



May 1, 2015

**LONG RANGE PLANNING**  
**ISSUE PAPER NO. 2015-03**

**Consideration of Width Reductions to North Bethany's Natural Features Buffer**

**Issue**

The 2015 Work Program authorized Task 1.11a, reconsideration of a request to reduce the North Bethany Natural Features Buffer from the current variable buffer width. This task was originally added to the Work Program in 2013 in response to a written request from K & R Holdings (K&R).

In an August 5, 2014 Board work session, staff presented Issue Paper No. 2014-03, North Bethany Development Restrictions within the Natural Features Buffer. Board discussion included options for reducing the width of the buffer. At that meeting the Board asked staff to coordinate with Clean Water Services (CWS), Tualatin Hills Park and Recreation District (THPRD), and other stakeholders, and return with options and recommendations in spring 2015.

This Issue Paper summarizes the issues and new information received, and presents several options for Board consideration. Based on the Board's direction, an ordinance could be considered in the 2015 ordinance season.

**Recommendation**

Consider the key issues in the **Analysis** section of this paper and provide guidance to staff on whether and how to proceed with Community Development Code (CDC) and/or Community Plan amendments that would allow reductions to the width of the Natural Features Buffer shown on the Subarea Plan's Urban / Rural Edge Map.

Staff has identified three alternatives to address this request, listed below and described in more detail in the "Alternatives for Board of Commissioners Consideration" section:

- 1) Maintain the current adopted development restrictions and width of the Natural Features Buffer.
- 2) Reduce the Natural Features Buffer to a uniform width (e.g., 30', 50', 100') through amendments to the North Bethany Subarea Plan Urban/Rural Edge Map.
- 3) Allow potential reductions to the Natural Features Buffer to a minimum width through a Type III land use application process, subject to development and compatibility standards. This alternative would require amendments to the North Bethany Subarea Plan and the CDC.

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## **Background**

Metro Ordinance 02-987A brought North Bethany into the Urban Growth Boundary (UGB) in 2002. Condition 6 of the Metro Ordinance required the county to adopt provisions that ensured compatibility between future urban uses in North Bethany and agricultural practices on adjacent land outside the UGB, before authorizing development in North Bethany. Condition 6 of Metro Ordinance No. 02-987A reads,

“...the...county...shall adopt provisions in its comprehensive plan and zoning regulations – such as *setbacks, buffers* and designated lanes for movement of slow-moving farm machinery – *to ensure compatibility between urban uses in an included study area and agricultural practices on adjacent land outside the UGB zoned for farm or forest use.*” *(emphasis added)*

In 2011, the Board adopted A-Engrossed Ordinance 739, which established urban/agricultural buffers to address Condition 6 of Metro Ordinance No. 02-987A (see Attachment A, North Bethany Subarea Plan Urban/Rural Edge Map). The adopted buffers were based on background information that had been compiled about the rural lands surrounding North Bethany, including an inventory of agricultural land uses on the adjacent properties; identification of potential urban/rural conflicts likely to arise from the identified agricultural uses; and identification of buffer types that could address the potential urban/rural conflicts.

In a September 19, 2011 letter to the Board, Metro acknowledged that the urban/agricultural compatibility measures adopted by A-Engrossed Ordinance No. 739 met the intent of Condition 6 of Metro Ordinance 02-987A. Metro's letter stated, “*We recognize that for some parties the proposed program does not go far enough in ‘protecting’ the activities on the rural side of the UGB, and for other parties it goes too far and is not needed for the existing situation. In this instance, we think that the staff proposal has adequately tailored the compatibility program to the particular situation in the North Bethany area.*”

### Overview of Adopted Buffers

The North Bethany Subarea contains three buffer locations and types, depicted on the North Bethany Subarea Plan Urban/Rural Edge Map (see Attachment A). Following below are brief descriptions of each adopted buffer.

#### *Eastern Buffer – Screening Vegetation and THPRD Trail Right-of-Way*

For the majority of North Bethany's eastern edge, the Board adopted a 20-foot minimum Vegetation Buffer width, to include both the THPRD trail right-of-way and screening vegetation. The Board's decision was based on information indicating that several of the adjacent properties had a history of wheat, hay, and/or grass seed cultivation – activities often associated with ground spraying and harvest activities that generate dust.

#### *Western Buffer – Fence Only Boundary*

For North Bethany's western and a portion of the northwestern edge, the Board adopted a buffer consisting of a fence to prevent trespass. This decision was based on background information

indicating that the adjacent properties were in pasture and/or livestock (cattle) use. Pasture and livestock uses are not associated with chemical spray activities or significant dust generation, and the most likely conflict between urban uses and these agricultural uses appeared to be trespass. Another consideration was the fact that topographic features (15 to 25 percent slopes) and other adopted plan elements (THPRD trail alignment, which generally requires a 20' right-of-way) were present along this edge to provide some separation distance between the urban uses within North Bethany and the adjacent rural uses.

#### *Northern Buffer – Natural Features and Fence*

For a portion of North Bethany's northern edge, the Board adopted a Natural Features Buffer separating North Bethany urban development and adjacent agricultural uses. It ranges in width from 158' to 465' measured north to south. The Natural Features Buffer is comprised of the steeply sloped lands with existing greater than (>) 25 percent slopes (which are also mapped as lands with moderate to high susceptibility to shallow-seated and deep-seated landslides) and adjacent areas with slopes of between 20 – 25 percent. Together these areas form a buffer that provides separation distance between urban uses in North Bethany and adjacent agricultural uses. The Board adopted this buffer based on information indicating that adjacent rural properties had a history of pasture, wheat/row crops and livestock uses. The property in agricultural use is an equestrian facility that has technical riding trails in close proximity – within 10 feet in some areas – to the North Bethany boundary.

#### Work Program Requests

K&R submitted its first Work Program request to the Board in 2013 for re-examination of the Board's decision to restrict development in North Bethany areas with slopes > 25 percent.

- The Board considered an Issue Paper dated June 28, 2013 about this request.
- The Issue Paper recommended that the development prohibitions within the Natural Features Buffer be maintained as currently adopted, but that development restrictions on > 25 percent slopes outside of the Natural Features Buffer be removed.
- At their July 9, 2013 work session, the Board directed staff to remove the development restrictions on > 25 percent slopes that were located outside of the Natural Features Buffer only.
- This change was subsequently adopted by the Board in 2013 via Ordinance No. 771.
- During hearings on the ordinance, Chair Duyck indicated that modifications to the Natural Features Buffer may be considered in 2014.
- On March 21, 2014, K&R submitted a letter to the Board stating their opinion that a fifty-foot (50') minimum buffer width is adequate to address potential conflicts at the present location of the Natural Features Buffer for the northern boundary adjacent to farm use.
- Subsequently, K&R submitted a letter dated June 6, 2014 to the Board proposing a 30-foot (30') wide for this Natural Features Buffer.
- Staff prepared an Issue Paper dated July 11, 2014 that addressed K&R's requests. The Board considered the Issue Paper and the request at their work session on August 5, 2014.
- The Issue Paper recommended that the development prohibitions within the Natural Features Buffer be maintained as currently adopted for the following reasons:

- The urban/agricultural compatibility measures adopted by A-Engrossed Ordinance No. 739, including the Natural Features Buffer, met Metro's Condition 6 of Ordinance 02-987A.
- A change to the Natural Features Buffer would require staff to provide findings for compliance with Condition 6 of Metro Ordinance 02-987A, which could prove challenging to meet by allowing a reduced buffer.
- Several broad sections of the Natural Features Buffer, especially adjacent to the rural equestrian facility, have > 25 percent slopes and have no other development-restricting factors such as wetlands or Clean Water Services Vegetated Corridors. A reduction in the width of the Natural Features Buffer in these sections would result in minimal remaining buffer to maintain compatibility between future urban development and adjacent agricultural uses.
- Reducing the width of the Natural Features Buffer could result in future legal challenges.

After discussion, the Board chose not to address the task as part of the 2014 ordinance season and directed staff to come back in 2015 with recommended options for reducing the buffer.

### **Analysis**

Should the Board allow the Natural Features Buffer to be reduced, areas that were not expected to develop would potentially become developable. This would have both service provision and rural compatibility implications. The primary issues for the Board to consider regarding potential reduction of the Natural Features Buffer include:

- **Serviceability for sanitary sewer and stormwater and potential impacts that could result from development in the buffer.**
- **Impacts to THPRD trail alignments shown on the North Bethany Subarea Plan Parks, Trails, and Pedestrian Connection map.**
- **Maintaining compliance with Condition 6 of Metro's Ordinance No. 02-987A, which requires the county to ensure compatibility between future urban development and adjacent agricultural uses.**

Since the Board's work session in August 2014, County staff met with representatives from CWS and THPRD to review issues related to allowing Natural Features Buffer reductions. Feedback from these discussions is summarized below. Staff also met with the adjacent property owner, Mr. Rayhawk, who runs the equestrian facility adjacent to the Natural Features Buffer; Carol Chesarek, a concerned citizen and neighbor of the Rayhawks; as well as K&R representatives.

#### CWS Sanitary and Stormwater Impacts

CWS shared a number of concerns about sanitary sewer and stormwater service provision to this area should the Natural Features Buffer be reduced.

#### *Sanitary Sewer*

In 2008, CWS developed a general sanitary sewer alignment that could support North Bethany development as identified in the North Bethany Subarea Plan. In 2010, CWS further evaluated

the area and the ability of the proposed North Bethany interceptor sewer to serve the entire subarea. The analysis identified all steeply sloped lands within the subarea as challenging areas to serve by gravity sewer. At the time, Long Range Planning was in the process of establishing buffer requirements for North Bethany with the objective of meeting Metro's Condition 6. With creation of the Natural Features Buffer, development in the steeply sloped areas along North Bethany's northern edge was prohibited.

As a result of the adopted buffer development limitations, CWS' North Bethany Sewer Master Plan did not include or consider providing service to the Natural Features Buffer area because the buffer was not going to be impacted by development. Attachments B and C show lands mapped by CWS that pose "Sewer Service Challenges" within the Natural Features Buffer.

If area within the Natural Features Buffer becomes developable, CWS staff identified the following sanitary sewer issues that would result from development within the Natural Features Buffer:

- Service to the area would require additional sanitary sewer engineering analysis, and would be technically challenging and expensive to construct.
- In accordance with CWS Board-adopted policy, the sanitary system for North Bethany was planned as an all-gravity system to avoid pump stations and minimize the long-term operational and maintenance costs.
- The Natural Features Buffer area is located downhill of planned sewer facilities, therefore gravity service would not be possible without construction of additional sanitary sewers or lowering the planned system. The planned sanitary sewer trunk line is already at significant depth (>25'); lowering the pipeline further would increase both initial capital and long-term maintenance costs. Construction of a second additional sewer to serve just the area within the Buffer would require difficult side-hill installation, impacts to natural resources at the base of the slope, or extension of sewer facilities outside the UGB. A state goals exception would be required to locate sanitary sewer facilities outside the UGB.
- Servicing the area via a pumped system would require construction of at least one public pump station, increasing long-term service costs. Alternatively, individual homes could use grinder pumps – a wastewater tank with a grinder that grinds waste into slurry and pumps it up-grade to a provided gravity sanitary system – but such systems are maintenance and electricity intensive for individual homeowners.
- Wide use of grinder pumps as the service method for new subdivisions is generally not allowed by Clean Water Services due to potential back-ups and ongoing maintenance issues for homeowners. Such systems also increase the likelihood of backups and overflows in the public system, as the slurry that is produced can accumulate at the point of connection to the mainline.

#### *Stormwater*

CWS' *Stormwater Implementation Plan* for North Bethany also excludes the Natural Features Buffer from stormwater service because the entire area slopes away from planned regional stormwater facilities and the area was not envisioned for development.

CWS staff emphasized the following additional stormwater issues associated with development within the buffer:

- Stormwater management solutions in the Natural Features Buffer are not easily identifiable because of topography, soil conditions, and proximity to rural land.
- Lands within the Natural Features Buffer areas are designated as landslide hazard areas and introducing additional stormwater and infiltration facilities to these areas could cause greater slope instability or eventual landslides.
- Piping stormwater from properties directly to Abbey Creek is an option but poses several concerns:
  - Residential downspout connections draining directly to Abbey Creek without downstream water-quality treatment and flow management does not meet state stormwater treatment requirements and therefore would not be allowed.
  - Construction of drainage pipes down steep slopes to the creek could result in tree root disturbance or tree loss and exacerbate overall slope instability. It would also create additional Vegetated Corridor impacts which would need to be mitigated.
  - Changes to Abbey Creek could adversely affect the adjacent property owners' pasture lands and creek stewardship agreements.
- Small individual private onsite stormwater facilities or Low Impact Design Approaches (LIDA – such as rain gardens or filtration planters) may be feasible but no siting analysis has been completed to date.
- LIDA would need to be privately maintained by property owners and inspected by CWS staff for maintenance and functionality.

#### *Other CWS Issues*

Finally, three areas within the Natural Features Buffer are shown as environmentally sensitive areas that are subject to CWS' Vegetated Corridor regulations. Should the Board wish to proceed with allowing a reduction to the width of the Natural Features Buffer, development will still need to meet CWS' Vegetated Corridor regulations.

K&R has indicated that they have done preliminary engineering work for sewer provision to this area. K&R has consulted with CWS regarding its request to reduce and develop within the Natural Features Buffer, but has not yet provided CWS with an engineering study of the area to demonstrate how sewer and stormwater requirements can be met without adversely affecting the remaining Natural Features Buffer area, including the Vegetated Corridor. K&R representatives have indicated to CWS that they will continue to work with CWS staff and provide details of their analysis once complete.

#### Trails Impacts

The Parks, Trails and Pedestrian Connections Map of the North Bethany Subarea Plan indicate that two segments of the planned trail are located along the edge of the Natural Features Buffer. These segments provide a more complete trail network in the area and offer viewing opportunities into the Natural Features Buffer area. THPRD stated that it has some flexibility when determining the specific location of trails based on actual topographic considerations, but its preference is to follow the locations on the adopted plan as closely as possible.

THPRD staff identified the following issues:

- A width reduction along the southeast and southwest sections of the Natural Features Buffer where the above-mentioned trails are planned would possibly force trails to be located down steeper slopes where trail grades may not be able to comply with Americans with Disabilities Act standards and are generally less accessible to users.
- A narrower buffer provides less trail siting flexibility in areas along the southern edge of the buffer where trails may need to meander due to topography.
- Trail siting in steeply sloped areas would be more difficult and costly than in the planned locations.

THPRD requested that should the buffer area be reduced, that developers be required to coordinate with THPRD to ensure acceptable alternative trail locations.

#### Rural Compatibility Impacts

Staff has the following concerns with reducing the width of the Natural Features Buffer related to maintaining urban/rural compatibility and complying with Condition 6 of the Metro Ordinance 02-987A:

- It would undo a significant portion of the urban/agricultural compatibility measures that were put in place to comply with Metro's condition and have potentially significant impacts on the adjacent equine business.
- It would re-introduce the issue of North Bethany urban/rural compatibility and compliance with Metro's condition, which was one of the most contentious issues addressed by A-Engrossed Ordinance No. 739.
- A legislative change to the buffer would require staff to provide findings for compliance with Condition 6 of the Metro Ordinance and staff believes these findings could prove challenging to draft and meet.

#### **Alternatives for Board Consideration**

A range of possible policy options are provided below for the Board's consideration.

##### Alternative 1 – Maintain Adopted Natural Features Buffer /No Change

Alternative 1 would retain all CDC and North Bethany Subarea Plan language and mapping in its current adopted form. Maintenance of the existing Natural Features Buffer would not require the county to reconsider the North Bethany Subarea Plan requirements and would continue to ensure compliance with Condition 6 of Metro Ordinance 02-987A.

##### Alternative 2 – Reduce Natural Features Buffer to a Specified Uniform Width

This alternative would decrease the existing variable width Natural Features Buffer that runs along a portion of North Bethany's northern edge to a uniform width (e.g., 30 feet per K&R's request, 50', or some other width). Reducing the Natural Features Buffer in this way would require an amendment to the Urban/Rural Edge map of the North Bethany Subarea Plan and text changes to the North Bethany Subarea Plan or CDC.

A uniform width reduction of the Natural Features Buffer to the extent K&R is requesting would result in minimal remaining buffer to preserve compatibility between future urban development

and adjacent agricultural uses. This would particularly be the case in areas consisting only of > 25 percent slopes and not constrained by other development limiting factors (wetlands and/or CWS Vegetated Corridors).

Staff notes the following issues with a reduced uniform width buffer:

- A setback of 30 or 50 feet would significantly reduce the distance between urban development and adjacent agricultural uses such as the equestrian use with a technical riding trail in close proximity to and downslope of the buffer's north edge.
- A significantly reduced buffer increases the likelihood for visual, noise, trespass, and stormwater runoff impacts to adjacent rural agricultural lands, thus making these issues more challenging to address.
- A narrower buffer would potentially site the planned location of two segments of THPRD trail along the southern edge of the Natural Features Buffer closer to agricultural uses, and would likely place trails closer to agricultural uses, increasing the potential for noise and trespass onto agricultural lands by trail users.

If the Board chooses to reduce the buffer to a uniform width, staff recommends consideration of adopting additional planting and screening requirements for the area between the reduced buffer and agricultural lands to attempt to address the range of potential impacts on adjacent agricultural lands, in particular the equestrian use.

Finally, concurrent with this option, findings would need to be made for Condition 6 of Metro Ordinance 02-987A, demonstrating how a reduced buffer would ensure compatibility between future urban uses in North Bethany and agricultural practices on adjacent land outside the UGB. The county developed an approach in A-Engrossed Ordinance 739 to address Condition 6 based on relevant information, and there was no existing regional precedent for achieving urban/agricultural compatibility that could be applied to North Bethany. The county's approach was based on information obtained by polling adjacent rural property owners along the North Bethany boundary, identifying agricultural practices and their potential impacts on urban lands to the extent practicable, reviewing the buffer requirements of other Oregon jurisdictions, and reviewing national studies on the use of urban/agricultural buffers.

This approach would be subject to Metro review and consideration. It is unknown at this time if Metro would support the approach outlined as ensuring urban/rural compatibility.

#### Alternative 3 – Allow Natural Features Buffer Width to be reduced through the Land Use Review Process

This option would introduce new land use review requirements that would allow reductions in the Natural Features Buffer to a specified minimum width through a Type III Planned Development Process. Planned Development standards in the North Bethany Subarea (CDC Section 390-17) provide flexibility in development standards while ensuring the integrity of the North Bethany Subarea Plan. In exchange for development flexibility, Planned Developments are required to use innovative design and provide private or public open space or other site/building amenities.



Under this alternative, a Planned Development application requesting to reduce the width of the Natural Features Buffer would be required to demonstrate compliance with specific width reduction standards. The purpose of the width reduction standards would be to ensure compatibility between future urban development in North Bethany and rural agricultural uses as required by Metro Condition 6 of Ordinance 02-987A. Potential Planned Development standards could include:

- An *Agricultural Impact Analysis*, similar to the impact analysis currently required for the siting of non-farm dwellings on high-value farmland in the county (CDC Section 430-85). This analysis would consider the potential impacts to all rural agricultural uses adjacent to the proposed buffer reduction, including the management and operation of such agricultural land uses. Based on this analysis, staff would be able to further evaluate whether or not additional conditions of approval should be recommended to ensure compatibility between urban development and adjacent rural agricultural uses.
- A screening and buffering plan showing proposed visual and noise screening elements (e.g., fencing, existing vegetation to remain, new landscape planting, other elements as appropriate) and demonstrating that these elements will be sufficient to screen adjacent agricultural uses from urban development within 5 years of land use application approval.
- Evidence that the applicant has coordinated with THPRD regarding the location of planned trails on the site.
- A requirement that the reduced Natural Features Buffer be placed in a separate tract and maintained in perpetuity by the development or a home owners association.
- Restrictions on the placement of structures within the required rear yard setback, e.g., raised decks, pergolas, gazebos, retaining walls, etc.
- Provision of public or private open space within the Planned Development to offset the loss of open space from the buffer reduction.
- Evidence that CWS sewer and stormwater requirements can be met without adversely affecting the remaining Natural Features Buffer area.

As with Alternative 2, this approach would be subject to Metro review and consideration. It is unknown at this time whether Metro would accept this alternative as a means of meeting Condition 6 of Ordinance 02-987A.

### **Conclusion**

Based on feedback from CWS and THPRD, allowing development within the Natural Features Buffer poses service provision implications for sanitary sewer, stormwater, and trails siting that will need to be considered if development is to be allowed within the Natural Features Buffer. Additionally, a narrower buffer would reduce the distance between urban development and adjacent agricultural uses, thus making it more challenging to ensure compatibility between future urban development and adjacent agricultural uses.

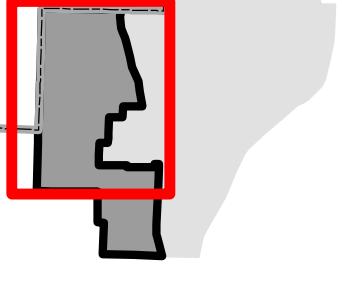
Should the Board wish to allow a width reduction to the buffer, staff believes that a Type III land use process is preferable (Alternative 3) to a uniform width reduction of the Natural Features Buffer (Alternative 2) for three reasons:

- It maximizes the opportunity for stakeholder input and participation.
- It allows the Review Authority to apply specific development criteria – assuming these would meet Metro's Condition 6 – to ensure that future urban development is consistent and compatible with adjacent agricultural uses and multiple objectives of the North Bethany Subarea Plan.
- It provides the applicant with flexibility in order to meet buffer objectives.

However, from CWS' perspective, this flexibility presents challenges as the District is moving forward with designing and constructing “backbone” and “regional” infrastructure now. If the service assumptions can be subject to change, it might force the District (and ultimately its ratepayers) to incur unnecessary additional capital cost to construct facilities at greater depths or more challenging locations than ultimately needed. Alternatively, if these facilities are designed and built according to the current plans, the District is concerned that changes would result in developments with sub-optimal service methodologies that would otherwise not be allowed.

Staff requests Board direction in order to proceed with a possible ordinance in the 2015 season.

North Bethany Subarea



Urban/Rural Edge  
MAP

- Fence Only Buffer
- Trail Corridor
- Vegetation Buffer with Fencing
- Natural Features Buffer with Fencing
- Density Restricted Lands

ATTACHMENT A



1 inch equals 650 feet  
0 325 650 1,300  
Feet

The information on this map was derived from several databases and care was taken in its creation. Washington County cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties for this product. However, notification of any errors will be appreciated.



Multnomah County

Multnomah County

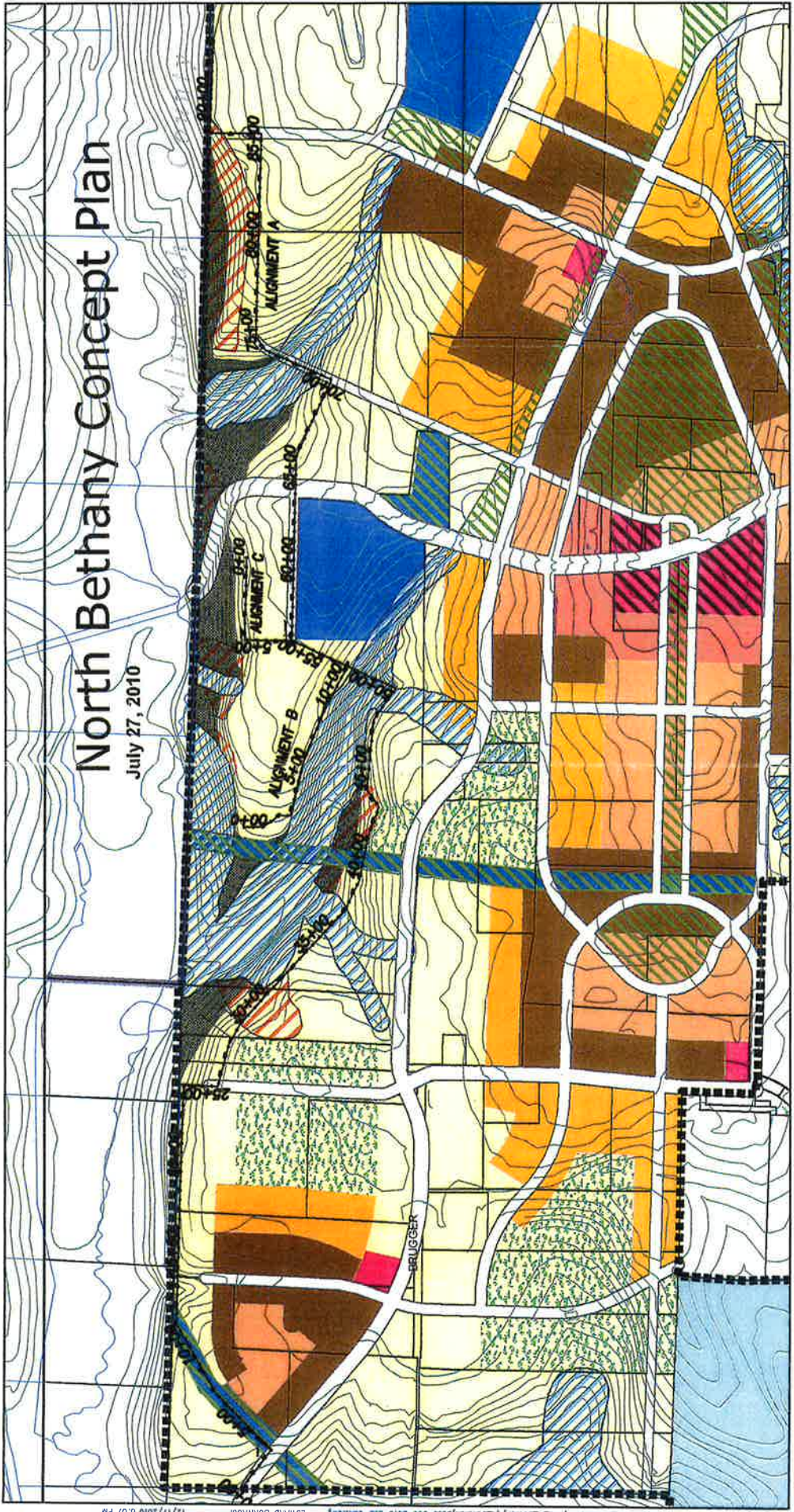
Portions of the trail corridor are shown to illustrate how they define the edge of sections of the Natural Features Buffer area.





# North Bethany Concept Plan

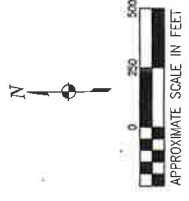
July 27, 2010



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<p><b>R-6 NB</b> North Bethany Residential 6 units per acre</p> <p><b>R-9 NB</b> North Bethany Residential 9 units per acre</p> <p><b>R-15 NB</b> North Bethany Residential 15 units per acre</p>	<p><b>R-24 NB</b> North Bethany Residential 24 units per acre</p> <p><b>R-25+ NB</b> North Bethany Residential +25 units per acre</p> <p><b>NC NB</b> North Bethany Neighborhood Commercial</p>	<p><b>NCMU NB</b> North Bethany Neighborhood Commercial - Mixed Use</p> <p><b>INST NB</b> North Bethany Institutional</p> <p><b>INST</b> Institutional</p> <p><b>+25% Slope*</b></p>	<p><b>Welland &amp; Estimated CWS Vegetated Corridor*</b></p> <p><b>Open Space*</b></p> <p><b>Neighborhood Park Areas</b></p> <p><b>North Bethany Planning Area</b></p> <p><b>SEWER SERVICE CHALLENGES</b></p>
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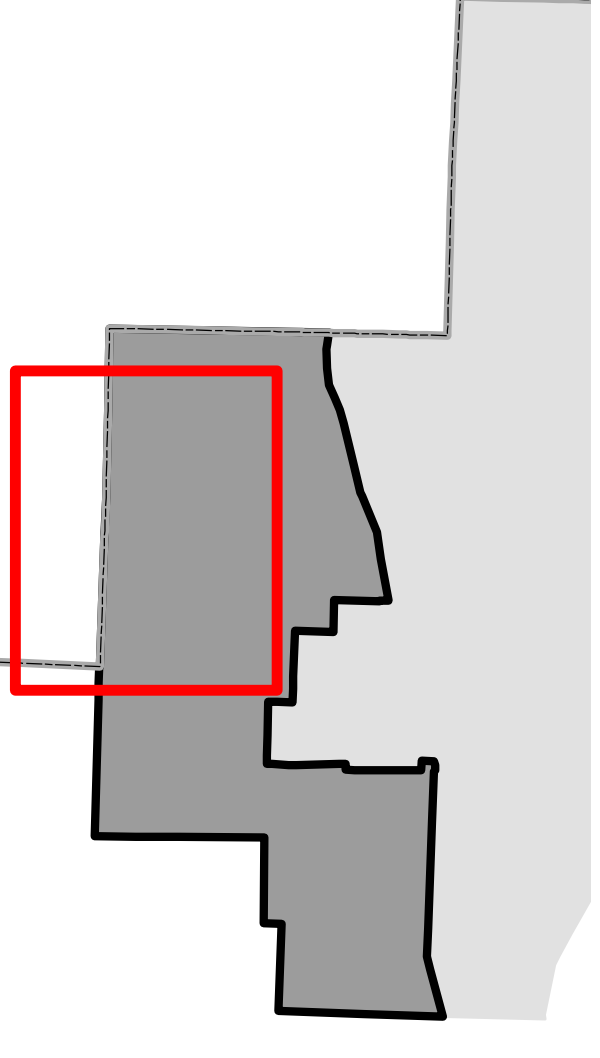
**Kennedy/Jenks Consultants**  
NORTH BETHANY CONCEPT PLAN  
GRAVITY SEWER ALIGNMENT ANALYSIS  
CLEAN WATER SERVICES










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**FIGURE 2**

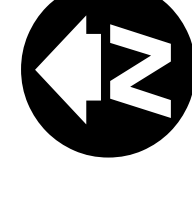


North Bethany Subarea



### Urban/Rural Edge MAP

-  Fence Only Buffer
-  Trail Corridor
-  Vegetation Buffer with Fencing
-  2 ft. Contours
-  Natural Features Buffer with Fencing
-  Sewer Service Challenges (CWS, 2010)
-  Wetland & Estimated CWS Vegetated Corridor



1 inch = 200 feet

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