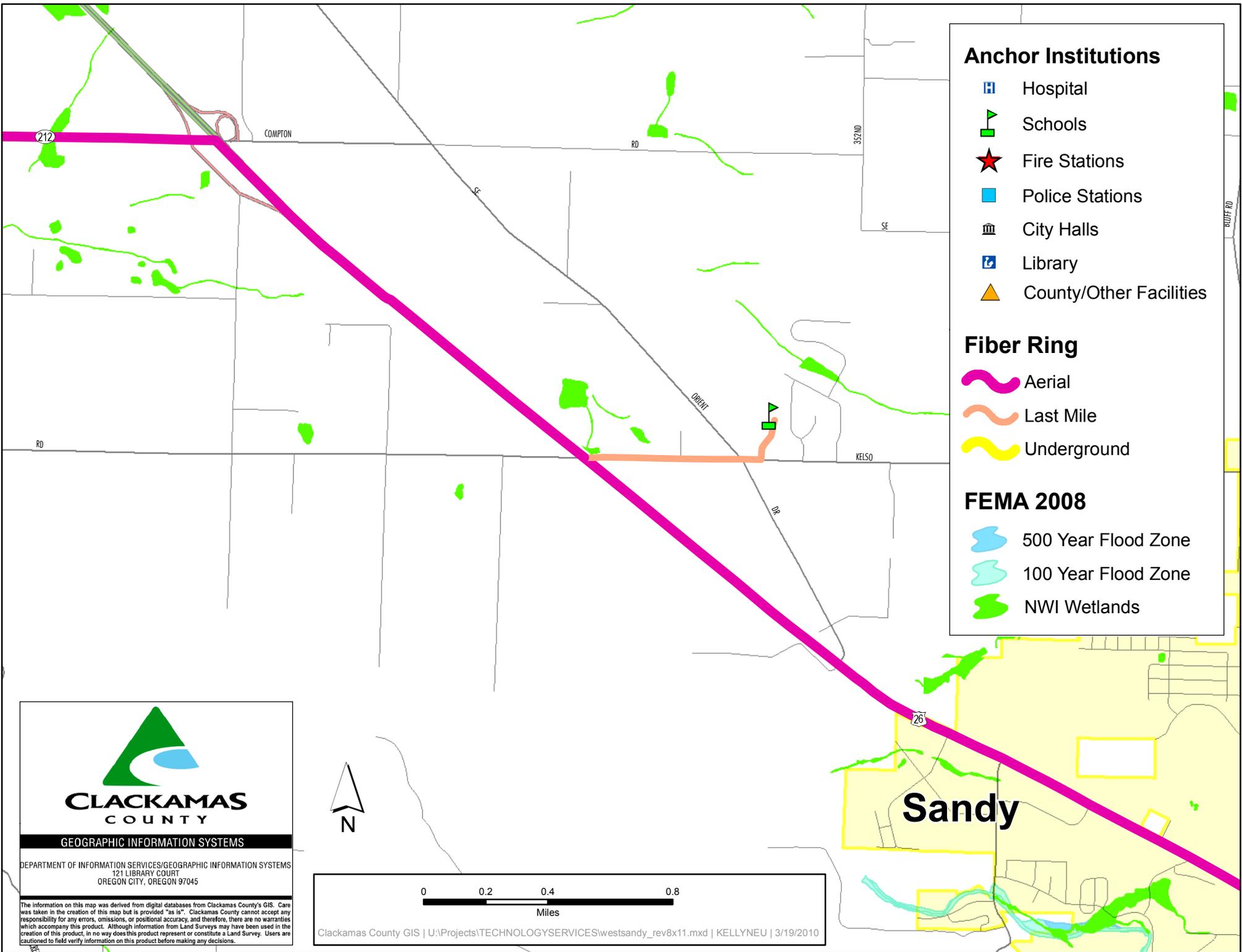



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CLACKAMAS COUNTY

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Molalla Police Department

P.O. Box 248 117 N. Molalla Avenue
Molalla, Oregon 97038

Dear Mr. Wilhelm,

May 11, 2010

The Molalla Police Department is thrilled at the possibility of our city benefiting from Clackamas County's request for funding under the Broadband Technology Opportunities Program (BTOP). Extending a public fiber broadband ring that would link the urban areas to the rural areas in our county would greatly enhance Police in emergency response time.

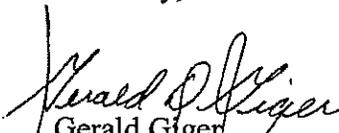
This link would improve our communications between different locations for emergency operations. It would assist our officers in obtaining information quickly and would allow them access to the internet in searching for stolen items listed for sale.

It would allow camera systems to be set up in highly traveled corridors, now lacking adequate monitoring, thus requiring officers to patrol these areas. This is currently taking them from the populated areas of Molalla.

There are many benefits for Clackamas County to receive this funding under the BTOP which have been made achievable by the American Recovery and Reinvestment Act (ARRA). Not only would the Police & Fire Departments greatly benefit from this link but it would also be very useful for the communities and education facilities throughout Clackamas County.

Thank you for giving Clackamas County the opportunity and consideration for these funds.

Sincerely,


Gerald Giger
Chief of Police

Clackamas County Sheriff's Office

"Working together to make a difference"



CRAIG ROBERTS, Sheriff
DAVID KIRBY, Undersheriff

May 13, 2010

Anthony Wilhelm
Deputy Associate Administrator
Infrastructure Division, Office of Telecommunications and Information Applications
US Dept of Commerce
Washington DC

**RE: Letter of Support for Clackamas County Broadband Technology
Opportunities Program Grant Application**

Dear Mr. Wilhelm:

I am writing in support of Clackamas County's grant application to the Department of Commerce to support the Clackamas Broadband Innovation Initiative (CBII.)

I am particularly excited about this application because of the opportunity to provide better services to our citizens living in the rural areas of Clackamas County. Once designed and built, this system will greatly improve high speed connections. It will link together 158 community anchor institutions including law enforcement agencies, fire districts, schools, hospitals and other governmental institutions. This will help emergency operations communications and assist first responders in doing their jobs.

Because of our focus on the unincorporated areas of Clackamas County, my office is interested in any plan or project that will help the rural areas of our county. I urge you to fund this proposal. I have full confidence in the Clackamas County Technical Services Department and their ability to finish this exceptional project.

We are only as good as our communication systems. Providing a connected public fiber broadband ring linking the areas of our community and the different organizations can do nothing but help us in providing law enforcement services to our citizens.

Thank you for considering this funding request.

Sincerely,


Craig Roberts, Sheriff

United States Senate

WASHINGTON, DC 20510

Anthony Wilhelm
Deputy Associate Administrator
Infrastructure Division, Office of Telecommunications and Information Applications
National Telecommunications and Information Administration
United States Department of Commerce
1401 NW Constitution Ave.
Washington, DC 20230

May 18, 2010

Dear Mr. Wilhelm,

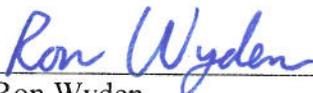
We are writing to express our support for the \$11 million grant request submitted by Clackamas County for funding under the Broadband Technology Opportunities Program (BTOP) made possible by the American Recovery and Reinvestment Act (ARRA). Clackamas County's proposal to extend a public fiber broadband ring linking the urban and rural areas of the county, as well as providing access to public safety, educational, transportation and health care providers throughout the county is the type of project that would meet the goals of BTOP.

The BTOP is a critical funding source for seriously needed information technology infrastructure and would provide an opportunity for Clackamas County to further establish partnerships with private sector providers that can have a positive overall economic impact in the region. Clackamas County's substantial rural community is depending on improvements to the existing technology infrastructure in the area to help them compete in a global economy.

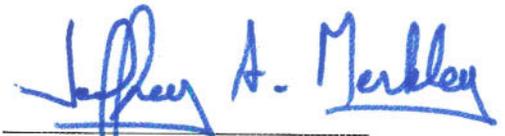
Clackamas County's proposal would link a wide range of educational institutions, police and fire responders and traffic safety facilities through this robust broadband fiber ring, thereby allowing them to improve public safety and information to assist citizens. We believe Clackamas County's application for BTOP funding would meet these goals and benefit the local community.

Thank you for your full and fair review of Clackamas County's grant application. If you have any questions, please contact Mary Gautreaux, Field Representative in Senator Wyden's office at 503-326-7525, or John Valley, Field Representative in Senator Merkley's office at 503-326-3395.

With Kind Regards,



Ron Wyden
United States Senator



Jeff Merkley
United States Senator



BILL KENNEMER
STATE REPRESENTATIVE
DISTRICT 39

May 13, 2010

Anthony Wilhelm
Deputy Associate Administrator
Infrastructure Division, Office of Telecommunications and Information Applications
National Telecommunications and Information Administration - USDC
Washington, DC
btop@ntia.doc.gov

Re: Support for BTOP funding award for Clackamas County, Oregon

Dear Mr. Wilhelm,

Thank you for the opportunity to convey my strong support for Clackamas County, Oregon's request for funding under the Broadband Technology Opportunities Program (BTOP) made possible by the American Recovery and Reinvestment Act (ARRA). The proposal to extend a public fiber broadband ring linking the urban and rural areas of our county, as well as providing access to public safety, educational, transportation and health care providers throughout the county appears to be just the type of project BTOP is looking for.

As a former Clackamas County Commissioner and State Senator and now representing Clackamas County as a State Representative, our state is doing our best to help provide services, and especially infrastructure investments, to our constituents in this difficult economic climate. This is where BTOP could provide a critical funding source for seriously needed technology infrastructure in our community as well as provide an extraordinary opportunity for local, state, and federal government to establish partnerships with the private sector that can benefit all involved while also having a positive overall economic impact during these tough times.

Since Clackamas County can no longer depend upon natural resources to provide jobs and necessary services, we must look for a more diversified economic future. As we transition into a knowledge-based economy, we are seeking investments in renewable energy and green manufacturing. Making these strategic investments and building lasting partnerships will provide the potential for long term job creation and economic development in our community.

I strongly urge you to consider the Clackamas County application for a BTOP award. Technology is our future and the BTOP award will help us achieve the goal of serving our citizens and making our community a better place.

Sincerely,

Bill Kennemer
Oregon State Representative



Gary Barth
Director

BUSINESS AND ECONOMIC DEVELOPMENT

150 BEAVERCREEK ROAD, OREGON CITY, OREGON 97045

May 19, 2010

David Cummings, Chief Information Officer
Clackamas County Technology Services
121 Library Court
Oregon City, OR 97045

Dear David;

The Business and Economic Development Division looks forward to partnering in your effort to develop the fiber ring network in Clackamas County. Our team can bring a number of resources to the project to aid in its success for our communities and businesses. Our team has business recruitment and retention expertise, community connections, and a commitment to support our cities in their economic development efforts. For more details on our Clackamas County Economic Development Plan see:

<http://www.clackamas.us/docs/business/planreview.pdf>

Specific assets that the Business and Economic Development Division can bring to the project include:

- Technical expertise and insights on routing options that maximize the potential usage by private sector entities.
- Connections and contacts with the business community and the ability to broadcast information about the project to potential business customers and encourage them to connect.
- Contacts with local community leaders including city management and economic development practitioners that can help promote the project and economic development opportunities it presents in their respective city jurisdictions.
- Ability to promote the availability of robust broadband capacity in our business recruitment and marketing efforts.
- Management of business incentive programs such as the Enterprise Zone and the pending Strategic Investment Zone and Rural Renewable Energy Development Zone programs that provide property tax abatement to companies locating or expanding in the County.

We support this project because access to affordable broadband is increasingly important to the success of our existing businesses, their expansion efforts and in attracting new businesses to the county. Thank you for your initiative in developing this strong and much needed project. I am happy to provide additional information to granting agencies on request. Please call me at 503-742-4327 if you have questions or concerns.

Sincerely;

A handwritten signature in cursive script that reads "Renate Mengelberg".

Renate Mengelberg, Economic Development Manager

Congress of the United States
Washington, DC 20515

May 12, 2010

Associate Administrator Anthony Wilhelm
Office of Telecommunications and Information Applications
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Ave., N.W.
Washington, DC 20230

Dear Mr. Wilhelm,

We are writing to express our support for the application submitted by Clackamas County for funding under the Broadband Technology Opportunities Program (BTOP) which was made possible by the American Recovery and Reinvestment Act (ARRA). Clackamas County's proposal to extend a public fiber broadband ring linking the urban and rural areas of our county, as well as providing access to public safety, educational, transportation and health care providers throughout the county is the type of project we believe meets the stated goals of Program.

The BTOP is a critical funding source for much needed technology infrastructure in the community and provides a rare opportunity for local, state, and federal government to establish partnerships with private sector providers that can benefit all involved while also having a positive overall economic impact. Clackamas County's largely rural community is depending on technology infrastructure to help them compete in a global economy.

Additionally, we know that our public services can benefit significantly from these strategic technology infrastructure investments. Clackamas County's proposal links a wide range of educational institutions, police and fire responders and traffic safety facilities through this robust broadband fiber ring and will allow us to improve public safety and information to assist citizens.

The opportunities provided by the BTOP are rare and should be optimally leveraged for public benefit and long-term sustainability. We believe Clackamas County's application for BTOP funding will meet these goals and benefit our local community. We hope you will see fit to award these funds to Clackamas County so we can continue building our technology future. Thank you for your consideration.

Sincerely,



KURT SCHRADER
Member of Congress



EARL BLUMENAUER
Member of Congress



THEODORE R. KULONGOSKI
Governor

May 25, 2010

The Honorable Lawrence E. Strickling
Assistant Secretary for Communications and Information
U.S. Department of Commerce NTIA
1401 Constitution Ave., NW
Washington, DC 20230

Dear Mr. Strickling:

In my letter to you of April 29, 2010, I recommended six projects I felt represented strong investments in Oregon for Broadband Technology Opportunities Program round two funding. As I am sure you can imagine, choosing only six projects from such a competitive field was not easy. Many of the other projects submitted for my review contained merit that warranted recommendation.

I wrote then, "Other projects that focus on Oregon and meet our state's unique needs due to terrain, diversity of land use, and the demographics of its population also should be given strong consideration." To that end, I would like to specifically draw attention to one additional project that I would recommend you give strong consideration to funding:

BTOP NTIA Grant App# 5884: Clackamas County Broadband Innovation Initiative

This particular project not only meets the goals of BTOP but the State of Oregon as well.

Thank you for the opportunity to provide input into the NTIA application review process and I look forward to continuing our collaborative work to address broadband needs in Oregon.

Sincerely,

A handwritten signature in black ink, appearing to read "Theodore R. Kulongoski".

THEODORE R. KULONGOSKI
Governor

TRK:mk:gr

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 612,580 .00	\$.00	\$ 612,580 .00
2. Land, structures, rights-of-way, appraisals, etc.	\$.00	\$.00	\$ 0 .00
3. Relocation expenses and payments	\$.00	\$.00	\$ 0 .00
4. Architectural and engineering fees	\$ 1,183,084 .00	\$.00	\$ 1,183,084 .00
5. Other architectural and engineering fees	\$.00	\$.00	\$ 0 .00
6. Project inspection fees	\$.00	\$.00	\$ 0 .00
7. Site work	\$.00	\$.00	\$ 0 .00
8. Demolition and removal	\$.00	\$.00	\$ 0 .00
9. Construction	\$ 7,033,166 .00	\$.00	\$ 7,033,166 .00
10. Equipment	\$ 2,320,000 .00	\$.00	\$ 2,320,000 .00
11. Miscellaneous	\$.00	\$.00	\$ 0 .00
12. SUBTOTAL (sum of lines 1-11)	\$ 11,148,830 .00	\$ 0.00	\$ 11,148,830 .00
13. Contingencies	\$.00	\$.00	\$ 0 .00
14. SUBTOTAL	\$ 11,148,830 .00	\$ 0.00	\$ 11,148,830 .00
15. Project (program) income	\$.00	\$.00	\$ 0 .00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 11,148,830 .00	\$ 0.00	\$ 11,148,830 .00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X <u>70.00</u> %		\$ 7,804,181.00

INSTRUCTIONS FOR THE SF-424C

Public reporting burden for this collection of information is estimated to average 180 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0041), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET.
SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

This sheet is to be used for the following types of applications: (1) "New" (means a new [previously unfunded] assistance award); (2) "Continuation" (means funding in a succeeding budget period which stemmed from a prior agreement to fund); and (3) "Revised" (means any changes in the Federal Government's financial obligations or contingent liability from an existing obligation). If there is no change in the award amount, there is no need to complete this form. Certain Federal agencies may require only an explanatory letter to effect minor (no cost) changes. If you have questions, please contact the Federal agency.

Column a. - If this is an application for a "New" project, enter the total estimated cost of each of the items listed on lines 1 through 16 (as applicable) under "COST CLASSIFICATION."

If this application entails a change to an existing award, enter the eligible amounts *approved under the previous award* for the items under "COST CLASSIFICATION."

Column b. - If this is an application for a "New" project, enter that portion of the cost of each item in Column a. which is *not* allowable for Federal assistance. Contact the Federal agency for assistance in determining the allowability of specific costs.

If this application entails a change to an existing award, enter the adjustment [+ or (-)] to the previously approved costs (from column a.) reflected in this application.

Column. - This is the net of lines 1 through 16 in columns "a." and "b."

Line 1 - Enter estimated amounts needed to cover administrative expenses. Do not include costs which are related to the normal functions of government. Allowable legal costs are generally only those associated with the purchases of land which is allowable for Federal participation and certain services in support of construction of the project.

Line 2 - Enter estimated site and right(s)-of-way acquisition costs (this includes purchase, lease, and/or easements).

Line 3 - Enter estimated costs related to relocation advisory assistance, replacement housing, relocation payments to displaced persons and businesses, etc.

Line 4 - Enter estimated basic engineering fees related to construction (this includes start-up services and preparation of project performance work plan).

Line 5 - Enter estimated engineering costs, such as surveys, tests, soil borings, etc.

Line 6 - Enter estimated engineering inspection costs.

Line 7 - Enter estimated costs of site preparation and restoration which are not included in the basic construction contract.

Line 9 - Enter estimated cost of the construction contract.

Line 10 - Enter estimated cost of office, shop, laboratory, safety equipment, etc. to be used at the facility, if such costs are not included in the construction contract.

Line 11 - Enter estimated miscellaneous costs.

Line 12 - Total of items 1 through 11.

Line 13 - Enter estimated contingency costs. (Consult the Federal agency for the percentage of the estimated construction cost to use.)

Line 14 - Enter the total of lines 12 and 13.

Line 15 - Enter estimated program income to be earned during the grant period, e.g., salvaged materials, etc.

Line 16 - Subtract line 15 from line 14.

Line 17 - This block is for the computation of the Federal share. Multiply the total allowable project costs from line 16, column "c." by the Federal percentage share (this may be up to 100 percent; consult Federal agency for Federal percentage share) and enter the product on line 17.

ASSURANCES - CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL <i>Phyllis West</i>	TITLE PHYLLIS WEST
APPLICANT ORGANIZATION CLACKAMAS COUNTY	DATE SUBMITTED 5-26-10

BTOP Comprehensive Community Infrastructure Pro Forma Financial Projections

Please complete the Income Statement, Balance Sheet, Cash Flows, and NPV-IRR Table worksheets. Key assumptions used to formulate these financial projections should be listed in the Key Assumptions worksheet. Please note that these are **project-specific** projections, in contrast to the historical financial information which is provided at the organizational level.

Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants may make adjustments to the format of the templates as necessary to provide the most effective presentation of the data for their specific project, but should not remove major headings (*e.g.* Revenues and Expenses on the Income Statement) or provide less detailed information than would be required to complete the provided templates.

Income Statement

	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Revenues								
Broadband Offerings								
Wholesale Data (a)	\$ 109,500	\$ 368,250	\$ 494,250	\$ 524,250	\$ 554,250	\$ 584,250	\$ 614,250	\$ 644,250
Retail Data	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Dark Fiber (b)	\$ -	\$ -	\$ 25,000	\$ 37,500	\$ 62,500	\$ 75,000	\$ 87,500	\$ 100,000
Collocation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other (list specific services)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Network Driven Revenues								
Video Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Voice Services (local/toll/long distance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other (list specific services)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Universal Service Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Installation Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grant Revenues	\$ 2,601,393	\$ 2,601,394	\$ 2,601,394	\$ -	\$ -	\$ -	\$ -	\$ -
Other Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues	\$ 2,710,893	\$ 2,969,644	\$ 3,120,644	\$ 561,750	\$ 616,750	\$ 659,250	\$ 701,750	\$ 744,250
Expenses								
Backhaul	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Network Maintenance/Monitoring ©	\$ 42,000	\$ 73,500	\$ 79,000	\$ 82,750	\$ 90,250	\$ 90,250	\$ 90,250	\$ 90,250
Utilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sales/Marketing (d)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Customer Care (d)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Billing (d)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate G&A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 42,000	\$ 73,500	\$ 79,000	\$ 82,750	\$ 90,250	\$ 90,250	\$ 90,250	\$ 90,250
EBITDA	\$ 2,668,893	\$ 2,896,144	\$ 3,041,644	\$ 479,000	\$ 526,500	\$ 569,000	\$ 611,500	\$ 654,000
Depreciation (e)	\$ 162,543	\$ 325,247	\$ 487,628	\$ 487,628	\$ 487,628	\$ 487,628	\$ 487,628	\$ 487,628
Amortization								
Earnings Before Interest and Taxes	\$ 2,506,350	\$ 2,570,897	\$ 2,554,016	\$ (8,628)	\$ 38,872	\$ 81,372	\$ 123,872	\$ 166,372
Interest Expense (f)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Before Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Property Tax (g)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Taxes (g)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income	\$ 2,506,350	\$ 2,570,897	\$ 2,554,016	\$ (8,628)	\$ 38,872	\$ 81,372	\$ 123,872	\$ 166,372

Income Statement Notes:

(a) **Wholesale Data Revenues** – Wholesale Data Revenues in Year 1 represent seventy-four (74) community anchor institutions connected throughout the year at an access rate of \$250.00 per month (No anchors were connected in the first quarter of Year 1. In the 2nd quarter of Year 1, 22 anchors were connected at \$250.00 per month for 9 months. In the 3rd quarter of Year 1, 28 additional anchors were connected at \$250.00 per month for 6 months; and in the last quarter of Year 1, 24 additional anchors were connected at \$250.00 per month for 3 months, for a total access revenue for Year 1 of \$109,500.00).

In Year 2, an additional 85 anchor institutions are added for a total access revenue of \$368,250.00 (In the first quarter of Year 2, 17 anchors were connected at \$250.00 per month for 12 months. In the 2nd quarter of Year 2, 17 additional anchors were connected at \$250.00 per month for 9 months. In the 3rd quarter of Year 2, 25 additional anchors were connected at \$250.00 per month for 6 months; and in the last quarter of Year 2, 26 additional anchors were connected at \$250.00 per month for 3 months, for a total access revenue for additional anchors for Year 2 of \$146,250. The revenue from existing anchors (74) at \$250.00 per month for 12 months equates to a total of \$222,000.00 for Year 2).

Year 3 - 8 represents total revenues of the new 159 anchor institutions completed by Year 2 at \$250.00 per month for 12 months. Beginning with Year 3 and running through Year 8, 2 anchors were added during the 1st and 2nd quarter respectively; 3 anchors were added during the 3rd and 4th quarter respectively. The annual revenue was prorated based on the quarter the anchors were brought on line. By the end of Year 8, 219 anchors were connected.

(b) **Dark Fiber Revenue** - In Year 3 two (2) service providers are added to the network (at a cost to each one of them of a one time fee of \$15,000 [with \$500 realized and \$14,500 deferred]) with access services provided at \$1,000 per month for 12 months (\$12,000) each. In Year 4 one (1) more service provider was added (at a cost of a one time fee of \$15,000 [with \$500 realized and \$14,500 deferred]) with access services provided at \$1,000.00 per month for 12 months (\$12,000). In Year 5 we added more 2 service providers (at a cost to each one of them of a one time fee of \$15,000 [with \$500 realized and \$14,500 deferred]) with access services provided at \$1,000 per month for 12 months (\$12,000) each. In Years 6 - 8 we added 1 service provider per year, under the same terms outlined above, for a total of 8 service providers by the end of Year 8. \$500/year per provider is recognized as revenue from the deferred revenue account.

(c) **Grant Revenue Recognition** - Grant revenue is recognized ratably over the expected period of performance. The period of performance is anticipated to be 36 months.

(c) **Network Maintenance/Monitoring** – Network maintenance/monitoring are comprised of oversight of the network, preventative and demand maintenance, relocation of network facilities, etc. and equates to an initial annual expense of \$42,000 in Year 1, escalating higher as more community anchor institutions and service providers are interconnected to the network.

(d) **Sales/Marketing, Customer Care, Billing and other Administrative Expenses** - The County has the capabilities to assume sales/marketing (outreach), customer care, billing and other general and administrative expenses within existing operations (See FY 2009 and FY 2010 budgetary financial statements for documented capabilities), so no additional expense is shown here.

(e) **Depreciation Expense** – Amortization expense for the fiber line is calculated as straight-line amortization over a 30 year projected life (total cost of \$8,828,830). Amortization expense of the in kind contributions is calculated as straight-line amortized over an estimated 12 year projected life (total cost of \$2,320,000).

(f) **Interest expense** – No interest expense is shown, since no debt is being assumed to construct or operate the network.

(g) **Tax Expense** – The County, as a government entity, is tax exempt.

(Due Diligence) The amounts previously shown for Amortization have been re-classified as Depreciation.

Balance Sheet

Assets	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Current Assets								
Cash	\$ 67,500	\$ 362,249	\$ 831,502	\$ 1,324,002	\$ 1,878,002	\$ 2,459,002	\$ 3,082,002	\$ 3,747,002
Marketable Securities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prepayments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Assets	\$ 67,500	\$ 362,249	\$ 831,502	\$ 1,324,002	\$ 1,878,002	\$ 2,459,002	\$ 3,082,002	\$ 3,747,002
Non-Current Assets								
Long-Term Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortizable Asset (Net of Amortization)								
Plant in Service (a)	\$ 3,716,275	\$ 7,432,552	\$ 11,148,829	\$ 11,148,829	\$ 11,148,829	\$ 11,148,829	\$ 11,148,829	\$ 11,148,829
Less: Accumulated Depreciation	\$ (162,543)	\$ (487,789)	\$ (975,418)	\$ (1,463,046)	\$ (1,950,673)	\$ (2,438,301)	\$ (2,925,929)	\$ (3,413,556)
Net Plant	\$ 3,553,732	\$ 6,944,763	\$ 10,173,411	\$ 9,685,783	\$ 9,198,156	\$ 8,710,528	\$ 8,222,900	\$ 7,735,273
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Non-Current Assets	\$ 3,553,732	\$ 6,944,763	\$ 10,173,411	\$ 9,685,783	\$ 9,198,156	\$ 8,710,528	\$ 8,222,900	\$ 7,735,273
Total Assets	\$ 3,621,232	\$ 7,307,012	\$ 11,004,913	\$ 11,009,785	\$ 11,076,158	\$ 11,169,530	\$ 11,304,902	\$ 11,482,275
Liabilities and Owners' Equity								
Liabilities								
Current Liabilities								
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ 29,000	\$ 42,500	\$ 70,000	\$ 82,000	\$ 93,500	\$ 104,500
Total Current Liabilities	\$ -	\$ -	\$ 29,000	\$ 42,500	\$ 70,000	\$ 82,000	\$ 93,500	\$ 104,500
Long-Term Liabilities								
Long Term Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Long Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Long-Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Liabilities	\$ -	\$ -	\$ 29,000	\$ 42,500	\$ 70,000	\$ 82,000	\$ 93,500	\$ 104,500
Owner's Equity								
Capital Stock	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Paid-In Capital	\$ 1,114,882	\$ 2,229,764	\$ 3,344,649	\$ 3,344,649	\$ 3,344,649	\$ 3,344,649	\$ 3,344,649	\$ 3,344,649
Retained Earnings (b)	\$ 2,506,350	\$ 5,077,248	\$ 7,631,264	\$ 7,622,636	\$ 7,661,509	\$ 7,742,881	\$ 7,866,753	\$ 8,033,126
Total Equity	\$ 3,621,232	\$ 7,307,012	\$ 10,975,913	\$ 10,967,285	\$ 11,006,158	\$ 11,087,530	\$ 11,211,402	\$ 11,377,775
Total Liabilities and Owner's Equity	\$ 3,621,232	\$ 7,307,012	\$ 11,004,913	\$ 11,009,785	\$ 11,076,158	\$ 11,169,530	\$ 11,304,902	\$ 11,482,275

Balance Sheet Notes:

(a) **Amortizable Asset (Net of Amortization)** – Plant in Service includes \$7,804,181 in BTOP Grant Funds (as requested) \$1,024,649 from the County’s matching funds to construct, install and activate the network and \$2,320,000 of in kind contributions. Costs are capitalized into Plant in Service based on an estimated 36 month completion with expenses being incurred ratably over that timeframe.

(b) **Additional Paid in Capital** – Additional Paid in Capital includes \$1,024,649 of County cash matching funds to construct, install and activate the network and in kind contributions of \$2,320,000 recognized ratably over 36 months.

(Due Diligence) The amount for Plant in Service had been previously shown as Amortizable Assets (Net of Amortization). It has been re-classified as Plant in Service in the new Pro-Forma. Also the Accumulated Depreciation has been linked to the depreciation values shown on the Income Statement.

Statement of Cash Flows

	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Beginning Cash	\$ -	\$ 67,500	\$ 362,249	\$ 831,502	\$ 1,324,002	\$ 1,878,002	\$ 2,459,002	\$ 3,082,002
CASH FLOWS FROM OPERATING ACTIVITIES:								
Net Income	2,506,350	2,570,897	2,554,016	(8,628)	38,872	81,372	123,872	166,372
<i>Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities</i>								
Add: Depreciation	162,543	325,247	487,628	487,628	487,628	487,628	487,628	487,628
Add: Amortization	-	-	-	-	-	-	-	-
<i>Changes in Current Assets and Liabilities:</i>								
Marketable Securities	-	-	-	-	-	-	-	-
Accounts Receivable	-	-	-	-	-	-	-	-
Inventory	-	-	-	-	-	-	-	-
Prepayments	-	-	-	-	-	-	-	-
Other Current Assets	-	-	-	-	-	-	-	-
Accounts Payable	-	-	-	-	-	-	-	-
Other Current Liabilities (a)	-	-	29,000	13,500	27,500	12,000	11,500	11,000
Net Cash Provided (Used) by Operations	\$ 2,668,893	\$ 2,896,144	\$ 3,070,644	\$ 492,500	\$ 554,000	\$ 581,000	\$ 623,000	\$ 665,000
CASH FLOWS FROM INVESTING ACTIVITIES:								
Capital Expenditures (b)	3,716,275	3,716,278	3,716,276	-	-	-	-	-
Amortizable Asset (Net of Amortization)	-	-	-	-	-	-	-	-
Long-Term Investments	-	-	-	-	-	-	-	-
Net Cash Used by Investing Activities	\$ 3,716,275	\$ 3,716,278	\$ 3,716,276	\$ -				
CASH FLOWS FROM FINANCING ACTIVITIES:								
Notes Receivable	-	-	-	-	-	-	-	-
Notes Payable	-	-	-	-	-	-	-	-
Principal Payments	-	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-	-
Additional Paid-in Capital ©	1,114,882	1,114,882	1,114,885	-	-	-	-	-
Additions to Patronage Capital Credits	-	-	-	-	-	-	-	-
Payment of Dividends	-	-	-	-	-	-	-	-
Net Cash Provided by Financing Activities	\$ 1,114,882	\$ 1,114,882	\$ 1,114,885	\$ -				
Net Increase (Decrease) in Cash	\$ 67,500	\$ 294,748	\$ 469,253	\$ 492,500	\$ 554,000	\$ 581,000	\$ 623,000	\$ 665,000
Ending Cash (year 2 footnote (b))	\$ 67,500	\$ 362,249	\$ 831,502	\$ 1,324,002	\$ 1,878,002	\$ 2,459,002	\$ 3,082,002	\$ 3,747,002

Statement of Cash Flow Notes:

(a) Deferred revenue, see Income Statement footnote (b)

(b) Capital Expenditure of the installation, construction and development of the network

(c) Additional Paid in Capital is the grant funds and county match

(d) Cash flows are out of balance \$1 due to rounding.

NPV/IRR Table

	Net Present Value	Internal Rate of Return
Without BTOP Funding	\$0.00	0.00%
With BTOP Funding	\$2,564,930	15.15%

Revenue Assumptions

Factor	Specific Metric Used in Analysis	Rationale (Cite Basis)
Customers Passed		
Anchor Institutions - Segment A	74 anchor institutions connected in Year 1	Anchor Institutions are aware of project and will be ready to commit to connect as soon as possible. Expecting to add 2 or 3 more per quarter during years 3-8.
Anchor Institutions - Segment B	85 anchor institutions connected in Year 2	Anchor Institutions are aware of project and will be ready to commit to connect as soon as possible. Expecting to add 2 or 3 more per quarter during years 3-8.
Businesses	n/a	Middle Mile - all these customers are indirect
Households	n/a	Middle Mile - all these customers are indirect
Last Mile Providers	Year 4 - one provider; Year 5 - two more providers	Once the network is established within the county, third party providers will want to access subscribers throughout the county.
Other		
Take Rate (should likely vary across 8-Year Forecast)		
Anchor Institutions - Segment A	100% take rate within 159 initial anchor institutions	All anchor institutions have committed to use the network; 100% take rate expected
Anchor Institutions - Segment B	100% take rate within 159 initial anchor institutions	All anchor institutions have committed to use the network; 100% take rate expected
Businesses	n/a	
Households	n/a	
Last Mile Providers	40%	Projecting that at approx. 8 providers out of the 20+ service providers in the area will commit to leasing capacity on the network.
Direct Customer Connections		
Customer Segment A	74 anchor institutions connected in Year 1	Since this is a Middle Mile project, the only Direct Customer Connections will be anchor institutions.
Customer Segment B	85 anchor institutions connected in Year 2	Since this is a Middle Mile project, the only Direct Customer Connections will be anchor institutions.
Other	n/a	
Average Revenue per User (may vary across 8-year forecast)		
Anchor Institutions - Segment A	\$250 per anchor institution per month	This rate has been negotiated with the county's anchor institutions.
Anchor Institutions - Segment B	\$250 per anchor institution per month	This rate has been negotiated with the county's anchor institutions.
Businesses		
Households		
Last Mile Providers	one time fee of \$15,000 plus \$1000 per month	This is a reasonable monthly rate for the amount of fiber to be leased.
Other		

Expense Assumptions		
Factor	Specific Metric Used in Analysis	Rationale (Cite Basis)
Network Expenses		
Backhaul		
Maintenance	Year 1 ramp-up expense: \$42,000. Grows to \$73,500 the next year and levels in subsequent years.	Network oversight costs, preventive and on-demand maintenance, relocation of network facilities.
Utilities		
Leasing		
Depreciation		
Other		
Sales & Marketing		
Advertising	n/a	The County has the capabilities to assume sales/marketing (outreach), customer care, billing and other general and administrative expenses within existing operations, so no additional expense is shown here.
Commissions	n/a	
Salaries	n/a	
Other	n/a	
Customer Care & Billing		
Systems	n/a	The County has the capabilities to assume sales/marketing (outreach), customer care, billing and other general and administrative expenses within existing operations, so no additional expense is shown here.
Personnel	n/a	
Other	n/a	
General & Administrative		
Professional Services		
Insurance		
Non-Network Utilities		
Travel		
Supplies		
Miscellaneous		
Interest Expenses		
Debt Instrument A		
Debt Instrument B		
Taxes		

Federal Tax Rate	n/a	The County, as a government entity, is tax exempt.
Other Tax Rates		

Clackamas County # 5884 Enterprise Fiber System Estimated Costs	MATERIALS				Under Ground	TOTAL COUNT	TOTAL COST
	Main Ring	26 Spur	224 Ring	Last Mile			
MATERIALS REQUIRED							
Estimated Distance / ft	414,216	153,120	86,064	300,700	12,846	954,100	
Fiber Stand Count	216	144	216	24			
Estimated # of Poles	3,100					3100	
# Splice Points (1 per 4000 ft)	104	38	22	158		321	
MATERIAL COSTS						UNIT COST	
Average Fiber Costs (per foot)	\$774,584	\$286,334	\$160,940	\$562,309	\$0	\$1.87	\$1,784,167
Messenger Cable (per foot)	\$214,978	\$79,469	\$44,667	\$156,063	\$0	\$0.52	\$495,178
Pole Attachments (per pole)	\$189,720					\$61.20	\$189,720
Aerial Hardware (per foot)	\$132,549	\$48,998	\$27,540	\$96,224	\$0	\$0.32	\$305,312
Splice Materials (per splice)	\$129,443	\$47,850	\$26,895	\$197,500	\$0	\$1,250.00	\$401,688
Warehousing / Distribution (flat)	\$132,368						\$132,368
Underground Conduit (per foot) (A)					\$96,859	\$7.54	\$96,859
Project Contingency (flat amount)	\$50,000						\$50,000
TOTAL						(B)	\$3,455,291
(A) - This is the total cost for trenching / boring under several roads / gaps in poles and running the fiber through 2" conduit =							\$96,859
(B) - The total material cost including underground =							\$3,455,291
The total material costs WITHOUT underground =							\$3,358,432



Comprehensive Community Infrastructure **Budget Narrative Template**

Applicant Name: Clackamas County, OR

EasyGrants Number: 5884

Organization Type: County Government

Proposed Period of Performance: Sept 30, 2010 – Dec 31, 2012

Total Project Costs: \$11,148,830

Total Federal Grant Request: \$7,804,181

Total Matching Funds (Cash): \$1,024,649

Total Matching Funds (In-Kind): \$2,320,000

Total Matching Funds (Cash + In-Kind): \$3,344,649

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 30%

1. Administrative and legal expenses - \$612,580

- Provide a breakout of position(s), time commitment(s) such as hours or level-of-effort, and salary information/rates with a detailed explanation, and additional information as needed.

The Clackamas Broadband Innovation Initiative contains a total of \$612,580 in Administrative expenses. These expenses are broken into 2 main areas: The professional services costs of \$505,580 which comprise 82.5% of the total administrative costs, and the Equipment costs of \$107,000 which is 17.5% of the total administrative costs of \$612,580. These 2 cost areas are further defined in the following 2 charts.

Professional services comprise the majority of the administrative costs at \$505,580 (or 82.5%) in the form of cash matching contributions by the county. This includes a full-time project manager for 3 years, as well as professional services by 2 other existing county personnel. An existing network engineer is projected to spend 25% of his time for 3 years on the project, and the department manager is projected to spend 20% of his time over a 3-year period.



PROFESSIONAL SERVICE COSTS CHART

Staff	Level of Effort	Years	Rate	Total Cost
Project Manager	100%	3	\$99,706/yr	\$299,118
Department Manager	20%	3	\$32,924/yr	\$98,772
Network Engineer	25%	3	\$35,897/yr	\$107,690
TOTAL:				\$505,580

Outside of the professional service costs, this category also includes the equipment costs of \$107,000 (or 17.5%) of the total administrative costs of \$612,580. This equipment costs is detailed in the below chart. This includes \$17,000 in Network Management software and hardware: \$10,000 for network management software and \$7,000 for its associated server. This \$17,000 cost represents 3.2% of the Administrative cost of the project. In addition to the Network Management cost, the Administrative category also includes a fiber splicing machine and fiber optic test equipment. These items will be necessary for maintenance and administration of the initial network as well as the long term operation of the network. These items total out to \$90,000. A table summarizing these costs is shown below.

EQUIPMENT / NETWORK MANAGEMENT COSTS CHART

Item	Unit Cost	No. of Units	Total Cost
Open NMS Software	\$10,000	1	\$10,000
Log Server	\$7,000	1	\$ 7,000
Fiber Optic Test Equipment	\$60,000	1	\$60,000
Fusion Splicing Machine	\$30,000	1	\$30,000
TOTAL:			\$107,000



- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

- The total administrative costs for the Clackamas Broadband Innovation Initiative is \$612,580.

- This total consist of 2 areas:

- Professional Services Costs \$505,580 (82.5 % of total)

- Equipment / Network Management Costs \$107,000 (17.5 % of total)

TOTAL Administrative Costs \$612,580 (100%)

- The Professional services is detailed in the PROFESSIONAL SERVICES chart above. The County calculated the expected time to be spent by its Technical Services personnel on the build-out and administration of the project. This calculated Professional Services calculation resulted in 3 Positions: 1 hired Full-time project manager, 1 existing Network Engineer at 25% utilization and 1 existing technical services manager at 20% utilization. All 3 positions required for the expected 3 year life of the project. Afterwhich, the existing positions will continue to assist in the support of the project fully funded by the County. The Project Manager position will no longer be required.

- The Equipment and Network Management costs are detailed in the EQUIPMENT / NETWORK MANAGEMENT chart above. The Open NMS Software / Log Server are required to monitor the status of the fiber network and are the standard network monitoring utility used by the County. The fiber splicing machine and fiber optic test equipment are required in the construction and maintenance of the fiber infrastructure.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

In-Kind Source n/a

2. Land, structure, rights-of-way, appraisals, etc. – n/a

- Provide description of estimated costs, proposed activities, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

3. Relocation expenses and payment - n/a



- Provide explanation for the relocation, description of the person involved in the relocation, method used to calculate costs, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

4. Architectural and engineering fees - \$1,183,084

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

The County has worked with Engineering Associates, a Professional Engineering firm specializing in telecommunications, while preparing this application. In addition, the County has worked with North Sky Communications, an experienced telecommunications specialty contracting firm, in analyzing and determining the route of the fiber optic cable. Through the collaboration of these two professional firms, Clackamas County has obtained an estimate of the engineering costs of the project. The estimated cost for the outside plant engineering is \$1,183,084, which is 10.6% of the entire project, or 16.8% of the outside construction budget. On a per-unit basis this amount equates to \$6547 per mile. Both of these figures are well within commonly used budgetary guidelines for outside plant engineering.

The outside plant engineering cost includes the following tasks:

- Field engineering including staking of new cable routes
- Construction drawings and specifications for new cable routes
- “Make ready” work for all aerial cable routes
- On-site inspection during cable construction phase
- As-built drawings and project closeouts
- Resident Engineering for multiple construction crews

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No matching funds will be contributed toward this cost.



- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

No matching funds will be contributed toward this cost.

5. Other architectural and engineering fees – n/a

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

No additional Architectural or Engineering fees are included in the project. All such costs are noted in Section 4 above.

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

6. Project inspection fees – n/a

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

7. Site work – n/a



- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

8. Demolition and removal – n/a

- Provide description of estimated fees, rates explanation of proposed services, and additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

9. Construction - \$7,033,166

- Provide description of estimated fees, rates, explanation of proposed services, state whether the work is being completed by the applicant or an outside contractor, and additional information as needed.

The bulk of the project's costs will be in the fiber optic cable construction. All of this cost (\$7,033,166 or 63.1%) is allocated in the Construction category. The total route footage of the new ring is 954,100, or approximately 180 miles. The route distances, route details, and estimated costs have been determined by working with North Sky Communications, a locally-based, experienced, and respected telecommunications specialty contracting firm.

The line items in the "Detail of Project Costs" worksheet show separate costs for materials (\$3,358,432) and labor (\$3,577,875). These line items include all associated costs with installing the fiber optic cable



along the route. These include: fiber optic cable, new strand wire (where required), attachment hardware for existing pole lines, building entrances (all in existing buildings), fiber terminations in buildings, fiber optic cable testing, etc. In addition, the route does contain a few areas where underground construction will be required. A separate line item has been established for the cost of underground construction (\$96,859). The initial route analysis has identified a total of 12,846 feet (2.4 miles) of underground construction. This per-foot cost includes all labor and materials associated with trenching, boring, installing conduit and pull boxes, etc. These areas have been identified by an initial field survey and are specified on the Network Map document.

The following chart gives the breakout of costs the comprise the material cost of \$3,358,432 (B) as well as the underground conduit costs of \$96,859 (A) for a total materials costs of \$3,455,291 for the entire distance of 954,100 feet.

Clackamas County # 5884 Enterprise Fiber System Estimated Costs	MATERIALS				Under Ground	TOTAL COUNT	TOTAL COST
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Project Contingency (flat amount)	\$50,000						\$50,000
TOTAL						(B)	\$3,455,291
(A) - This is the total cost for trenching / boring under several roads / gaps in poles and running the fiber through 2" conduit =							\$96,859
(B) - The total material cost including underground =							\$3,455,291
The total material costs WITHOUT underground =							\$3,358,432

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

The County will provide all of its matching cash contribution as an offset for the cost of the outside plant construction. This amount (\$519,069) represents 7.4% of the total cost of the construction. The county has these funds available from internal sources; no financing or debt will be required to raise this amount. A letter from the County committing to this cash match has been included as part of the application.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

None of the county's matching contribution for this particular category is in-kind; all matching funds for the Construction category come from cash contributions.



10. Equipment - \$2,320,000

- Provide a list of equipment in the form of a table with description, number of units, unit cost, state whether it is being purchased or leased, and additional information as needed.

The equipment category represents the second-largest category in terms of project expense. The category includes \$2,320,000, which represents 20.8% of the total project amount.

This category includes all of the Ethernet switching equipment which will be connected to the new fiber network. These Ethernet switches will be located at the anchor institutions and will be used for the broadband connections to the end users in the anchor institutions. A total of 160 switches will be located in these locations. Each switch will be equipped with optical transceivers which connect to the fiber backbone, for a total of 320 optical transceivers.

A table of all items in the Equipment category follows. Each entry can be matched to a line item in the "Detail of Project Costs" worksheet.

Description	Unit Cost	Units	Cost	Notes
Ethernet switches	\$8500	160	\$1,360,000	Purchased by anchor institutions
Optical transceivers	\$3000	320	\$960,000	Purchased by anchor institutions
Totals			\$2,320,000	

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No cash matching contributions are included in this category.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

All of the Ethernet switches at the anchor institutions will be purchased by different county government departments. This will include schools, public safety, county government offices, etc. As such these items are shown as in-kind matching contributions in the total amount of \$2,320,000.



11. Miscellaneous – n/a

- Provide additional information as needed.

n/a

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

n/a

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

n/a

13. Contingencies - \$0

- Contingencies are an unallowable expenditures under BTOP.

15. Project (program) income - \$0

- The value for this line-item on the SF-424C is \$0. Please do not provide an estimated Project (program income) on the SF-424C.



Addendum

- Very few indirect costs are allowable through BTOP. If any allowable indirect costs and/or fringe benefits are included in the budget, please provide a copy of your existing Negotiated Indirect Cost Recovery Agreement (NICRA), if available. If the NICRA is applied accordingly in the budget, there is no need to justify the costs. If a NICRA is not available or is not consistent with the rates/calculations in the budget, please provide an explanation of how the amounts were calculated. Please clearly list the manner in which indirect costs are calculated in the budget.

Note: Verify that indirects are calculated correctly and are eligible BTOP costs. To clarify, reasonable indirect costs under BTOP are only allowable for Full Time Employees (FTEs) associated with the construction, deployment, or installation of facilities or equipment used to provide broadband service.

n/a

Clackamas Middle College



Clackamas Middle College
19729 S. Hwy. 213
Oregon City, Oregon 97045

Phone: 503.518.5925
Fax: 503.518.5928

May 28, 2010

Anthony Wilhelm, Deputy Associate Administrator
Infrastructure Division, Office of Telecommunications and Information Applications
National Telecommunications and Information Administration
United States Department of Commerce
Washington, DC
bttop@nita.doc.gov

Dear Anthony,

I am writing this letter of support in the hopes of providing my staff, our students and community a better quality of education through the use of broadband fiber in and around our area. We are a middle college which serves to close the gap for students from high school to college. Upon graduation, all of our students receive a high school diploma and a college associates' degree at 18 years of age.

We are constantly striving to improve our innovative and unique school, and our collaboration with Clackamas Community College, Clackamas County ESD and North Clackamas School District make all of this possible. Much of our work with the aforementioned organizations is based on high quality technology and quality access to it. This grant will greatly improve our education and partnerships, thus allowing our students to succeed at greater levels.

This grant will allow/provide the following to our educational organization and others:

- Better connectivity from Clackamas ESD to our school to Clackamas Community College through the use of gig fiber
- Tremendous savings in money and jobs in these difficult economic times
- The ability to use video curriculum in our school
- Shared resources at a lower cost: ex) Cloud Computing.
- Savings in money, time and power through the use of Google docs and Google mail
- Safety of our students and school through the use of security cameras
- The usage of IPTV to share content district-wide
- Savings in money through the use of the fiber to run VOIP
- The ability to have high quality video conferencing between our building, the state, the nation, and globally, thus saving money on travel and expenses
- Better quality of connectivity to student informational and accounting systems ex) eSIS and Lawson
- Higher speeds of internet to the businesses and residents of your communities via local telephone companies and cable companies

As you can see from the bulleted points above, our partnerships, school, students and community will benefit directly from this quality access. We deserve to give our students the best, and with your help we can achieve this goal together. Thank you for your time and feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Sien'.

Brian Sien
Principal
Clackamas Middle College