Meeting Agenda

Urban Growth Boundary Steering Committee
Thursday, March 19, 2015 3-5 PM

Bend City Hall – Council Chambers

1. Welcome — 3 PM

a. Welcome by Victor Chudowsky
b. Agenda overview (Joe Dills)
c. Approval of September 4, 2014 Minutes

2. Phase 1 Recommendations — 3:10 PM

The TAC chairs and vice chairs will join the USC to comment on recommendations from their respective TACs and support the USC discussion.

Overview (packet page 3) — Brian Rankin and Joe Dills

Recommendations from Residential and Employment TACs – Phase 1 Growth Scenarios for the Current UGB (packet page 7)

a. Staff briefing
b. TAC member comments
c. USC discussion and action

— Andrew Parish, APG

Recommendations from the Boundary TAC – Phase 2 UGB Methodology (packet page 31)

a. Staff briefing
b. TAC member comments
c. USC discussion and action

— Mary Dorman, APG

Action requested: Approve TAC recommendations

(Please see correspondence at end of packet)

For additional project information, visit the project website at http://bend.or.us or contact Brian Rankin, City of Bend, at brankin@bendoregon.gov or 541-388-5584

Accessible Meeting/Alternate Format Notification
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3.	**Phase 2 TAC Structure and Roles** *This is an informational item. Please see packet page 110.*	4:30 PM
	a. Briefing b. Discussion by USC	Joe Dills
4.	**Public Comment**	4:45
5.	**Adjourn**	5:00 PM

Bend Urban Growth Boundary Steering Committee (USC) Meeting
Thursday, September 4, 2014
Minutes

*****DRAFT *****

1. Call to Order and Welcome

The Bend Urban Growth Boundary (UGB) Steering Committee (USC) was called to order in the DeArmond Room of the Deschutes Services Building by Victor Chudowsky at 3:00 pm. Present were USC members Chair Victor Chudowsky, Jodie Barram, Jim Clinton, TonyDeBone, Doug Knight, Scott Ramsay, Sally Russell, and Rex Wolf. Member not in attendance: Vice Chair Bill Wagner and Mark Capell .Guests of the USC were Residential TAC Chair Tom Kemper, Vice-Chair Allen Johnson, member Sidney Snyder, Economic TAC Chair Jade Mayer, and Boundary and Growth Scenarios TAC Co-Chair Mike Riley

Mr. Chudowsky thanked everyone on the Technical Advisory Committees (TACs) for their work and announced that the City Council had approved a change on the Steering Committee with Deschutes County Commissioner Tony DeBone replacing Deschutes County Commissioner Tammy Baney on the USC because she had a scheduling conflict.

Mr. Chudowsky asked if there were members of the public who wished to make any comments at the meeting.

Bruce White indicated he was a Boundary TAC member and resident of Bend and provided public comment. Mr White said that he was concerned that TAC decisions were being made in a vacuum without a full understanding about neighborhood livability in Bend and was concerned about housing mix goals and whether they matched what the market might support. He also expressed concern that limiting single-family detached housing would increase the price of single-family homes in Bend.

Alice Kaiser indicated she was a resident and provided comment. Ms. Kaiser expressed concern about any expansion of the UGB toward Dickey Road. She expressed concern about past and future growth in Bend and shared that Oregon rules provided that the City could cap growth if infrastructure could not be supported. She expressed concern about water quality with increased demand for water and that developers who did not reside in Bend were not vested in the outcome.

2. TAC Recommendations

Mr. Chudowsky turned the meeting over to Joe Dills, Consultant Team Project Manager. Mr. Dills indicated the TAC recommendations on the agenda were the first set of recommendations that have come up through the TACs. He explained that Brian Rankin, City of Bend project manager, would brief the USC on context of the recommendations and that the Chairs of the TACs would provide additional detail, with discussion to follow and USC action on the items.

Mr. Rankin shared that this was the first time the USC had functioned in this format and that this was an effort to explain quickly what had been discussed at length in the various TAC meetings. Mr. Rankin reminded the members that they received all of the TAC recommendations prior to the meeting and indicated that he was impressed by the attendance, level of discussion, shared participation in the meetings, and the abilities of the TACs to tackle long agendas. Mr. Rankin indicated he felt there would be a good amount of discussion over the recommendation about housing mix.

Mr. Rankin then began with a discussion of the recommendations from the Residential TAC. He

explained that the TAC had learned about statistics and trends and how they related to a housing mix decision. Mr. Rankin indicated that the percentage of single-family detached homes in the the housing mix recommendations would reflect the largest change from the current situation in Bend with a percentage decrease in that area recommended. He also discussed that while the vote for the housing mix recommendation was 14-2 in the TAC, members indicated that they might want to change their vote in the future. Mr. Rankin also said that he felt the selection of Trend 2 (of the options presented to the TAC for housing mix recommendations) was the most defensible.

Mr. Rankin shared that the Employment TAC voted on whether to recommend that the USC consider market choice as a factor in relation to site types, indicating there was a precedent in Oregon not to use this consideration. The Employment TAC he indicated voted not to recommend using the market factor as a determination or consideration.

Mr. Rankin also shared that the Boundary and Growth Scenarios TAC had discussed what was known as the McMinnville case and that that case informed how a boundary analysis was done. Mr. Rankin explained that City of Bend Attorney Mary Winters provided information to the TAC for their consideration. He explained that the TAC recommended the study area be a 2-mile study area, rather than a 3-mile study area, indicating the TAC felt that would be sufficient. He also explained that the TAC discussed Goal 14 at length in these discussions.

Mr. Dills invited Residential TAC Chairs Tom Kemper and Allen Johnson to speak. Mr. Kemper reiterated that the TAC vote was not a consensus vote and that two members had opposed the recommendation. Mr. Kemper explained that while the TAC had recommended Trend 2 with regards to a housing mix recommendation, he had voted for Trend 1 in the first round of voting. He expressed concern that those involved were trying to do things too quickly and that he had thought the decision would have been driven by more hard data with a consideration of the trends and how they translated into housing needs and housing mix. Mr. Johnson indicated he too felt the TAC was moving rapidly and expressed concern that the TAC might be operating with insufficient information to deliberate. He indicated that he voted for Trend 2 as a preliminary step to move it forward and that more ground-truthing would occur.

Mr. Chudowsky asked for clarification that the percentage of new single-family detached units for Trend 1 was 60% and for Trend 2, 55%. Mr. Johnson indicated in the affirmative and said the revised HNA was 65% and that this process began in 2008 with a 20-year time frame indicating the City might have ten years to complete this after it was approved. He explained that he felt the TAC was providing a preliminary recommendation so the USC could begin their efforts. He expressed that he felt there could be a challenge from affordable housing advocates if Trend 2 was not used.

Mr. Dills asked for questions on the housing mix recommendation. Mr. Chudowsky asked for some analysis on the need in the market, and commented that there might be a need for multi-family housing in Bend, but that the market might not support it. Mr. Rankin referred members to their packets and shared that the market would build based on market need as well as costs. He indicated that need was not necessarily part of market demand and that it can be separate. He shared that the housing market in Bend builds primarily single family homes and only half of the residents of Bend can afford these. He indicated while demand for other housing options might exist, the market might not meet it. Mr. Rankin indicated that the housing mix ratio that is selected needs to reflect an ability of the City to meet the needs of residents and that the City must demonstrate how they would meet that need, and explained the first attempt at a housing mix ratio was an effort to accommodate the need that might not have been expressed in the market.

Mr. Clinton questioned whether increasing single family attached housing percentages and decreasing single family detached housing percentages addressed the need deficits and indicated that he felt people did not seem to be able to afford either option. Mr. Rankin indicated that he was correct that

the City could not rely solely on a housing mix percentage alone to meet affordable housing needs. Mr. Rankin indicated to the members that they were making preliminary decisions so that they could move ahead with study and analysis. Mr. Dills explained that land capacity was not determined by mix alone; capacity is determined when the mix is applied to the ground and density assumptions are made.

Rex Wolf asked the Residential TAC Chairs if the recommendation was a first step, and not necessarily the answer. Mr. Kemper said that available multi-family land existed and that it was not being built on because rents were not supported by the market. Doug Knight asked for information on how the vote in the TAC proceeded. Mr. Kemper indicated he changed his vote to support Trend 2, after initially voting for Trend 1, to get to consensus. Sid Snyder, Residential TAC member, indicated he had voted for Trend 2 in both votes and that the Trend 2 mix may not go far enough, and that the efficiency measures and incentives were key. Mr. Knight asked how the TAC might respond to the concern that a lack of residential land for single family detached homes might raise the cost for that product and Mr. Snyder indicated he agreed it was possible. Mr. Kemper shared that denser home building did not necessarily mean more affordable homes. Mr. Johnson commented that the rules did not focus more on need or demand, but explained the legislature identified all types of housing with regards to need and that if there was a demand for expensive or larger homes the City would need to meet that need as well as other needs.

Sally Russell commented that according to the tables a deficit would remain in 2028 with the proposed housing mix potentially only meeting current needs. Mr. Chudowsky commented that the difference between the two trends was small and that Trend 2 was more defensible. Mr. Rankin explained that the amount of multi-family housing remained the same in Trends 1 and 2 and the change was in single-family housing. These decisions would be impacted by the number of acres the City brings into the UGB. Mr. Dills asked for further questions or comments. Mr. Clinton asked for clarification on the difference between single-family attached and duplexes. Mr. Rankin drew on the flip chart and Mr. Clinton asked why they were listed as different categories and Mr. Rankin explained that it was a requirement of the Remand. Mr. Chudowsky commented that a reason the City received the Remand was the failure to make that distinction. Mr. Johnson commented that these two types might play differently for rentals.

Mr. Dills commented that anything the USC decided today was preliminary indicating that they were “ground-truthing in the future.” He indicated that density and land would be evaluated and livability would be discussed. He asked for a vote on the recommendations put forward. Tony DeBone asked if members would vote to accept the recommendations as proposed. Mr. Dills commented the vote could be preliminary or final. Mr. Rankin added the USC could vote to send the recommendations back to the TAC for additional advice.

Mr. Knight indicated he would not vote to support Trend 2 and added that he felt it was an altruistic effort to create affordable housing, and that market understanding was needed. He commented that Trend 1 was closer to current trends and a good middle ground. Scott Ramsay commented that he was in agreement with Mr. Knight and was concerned about the requirement to proceed with a process with rules that fit other municipalities. Mr. Dills asked if Trend 1 helped with this. Mr. Ramsay indicated that it was the lesser of two evils. Ms. Russell indicated she was leaning toward Trend 2 and that the USC had heard a lot of argument on why this should be and she wanted to respect the work the TAC had done. Mr. Wolf indicated he agreed with Ms. Russell. Jodie Barram indicated she would support Trend 2 because of the work of the TAC and because it pushed the City to reach this goal. Mr. Chudowsky commented that he supported Trend 2 with deep reservations. He commented that the argument made in the previous application that Bend was unique and that the market should determine the housing mix were two reasons the Remand was issued. He commented that he felt the recommendations of the DLCD representative should be taken under consideration and that he felt the difference between the two trends was small.

Mr. Dills asked for someone to make a motion. Mary Winters commented that the Remand instructed the City that it could not solely look at demand. She commented that the State was working to help Bend through the process and that there was a difference between state law and the “real world.” She indicated that she agreed with Mr. Johnson that the City could not rely on meeting affordable housing needs or mix with a percentage alone.

Mr. Knight commented that he did not propose to emulate the old proposal, but felt that Track 1 was less severe and added that it met Remand requirements but provided the ability to allow for affordable housing. Mr. Clinton commented that he understood the housing mix ratio would be aspirational with the need for the City to track in future years whether the market was matching the plan and if not he wondered if the City could make adjustments then. Ms. Winters answered in the affirmative and commented that the City wanted to grow outward and that the state would take an aggressive approach to make sure the City was creating the environment to meet the goals.

Ms. Russell asked if this option meant the decision was preliminary and Ms. Winters indicated it was and added that modeling would be done based on the recommendation. Mr. Chudowsky added that in the next phase of this process it was possible the recommendation would not meet the identified needs. Mr. Rankin added that the process would not be finished without findings. Mr. Dills asked for a motion.

Ms. Russell motioned to accept Trend 2 on a preliminary basis. Mr. Chudowsky seconded the motion. The vote was 6-2. Mr. Knight and Mr. Ramsay opposed the motion.

Mr. Dills moved to the next recommendation from the Employment TAC that market factor not be used for employment lands decisions. Mr. Rankin commented that the market factor rationale had not held up in the courts. Employment TAC Chair Jade Mayer commented that the Employment TAC had an easy decision because market factor was not supported by state law. Mr. Dills asked for questions.

Mr. Knight moved to support Scenario A. Ms. Barram seconded. The USC voted unanimously in favor of the motion.

Mr. Dills asked Mike Riley, Co-Chair of the Boundary and Growth Scenarios TAC, to provide context of that committee's recommendation. Mr. Riley explained that the TAC was concerned about moving the process forward and that the result was defensible. He indicated those concerns drove the recommendations they made. He indicated some members abstained or qualified their votes indicating they might change their opinions at a later date, especially with issues around Goal 5, natural resource considerations. He indicated the TAC did not go into detail about EC questions or analysis and that he expected controversy and discussion.

Mr. Dills asked the members for questions or discussion on the recommendations. Mr. Rankin commented that discussions about suitability criteria would create scenarios to eliminate land from discussion. He indicated the McMinnville case and other considerations were complex and methodology would be important. Ms. Winters commented that the biggest difference between the second and third steps of the process was that the third step would involve the City's first consideration of their ability to provide services in an area. She indicated that based on the McMinnville decision, the City must analyze higher priority land and only after land was disqualified could the City consider lower priority land for inclusion. She indicated that Bend had thousands of acres of high priority land which was different from other locations in Oregon. Mr. Rankin highlighted this on the UGB Study Area by Priority Class map. He commented that the Boundary TAC was tasked with developing a methodology to meet the law without having need factors set. Ms. Winters indicated this would change.

Mr. Clinton commented that the failure to do an adequate Goal 5 analysis in the previous UGB process bothered him and that this would be a good exercise to do as it could make clear areas to exclude. Mr. Dills commented that the TAC discussed this and indicated that the process could begin with a broad look and seek more detail later in the Goal 5 analysis. Mr. Riley asked if members could ask Oregon Department of Fish & Wildlife for their inventory, what they relied on for Goal 5 analysis, and whether the City's analysis would be defensible. Mr. Rankin indicated that the analysis had not been done in the UAR, and indicated work would need to be done to determine if there were Goal 5 resources there. Ms. Winters commented that it would be expensive and take a long time to inventory areas that were not in the City and that, that effort would slow the process. She commented that the City was told that they did not have to do an inventory until the land was annexed. Mr. Clinton commented that inventorying all of Deschutes County would be prohibitive, but the City should inventory land likely to brought into a UGB boundary. Ms. Winters replied that would be part of the process and was listed as Step 3. Mr. Riley commented that the City many not have an inventory. Mr. Winters indicated that the Boundary TAC would provide criteria for the City to use to determine this process. Mr. Riley commented that that was why Boundary TAC members were willing to move forward with this recommendation. Mr. Clinton commented that there was the question of land that was a fire hazard and questioned whether land in this criteria should be brought into the UGB. Ms. Winters replied that that would be the same type of criteria. Mr. Riley commented that would be under the EC and Mr. Dills explained that EC is Environmental, Social, and Economic. Mr. Dills asked for questions or comments on the Boundary TAC recommendations.

Ms. Russell asked about the blue areas on the map and commented that Bend did not have urban areas as defined by ORS. Mr. Dills commented that it was a semantic issue. Mr Rankin commented that these were statutory requirements and that Bend had exception lands that the City calls urban reserves. In Bend, he indicated, the City had two types of land: exception lands and resource lands, and that the City did not have a statutory urban reserve. Mr Riley commented that Bend should develop an urban area reserve to make the process easier next time.

Mr. Clinton asked how to handle sage brush lands that had become sage brush subdivisions. Mr. Rankin replied that in Step 3 the City would consider differences in cost in land that was already parcelized, versus land that was not. He added that some land might trend toward redevelopment and that the subcommittees would operationalize this by measuring the relative merits.

Mr. Dills asked if the committee would want to consider the recommendations as a group.

Mr. Knight moved to accept the Boundary TAC recommendation as a group and Ms. Barram seconded the motion. The USC approved the motion unanimously.

3. Project Goals

Mr. Dills began the discussion on project goals. He commented that goals were created as a supplement and that the project team identified community goals through the integration of Bend 2030 and Greenprint surveys, stakeholder interviews, and community input from on-line. A group of themes emerged and were listed in members' packets. Mr. Rankin explained that there had been questions about how the project team and the USC would use the goals. He commented that they could be used in the development of the general plan and to create policies from them. He noted that the City did not have updated goals to guide the process. The previous goals were created in 1988. The goals from then and now could be used to direct the Goal 14 process. He also explained criteria could be tied to goals and that they could be used objectively or subjectively. He commented that it would be helpful to make a decision on how to use the goals.

Mr. Dills asked for questions. Mr. Clinton commented that some of the summarized themes were contradictory and that keeping them loose might have merit. Mr. Dills asked if any reworking was needed. Mr. Clinton commented that the goal - to keep sprawl away and keep Bend dense - needed

work because Bend was not dense. Mr. Dills replied that what the project team did hear was somewhat contradictory, but that there was a lot of support for the themes. Mr. Chudowsky brought up the goal on wildfire prevention and commented that the City could not control for lighting or human error and that he was not sure what wildfire prevention had to do with the inside of the boundary. He added that the members could take it out because the City could not build a City around fire prevention. Mr. DeBone commented that Deschutes County had a fire protection plan and the members discussed this. Mr. Chudowsky commented that he had understood from the City Manager that with the passage in Bend of the fire levy that the ISO had lowered in Bend in terms of fire risk. He commented that the Forest Service had been conducting a strong thinning project and that it had been a long time since Bend had had a wildfire. Mr. Dills commented that risk management seemed to encompass the meaning. Bruce White from the public commented that his concern was that fire prevention was a proxy for not expanding the UGB on the west side of Bend. He indicated he thought it should be stricken from the goals. Mr. Chudowsky commented that he agreed.

Mr. Dills asked for a straw poll on the issue. Mr. Knight indicated he was not in favor of striking it and added that the planning needs of the City needed to address fire prevention and that it was a risk on the east and west sides. He commented that he did not see it as a proxy for not developing. Mr. Dills asked the members how many would accept risk management as a goal in place of fire prevention. Six members approved of this. Mr. Clinton commented that he took issue with the category where it was listed. Mr. DeBone commented that the City was in a dry conifer area on the west side and grass and juniper on the east side, so fire was an issue the City needed to plan for. Mr. Dills indicated the revision was accepted.

Members agreed the second sentence in the goals section would now read, under the title "A Quality Natural Environment": Wildfire risk management is a key consideration.

Mr. Wolf commented that he did not see a reference to the County goals and asked if the team had tried to compare them. He also commented that Greenprint was used, but not the Deschutes County Plan. Mr. DeBone commented that it could take a long time. Ms. Barram commented that Greenprint was done more recently and that along with Bend 2030 those surveys informed the more current information. Mr. Wolf commented that he was not looking for an extensive review. Ms. Barram asked if the County had folded the Greenprint work into the County plan. Mr. DeBone replied that they could look into that.

The members discussed the goal section called "Strong Active Downtown." Ms. Russell commented that traditionally a strong and active downtown would have a city hall and that Bend had that and a county building, library and that civic services helped define a vibrant downtown community. There was consensus to add a reference to civic services in this goal.

Mr. Dills asked if the members wanted to have the the first sentence in the section "Strong Diverse Economy" to read: Bend has a good supply of serviced land planned for employment growth that supports the City's economic development goals, provides a range of diverse jobs and industries, and supports innovation. He also asked if members wanted to remove the underline from the section. Members agreed.

Mr. Riley commented that under the section "Housing Options" the text would reflect not just low income housing but more broadly work force housing. The committee agreed.

Members agreed that the title Housing Options would now read "Housing Options and Affordability."

Mr. Dills asked for a motion. Mr. Chudowsky moved to adopt the goals as revised. Mr. Knight seconded the motion. The members voted unanimously in the affirmative.

5. Public Comment
Mr. Dills asked for public comment.

Joe Emerson indicated he was a resident of Bend and provided public comment. He commented that he wanted the City give greater respect to rivers and to work to ensure that rivers and trails near residential areas have a buffer area between them so residential areas were not visible from rivers and trails. He commented that outdoor recreation was the reason Bend was thriving.

Mr. Foster indicated he was a resident of Bend and provided public comment. He asked that members pay more attention to low income housing and that the Bend-La Pine School District had a staff member concerned with homeless children in the district and reported that over eight hundred homeless children lived in the district. He commented that altruism was a value they strive for.

Rachel Roberts indicated she was a resident of Bend and provided public comment. She commented that her biggest concern was access to safe and reliable bike lanes. She commented that it was very difficult to commute from the east side to downtown or the west side. She expressed that while parks in Bend, including Pine Nursery near her residence were very nice, she was concerned that Bend Parks & Recreation park development should be reviewed and commented that the BPRD practice of removing trees and creating buffers with grass and other landscape was a concern. She added that she agreed with the earlier comment to maintain a buffer around natural resources and recreation areas.

Mr. Van Sies indicated he was a resident of Bend and provided public comment. He commented that he would want members to reinforce the goal to increase density in Bend so alternative transportation could be improved. He commented that he would like more multi-use areas like Northwest Crossing that contribute to people walking or riding their bikes with shops and other necessities and amenities near them.

Mr. Dills commented that there was a conflict with the next USC meeting date due to a City Council meeting originally planned for that day. Mr. Rankin suggested that City staff send a Doodle poll to the members to find an alternative date.

6. Adjourn
Mr. Chudowsky adjourned the meeting at 4:56pm.

Memorandum

March 13, 2015

To: Bend Urban Growth Boundary Steering Committee (USC)
Cc: Technical Advisory Committees
From: Brian Rankin and Joe Dills, Project Managers
Re: Bend Remand Project Phase 1 Recommendations - Overview

OVERVIEW

The March 19th USC meeting represents completion of Phase 1, a major milestone in the Urban Growth Boundary (UGB) Remand project. Phase 1 began in earnest in June of 2014. It brought together three separate Technical Advisory Committees (TACs) - Residential, Employment, and Boundary - to deliver the package of recommendations in the attached meeting materials. While the Residential and Employment TACs focused on planning for the existing city and UGB, the Boundary TAC had an external focus. The TACs are comprised of a group of approximately 60 citizens, each with their own viewpoints and values. The work was demanding, engaging, sometimes divisive and emotional, yet resulted in recommendations which are mainly consensus decisions and represent a strong base of agreement for the project. The project team believes what is enclosed represents the TAC's best work. In addition to the TAC process, work during Phase 1 included community input in the form of on-line surveys, workshops, and many interactive presentations to local groups.

RESIDENTIAL AND EMPLOYMENT TAC RECOMMENDATIONS

From a policy standpoint, the practical question about the work and recommendations created by the Residential and Employment TACs is: "What does this mean for Bend's future in terms of land use?"

At the risk of oversimplifying, the answer is that the sum of these many decisions creates a plan that identifies new opportunity areas for slightly more intensive development and different mixes of employment and housing, while respecting the nature of Bend's existing developed neighborhoods throughout the city.

Generally, residential land that is already developed is not planned to experience a high degree of change or redevelopment. Assumptions about the redevelopment of residential and employment areas are on track with rates observed since 1998. The Central Area of Bend is planned to experience the greatest change in mix and intensity of uses as it moves from a pure employment area to a mixed employment and residential area with a greater density of employees and residents.

Somewhat higher densities of residential development are generally assumed for remaining vacant land throughout the City, while avoiding radically different redevelopment patterns in developed areas. The recommendations include proposed “efficiency measures” that would be implemented through Development Codes to make it easier to develop a greater variety of housing types and use residential and employment land more efficiently. In addition, the work assumes a movement away from the observed trend of building approximately 75% of residential land for single-family detached units (between 1998 and 2014) to a rate of 55% single-family detached units going forward from 2014 to 2028.

For the current UGB, the TACs are recommending that a range (aka “bookends”) of growth capacity and growth strategies be carried into Phase 2 of the project. The growth capacity range accommodates about 73% to 85% of the City’s housing need (units) and 70 to 77% of the City’s employment need (jobs) to the year 2028. About two-thirds of this growth is on vacant buildable lands, with the other third on infill lands. Key opportunity areas, each with their own potential and limitations, include the Central Area, SE area Ward properties, Century West Area, and Juniper Ridge.

Testing of the efficiency measures has revealed: (1) that they have strong potential for increasing the efficiency of land use (up to approximately 60% increase for housing in the current recommendations, relative to the base case and inclusive of zone changes on large vacant sites); and (2) that they need further analysis and discussion to confirm where and when to apply them. The TACs are recommending a list of issues for continuing study for land within the current UGB in Phase 2, to further hone the recommendations and integrate them with the upcoming work for the expansion areas.

One other key take-away should be mentioned – the vision underlying the Phase 1 recommendations. The project goals, adopted by the USC and attached to this memo, are an expression of Bend’s aspirations and priorities for the long term. The Phase 1 recommendations move the City toward this vision, within the legal constraints required for projecting realistic growth capacity to the shorter term horizon of 2028. The goal of updating the City’s UGB in this project an important step, but just one step, toward the larger vision embodied in the project goals and in the General Plan.

These recommendations were the result of many long meetings in which participants sought to balance legal requirements, research on demographic and permitting data, market realities, and the concerns and values of residents.

BOUNDARY TAC RECOMMENDATIONS

While the Residential and Employment TACs focused on planning within the existing UGB, the Boundary TAC had an external focus. Their task was to evaluate lands surrounding Bend for their relative strengths and weaknesses according to State laws pertaining to UGB expansions. Why is this important? Ideally, the UGB expansion should take place on the “best” land available after considering and balancing multiple factors.

The Boundary TAC’s primary focus in Phase 1 was to agree upon the analytical and legal framework to ultimately conduct a comparison between lands to include in the UGB expansion. The State’s process allows local jurisdictions to use a legal framework to implement local values in deciding how state-established factors are considered in a UGB expansion analysis. The legal requirements and values are represented in the many evaluation maps the Boundary TAC created. The Boundary TAC’s work is the foundation upon which Phase 2 will be built. Their work addresses community values, efficient accommodation of land needs, orderly and economic provision of public facilities and services, and the

compatibility of urban uses with nearly agricultural and forest activities. Ultimately, this work will allow an objective comparison of the environmental, social, economic, and energy consequences of developing different UGB expansion scenarios to meet identified land needs. Additional modeling of land use, transportation, and utilities in Phase 2 will provide more detailed analysis to arrive at a preferred UGB expansion scenario.

There were difficult discussions as the TAC sought to balance the values of different community members. In the end, the products in the USC packet represent either consensus or majority vote decisions on these subjects. Their work will enable Phase 2 to consider which lands to include in scenarios for more detailed analysis. Phase 2 will focus on a balanced consideration of potential expansion areas, comparing measures such as the ability to:

- Build efficient and least costly road and infrastructure systems,
- Create urbanization patterns that will result in more complete neighborhoods,
- Minimize impacts on natural resources and wildlife,
- Reduce the risk of wildfire as Bend urbanizes,

All of these issues will continue to be considered and refined in Phase 2 of the project.

CONCLUSION

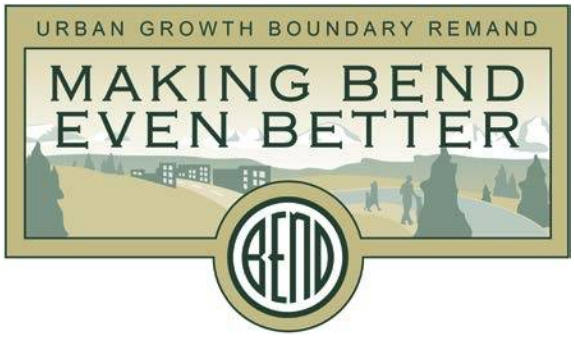
It is critical for the USC to understand the TACs' recommendations, as they will direct future work and the resulting plan for Bend. This memo's overview is not intended to be the only interpretation of the work, and it is neither intended to replace each USC member's individual judgment and consideration, nor a discussion involving the many participants' and community's opinions. It is, however, the team's best effort to provide the USC with a concise and policy-level description of the work before the USC considers the many technical details in the attached packet.

Blending a policy-level discussion with a discussion of the details in a public setting at the USC meeting will hopefully enable the USC to understand and direct the project team to create the best plan for Bend. As the USC discusses and acts on the Phase 1 recommendations, it can instruct the team and TACs to address specific areas of interest.

The team also understands that this is a large body of work to consider and discuss. It is possible to have additional discussions with the USC, but it should be noted the amount of time required for additional USC discussions will push out the project schedule and budget accordingly. Ideally, the USC will be able to balance these considerations so it is confident and comfortable with the work to date before heading into Phase 2, which is scheduled to begin on the heels of the USC meeting in April.

PROJECT GOALS

The City of Bend has entered the next phase of its Urban Growth Boundary (UGB) expansion to chart a path for Bend's future growth. The UGB is a line drawn on the City's General Plan map that identifies Bend's urban land. This land represents an estimated 20-year supply of land for employment, housing, and other urban uses. As the city continues to grow, we have an opportunity to develop a plan for future growth that reflects the community's goals and meets state planning requirements.



The UGB Steering Committee approved the following Project Goals on September 4, 2014.

A Quality Natural *Environment*

As Bend grows, it preserves and enhances natural areas and wildlife habitat. Wildfire risk management is a key consideration. Bend takes a balanced approach to environmental protection and building a great city.

Balanced Transportation System

Bend's balanced transportation system incorporates an improved, well-connected system of facilities for walking, bicycling, and public transit, while also providing a reliable system for drivers. Bend's transportation system emphasizes safety and convenience for users of all types and ages.

Great Neighborhoods

Bend has a variety of great neighborhoods that promote a sense of community and are well-designed, safe, walkable, and include local schools and parks. Small neighborhood centers provide local shops, a mix of housing types, and community gathering places. The character of historic neighborhoods is protected and infill development is compatible.

Strong Active Downtown

Bend's downtown continues to be an active focal point for residents and visitors with strong businesses, urban housing, civic services, arts and cultural opportunities, and gathering places. Parking downtown is adequate and strategically located. Planning in other areas continues to support a healthy downtown.

Strong Diverse Economy

Bend has a good supply of serviced land planned for employment growth that supports the City's economic development goals, provides a range of diverse jobs and industries, and supports innovation. Employment areas, large and small, have excellent transportation access.

Connections to Recreation and Nature

Bend continues to enhance its network of parks, trails, greenbelts, recreational facilities, and scenic views inside and outside the city.

Housing Options and Affordability

Bend residents have access to a variety of high quality housing options, including housing affordable to people with a range of incomes and housing suitable to seniors, families, people with special needs, and others. Housing design is innovative and energy efficient.

Cost Effective Infrastructure

Bend plans and builds water, wastewater, storm water, transportation, and green infrastructure in a cost-effective way that supports other project goals. Efficient use of existing infrastructure is a top priority.

Memorandum

March 13, 2015

To: Urban Growth Boundary Steering Committee (USC)
Cc: Project Team
From: Angelo Planning Group Team
Re: Employment/Residential TAC and Boundary TAC Recommendations

INTRODUCTION

This memorandum describes the recommendations forwarded to the Urban Growth Boundary (UGB) Steering Committee (USC) by the Residential, Employment, and Boundary Technical Advisory Committees (TACs). The Residential and Employment TAC recommendations are included under the "Phase 1 Growth Scenarios" heading and the Boundary TAC recommendations are included under the "Phase 2 UGB Methodology" heading. Each of these sections includes an introduction with a look back at the process to date and a look forward toward the next phase of the project, followed by a discussion of the topic, and ending with the TAC recommendations.

SECTION 1: PHASE 1 GROWTH SCENARIOS

Introduction

The purpose of this memorandum is to present recommendations from the Residential and Employment Technical Advisory Committees (TACs) regarding growth scenarios for the current Bend Urban Growth Boundary (UGB). The scenarios in this memorandum are referred to as the "Phase 1 Growth Scenarios" to indicate that they are the recommended conclusions of the UGB analysis and policy direction from Phase 1 of the Bend Remand project. Issues for continuing study have been identified. The recommendations presented in this memorandum are based on the consensus or majority vote recommendations of the Residential and Employment TACs.

Where We've Been - Summary of Work Leading to the Phase 1 Scenarios

The USC met on September 4, 2014 to consider recommendations that came out of the first two rounds of Residential, Employment and Boundary TAC meetings. The USC took action on the following recommendations from the Residential and Employment TACs at that meeting:

- Housing need and mix
- No market factor for employment lands
- Project goals (Appendix A)

The Phase 1 Scenarios were created using the approved elements listed above and continued work by the Residential and Employment TACs between October, 2014 and February, 2015. The following is a brief summary of that work. Please see Appendix B for a more detailed list of the TACs' work and direction at each of their meetings.

- Review of opportunity sites: spatial opportunities for land use efficiency
- Identification of code-related efficiency measures
- Redevelopment analysis for commercial, industrial and mixed use areas
- Assumptions for the Buildable Lands Inventory and Base Case scenario
- Assumptions for special site needs: large industrial (continue planning for two 50-acre industrial sites), hospital (do not include a new hospital), university (do not add acreage for a new university)
- Urban form analysis and diagramming
- Scenarios workshop on December 15, 2014
- Calibration of the Envision Tomorrow scenario model
- Update of Bend's Buildable Lands Inventory and preparation of a Base Case growth scenario
- Modelling and analysis of initial growth scenarios created from the ideas and direction received at the December workshop
- Review and direction by the Residential and Employment TACs regarding spatial elements of the scenarios in January, 2015
- Discussion and approval of efficiency measures by the Residential and Employment TACs in February, 2015
- Review and approval of the Phase 1 Growth Scenarios package

All of the work summarized above has been conducted consistent with project objectives to address Remand and related legal requirements, and coordinated closely with the Department of Land Conservation and Development (DLCD). It has also been informed by extensive stakeholder and public input, including: 22 TAC meetings (total), 2 USC meetings, a scenarios workshop, 2 open houses, 7 drop-in meeting opportunities, the MetroQuest on-line outreach, BendVoice postings, visits to community groups, and a variety of public information pieces.

Where We Are Going - Next Steps and Phase 2 of the Remand Project

Recommendations from all three TACs are being forwarded for consideration and approval by the USC. With approval of a package of recommendations by the USC, Phase 1 of the project will be complete.

The Phase 1 recommendations will serve of the basis for preparing a proposed update of the Bend UGB. Per the methodology developed by the Boundary TAC, the new boundary will be developed in four steps/stages (See Appendix C).

- Base mapping of potential expansion areas
- Scenario development to create alternative growth scenarios
- Scenario evaluation
- Proposed UGB

Phase 1 Growth Scenarios

Major Components

The four major components of the growth scenarios are:

- Scenario map
- Efficiency measures (two packages)
- Capacity analysis
- Urban form map

The TACs' recommendations also include a list of issues to be addressed in Phase 2.

Scenario Map

The scenario map displays the potential type and location of future growth within the current Bend UGB. The lands which are colored on the scenario map are those which have either (a) been classified as vacant, developed, large enough for additional units under current zoning, large enough to divide under current zoning, or re-developable in the Residential Buildable Lands Inventory; (b) identified as Employment Land; or (c) part of nine "opportunity areas" identified by the Residential and Employment TACs as areas of potential change within the City. Tax lots have been assigned a development type by "painting" using the Envision Tomorrow model. Lands which are not colored on the map are developed lands – where no additional future growth is assumed. The draft Phase 1 Growth Scenario Map is displayed in Figure 1. The Scenario Map caries forward the same TAC-approved and modified land use designations for all "opportunity areas" with the exception of Juniper Ridge (Opportunity Area 6). The TACs did not agree about the future land use designations at Juniper Ridge. Capacity estimates for both versions of potential land use designations are reflected in tables describing Scenarios 4B and 5C. Scenario 4B reflects a mixed employment land use designation, and 5C reflects a mixed use neighborhood with a residential component.

The scenario map includes parcels where future growth is assumed to be guided by the existing General Plan designations that exist today. The map also includes parcels where future growth is assumed to be guided by new or revised designations (e.g. – changing a parcel from Standard Density Residential to Medium Density Residential). The changes are focused in the "opportunity areas" evaluated by the TACs.

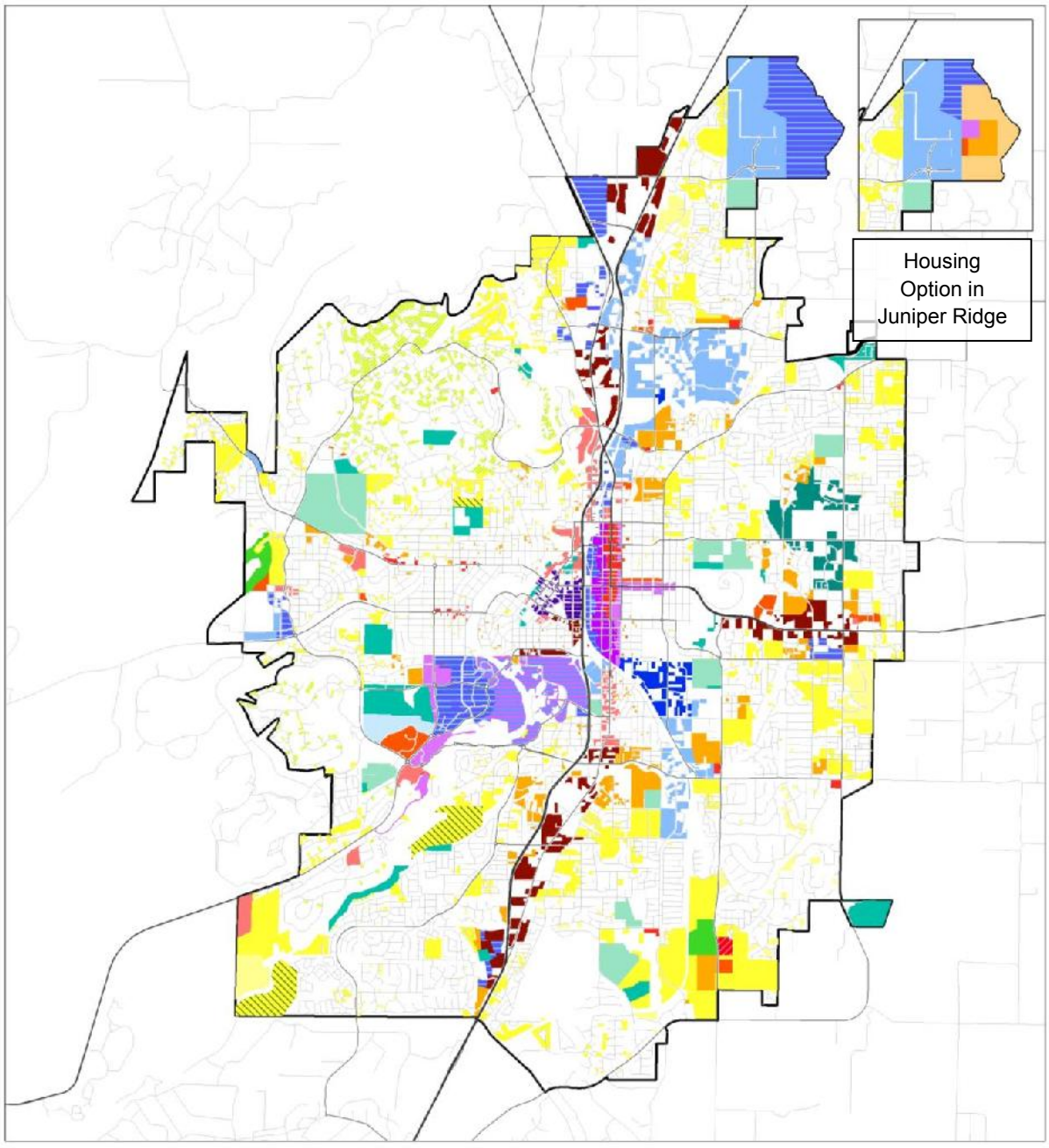
Figure 2 displays the comprehensive plan with the nine opportunity areas highlighted.

Table 1 below describes the changes to the opportunity areas in the scenario map as compared to the base case scenario. "Base Case" is the current plan designation and assumes no change from current plans and policies.

Table 1. Description of Opportunity Areas

Opportunity Area	Base Case	Scenario Map
Opportunity Area 1: Central District Mixed-Use Multimodal Area (MMA)	Retains current plan designation and urban form as highway commercial with light industrial uses	Approximates land uses and urban form described in the Central District MMA Plan
Opportunity Area 2: East Downtown	Area retains existing General Commercial designation.	Becomes an extension of downtown, receiving the Central Business District (CB) designation
Opportunity Area 3: Central Highway 20	Retains existing designation as commercial strip abutted by single family residential	Becomes Neighborhood Mixed Use (MU-1) corridor with limited multifamily attached
Opportunity Area 4: SW Century Drive	Site retains existing light commercial and industrial character.	Area becomes university-serving mixed-use community with housing component.
Opportunity Area 5: Mill District/Core Pine	Remains General Industrial	Becomes new designation, similar to Mixed Riverfront in character.
Opportunity Area 6: Juniper Ridge	Remains Light Industrial	Two options. In Scenario 4B, Juniper Ridge is Mixed Employment (ME). In Scenario 5C, a new neighborhood with over 1,200 housing units added.
Opportunity Area 7: SE 15th St	Entire area remains Standard Residential (RS) designation.	A new complete neighborhood with a mix of residential housing and community commercial designations is applied.
Opportunity Area 8: River Edge	Site retains existing RS designation.	Site becomes clustered housing in the “RS Hillside” designation.
Opportunity Area 9: COID Property	Site retains existing Public Facilities (PF) designation.	Site becomes clustered housing in the “RS Hillside” designation.

Figure 1. Phase 1 Growth Scenario Map



Mixed Use
- CB - Central Business District
- MU 1 - Neighborhood Mixed Use District
- MU 2a - Urban Mixed Use District
- MDOZ - Medical District Overlay Zone
- MR - Mixed Riverfront
- ME - Mixed Employment

Commercial
- CC2 - Commercial Prime
- CL - Commercial Limited
- CG - Commercial General
- CC - Commercial Convenience

Industrial
- IG - Industrial General
- IL - Industrial Light

Residential
- RH - Residential Urban High Density
- RM - Residential Urban Medium Density
- RS - Residential Urban Standard Density
- RS Hillside - Residential Urban Standard Density on Hillside
- RS-CCR - Residential Urban Standard Density with CCR
- RL - Residential Urban Low Density

Other
- Park
- PF - Public Facilities
- School
- Institutional

Table 2 describes the residential and employment mix each development type in the Phase 1 Growth Scenario. This mix is based on detailed assumptions regarding building types, dimensional standards, street and other set-asides, and a rate at which redevelopment is expected to occur (set at 0% for residential development types). These assumptions were calibrated to historical trends for the "base case" by examining existing property use within a given zone using Deschutes County parcel data, and then modified based on efficiency measures for scenarios 4B and 5C (described in Appendix D). Residential and employment densities within these development types vary slightly between scenarios based on the application of efficiency measures, discussed in the following section of this memorandum. The "RS Masterplan" type is only utilized in Scenario 5C.

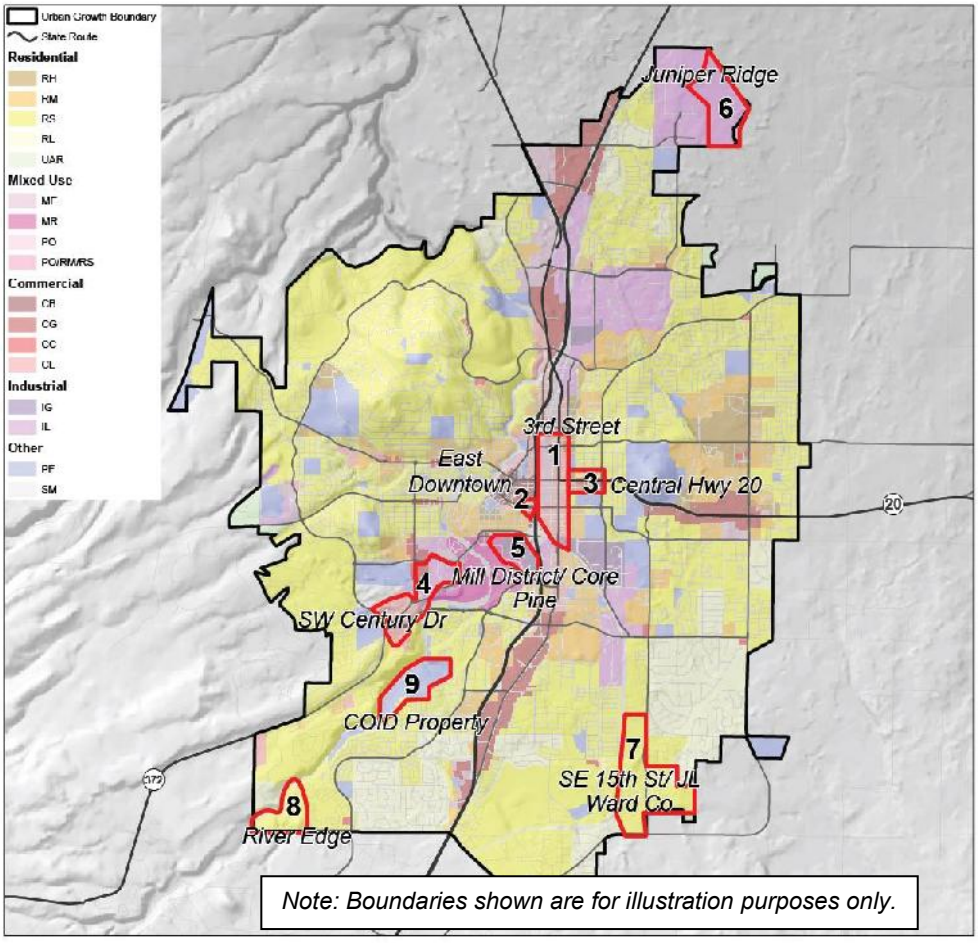
Table 2. Development Types in the Envision Tomorrow Model

Name	Description	Residential Mix	Employment Mix	Additional Information
RS	Std. Density Residential	Multi-Family: 19% Attached SF: 12% Small Lot SF: 8% Conventional Lot SF: 20% Large Lot SF: 41%	-	Contains 2% mix of SF with ADU.
RM	Medium Density Residential	Multi-Family: 44% Attached SF: 5% Small Lot SF: 40% Conventional Lot SF: 12%	-	
RH	High Density Residential	Multi-Family: 82% Attached SF: 14% Small Lot SF: 4%	-	
RL	Low Density Residential	Large Lot SF: 63% Multifamily Att. (duplex): 37%	-	Contains 2% SF with ADU and 5% duplex
MDOZ	Medical District Overlay Zone	Multi-Family: 100%	Office – 86% Industrial – 9% Civic – 5%	Captures different mix of uses in the MDOZ area
CC	Community Commercial	-	Retail - 35% Office - 39% Industrial - 4% Civic - 2% Hotel - 19%	
CC2	"Walkable" Community Commercial	-	Retail – 53% Office – 31% Civic – 1% Hotel – 15%	A more dense and walkable version of the Convenience Commercial (CC) designation
CL	Limited Commercial	Multi-Family: 97% Small Lot SF: 3%	Retail - 23% Office - 49% Industrial - 7% Civic – 3% Hotel - 18%	Includes a small amount of residential use, based on historic trends

Name	Description	Residential Mix	Employment Mix	Additional Information
CG	General Commercial	-	Retail: 63% Office: 19% Industrial: 3% Civic: 2% Hotel: 13%	
CB	Central Business District	-	Retail: 8% Office: 63% Civic: 17% Hotel: 12%	
IL	Industrial Light	-	Retail: 9% Office: 25% Industrial: 55% Civic: 10%	
IG	Industrial General	-	Retail: 4% Office: 32% Industrial: 60% Civic: 4%	
MR	Mixed Riverfront	Multi-Family: 64% Small Lot SF: 36%	Retail: 15% Office: 66% Industrial: 12% Civic: 3% Hotel: 4%	
ME	Mixed Employment	-	Retail: 16% Office: 31% Industrial: 41% Civic: 7% Hotel: 5%	
PF	Public Facilities	-	Retail: 2% Office: 4% Civic: 94%	
RS-CCR	RS with Development Restrictions	Large Lot SF: 100%	-	a designation for areas covered by CC&Rs that limit lot divisions to ensure one unit per lot
Uni-versity		-	Educational – 100%	Used for planned college/university campuses
MU1	Neighbor-hood Mixed Use	Multi-Family: 92% Attached SF: 8%	Retail: 51% Office: 42% Civic: 5% Hotel: 2%	new neighborhood-scale mixed use development type
MU2a	Mixed Use	Multi-Family: 95% Attached SF: 4%	Retail: 12% Office: 69% Civic: 1% Hotel: 18%	new urban-scale mixed use development type

Name	Description	Residential Mix	Employment Mix	Additional Information
RS Hillside	Std Density Residential – Clustered Development	Multi-Family: 12% Attached SF: 24% Conventional Lot SF: 21% Large Lot SF: 42%	Office: 100%	Used where topography or other conditions may limit density to the lower end of the allowed range, rather than the average
RS Master-plan (5C Only)	RS for large master-planned areas	Multi-Family: 11% Attached SF: 14% Small Lot SF: 57% Conventional Lot SF: 7% Large Lot SF: 11%		Reflects efficiency measures affecting master plan requirements for large sites (over 20 acres)

Figure 2. Opportunity Areas and Current General Plan Designations



Efficiency Measures

In addition to the location-specific changes described above, two packages of efficiency measures have been applied to test their impact on the relative efficiency of development and resulting development capacity within the City. The number of efficiency measure packages was limited to three (base case plus two new packages) in order to examine a range of options while limiting the complexity and cost of analysis. The proposed efficiency measures are listed in detail in Appendix D.

Some efficiency measures are applied in residential zones to encourage development of needed housing types and/or encourage more efficient use of residential land. Others are applied to employment zones to enable redevelopment or make more intensive new development possible. These measures were reviewed by the TAC and included the "packages" of tools listed below. The measures are generally applied to all lands within a given zone, but further work will be conducted to examine strategic application of some efficiency measures.[1]

- **Package A** is the "base case" and contains no new efficiency measures.
- **Package B** is focused on changes that make it easier for property owners and developers to build at the higher end of the allowed density range in each zone by creating greater flexibility in development standards. This package is a market-based approach that uses options and incentives to achieve higher densities. Examples include:
    - reducing minimum lot sizes and setbacks for certain housing types in certain zones
    - reducing parking ratios for certain types of businesses and certain housing types so that less land must be dedicated to parking
    - expanding allowed housing types in the RS zone
- **Package C** also increases flexibility in development standards, but it includes a mix of incentives and regulatory constraints to both allow and require development to utilize land more efficiently. Examples, in addition to those identified above for Package B, include:
    - increasing minimum density standards in the RS and RM zones
    - strengthening master planning requirements for large blocks of vacant residential land
    - prohibiting new single family detached housing in the RH zone

These packages were analyzed with Envision Tomorrow through a combination of changes in development type assumptions and the creation of new "master plan" development types for select large parcels. Changes to development types included increased minimum gross densities, changes to building mix, reduced lot sizes, reduced parking, and expanded lot

[1] In reviewing the efficiency measures, the TACs noted that some efficiency measures were only appropriate in selected parts of the City (e.g. reduced parking ratios in mixed use, pedestrian-oriented areas). For the Phase 1 capacity analysis, this approach has been approximated through revisions to Envision Tomorrow model assumptions for some of the development types.

coverage. Details regarding the operationalization of the Efficiency Measures within the model is provided in Appendix D.

Capacity Analysis

The Phase 1 Growth Scenarios provide the basis for answering a fundamental question: what is the estimated capacity for growth (additional housing and jobs) within the current UGB? Capacity information is described in the Results section of this memorandum, along with analysis about the types and location of future jobs and housing. That information is then further used in answering another fundamental question: how does the capacity compare to the 20 year need for land for housing and jobs? That is: what is the residual need that must be accommodated with an expansion of the Bend UGB?

The Phase 1 Growth Scenario does not provide a single answer to the question of capacity. Rather, a range of capacity estimates is provided, referred to as "bookends" for growth within the current UGB. The bookends are a result of applying the two different packages of efficiency measures as well as the difference in land use designations at Juniper Ridge (Opportunity Area 6). This approach is intended to reduce the pressure to get to a single "answer" in Phase 1, thus setting the stage for continued refinement and work in Phase 2 including additional analysis of the effectiveness and feasibility of specific efficiency measures related to impacts on public infrastructure systems such as transportation (Vehicle Miles Traveled), water, and wastewater systems.

The drivers of the bookended capacity estimates can be summarized as follows:

- Phase 1 is concluding with one scenarios map, that has two alternatives for a single opportunity area: Juniper Ridge.
- Phase 1 is concluding with two packages of efficiency measures that, when applied in combination with the map, provide a range of estimated capacities for the current UGB.

Urban Form Map

The purpose of the Urban Form Map is to provide a high-level view of the shape of the City. It shows the variety and relationship of Bend's neighborhoods, centers and corridors, and employment districts. Versions of the Urban Form Map have been used to create and evaluate scenarios to date.

Discussions with the TACs about future development within the City have focused not only on capacity and land efficiency, but also on the livability and urban form of Bend. Urban form generally defines the type and scale of development and the roads and pathways that allow people to connect to the places they live, work, shop, and play within and outside those areas. In terms of the type of development, urban form describes different types of housing and employment uses, the size or scale of buildings and lots, and the design character of new development. Urban form also describes the relative emphasis on using different types of transportation within an area – driving, walking, bicycling, or taking transit. These urban form characteristics have been described using a series of maps that show the locations and relative intensities of different types of development, including areas where there is a mix of housing, shopping, and employment uses.

The Urban Form Map recommended as part of the Phase 1 package is shown in Figure 3. The map is intended and conceptual and illustrative of the planned character Bend's neighborhoods, centers and corridors, and employment districts. It captures the working ideas of the project as of the conclusion of Phase 1 and is subject to change. Notice there are two options for Juniper Ridge (Opportunity Area 6).

Phase 1 Growth Scenario - Results

Housing

The tables and figures below describe the housing capacity and mix of the base case and hybrid scenarios. With no changes to plan designation, the base case scenario projects an added capacity of 9,050 units within the existing UGB. Of these, 70% are expected to be single family detached units, 25% multifamily attached units, and 5% attached single family units.

Scenario 4B shows an additional capacity of roughly 3,400 units over the base case, a 38% increase. This is achieved by a combination of efficiency measures and changes to the designation of the nine opportunity areas. The housing mix in this scenario is 55% single family units, 36% multifamily attached units, and 9% attached single family. Scenario 5C shows a 61% increase over the base case, with a capacity of 14,583 units and a mix of 57% single family units, 33% multifamily attached units, and 10% attached single family.

The major drivers of the differences between Scenarios 4B and 5C are the designation of Juniper Ridge, which adds over 1,200 residential units to the existing UGB capacity in Scenario 5C (See Table 7), and the imposition of higher minimum density requirements for large masterplanned parcels in Efficiency Measure Package C, which affects Opportunity Areas 6 and 7, as well as other large vacant parcels.

Table 3. Housing Capacity and Housing Mix Estimates

	Base Case		Scenario 4B		Scenario 5C	
New Housing Units	**9,050**	**100%**	**12,477**	**100%**	**14,583**	**100%**
Multifamily Attached	2,240	25%	4,487	36%	4,871	33%
Attached Single Family	471	5%	1,151	9%	1,401	10%
Single Family Detached	6,340	70%	6,839	55%	8,311	57%

Figure 3. Phase 1 Growth Scenario – Urban Form Map

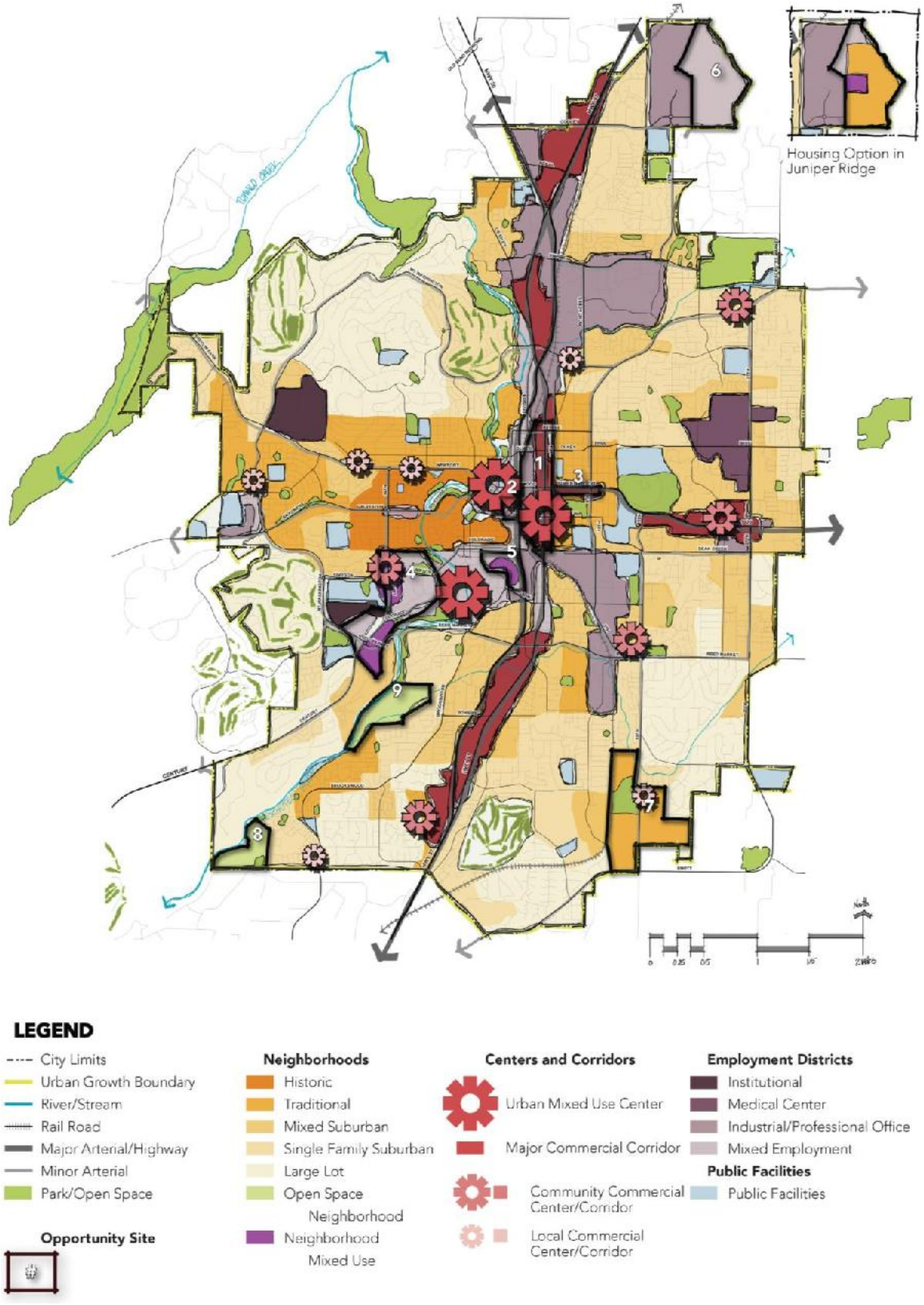


Figure 4. Housing Capacity and Mix (Units)

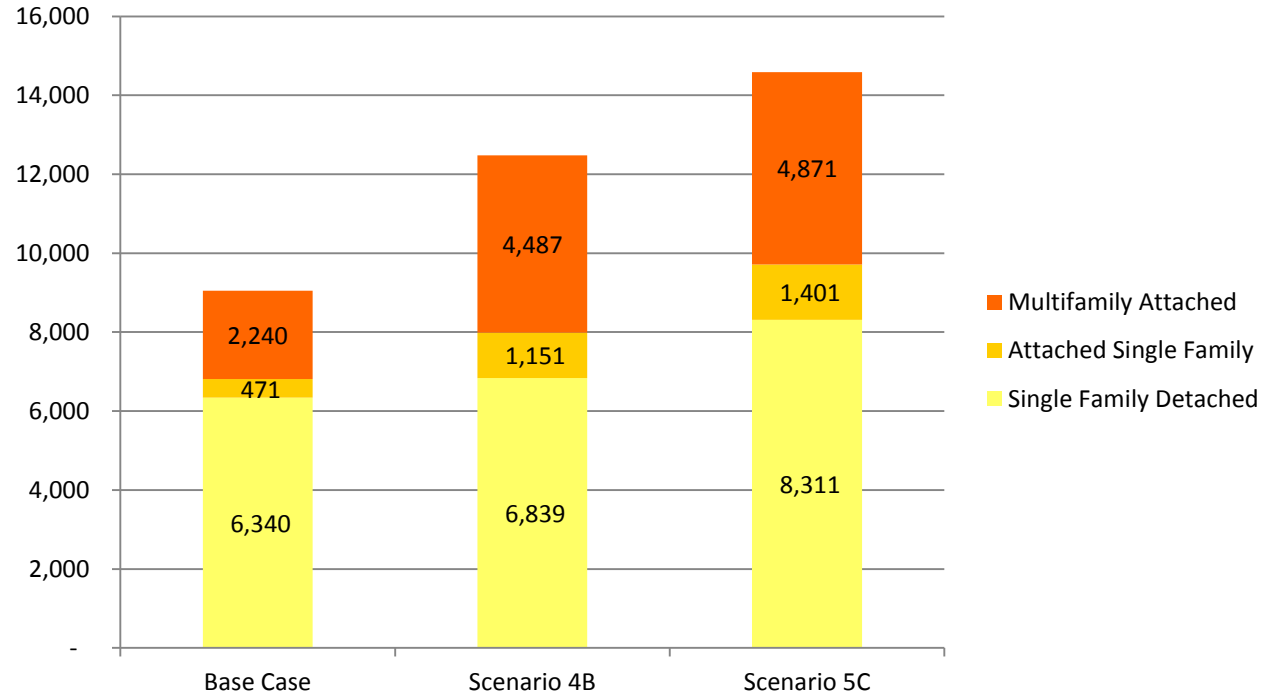


Figure 5. Housing Mix (Percentage)

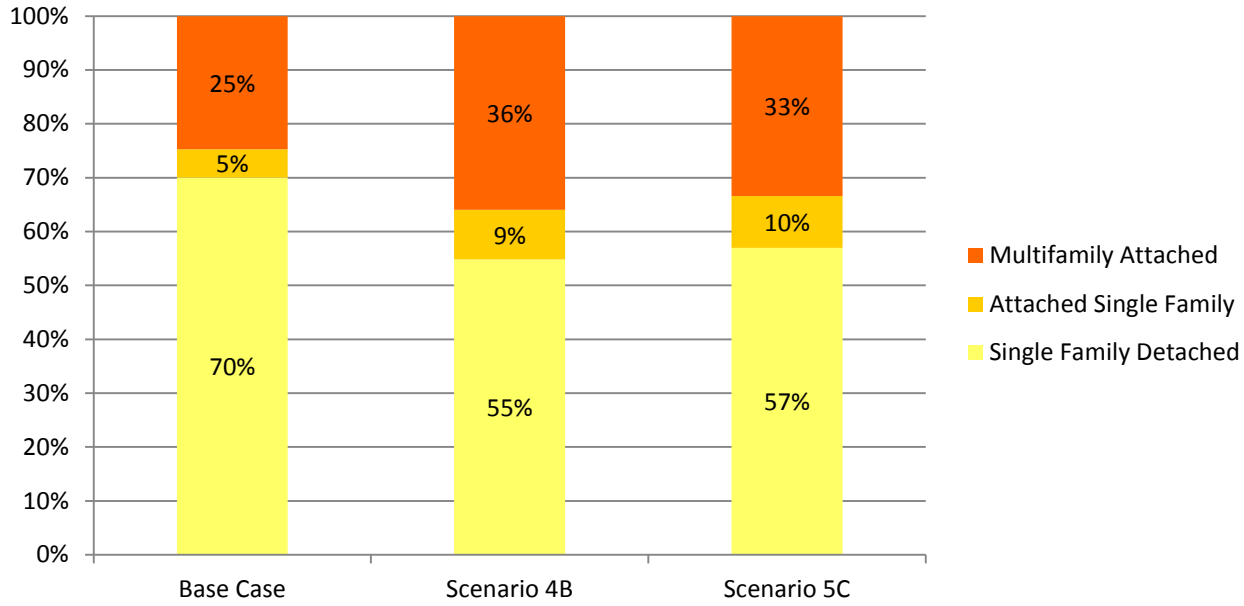


Table 4. BLI status of Added Housing Units, by Scenario

BLI Status	Base Case		Scenario 4B		Scenario 5C	
Developed	138	2%	712	6%	738	5%
Lots large enough for an additional unit under current zoning*	0	0%	0	0%	0	0%
Lots large enough to divide under current zoning	3,111	34%	4,079	33%	4,258	29%
Vacant	5,776	64%	7,479	60%	8,091	55%
Publicly owned	25	0%	26	0%	1,302	9%
None of the above**	0	0%	180	1%	193	1%
Total	**9,050**	**100%**	**12,477**	**100%**	**14,583**	**100%**

**BLI analysis of building footprints and zoning requirements found no lots with the designation "Large Enough for an Additional Unit under Current Zoning" to have sufficient acreage to indicate a reasonable likelihood of development feasibility (> 1/2 acre). This analysis is detailed in a separate BLI memorandum.*

*** "None of the above" indicates land that is not part of the residential BLI. These units are generated through mixed-use designations on what was previously employment land.*

Table 4 describes the land on which new units occur by BLI status[2]. In all scenarios, the majority of new units occur on vacant land, and roughly one third of new units occur in lots large enough to divide under current zoning. Scenario 5C shows significant development on Publicly Owned land, namely Juniper Ridge.

Properties with a BLI designation of "developed" with additional housing units include areas with existing employment designations/land uses in opportunity areas deemed appropriate for residential development, such as the Central District MMA, land near the OSU campus, and the Mill District/Core Pine area.

Employment

The tables and figures below describe the employment capacity of the base case and hybrid scenarios. Scenario 4B shows an increase of roughly 2,800 jobs over the base case, primarily in the office, industrial, and retail categories. Scenario 5C shows a decrease in new jobs from Scenario 4B due to the conversion of land in Juniper Ridge from employment to housing uses. Because the efficiency measures are mostly related to residential uses rather than economic uses, the differences in the estimated employment capacity between scenarios are not as pronounced as the differences in housing capacity. The biggest driver of change between the two scenarios is how Juniper Ridge is assumed to develop. Scenario 4B assumes Juniper

[2] Details regarding BLI designations and their role within the Envision Tomorrow model can be found in the February 6th memorandum titled "Draft Bend UGB Buildable Lands Inventory."

Ridge is treated as employment land and Scenario 5C assumes it is a mixed use area with a residential component. This explains why Scenario 5C shows less employment capacity than 4B.

Table 5. Employment Capacity Estimates

	Base Case		Scenario 4B		Scenario 5C	
New Jobs	**13,074**	**100%**	**15,887**	**100%**	**14,413**	**100%**
Retail	1,745	13%	2,301	14%	2,179	15%
Office	3,766	29%	5,979	38%	5,603	39%
Industrial	3,272	25%	4,053	26%	3,248	23%
Public	3,423	26%	2,571	16%	2,466	17%
Education	383	3%	346	2%	346	2%
Hospitality	484	4%	637	4%	569	4%

Figure 6. Potential Employment Capacity (Jobs)

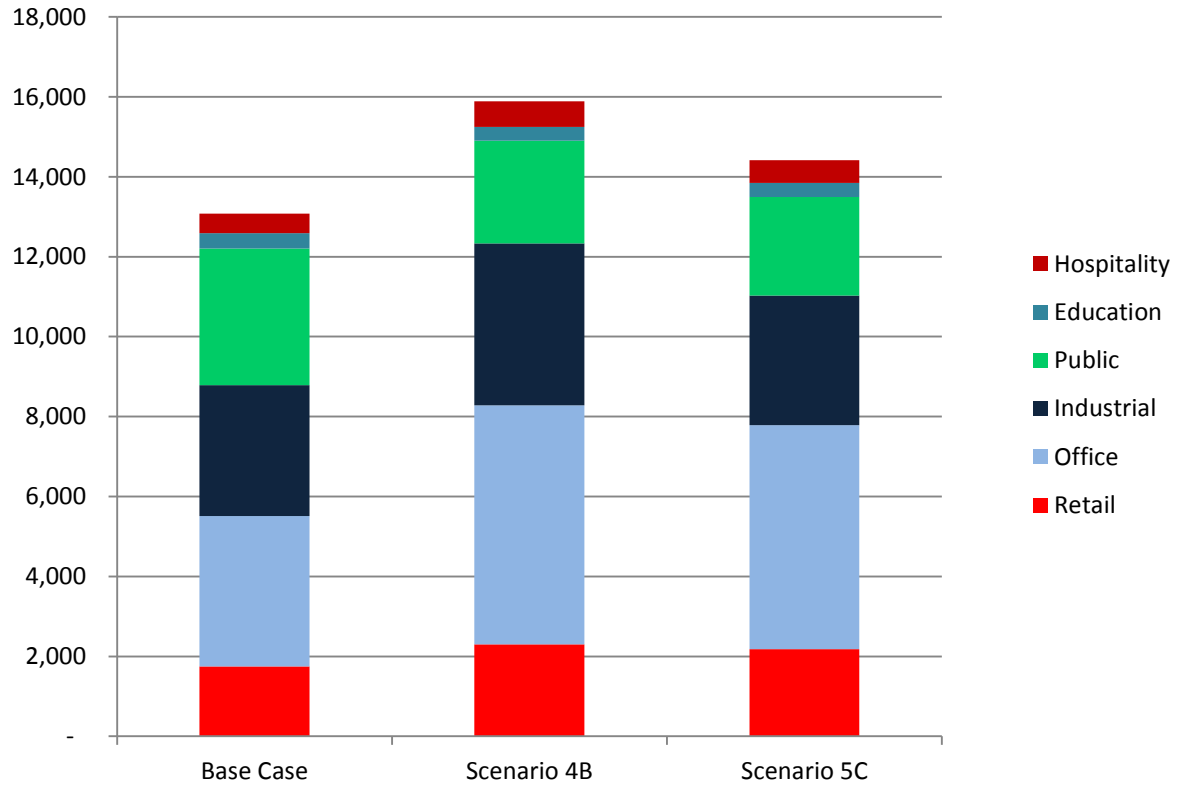


Figure 7. Potential Employment Capacity (Percentage)

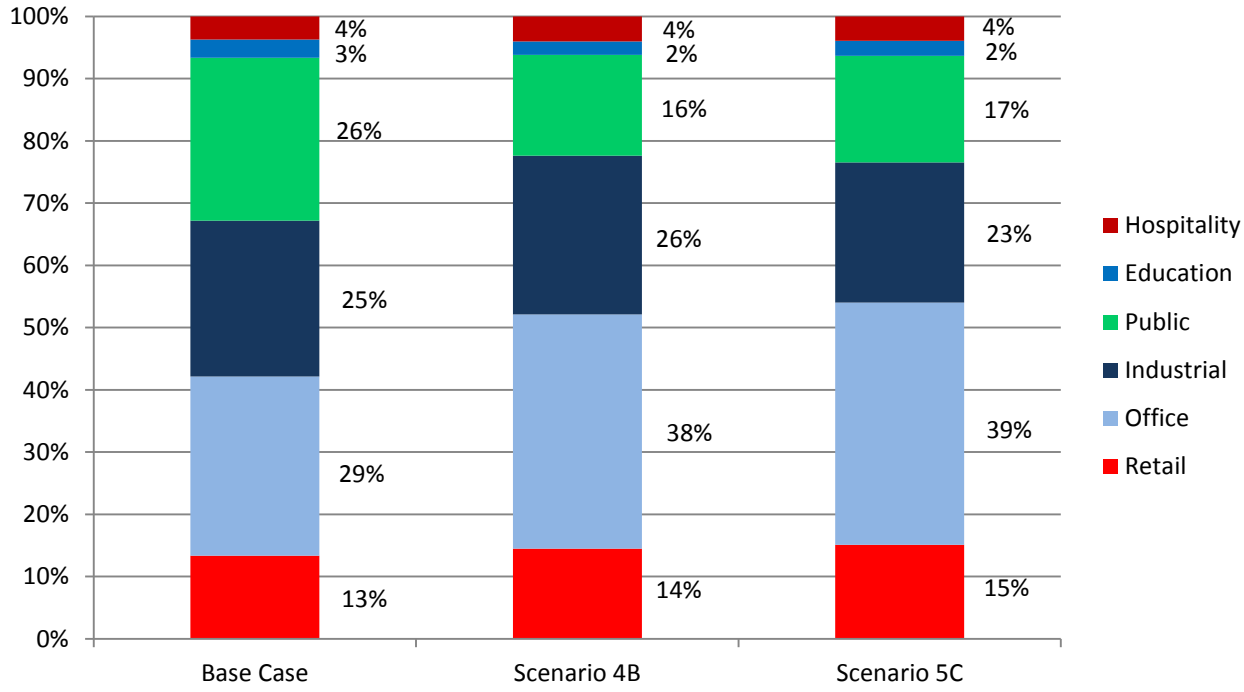


Table 6. Added Jobs by Employment BLI Status

	Scenarios		
	Base Case	**4B**	**5C**
Developed	2,778	4,840	4,840
Vacant	8,415	10,057	8,583
Other *	1,881	990	990
Total	**13,074**	**15,887**	**14,413**

* Other lands include residential land, and land designated “Public Facilities”.

Housing and Employment Comparison of Opportunity Areas

Tables 7 and 8 below describe the housing and job growth seen in the Base Case, 4B, and 5C scenarios broken down into the nine opportunity areas identified by the Residential and Employment TACs. It is helpful to examine the differences between the “Base Case” which represents today’s current policies guiding development of the opportunity areas, and degrees of change with respect to future housing and employment for each opportunity area. Note that with the exception of the Central Area (Opportunity Area 1), opportunity areas which are currently dominated by employment uses continue the trend of being developed primarily or even exclusively as employment areas with a different assumed mix of employment uses rather than becoming new mixed use residential areas. This is explained by past trends in Bend (limited residential development in employment areas), which guide assumptions about future development. A map of these opportunity areas is provided in Figure 2.

The largest difference between Scenario 4B and Scenario 5C is in Opportunity Area 6 – Juniper Ridge. It is designated Mixed Employment (ME) in Scenario 4B, providing capacity for nearly

2,200 jobs, and in Scenario 5C it becomes a complete neighborhood providing nearly 1,300 single-family and multifamily attached housing units.

Table 7. Housing Units Added By Opportunity Area

		Base Case	Scenario 4B	Scenario 5C
Opportunity Area 1: Central District MMA	Single Family Detached	-	-	-
	Single Family Attached	1	26	26
	Multifamily Attached	8	479	516
	Units Total	9	505	542
Opportunity Area 2: East Downtown	Single Family Detached	-	-	-
	Single Family Attached	-	-	-
	Multifamily Attached	-	-	-
	Units Total	-	-	-
Opportunity Area 3: Central Highway 20	Single Family Detached	-	-	-
	Single Family Attached	-	5	5
	Multifamily Attached	-	41	41
	Units Total	-	46	46
Opportunity Area 4: SW Century Drive	Single Family Detached	6	6	6
	Single Family Attached	-	40	40
	Multifamily Attached	27	289	289
	Units Total	33	336	336
Opportunity Area 5 Mill District/Core Pine	Single Family Detached	-	6	6
	Single Family Attached	-	-	-
	Multifamily Attached	-	11	11
	Units Total	-	17	17
Opportunity Area 6 Juniper Ridge	Single Family Detached	-	-	729
	Single Family Attached	-	-	147
	Multifamily Attached	-	-	400
	Units Total	-	-	1,276
Opportunity Area 7 SE 15th St	Single Family Detached	705	696	999
	Single Family Attached	47	123	188
	Multifamily Attached	41	337	302
	Units Total	794	1,156	1,489
Opportunity Area 8 River Edge	Single Family Detached	93	95	95
	Single Family Attached	13	36	36
	Multifamily Attached	11	19	19
	Units Total	117	149	149
Opportunity Area 9 COID Property	Single Family Detached	-	107	107
	Single Family Attached	-	40	40
	Multifamily Attached	-	21	21
	Units Total	-	169	169

		Base Case	Scenario 4B	Scenario 5C
Total	Single Family Detached	805	911	1,943
	Single Family Attached	61	270	483
	Multifamily Attached	87	1,197	1,598
	Units Total	953	2,378	4,024

Table 8. Employment Added by Opportunity Area

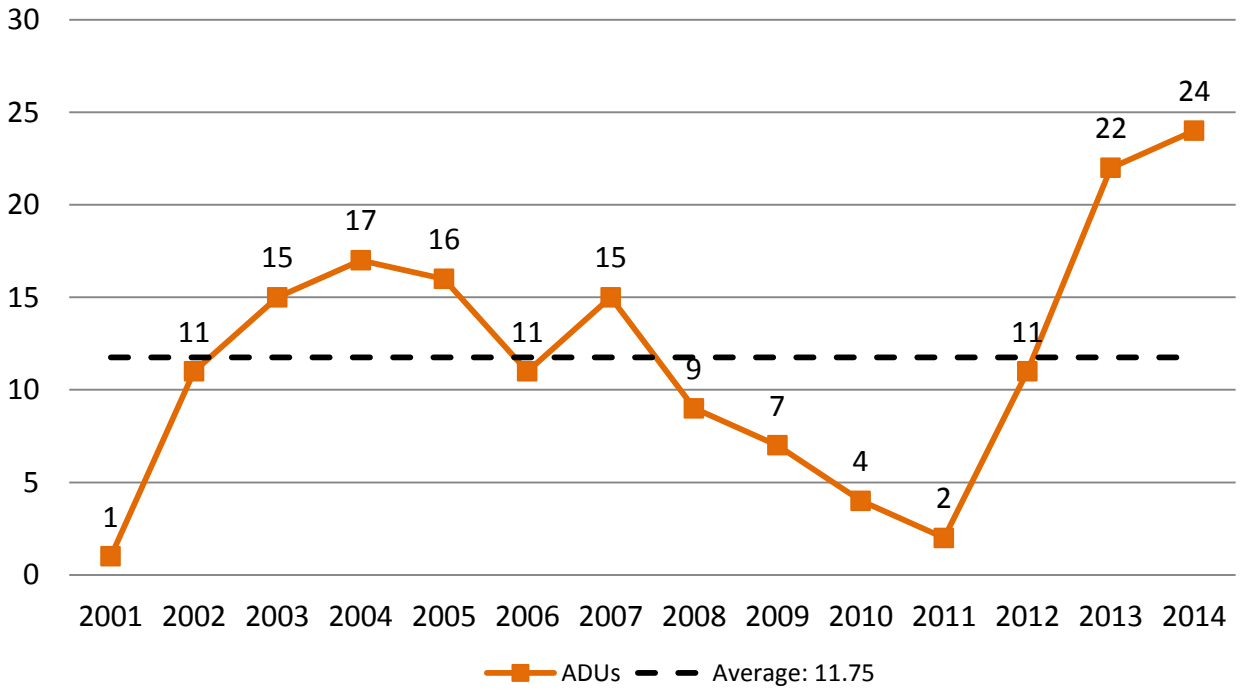
	Base Case	Scenario 4B	Scenario 5C
Opportunity Area 1: Central District MMA	68	557	557
Opportunity Area 2: East Downtown	3	289	289
Opportunity Area 3: Central Highway 20	2	75	75
Opportunity Area 4: SW Century Drive	540	701	701
Opportunity Area 5 Mill District/Core Pine	44	99	99
Opportunity Area 6: Juniper Ridge	1,583	2,183	709
Opportunity Area 7: SE 15th St	4	195	195
Opportunity Area 8: River Edge	1	1	1
Opportunity Area 9: COID Property	1,258	82	82
Total	**3,503**	**4,182**	**2,708**

Accessory Dwelling Units

The Residential TAC has discussed the role of Accessory Dwelling Units (ADUs) in meeting the need for Attached Single Family units on existing residential land that is not expected to undergo redevelopment. Figure 8 shows permitted ADU development in the City of Bend since 2001.

ADUs on developed residential land not in an infill BLI category are not counted in the Envision Tomorrow model (as no redevelopment of residential land is assumed). To address this, the average annual number of ADUs multiplied by the 14 years left in the planning period has been added as a line item to the UGB capacity for Attached Single Family units shown on Table 9. This figure represents a conservative and across-the-board estimate of ADU capacity over the planning period and does not differ between scenarios.

Figure 8. ADUs Permitted, 2001 to 2014



Conclusions – Bookend Capacity Estimates

Based on the evaluation and refinement of scenarios to date, the capacity bookends for the existing Bend UGB are as described in the following table.

Table 9. Housing Capacity and Jobs Summary table

	Scenario 4B (Low Bookend)		**Scenario 5C** (High Bookend)	
New Housing Units	**12,642**	**100%**	**14,748**	**100%**
Multifamily Attached	4,487	36%	4,871	33%
Attached Single Family	1,316	10%	1,566	10%
ADUs on Residential, Non-Infill Land	*165*	*1%*	*165*	*1%*
Other Attached Single Family	*1,151*	*9%*	*1,401*	*9%*
Single Family Detached	6,839	54%	8,311	56%
New Jobs	**15,887**	**100%**	**14,413**	**100%**
Retail	2,301	14%	2,179	15%
Office	5,979	38%	5,603	39%
Industrial	4,053	26%	3,248	23%
Public	2,571	16%	2,466	17%
Education	346	2%	346	2%
Hospitality	637	4%	569	4%

Comparison to need

Summary of Need

Population and employment forecasts provide the foundation for determining how much land is needed for housing and employment. This section summarizes housing and employment need in terms of housing units and jobs in light of direction provided by the Residential and Employment TACs. Need is presented for the 2014-2028 period to account for growth that occurred between 2008 and 2014.

Housing Need

The Remand acknowledged a 2028 population forecast of 115,063 for Bend; or 38,512 new persons for the 20-year period between 2008 and 2028. Related to the population forecast, the Remand acknowledged a need for 16,681 new dwelling units between July 1 2008 and June 30 2028. City of Bend building permit data show that 2,912 permits were issued for new residential dwellings between July 2008 and June 2014. That leaves a residual need of 13,770 new dwelling units between July 1, 2014 and June 30, 2028.

As requested by the Residential TAC, the need estimates must also consider group quarters units and second homes. With respect to group quarters, the City assumes that the percentage of persons in group quarters in Bend would remain the same as reported in the 2000 Census (2.3%). This results in a need of 461 group quarters units. Because group quarters are multifamily housing by definition, these units get allocated to the overall multifamily housing need.

LCDC approved, and the 2008 Housing Needs Analysis identified a land need of 500 acres for second homes. In a 2011 memorandum to the Remand Task Force, staff summarized the issue as follows:

> "…the City estimated that new second homes, equivalent to 18% of needed housing units, could be expected to be built in Bend during 2008-28.

The need for second homes was calculated as a percentage of total housing need (16,681 needed housing units in planning period x 18% for second homes equals 3,003 units needed for second homes in the planning period– the figure assumed for second homes). The 2,912 permits issued for new dwellings between 2008 and 2014 were deducted from total needed new units. While some of those permits may have been for second homes, there is no way to accurately determine how many. The key issue is that deducting the new permits from the 2008-2028 total housing need did not include any second homes. Thus, the second home assumption is still 18% of 16,681 or 3,003 units. A key assumption related to second homes is to apply the mix of needed housing to the number of units described above rather than using another assumption regarding the future mix of housing units for second homes.

The Residential TAC evaluated two methods of applying the housing mix approved by the USC[3], given the development that occurred in the 2008-2014 period. Option A was to deduct units built through 2014 from the Trend 2 mix to determine 2014-2028 remaining need by housing type. Under this option, the remaining need by housing type for the 2014-2028 period would be 49% Single Family Detached, 11% Single Family Attached, and 40% Multifamily. Option B was to apply the Trend 2 mix to the total 2014-2028 remaining need. The project team recommended, and the TAC approved, Option B. The project team's rationale included the following:

- The City will be considering policy options to achieve the needed mix. Those policies were not in place between 2008 and 2014. Because the City had not adopted any policies to help achieve the needed mix, one would not anticipate any substantial changes in development trends (which is what was observed between 2008 and 2014).
- The application of the alternative methodology (Option A) would result in a total need of 49% single-family detached housing types. This is 6% lower than the Trend 2 need discussed in the TAC and USC meetings and was not a part of those discussions.
- DLCD staff have given a provisional acceptance of the recommended methodology.

Table 10 summarizes forecasted new housing units by type and category for the 2014-2028 period. The need breaks down as follows: 13,770 "needed" new housing units, 461 group quarter units, and 3,003 second homes. Note that the second home units assume the same housing mix as needed units consistent with direction from the Residential TAC at the January 2015 meeting.

Table 10. Summary of New Housing Units by Type and Category, Bend UGB, 2014-2028

	2014-2028 Needed Housing Units		2014-2028 Needed Group Quarters Units	2014-2028 Second Homes	2014-2028 Total New Housing Units	
Needed Housing Types	**Units**	**Mix**	**Units**	**Units**	**Units**	**% of Total Units**
Single-family detached (including mobile homes)	7,574	55%		1,652	9,225	54%
Single-family attached	1,377	10%		300	1,677	10%
Multifamily	4,819	35%	461	1,051	6,331	37%
Total	**13,770**	**100%**	**461**	**3,003**	**17,234**	**100%**

[3] The TAC and USC endorsed the Trend 2 housing mix recommendation of 55% single-family detached, 10% single-family attached, and 35% multifamily attached.

Employment Need

The foundation of employment land need is the forecast of employment growth. In the Remand, Bend was found to have met the requirements of Goal 9, with the forecast of 22,981 new employees from 2008 to 2028. In the years since 2008, Bend's employment has grown and changed.

Since the forecast for the 2008 EOA was developed, Bend's economy has changed, in large part as a result of the recent recession. Employment in Bend between 2008 and 2013 grew by 948 employees, at an average annual growth rate of 0.5%. Table 11 shows that using the 2013 total non-shift employment figure of 38,664 and the 2028 acknowledged forecast of 60,607 yields an increase of 21,943 new employees between 2013 and 2028.

Table 11. Employment Forecast by Employment Category, non-shift workers, Bend 2008 to 2013

Employment Categories	2013 Employment	2028 Employment Forecast	2013 to 2028 Growth
Industrial			
Industrial Heavy	2,889	5,180	2,291
Industrial General	3,771	8,002	4,231
Retail			
Large Retail	3,057	5,849	2,792
General Retail	3,096	5,293	2,197
Office/Srv/Medical	16,435	23,593	7,158
Leisure and Hospitality	4,017	5,532	1,515
Other / Misc	1,505	1,547	42
Government	3,894	5,611	1,717
Total	38,664	60,607	21,943

The base case assumes that 6% of new employment will locate on redeveloped land, as determined through a residual land value analysis of redevelopment potential and approved by the Employment TAC. That equates to 1,317 employees that would locate on land that is inventoried as developed (e.g., the 1,317 employees would not create any land need). After the redevelopment deduction, the employment forecast is for 20,626 new employees that will need to be allocated a land need.

Table 12. Employment Forecast and Redevelopment Assumption, non-shift workers, Bend 2008 to 2013

Employment Assumption	Employees
Total New Employment, 2013-2028	21,943
Employment that locates on redeveloped land (6% base case assumption)	1,317
New Employment, 2013-2028 that Needs Employment Land	**20,626**

Comparison of Capacity to Need – Phase 1 Bookend Conclusions

Tables 13 and 14 compare the forecasted residential need by housing type and forecasted job need to the capacity of Scenario 4B and Scenario 5C.

Table 13. Housing Capacity Comparison to Need

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Single Family Detached	9,225	6,839	-2,386	8,311	-914
Single Family Attached	1,677	1,316	-361	1,566	-111
Multifamily Attached	6,331	4,487	-1,844	4,871	-1,460
Total Housing Units	17,234	12,642	-4,592	14,748	-2,486

Table 14. Employment Capacity Comparison to Need

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Total Jobs	20,626	15,887	-4,739	14,413	-6,213

For employment, the capacity analysis was structured differently in the EOA than it is structured here (acres vs, employment capacity), plus the city added factors for market choice which amplified the employment land need. While a direct comparison between the previous work and current estimates has not been completed, it is apparent the new capacities for employment land in the current UGB is higher than was originally assumed in the Employment Opportunities Analysis (EOA).

As noted previously, the bookends provide a potential range of capacity within the UGB and resulting additional needs for housing units and jobs outside the boundary. These estimates will be further refined in Phase 2 as different boundary options are studied. Refinements are expected to include the following:

- Further analysis of efficiency measures and a revised set of recommended measures
- Potential spatial refinements, including a recommended scenario for Juniper Ridge and other possible changes that would be compatible with different boundary scenarios.
- Coordination with Central Westside Plan process
- Conversion of needed housing units and jobs to acres of land and identification of specific recommended Plan designations both inside and outside the UGB.
- Estimate of land needed for other purposes outside the UGB such as schools, parks, “other lands,” roads, and other infrastructure.

Recommendation from the Residential and Employment TACs

At their meetings on February 23, 2015, each TAC met separately and discussed the Phase 1 Scenarios package. Both TACs voted unanimously to recommend the following Phase 1 package for approval by the USC:

1. The Phase 1 Growth Scenarios, comprised of:
   a. Phase 1 Growth Scenario Map (Figure 1)
   b. Efficiency measures (listed in Appendix D)
   c. Capacity analysis (described above)
   d. Urban Form Map (Figure 3)

2. The Phase 1 Growth Scenarios are subject to further refinement in Phase 2, including but not limited to the following:

- Further analysis of efficiency measures and a revised set of recommended measures.
- Potential spatial refinements, including a recommended scenario for Juniper Ridge and other possible changes that would be compatible with different boundary scenarios.
- Conversion of needed housing units and jobs to acres of land and identification of specific recommended Plan designations both inside and outside the UGB.
- Estimate of land needed for other purposes outside the UGB such as schools, parks, “other lands,” roads, and other infrastructure.
- Specific analysis of vehicle miles traveled (VMT) per capita, including potential for transit
- Accessory dwelling units (ADUs).
- Further analysis of the likely yield of efficiency measures during the planning period.
- More efficiency measures.
- Explore additional financial incentives (e.g. parks SDCs).
- Comparison of infrastructure costs between scenarios and as practical between areas.

Note: The first nine bullets were approved by both TACs. The tenth bullet was added by the Employment TAC after the Residential TAC meeting.

Request for USC Action

The USC is asked to approve the above recommendation.

SECTION 2: PHASE 2 BOUNDARY METHODOLOGY

Introduction

The purpose of this memorandum is to present recommendations from the Boundary Technical Advisory Committee (TAC) regarding the Urban Growth Boundary (UGB) methodology to be used in Phase 2 of the Remand project. The Boundary TAC met seven times between June, 2014 and February, 2015 (Phase 1 of the project). Phase 2 will create alternative scenarios for the UGB, evaluate those scenarios, and ultimately propose a UGB update. The recommendations in this memo represent the Boundary TAC's conclusions from Phase 1 to set the stage for Phase 2. All recommendations made to the UGB Steering Committee described in this memorandum are based on consensus or majority votes by the Boundary TAC

Where We've Been - Summary of Work Leading to the Phase 1 Boundary Methodology

The USC met on September 4, 2014 to consider recommendations that came out of the first two rounds of Residential, Employment and Boundary TAC meetings. The USC took action on the following recommendations from the Boundary TAC at that meeting:

- Categorize and analyze land within the study area based on the priority categories in ORS 197.298 (exception lands first priority)
- Approve a 2-mile study area for UGB analysis
- Use guidance from the Court of Appeals decision on the McMinnville UGB case for Bend's boundary methodology
- Preliminarily approve evaluation measures for Goal 14: Factor 1 – efficient accommodation of identified land need

Following the September USC meeting, the Boundary TAC continued its work to prepare the UGB methodology, as summarized below. Please see Appendix B for a more detailed list of the Boundary TAC's work and direction at each of its meetings. The Boundary TAC:

- Identified unbuildable lands within the 2-mile study area
- Discussed an approach to Goal 5, Natural Resources, and Goal 7, Natural Hazards
- Discussed and refined the Phase 2 milestones relating to boundary methodology
- Confirmed how to apply the Goal 14 factors at two important stages: the Stage 2 base mapping and the Stage 4 scenario evaluation
- Identified key indicators for Goal 14 (Factors 1-4) for the Stage 2 base mapping
- Reviewed and refined Stage 2 base maps for each of the Goal 14 factors
- Recommended which Stage 2 base maps are appropriate to rank exception lands for scenarios (good/fair/poor) and which should be used for information purposes only
- Recommended screening of a few exception areas from further consideration for UGB scenarios based on significant Goal 5 resources
- Discussed wildfire risk and identified the need for further information and discussion of urbanization strategies
- Defined an approach for use of the Stage 2 base maps (no weighting system)

All of the work summarized above has been conducted consistent with project objectives to address Remand and related legal requirements, and coordinated closely with the Department of Land Conservation and Development (DLCD). All Phase 1 work has been informed by extensive stakeholder and public input, including: 22 TAC meetings (total), 2 USC meetings, a scenarios workshop, 2 open houses, MetroQuest on-line outreach, BendVoice postings, visits to community groups, and a variety of public information pieces.

Where We Are Going - Next Steps and Phase 2 of the Remand Project

Recommendations from all three TACs are being forwarded for consideration by the USC. With approval of a package of recommendations by the USC, Phase 1 of the project will be complete.

The Phase 1 Growth Scenarios recommended by the Residential and Employment TACs address the land within the current UGB. Housing and employment growth needs have been projected to the year 2028, and the capacity of the current UGB to accommodate that growth has been evaluated. The Phase 1 Growth Scenarios package includes a Phase 1 growth scenario map; efficiency measures (two packages); capacity analysis of the current UGB and conclusions regarding residual needs in a UGB expansion; urban form map; and list of issues to be addressed in Phase 2.

The updated UGB will be developed over the next 9-10 months (the team is working on the schedule at this time). The Boundary TAC is recommending that the new boundary will be developed in four steps/stages bulleted below and described later in this memo.

- Base mapping of potential expansion areas
- Scenario development to create alternative growth scenarios
- Scenario evaluation
- Proposed UGB

The remainder of this memo provides a summary of, and the rationale for, the key recommendations from the Boundary TAC that came out of Meetings 3-7 and concluded Phase 1 work. The recommendations are grouped as follows:

- Unbuildable lands and screening of selected Federal and State lands
- Phase 2 Milestones and Boundary Methodology
- Stage 2 base maps
- Screening based on Goal 5 resources

Unbuildable lands and screening of selected federal and state lands

Background

An important step in the UGB amendment process is the identification of buildable land that is contiguous to the existing boundary. LCDC has defined “suitable and available” buildable lands[4] to exclude land that:

[4] OAR 660-008-0005(2)

- Is severely constrained by natural hazards under Goal 7 (e.g. 100-year floodplain; severe slopes – 25% or greater; landslides; wildfires)
- Is subject to natural resource protection measures under Goal 5 (e.g. riparian corridor, wildlife habitat, scenic waterway, groundwater resource, mineral and aggregate resource etc.)
- Cannot be provided with public facilities.

It is important to emphasize that identifying lands that are unbuildable doesn't necessarily mean that these lands cannot be included in the UGB. However, if they are included, they aren't counted as part of the Buildable Lands Inventory (BLI). There are lands within Bend's existing UGB that are within the 100-year floodplain and/or subject to protection measures under Goal 5, including but not limited to the Deschutes River and a portion of Tumalo Creek.

TAC Recommendations and Rationale

Based on the definition of buildable land in OAR 660-008-005(2) and guidance from the McMinnville case, the Boundary TAC recommends that the following lands be identified as unbuildable within the study area: [5]

- 100-year floodplain
- Steep slopes (25% or greater)
- Riparian Areas – consider 100' buffer from top-of-bank of Tumalo Creek and Deschutes River unbuildable (Note: the 100-foot buffer is based on current Deschutes County regulations for riparian areas and is not based on site-specific topographic information or delineation of the top-of-bank).
- Federal Wild & Scenic River – Upper Deschutes River from Wickiup Dam to the Bend Urban Growth Boundary - Consider 100' buffer from Upper Deschutes River unbuildable
- Oregon Scenic Waterways – Consider 100' buffer from Upper Middle Deschutes River unbuildable
- Significant Aggregate Sites – consider significant sites listed in Deschutes County Goal 5 inventory with a Surface Mining plan designation unbuildable

Additionally, the TAC recommended that federally owned lands (US Forest Service and Bureau of Land Management) and Oregon State Parks within the 2-mile study area be screened from consideration for UGB scenarios.

Phase 2 milestones and Boundary Methodology

TAC Recommendations and Rationale

Phase 2 Milestones

Staff met with the leadership of the Boundary TAC in October, 2014 to discuss how best to organize the remaining TAC work in Phase 1 and the approach to Phase 2. The leadership emphasized two important objectives: (1) that the complex legal requirements and process be

[5] See packet and maps for Boundary TAC Meeting 3.

simplified into clear steps that organize the work and are readily understood by the TAC and the public; and, (2) that Goal 14 factors are considered together so that trade-offs can be evaluated and balancing can occur.

At Meeting 4, the TAC discussed and approved the Phase 2 Milestones diagram on the following page which encompasses the objectives described above. The Goal 14 factors will be applied throughout the process, with specific criteria at two important stages:

- Stage 2 Base Mapping – Analyzing the study area to identify the “best performing” lands relative to Goal 14 criteria, and
- Stage 4 Scenario Evaluation – Analyzing the specific UGB expansion scenarios

Ultimately, the City is trying to achieve the same objectives in both stages of the analysis: an efficient urban form that is cost-effective to serve, avoids hazard areas, protects natural resources and is compatible with activities on forest and high-value agricultural lands outside the UGB. The common thread through all of Phase 2 is creating an approvable UGB that meets state requirement and community goals.

Phase 2 Milestones

rev. 3/9/2015

Preliminary and Subject to Change

Phase 1 Recommendations[1]
- Land needs
- Efficiency Measures Assumptions
- Boundary Methodology
- Study Area

Stage 1 Screening[2]
- Exclude lands for further analysis (e.g. unbuildable lands)

Stage 2

Base Mapping
- Map indicators of Goal 14 factors 1-4
- Goal 5 Recon-naissance inventory

Stage 3

Scenario Development[3]

Iterative steps:
- Prepare sketch level scenarios and test with Envision
- Refine
- Scenarios

Approval of UGB Expansion Scenarios for Evaluation

Stage 4

Scenario Evaluation[4]

Conduct:
- Envision Testing
- Goal 14 Evaluation
- Water/Sewer Optimization
- Transportation Modeling
- Team review of results
- Goal 5 ESEE analysis

Stage 5

Preferred Scenario[4]
- Prepare evaluation conclusions
- Prepare proposed boundary, land uses, and urban form
- Draft policies, map designations, and findings

Approval of Preferred Scenario

Key Public Involvement Periods

FEB 2015 | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN

Notes:
1-4: Steps per City Attorney Memorandum, Aug 19 2014; 1 = Step 1; 2 = Step 2; 3 = Step 3A Preparation; 4 = Step 3A (3B if necessary)
Additional work during Phase 2 includes: Housing Needs Analysis (HNA), Economic Opportunities Analysis (EOA), Buildable Lands Inventory (BLI)

Base Mapping Stage

In the Base Mapping stage, the Boundary TAC recommends using ” key indicators” and “Stage 2 Maps” to identify the best land to include in boundary scenarios. The study area includes more than 18,000 acres of priority exception lands, substantially more land than will be needed for this update of the UGB. This stage of analysis will help to narrow the scope of the study area to focus on the areas that rank higher and inform the development of better scenarios in Phase 2. The TAC and project team will not spend much effort gathering detailed data on parcels that rank low on several indicators and are unlikely to be included in any scenario.

The following table includes key indicators recommended by the Boundary TAC for the Base Mapping stage for each of the Goal 14 factors. The Stage 2 Base Mapping now includes 27 maps that the TAC will use and balance in order to identify the best lands. The Boundary TAC will begin Stage 2 by reviewing composite maps which essentially reduce the 27-map set to four – one for each Goal 14 factor. The Stage 2 base maps will also help the project team characterize areas based on similar traits in order to explain why different sub-areas within the study area were not selected for further consideration when UGB scenarios are formed in Phase 2.

Table 15 also includes performance measures for the Scenario Evaluation Stage. These were included so the TAC could see Stages 2 and 4 together, and understand how Goal 14 is applied at each stage. Table 15 is a key product for the Boundary Methodology and shows that the Goal 14 factors are consistent and integral to both the Base Mapping and Scenario Evaluation stages.

Scenario Evaluation Stage

In the Scenario Evaluation stage, the project team will use more robust and comprehensive models to evaluate alternative scenarios. This will include the Envision Tomorrow tool, sewer and water optimization models, and transportation modeling. The scope of the analysis and evaluation at this stage will consider land inside the existing UGB in addition to expansion areas. The Scenario Evaluation stage will also consider the linkage between land uses and transportation that can only be evaluated at the scenario level such as jobs/housing balance and vehicle miles traveled per capita.

Table 15. Goal 14 Factors As Applied at Stage 2 and Stage 4 of the UGB Evaluation

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	**Stage 4 – Scenario Evaluation** Purpose: Evaluate alternative scenarios based on proposed **performance measures**
Factor 1: Efficient accommodation of identified land needs	
Analysis Tool: GIS • Parcel size • Improvement to land value ratio • Proximity to existing UGB – adjacency more efficient than edge of study area • Topography (25% slopes or greater) • Existing CC&Rs prohibit or limit additional development	**Analysis Tool: Envision** • Urbanized acres • New housing units built inside vs. outside existing UGB in 2028 (# and %) • New jobs located inside vs. outside existing UGB in 2028 (# and %) • Estimated average density for housing and jobs in 2028 (units/acre and jobs/acre – measure for entire scenario and associated UGB expansion area) • Percent of new growth accommodated through infill/redevelopment by scenario
Factor 2: Orderly and economic provision of public facilities and services	
Transportation	
Analysis Tools: GIS & existing transportation modeling data • **Barriers**: Consideration of physical barriers to connectivity (new river crossings, railroad crossings, steep slopes, etc.). • **Reliance on Congested Corridors:** Consideration of key congested highway corridors based on the recently completed Bend MPO MTP. Using the Bend 2040 travel demand model, identify which exception lands have a higher reliance on a congested corridor. • **System Connectivity**: Consideration of whether the existing major roadway network meets ideal grid-spacing (e.g.,	**Analysis Tool: Envision** • VMT/capita • VMT/facility type (including trip-type) • Mode split • Housing & jobs within ¼ mile of transit corridors (# and %) • Intersection density • # of new lane miles • Rough costs for transportation improvements ($ per lineal foot) by scenario • Roll up of cost per acre for UGB expansion area associated with each scenario **Analysis Tool: Travel Demand Model** • Scenario balances VMT between

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
one-mile spacing for arterials and half-mile spacing for collectors). Rank exception areas with a more subjective approach based on ability to extend collectors into the study area. Also consider if subareas in the study area are adjacent or near well connected streets inside the current UGB.	highway and other street classifications and between trip types (local, city-wide, regional) • Scenario supports system that provides logical connections and progression of system hierarchy (local street – collector – arterial – highway) • Scenario balances flow across available facilities and improves utilization of under-capacity roadways (congestion analysis) • Scenario better balances number of system lane miles for both state and local system • Scenario improves grid system for pedestrian/bicycle travel • Scenario supports efficient transit corridors • More detailed types and costs of transportation improvements including the need for new transportation facilities, such as highways and other roadways, interchanges, arterials and collectors, additional travel lanes, other major improvements (identified by scenario and UGB expansion area associated with each scenario)
Water	
Analysis Tool: GIS & existing water system master plan information • **Gravity system (City of Bend)**: Consideration of exception areas that could be served by gravity by City of Bend • **Pressure zones:** Consideration of pressure zones with existing water	**Analysis Tool: Envision** • Acres served by gravity system by scenario • Rough costs for water improvements ($ per lineal foot) by scenario • Roll up of cost per acre for UGB expansion area associated with each scenario

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
storage capacity. *The project team has concluded that it is not feasible to rank exception areas based on pressure zones in the Stage 2 mapping. However, this will be considered in the Stage 4 scenario evaluation for water facilities.*	**Analysis Tool: Optimization** • New housing units & jobs (# and %) within pressure zones with storage by scenario • Additional water storage facilities required by scenario • More detailed types and costs of water system improvements by scenario – along with roll up as cost per acre for expansion area associated with each scenario
Sanitary Sewer	
Analysis Tool: GIS & existing sewer system master plan information • **Gravity system**: Consideration of areas that can be served via gravity. This would be illustrated with a map showing areas in the study area that can be served with gravity sewer vs. areas requiring additional pumping. • **Maximize existing/planned improvements**: Consideration of areas with capacity or planned short-term improvements. This would be illustrated with a map showing any areas in the study area outside the current UGB that could be served with sewer without major new investments in addition to planned facilities in the Collection System PFP.	**Analysis Tool: Envision** • Acres served by gravity system by scenario • Rough costs for sewer improvements ($ per lineal foot) by scenario • Roll up of cost per acre for UGB expansion area associated with each scenario **Analysis Tool: Optimization** • Number of existing pump stations removed by scenario • More detailed types and costs of sewer system improvements by scenario – along with roll up as cost per acre for expansion area associated with each scenario
Stormwater	
Analysis Tool: GIS and existing stormwater master plan information	**Analysis Tool: Envision** • Acres of new development within

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
• **Drinking water protection areas**: Consider proximity to drinking water protection areas (DWPA) • **Surface geology**: Consider presence of surface geology (welded tuff) that limits on-site stormwater management. • **Water quality limited streams**: Consider proximity to water quality limited streams. This could be illustrated by a map showing areas outside the UGB inside the study area that drain to Tumalo Creek and the Deschutes River. *The project team/TAC recommends consideration of water quality limited streams under Factor 3 base mapping.*	DWPA by scenario • Acres of scenario with welded tuff geology • Acres of scenario draining to water quality limited streams
Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)	
Analysis Tool: GIS • Presence of significant Goal 5 resources or other resources (consider Greenprint mapping or other data sources) • Relative wildfire risk and presence of other natural hazards (floodplains) • Proximity to existing or planned parks, trails, elementary schools • Proximity to irrigation districts, irrigated lands and canals in study area • Presence of water quality limited streams (303d) in study area	**Analysis Tool: Envision** • Development (acres, number of housing units, number of jobs) in areas where Goal 5 resources are present • Development and cost (acres, number of housing units, number of jobs) in Goal 7 hazard prone areas • Housing units within walking distance of existing/planned elementary schools, parks and trails in 2028 (# and % of total units) • Housing mix & affordability by income level • Jobs housing balance (by TAZ or quadrant) • Greenhouse gas emissions

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
	• Total impervious surface area • % of job growth in downtown Bend
Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB	
Analysis Tool: GIS • Proximity to designated forest land • Proximity to designated high-value agricultural land (irrigated)	**Analysis Tool: Envision** • Perimeter of proposed UGB in proximity to designated forest land (lineal feet/miles) relative to existing UGB • Perimeter of proposed UGB in proximity to designated high-value agricultural land (lineal feet/miles) relative to existing UGB • Designated forest or agricultural land included in scenario, if any (acres)

Key Differences from the Methodology Used in 2008

1. The City used parcel-based GIS analysis and mapping in 2008. No scenario planning tools were used. The GIS mapping focused almost exclusively on the proposed UGB expansion areas. The current approach is looking at the existing UGB and proposed expansion areas in a more comprehensive and integrated way compared to the 2008 approach, and includes a more robust evaluation of efficiency measures.

2. The parcel-level GIS analysis used in 2008 became very complex and unwieldy. The points and composite scores assigned to individual parcels became the focus of controversy. It was also very challenging for staff to roll up the extensive GIS data and maps into Goal 14 findings. The Boundary TAC is trying to avoid forcing all analysis into a rigid numerical value approach.

3. The recommended approach takes a more step-wise approach than was used in 2008: (1) first narrow the field by identifying best performing lands; (2) prepare alternative scenarios utilizing the best lands; (3) evaluate the scenarios; and, (4) use the evaluation conclusions to craft the recommended UGB.

6. Similar to the 2008 effort, the output from the Envision model is not expected to provide a clear answer on the "best" scenario. One scenario may perform better on efficiency indicators, but worse on compatibility indicators. Some issues such as relative fire risk

may not be easily captured with measurable indicators and may require a qualitative evaluation. The project team, the TAC and decision-makers will still need to efficiently organize and analyze the model output to compare the scenarios and support legally-defensible findings. Ultimately, the Boundary TAC will need to balance and weigh the information according to the law and Bend's goals in order to craft a recommended UGB.

Stage 2 Base Maps

Background

Stage 2 base maps are included in Appendix E. The project team used available GIS and other data to prepare the base maps to address the key indicators in Table 15. The Boundary TAC reviewed and suggested refinements to the base maps over a series of meetings. All Stage 2 base maps are formatted using a standard map template and color scheme ranging from good (green) to fair (yellow) to poor (red) where ranking of exception lands is appropriate to address a particular indicator for a Goal 14 factor. Some of the Stage 2 base maps are informational only and do not apply ranking to exception lands. These maps are identified with a text box: Information Purposes Only**.** Maps may be updated for use in Phase 2 to reflect new parcel configurations and corresponding scoring changes based on land divisions recorded since the GIS parcel database (2014) used in these maps.

TAC Recommendations, Rationale, and Key Issues Discussed

Goal 14 – Factor 1: Efficient accommodation of identified land needs

As shown in Table 15, the TAC recommended use of the following indicators for Factor 1 in the Stage 2 base mapping: 1) parcel size, 2) improvement to land value ratio, 3) proximity to existing UGB, 4) topography (25% slopes or greater), and 5) existing CC&Rs.

See Appendix E for Factor 1 maps. The two maps discussed below were the focus of most of the TAC discussion.

Tax Lot Distance from UGB. The rankings applied to exception lands on this map are based on parcel-level GIS data rather than measured distances (within ¼ mile, within 1 mile, greater than 1 mile). Based on input from the TAC, the following note was added to the map: Distance from UGB is from individual tax lots. If a tax lot is contiguous, then the whole tax lot is shown as contiguous even through portions may be farther away.

Subdivisions with Known CC&Rs. The CC&R map reflects information that was entered into the record on December 1, 2008 for the UGB proposed at that time. The project team emphasized that additional research on CC&Rs may be needed in Phase 2 depending on which lands are included in UGB scenarios. Individual members of the TAC offered to assist with additional research that might be needed. At meeting 7, the Boundary TAC recommended that Cascade Highlands and Tetherow be identified as subdivisions with known CC&Rs. The project team reviewed the recorded CC& R documents and agrees that Cascade Highlands has approved building envelopes and restrictions on land divisions and the map now shows that subdivision in red. However, the Tetherow CC&Rs don't clearly preclude land divisions so the

team has not identified that area as red on this Stage 2 map. We recommend that the City Attorney review the Tetherow CC& Rs and provide guidance to the team early in Phase 2.

Goal 14 – Factor 2: Orderly and economic provision of public facilities & services

As shown in Table 15, the TAC recommended use of the following indicators for Factor 2 in the Stage 2 base mapping:

Transportation

- Barriers
- Reliance on congested corridors
- System connectivity

Water

- Gravity system (Bend)
- Areas easier/more efficient to serve (Avion)

Sanitary Sewer

- Gravity system
- Maximize existing/planned improvements (based on CSMP)

Stormwater

- Surface geology (presence of welded tuff)
- Proximity to Drinking Water Protection Areas

See Appendix E for Factor 2 maps. The Factor 2 maps categorize exception lands in the 2-mile study area based on a mix of GIS and other data, and professional judgment by engineers on the project team. The maps listed below generated the most discussion with the TAC.

Transportation – Barriers Map. Using GIS files, this map shows streams and rivers, railroads, major highways and steep slopes. Overall, the most significant barriers are the Deschutes River, significant slopes (typically near the Deschutes River and Tumalo Creek) and the railroad. The TAC recommended approval of this map at Meeting 6, with the clarification that the rankings on this map have been generalized from "parcel level" data to an "area" basis.

Transportation – Reliance on Congested Corridors Map. The first version of this map was revised based on TAC input at Meeting 5. The project team shifted from a focus on existing bottlenecks (based on trip patterns in 2010) to consideration of congested corridors in 2040. Using the Bend 2040 travel demand model, DKS identified three congested highway corridors based on the recently completed Bend MPO Metropolitan Transportation Plan (MTP). These corridors included the following:

- US 97 between Robal Road and US 20
- US 97 between Empire Avenue and Colorado Avenue
- US 20 between NE 3rd Street and NE 15th Street

The map summarizes the reliance (percentage of trips) of exception lands on the three congested corridors. The TAC recommended approval of this map at Meeting 6, with the clarification that the rankings on this map have been generalized from “parcel level” data to an “area” basis.

Transportation – System Connectivity Map. Of the three transportation maps, the project team and the TAC found this one the most challenging. This map is intended to convey a general impression of which exception areas can readily provide route choices and adequate system hierarchy, resulting in balanced flows and travel choices for all modes. The map in this packet reflects TAC input to change the ranking of a few areas (primarily in the NE quadrant). The TAC recommended approval of this map at Meeting 6, with the clarification that the rankings on this map have been generalized from “parcel level” data to an “area” basis.

Water Map. The project team presented a map at Meeting 5 that showed a water surface elevation (4,002.5 ft) to highlight areas that could potentially be served by the City of Bend to the west and north of the existing UGB from the Outback facility. Questions were raised by the TAC about the large portion of the 2-mile study area within Avion’s service area and whether a gravity service line was an appropriate indicator for their water system.

As a follow-up to questions at the December meeting, staff met with Jason Wick of Avion Water Company to explain the approach to Stage 2 base mapping for water facilities and share example maps. Jason participated in Meeting 6 and shared a map he prepared with ranking of exception lands based on maximizing use of existing and planned improvements. The Boundary TAC recommended approval of the water maps at Meeting 6 and suggested that the two maps be combined into a single map.

Sanitary Sewer Map. The project team presented a preliminary map at Meeting 5. The TAC recommended that the team simplify the map and assume all improvements from the CSMP. The team completed substantial refinements to the map to address the feedback from the TAC, supported by a technical memo from MSA. The 2-mile buffer around the UGB was subdivided into sub-basin boundaries. A relative ranking was applied to each sub-basin based on the optimized CSMP and most likely impacts and potential improvements to the collection system for each of the delineated sub-basins. The revised map was approved by the Boundary TAC at Meeting 6.

Proximity to Drinking Water Protection Areas (DWPA) Map. Two maps relating to DWPAs were presented at Meeting 6. The first map (for informational purposes) shows the Bend GIS layer of DWPAs with 1, 2, 5 & 10 year time of travel zones identified for the 2-mile study area. The second map categorizes exception lands based on proximity to the consolidated DWPAs shown on the first map. The TAC agreed that the second map was probably more relevant to consideration of land uses in proximity to delineated DWPAs (e.g., gas stations, certain industrial uses), rather than using this map to determine whether particular exception lands should be considered for inclusion in a UGB scenario. The TAC recommended using this map to help inform the development of UGB scenarios and/or consideration of appropriate land uses in Phase 2 of the project.

Goal 14 – Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)

As shown in Table 15, the TAC recommended use of the following indicators for Factor 3 in the Stage 2 base mapping:

- Presence of significant Goal 5 resources or other resources (consider Greenprint mapping)
- Relative wildfire risk and presence of other natural hazards (floodplains)
- Proximity to existing or planned parks, trails, elementary schools
- Proximity to irrigation districts, irrigated lands and canals in study area
- Presence of water quality limited streams (303d) in study area

The project team has not completed base maps to address the last two indicators bulleted above. Staff has met with irrigation district representatives and also obtained a link to DEQ data for water quality limited streams. The team intends to complete these two maps prior to the first Boundary TAC meeting for Phase 2.

See Appendix E for Factor 3 maps. A few of the Factor 3 maps are intended to illustrate the location of specific Goal 5 resources or Goal 7 hazard areas, but they do not apply rankings to exception lands based on proximity to the resource or hazard area. This includes the maps of Riparian Areas, the 100-year Floodplain and Greenprint Overall Conservation Priorities. The Wildlife Habitat and Wildfire Risk maps generated the most discussion with the TAC.

Wildlife Habitat Map. ODFW has a management plan for big game habitat in Deschutes County. In 2009, updated ODFW maps of deer and elk habitat and winter range for Deschutes County were made public.

The areas identified on the 2009 map are considerably larger than those currently protected by Deschutes County's Wildlife Overlay Zone, and include most of the exception lands west and south of the City. While the remand did not require the city to address wildlife habitat outside of the riparian corridors, the new map brings information to light that the city and Boundary TAC felt appropriate to consider.

Staff met with the ODFW Deschutes District Wildlife Biologist (Corey Heath) and Corey participated in the TAC discussion of wildlife habitat at Meeting 7. ODFW places the highest value on the bit game habitat that is currently within the Deschutes County Wildlife Overlay Zone. Of the areas identified as big game habitat on the 2009 ODFW map that are not within the Wildlife Overlay Zone, Corey identified three areas of exception land within the 2-mile study area that may provide important cover for elk and deer. These areas are roughly identified with ovals on the informational map of Big Game Winter Ranges.

The second map assigns ranking to exception lands based on proximity to the Wildlife Area Combing Zone. As shown on that map, exception lands within the Wildlife Overlay Zone are colored red (poor) and the exception lands within the "potential" winter range areas identified by ODFW on the first map are colored yellow (fair). All other exception lands are colored green (good) on the map. The TAC discussed whether exception lands contiguous or within ¼ mile of

the existing Wildlife Overlay Zone should be ranked lower (red or yellow). A similar approach was used to rank exception land based on distances from zoned Farm/Forest parcels.

At Meeting 7, the Boundary TAC recommended using the two Wildlife Habitat maps to help inform development of UGB scenarios in Phase 2. Additionally, the TAC recommended that the two areas within the Wildlife Overlay Zone (shown in red/cross-hatch) be screened from further consideration for UGB scenarios. The TAC also recommended that the city consider other big game habitat areas identified on the ODFW map (not currently designated or protected by Deschutes County Wildlife Overlay) as part of the Factor 3 ESEE analysis and balancing to evaluate candidate UGB expansion areas.

Wildfire Risk Map. The Remand did not require the City to address wildfire risk. However, the Commission suggested that the City should explain how it addresses relative wildfire risk in alternate UGB expansion scenarios when considering Factor 3 under Goal 14.

The project team includes Craig Letz, Wildfire Consultant, to help examine the potential for wildfire risk as part of UGB scenarios development and evaluation. The Greater Bend Community Wildfire Protection Plan (CWPP) is the most comprehensive wildfire risk assessment that has been completed for the Wildland Urban Interface (WUI) areas surrounding Bend. It was originally completed in 2006 and the process was again undertaken in 2011 considering updated information. The 2011 CWPP has been adopted by reference as part of the Deschutes County Comprehensive Plan.

At Meeting 7, Craig provided an overview of the five factors considered in the CWPP in the assessment of risk: 1) risk of wildfire occurrence, 2) hazard, 3) protection capability, 4) values protected, and 5) structural vulnerability. The CWPP concluded that wildfire is a risk in all parts of the greater Bend area.

The first map shows the composite rankings for the CWPP Boundary Subareas – from highest [1] to lowest [6] risk. As shown on that map, the exception lands within the 2-mile study area for the Bend UGB project (shown in cross hatch) are a much smaller portion of the larger CWPP subareas.

The Composite Wildfire Risk Ratings on the second map apply the subarea fire risk ratings from the first map to the exception lands within the study area. The TAC had many questions about the relevance of the Composite Risk Ratings from the CWPP to the Bend UGB project. A few of the questions/discussion points are summarized below:

- There were questions about whether the two areas identified as highest risk (Southwest and West) in the CWPP should be considered the highest risk areas for UGB expansion. Craig Letz responded that these should be considered the highest priority areas for treatment.
- Charlie Miller emphasized that a substantial amount of treatment has been undertaken on the West parcels to reduce wildfire risk and the fire risk rating may need to be updated. Craig responded that the process and risk ratings are not static and are expected to be updated to reflect on-going treatments.

- Other TAC members stated that it might not make sense to apply the risk ratings to exception lands that are a small portion of the much larger CWPP subareas. The TAC also discussed whether urbanization could potentially reduce or mitigate wildfire risk with extension of urban water infrastructure, connected roads and appropriate development standards (such as Fire Wise).
- The TAC also discussed whether the five factors considered in the assessment of risk in the CWPP (see above) should be considered equal; or whether some factors might be more relevant to the question of potential urbanization.
- Several different motions were proposed, including a suggestion to rank exception lands to the west, northwest and southwest as higher risk (red) because of the more extensive edge abutting forest land, predominant pine vegetation and presence of steeper topography. Exception lands to the north, northeast and southeast could be ranked lower risk (orange) because of the flatter topography, predominant juniper vegetation and distance from forest lands. This motion failed.

Ultimately, the TAC recommended using the Composite Fire Risk Ratings Map in Appendix E of the packet for information purposes only in Phase 2 – and not use it to rank exception lands in Stage 2. The information on fire risk would be considered in the Factor 3 ESEE analysis completed during the Goal 14 boundary analysis in Stage 4. The motion included a suggestion to include consideration of wildfire in estimating water and transportation costs. The motion passed with 13 votes in favor, 2 opposed, and no abstentions.

Goal 14 – Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

As shown in Table 15, the TAC recommended use of the following indicators for Factor 4 in the Stage 2 base mapping:

- Proximity to designated forest land
- Proximity to designated high-value agricultural land

See Appendix E for Factor 4 maps.

- The first map is included for information purposes only. It shows the location of exception lands within the 2-mile study area relative to lands zoned Forest and EFU.
- The second map categorizes exception parcels based on distance from Forest zones.
- The third map categorizes exception parcels based on distance from high-value EFU zoned parcels (based on Deschutes County GIS data on soils, irrigation and parcel size)

The intent of these maps is to quickly categorize and highlight where exception parcels are in closer proximity (within 1 mile) of Forest zones and high-value EFU zones.

Some members of the TAC commented that the focus on proximity to “high-value” EFU parcels might be too limited, relative to the requirements of Factor 4. Agricultural activities could be occurring on EFU parcels within the 2-mile study area that don’t necessarily meet the test for “high-value” agricultural land.

The project team agreed to complete additional analysis of irrigated parcels in the EFU zone that might not meet the minimum lot size established in the Deschutes County Code for creation of new parcels.

Screening Based on Goal 5 Resources

Background

The Court of Appeals decision on the McMinnville UGB case outlines the factors that can be used to exclude higher priority (exception) lands from further consideration as candidate areas to include in the UGB (including presence of significant Goal 5 resources). At Meeting 3, the Boundary TAC discussed screening of lands at Stage 1 versus evaluation of ESEE consequences at Stage 4 (see Phase 2 Milestones Diagram). The TAC agreed not to screen any candidate lands based on ESEE consequences prior to formal evaluation of scenarios, recognizing that they could revisit that recommendation as more data became available. At Meeting 7, the project team focused on Stage 2 base maps for Goals 5 & 7 and recommended screening the following priority exception lands from further consideration as candidate areas to include in the UGB:

Areas within Deschutes County Wildlife Overlay (see Wildlife Map in Appendix E, areas shown in red/cross-hatch).

These areas are within the acknowledged Deschutes County Wildlife Overlay and are considered significant habitat by ODFW. The Goal 5 “program” to protect the big game winter range is based in large part on restricting densities, requiring clustering and requiring protection of open space (50% of site). Potential urbanization of these lands would inherently conflict with protection of the big game winter range.

Aggregate Site in NW Quadrant with Active DOGAMI Permit (see Aggregate Map in Appendix E, area shown in red/cross-hatch)

The Remand required the City to clarify the status of mineral and aggregate sites that occur in the study area but that are not on the County’s acknowledged surface mining inventory. The site in question is the Shevlin Sand and Gravel (SSG) site located in the northwest quadrant of the City on Shevlin Park Road. As requested by the representative of the mining operator during the Remand hearings (letter dated May 7, 2009), the 280 acres designated Surface Mining on the Plan Map should include only portions of the SSG property that are legally capable of being used as part of SSG’s mining operation.

Aggregate sites do not need to be included in the UGB to allow continued mining. Assuming that the aggregate resources at the Shevlin Sand & Gravel site are not expected to be exhausted and the site reclaimed during the planning period (2008-2028), the project team recommended screening the portion of the site under DOGAMI Permit 09-0018 from consideration for UGB scenarios. This would not affect consideration of the remainder of the property.

At Meeting 7, the Boundary TAC recommended screening the areas described above from further consideration as candidate areas to include in the UGB.

Approach for Using Stage 2 Base Maps

As discussed above, the purpose of Stage 2 base mapping is to identify which exception lands perform well relative to Goal 14, and therefore should be considered for inclusion in UGB expansion scenarios. As the package of Stage 2 base maps has grown, the project team and the TAC discussed how they might be used to help form UGB scenarios in Phase 2.

At Meeting 7, the Boundary TAC discussed whether to assign "weighting" to each of the four factors of Goal 14, and associated weighting for the Stage 2 base maps that serve as "key indicators" for the Goal 14 factors. The TAC preferred to not engage in a process trying to assign weighting to the 20+ maps in the Stage 2 map set. Rather, they determined it was a better course to use the rankings and information developed to date to prepare one composite map for each of the four Goal 14 factors and discuss those at their next meeting. This approach is intended to: (1) make the best use of the information gathered to date; (2) avoid the complications and biases that can crop up in weighted evaluation systems; and, (3) help move relatively quickly to the development of scenarios, which is needed for the project to stay on schedule. The TAC will then use the four maps, along with qualitative judgment, to inform the development of UGB scenarios.

The approach described is information only. No USC approval is requested, but feedback on the recommended approach is welcome.

Requests for USC Action

The key recommendations that came out of Meetings 3-7 and concluded the Phase 1 work of the Boundary TAC are presented below. The recommendations are grouped by the topics in this memo and USC Action is requested for the roll-up of all recommendations.

Unbuildable Lands

- Approve the maps in Appendix E that identify unbuildable lands in the study area for Phase 2 formation and analysis of UGB scenarios.
- Screen federally owned lands (USFS & BLM) and Oregon State Parks within the 2-mile study area from consideration for UGB scenarios.

Phase 2 Milestones Diagram & Table 15: Goal 14 Factors

- Approve Phase 2 Milestones Diagram in Appendix C subject to refinement in Phase 2 scoping and contract approvals
- Approve Table 15: Goal 14 Factors on for use in Stage 2 Base Mapping and Stage 4 Scenario Evaluation

Stage 2 Base Maps

The following package of maps in Appendix E is recommended. With the exception of the Wildfire Risk Map, the map set will be used in the Stage 2 process to identify best performing lands. Additional maps and minor revisions may be developed through guidance from the

Boundary TAC in Phase 2. The Boundary TAC intends to have a broader discussion about wildfire risk and urbanization strategies, and, address those issues as part of the ESEE analysis in the Stage 4 evaluation.[6]

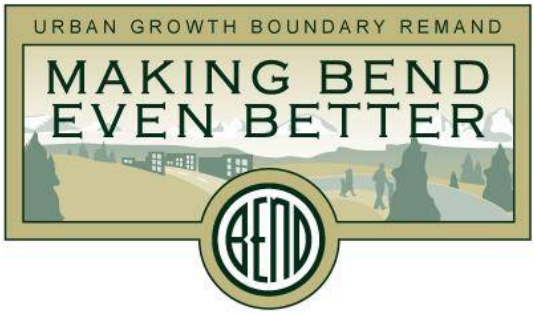
- Approve Factor 1 maps. *Note: CC&R research is on-going.*
- Approve Factor 2 maps
- Approve Factor 3 maps
- Approve Factor 4 maps *Note: further information will be gathered regarding agricultural activities on EFU lands that do not meet the definition of "high value" farmland.*

Screening Based on Goal 5 Resources

- Approve "screening" of exception lands within the acknowledged Wildlife Overlay Zone from further consideration as candidate UGB areas (see map in Appendix E)
- Approve "screening" portion of Shevlin Sand & Gravel site under DOGAMI Permit 09-0018 from further consideration as a candidate UGB area (see map in Appendix E)

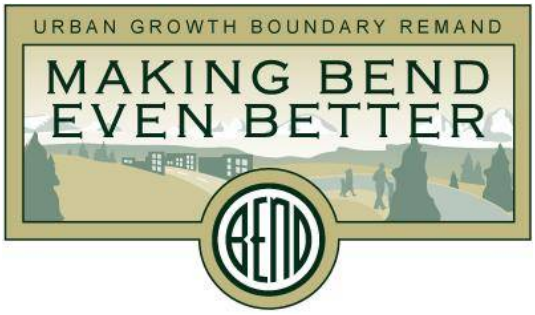
[6] ESEE refers to economic, social, environmental, and energy analysis as it is defined in Oregon planning law.

Appendices



Appendix A

PROJECT GOALS



PROJECT GOALS

The City of Bend has entered the next phase of its Urban Growth Boundary (UGB) expansion to chart a path for Bend's future growth. The UGB is a line drawn on the City's General Plan map that identifies Bend's urban land. This land represents an estimated 20-year supply of land for employment, housing, and other urban uses. As the city continues to grow, we have an opportunity to develop a plan for future growth that reflects the community's goals and meets state planning requirements.

The UGB Steering Committee approved the following Project Goals on September 4, 2014.

A Quality Natural Environment

As Bend grows, it preserves and enhances natural areas and wildlife habitat. Wildfire risk management is a key consideration. Bend takes a balanced approach to environmental protection and building a great city.

Balanced Transportation System

Bend's balanced transportation system incorporates an improved, well-connected system of facilities for walking, bicycling, and public transit, while also providing a reliable system for drivers. Bend's transportation system emphasizes safety and convenience for users of all types and ages.

Great Neighborhoods

Bend has a variety of great neighborhoods that promote a sense of community and are well-designed, safe, walkable, and include local schools and parks. Small neighborhood centers provide local shops, a mix of housing types, and community gathering places. The character of historic neighborhoods is protected and infill development is compatible.

Strong Active Downtown

Bend's downtown continues to be an active focal point for residents and visitors with strong businesses, urban housing, civic services, arts and cultural opportunities, and gathering places. Parking downtown is adequate and strategically located. Planning in other areas continues to support a healthy downtown.

Strong Diverse Economy

Bend has a good supply of serviced land planned for employment growth that supports the City's economic development goals, provides a range of diverse jobs and industries, and supports innovation. Employment areas, large and small, have excellent transportation access.

Connections to Recreation and Nature

Bend continues to enhance its network of parks, trails, greenbelts, recreational facilities, and scenic views inside and outside the city.

Housing Options and Affordability

Bend residents have access to a variety of high quality housing options, including housing affordable to people with a range of incomes and housing suitable to seniors, families, people with special needs, and others. Housing design is innovative and energy efficient.

Cost Effective Infrastructure

Bend plans and builds water, wastewater, storm water, transportation, and green infrastructure in a cost-effective way that supports other project goals. Efficient use of existing infrastructure is a top priority.

September 4, 2014
www.bendoregon.gov/bendugb

Appendix B

TAC MEETINGS AND RECOMMENDATIONS

Residential Technical Advisory Committee

Roll-Up of Phase 1 TAC Direction – By TAC Meeting[1]

March 9, 2015

TAC Meeting	Topic	Residential TAC Recommendations
1	Demographic and Housing Trends	Accept team research on demographic and housing trends that will influence demand for and supply of needed housing
1	Housing Types	Accept team recommendation to use the Envision Model tool and the development types to use in the model
2	Housing Mix	Use Option 2 recommendation for housing mix between 2008 and 2028: 55% single family detached, 10% single family attached, and 35% multi-family attached.
2	Efficiency Measures	Evaluate 29 of the 33 types of efficiency measures proposed by the consultant team.
3	Buildable Lands Inventory	Update inventory to 2014 to account for development of housing between 7/1/2008 and 20014.
3	Public Land and Special District Ownership	Accepted team recommendations for accounting for public lands in the buildable lands inventory, including special districts (e.g. irrigation districts).
3	Covenants, conditions, and restrictions (CCR's)	Accepted team recommendation that it was necessary to map those properties with CCR's, and focus on those CCR's that did not allow further land division.
3	Urban Form	Bring parks and schools information into this work, look at density and travel patterns

[1] This is a summary. Please see meeting minutes for further information.

TAC Meeting	Topic	Residential TAC Recommendations
		outside UGB to areas in the UGB, and bring transit maps into urban form discussion.
4	Buildable Lands Inventory: Private open space	Accept team recommendation to include the undeveloped portion of the Back Nine golf course as vacant and available for residential use. Accept team recommendation to consider all remaining, existing golf courses, including the original Back Nine Golf Course itself, as developed and unavailable for residential uses.
4	Buildable Lands Inventory: Plan/Zone Conflicts	Accept team recommendation to consider all land with residential plan or zone designations to be part of the residential BLI. For land within the UAR zone, rely on plan designations. For land either planned or zoned for Surface Mining (SM), exclude from residential BLI unless specific information indicates that land will be available for residential uses
4	Buildable Lands Inventory: Commercial and Mixed Use designations	Accept the following team recommendations: 1. ME and PO designations are part of the employment BLI and do not provide housing capacity. 2. For MR Zone, assume potential mix of uses, including residential. Rely on historical trends for the base case. 3. For CB and CL zones, assume potential mix of uses including residential. Rely on historical trends to establish estimate of housing in each zone for base case. 4. For the CC and CG zones, assume land is part of the BLI and does not provide housing capacity.
4	Buildable Lands Inventory: Medical District Overlay Zone (MDOZ)	Treat all land within the MDOZ as employment land. Estimate potential for housing development in RM and RH zones based on past trends.
4	UGB Analysis Base Case	Accept team recommendations on how to treat different categories of residential land (vacant, partially developed, developed with infill potential, developed, commercial and mixed use zones) and categories of employment land (vacant and redevelopment in industrial/mixed employment, commercial, and mixed use)[2].
4	Efficiency Measures:	Accept the following TAC recommendations: 1. For Juniper Ridge, keep residential on

[2] These recommendations are listed in detail on pages 23 and 24 of the November 17, 2014 meeting packet.

TAC Meeting	Topic	Residential TAC Recommendations
	Opportunity Areas	table. 2. For Northwest Bend, accept potential opportunity sites. 3. For Southwest Bend, rely on input to team for areas SW-1, SW-2, SW-3, and SW-4.
4	Efficiency Measures: Development Code	Accept TAC recommendations to team: consider two scenarios, one set of both code changes (Conservative plus Aggressive) with existing residential densities and one scenario with both changes (Conservative plus Aggressive) and higher residential densities.
5	December 15, 2014 workshop	Joint workshop with Residential & Employment TACs to help frame scenarios for land inside the current UGB
6	Updated housing mix assumptions	Accept team recommendation of Option B: Apply the mix to the remaining number of needed housing units for the 2014 through 2028 period. Accept team recommendation on Group Quarters – use need for 29 net acres for units in group quarters. Accept team recommendation on Second Homes – assume mix of second homes is similar to mix of needed housing units. Assume average density of second homes is similar to the overall average density of needed housing.
6	Buildable Lands Inventory and Base Case	TAC agreed to special meeting (See Meeting 6.1) on February 11, 2015.
6	UGB Scenarios and Envision Tomorrow Results	Accept TAC direction to consulting team for following Opportunity Areas: ✓ Area 1: develop hybrid of Scenarios 2 and 3. ✓ Area 4: develop hybrid of Scenarios 2 and 3. ✓ Area 6: carry forward both Scenarios 2 and 3. ✓ Area 7: use Scenario 2.

TAC Meeting	Topic	Residential TAC Recommendations
6.1	Efficiency Measures: modified or deleted?	TAC provided consultant team with feedback on a number of code related efficiency measures, including, but not limited to, accessory dwelling units, parking, building heights, and setbacks.
6.1	Efficiency Measures: TAC support of recommended packages	TAC supported use of Packages B and C to create bookends
6.1	Buildable Lands Inventory: Changes to assumptions?	TAC supported team recommendation on how to treat committed/pending land uses and Historic Districts
6.1	Buildable Lands Inventory: BLI and Base Case	TAC supported the use of the Residential BLI to move ahead and use in the capacity analysis.
7	Phase 1 Growth Scenarios: TAC support for scenarios	TAC approved Phase 1 growth scenarios based on bookends of Scenarios 4b and 5c. The TAC approved the package of materials that make up the Phase 1 Growth Scenario: a. Phase 1 Growth Scenario Map b. Efficiency measures (listed in Appendix C) c. Capacity analysis d. Urban Form Map TAC also approved direction for work in Phase 2, which consisted of the following bullets: • Further analysis of efficiency measures and a revised set of recommended measures • Potential spatial refinements, including a recommended scenario for Juniper Ridge and other possible changes that would be

TAC Meeting	Topic	Residential TAC Recommendations
		compatible with different boundary scenarios. • Conversion of needed housing units and jobs to acres of land and identification of specific recommended Plan designations both inside and outside the UGB. • Estimate of land needed for other purposes outside the UGB such as schools, parks, "other lands," roads, and other infrastructure • Specific analysis of VMT/capita, including potential for transit • Accessory Dwelling Units (ADU's) • Further analysis of likely yield of efficiency measures during planning period. • Open table for more efficiency measures • Explore additional financial incentives (parks SDCs)

Employment Technical Advisory Committee

Roll-Up of Phase 1 TAC Direction – By TAC Meeting[1]

March 6, 2015

TAC Meeting	Topic	Employment TAC Recommendations
1	Approach to 2008 EOA	Proceed with Scenario A and drop "market factor"
1	Building types for Envision Model	Supplement building type library to address medical space, specialty manufacturing, and recreational/specialty buildings (i.e. climbing gyms)
2	Redevelopment areas for employment	TAC identified several areas for further study as potential redevelopment areas
3	Urban Form	Refine preliminary typologies
3	Redevelopment Analysis	Remove Study Area #11 (COCC) from map
4	Opportunity Areas	• Citywide base case redevelopment assumption includes 12 study areas • 6-7% absorption rate for new development is reasonable
4	Special sites	Retain large industrial site as special site; drop new hospital and university
5	December 15, 2014 workshop	Joint workshop with Residential & Employment TACs to help frame Phase 1 scenarios for land inside the current UGB
6	Updated Employment Land Assumptions	Use the 2028 employment forecast by sector for estimating needed jobs

[1] This is a summary. Please see meeting minutes for further information.

TAC Meeting	Topic	Employment TAC Recommendations
6	Opportunity Sites	Area 1 (3rd Street): Hybrid of Scenarios 2 & 3 Area 4: (SW Century Dr): Hybrid of Scenarios 2 & 3 Area 6 (Juniper Ridge): Carry forth both Scenarios 2 & 3 Area 7: Scenario 2
7	Phase 1 Growth Scenarios	Approved Phase 1 Growth Scenario (package): a. Phase 1 Growth Scenario Map b. Efficiency measures (listed in Appendix C) c. Capacity analysis d. Urban Form Map TAC also approved direction for work in Phase 2, which consisted of the following bullets (additional 10 recommendations): • Further analysis of efficiency measures and a revised set of recommended measures • Potential spatial refinements, including a recommended scenario for Juniper Ridge and other possible changes that would be compatible with different boundary scenarios • Conversion of needed housing units and jobs to acres of land and identification of specific recommended Plan designations both inside and outside the UGB • Estimate of land needed for other purposes outside the UGB such as schools, parks, “other lands,” roads, and other infrastructure • Specific analysis of VMT/capita, including potential for transit • Accessory Dwelling Units (ADU’s)

TAC Meeting	Topic	Employment TAC Recommendations
		• Further analysis of likely yield of efficiency measures during planning period. • Open table for more efficiency measures • Explore additional financial incentives (parks SDCs) • Comparison of infrastructure costs between scenarios and as practical between areas

Boundary and Growth Scenarios Technical Advisory Committee

Roll-Up of Phase 1 TAC Direction – By TAC Meeting[1]

March 5, 2015

TAC Meeting	Topic	Boundary TAC Recommendations
1	Tiered approach to analysis of expansion areas	Categorize and analyze land within the study area based on the priority categories in ORS 197.298 (exception lands first priority)
2	Study area for UGB analysis	Approve a 2-mile study area for UGB analysis
2	Legal guidance – McMinnville UGB case	Follow guidance from the Court of Appeals decision on the McMinnville UGB case (see memo from City Attorney and diagram on pages 5-9 of Meeting 2 packet)
2	Evaluation criteria & measures for Factor 1-Efficiency	Preliminary approval of Factor 1 evaluation criteria & measures to compare alternative UGB scenarios in Phase 2
3	Preliminary identification of unbuildable lands within study area	Consider the following lands unbuildable: • 100-year floodplain • Steep slopes (25% and greater) • Upper Deschutes River State & Federal Scenic River Overlays (100 feet from OHW) • Middle Deschutes State Scenic Waterway (100 feet from OHW) • Deschutes River & Tumalo Creek Riparian Corridors (100 feet from OHW) • Significant aggregate sites in Deschutes County Goal 5 inventory with Surface

[1] This is a summary. Please see meeting minutes for further information.

TAC Meeting	Topic	Boundary TAC Recommendations
		Mining plan designation Direction from TAC: If information is available, consider aggregate reserves remaining for significant sites.
3	Step 2 screening vs. Step 3 Evaluation	Preliminary recommendation not to screen any exception lands from further consideration at Step 2 based on ESEE consequences or compatibility with activities on resource lands. May revisit recommendation if evidence is available to show that urbanization of a parcel or group of parcels would have severe ESEE consequences or compatibility issues.
3	Approach to Goal 5	Complete "reconnaissance level" review of Goal 5 inventories, with specific focus on Urban Reserve lands. Coordinate with ODFW on available winter range inventory information. Direction from TAC: Consider use of Greenprint data and maps for ESEE evaluation in Step 3 to save time and money.
3	Approach to Goal 7	Explore availability of more detailed information for relative wildfire risk to supplement Bend Community Wildlife Protection Plan (CWPP). Direction from TAC: Address wildlife risk in Step 3 ESEE analysis and comparison of UGB alternatives when more information is available on land needs, relative wildfire risk and mitigation strategies.
4	Refinement of Phase 2 Milestones	Discuss and confirm how the TAC will consider and apply the Goal 14 factors at two important stages shown in the diagram for Phase 2 milestones. • Stage 2 Base Mapping – analyzing the study area to identify ideal lands for specific UGB expansion scenarios • Stage 4 Scenario Evaluation – analyzing the specific UGB expansion scenarios using Envision, Optimization and Travel Demand models Direction from TAC: Focus on key indicators and Stage 2 base mapping in Phase 1.

TAC Meeting	Topic	Boundary TAC Recommendations
4	Base Mapping – Key Indicators for Goal 14 Factors	Get ready for Phase 2. Stage 2 base mapping will help the TAC visualize and balance how different sub-areas within the 2 mile study area perform based on the key indicators.
5	Preview Base Mapping for Factor 1 – Efficiency	TAC review and input on preliminary base maps for Factor 1: Efficiency Indicators • Parcel size • Improvement to land value • Proximity to UGB • Topography (25% slopes) • Rural subdivisions with known CC&Rs Direction from TAC: 1) use standard map template and consistent colors for all Stage 2 mapping, 2) make sure CC&R map reflects information in the 2008 UGB record.
5	Discuss Indicators and Preliminary Base Mapping for Factor 2 – Orderly & Economic Public Facilities	Discuss key indicators for Factor 2 base mapping: Transportation Indicators • Barriers • Existing Bottlenecks • System Connectivity Input on preliminary map to illustrate Existing Bottlenecks Water Indicators • Gravity system • Pressure zones Input on preliminary map to illustrate Gravity system (for City of Bend)

TAC Meeting	Topic	Boundary TAC Recommendations
		Sewer Indicators • Gravity system • Maximize existing/planned system Input on preliminary map to illustrate two indicators bulleted above Stormwater Indicators • Proximity to Drinking Water Protection Areas (DWPA) • Surface geology (welded tuff) • Proximity to water quality limited streams Input on preliminary map to illustrate surface geology Direction from TAC: 1) include recent & planned improvements in the consideration of Existing Bottlenecks map for transportation, 2) coordinate with Avion for input on their water service area, 3) try to simplify the map for sewer – assume all improvements from the CSMP, 4) use consistent colors for all Stage 2 mapping, ranging from good (green) to fair (yellow) to poor (red).
6	Approve Base Mapping for Factor 1 – Efficiency	Review updates to maps based on TAC input at Meeting 5 TAC approval of Base Mapping for Factor 1 Note: individual TAC members volunteered to help supplement CC&R research in Phase 2.
6	Review and preliminary approval of Base Mapping for Factor 2 – Orderly & Economic Public Facilities	TAC review and input on preliminary base maps for Factor 2: Transportation Maps • Physical Barriers to Connectivity • 2040 Reliance on Congested Corridors • Connectivity to Complete Roadway Grid

TAC Meeting	Topic	Boundary TAC Recommendations
		Water Maps • Water Analysis (Bend service area) • Water Analysis (Avion service area) Wastewater Map • Preliminary Analysis of Potential UGB Expansion Basins Stormwater Maps • Surficial Geology • Proximity to Drinking Water Protection Areas Direction from TAC: 1) clarify which Stage 2 maps are based on parcel-level data vs. sub-area rankings, 2) consider specific changes to rankings on Physical Barriers to Connectivity map (e.g., NE quadrant), 3) suggest different line weights for arterial & collector roads on maps, 4) integrate rankings for Bend & Avion service areas on a single map, 5) consider map for water quality limited streams under Factor 3 ESEE consequences
6	Discuss Indicators and Preliminary Base Mapping for Factor 4 – Compatibility with Activities on Resource Lands	Discuss key indicators for Factor 4 maps: • Proximity to designated forest land • Proximity to designated high-value agricultural land • Proximity to irrigated agricultural land Review preliminary base map illustrating proximity of exception parcels to designated Forest land (contiguous – red, within ¼ mile – light red, within 1 mile – bright green, greater than 1 mile – dark green). Review preliminary base map illustrating proximity of exception parcels to high-value EFU parcels (based on GIS data relating to EFU sub-zone, parcel size and availability of irrigation). Direction from TAC: 1) westerly edge of Tetherow is adjacent to Forest land, 2) focus

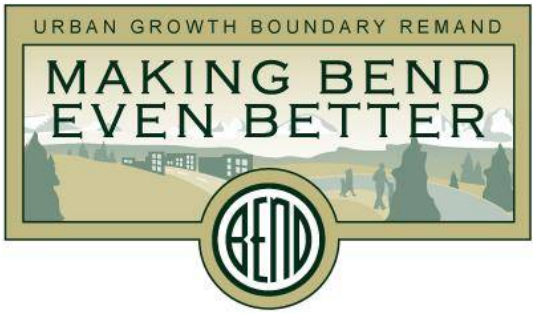
TAC Meeting	Topic	Boundary TAC Recommendations
		on high-value EFU parcels may unnecessarily limit the analysis of compatibility, 3) consider activities on other EFU parcels that are irrigated but don't necessarily meet minimum lot size of the sub-zone.
7	Review Preliminary Base Mapping for Factor 3 – ESEE Consequences	Review preliminary base maps for Factor 3 based on "key indicators" approved by the TAC at meeting 4: • Presence of significant Goal 5 resources or other resources (consider Greenprint, ODFW, USFWS, and DOGAMI data sources) • Relative wildlfire risk and presence of other natural hazards (floodplains) • Proximity to existing or planned parks, trails, elementary schools • Presence of irrigation districts, irrigated lands and canals (deferred to Phase 2) • Presence of water quality limited streams - DEQ 303d designations (deferred to Phase 2) <u>Direction from TAC:</u> <u>Goal 5 – Riparian Areas</u> • May not be able to use safe harbor inventory in steep slope areas – TAC recommended getting more detailed topographic data to clearly identify segments with steep slopes and segments where safe harbor inventory is an option • The TAC did not recommend (split vote) ranking exception lands based on proximity to riparian areas on the Stage 2 maps. However, proximity could be considered in the Goal 14 analysis under Factor 3 <u>Goal 5 – Wildlife Habitat</u> • TAC recommended "screening" exception lands that are currently within the Deschutes County Wildlife Overlay Zone from further consideration to include in the UGB for 2008-2028 planning period (areas identified with red/cross-hatch on map)

TAC Meeting	Topic	Boundary TAC Recommendations
		• TAC recommended considered three areas identified by ODFW as potential winter range as part of the Factor 3 ESEE analysis for Goal 14 • The TAC did not recommend that other exception lands be ranked based on proximity to the Wildlife Overlay Zone at this stage <u>Goal 5 – State Scenic Waterway</u> • TAC recommended applying ranking (color yellow/fair) only to the exception lands within the ¼ mile notice area to State Parks <u>Goal 5 – Mineral & Aggregate Resources</u> • TAC recommended "screening" the portion of the Coats property under DOGAMI Permit 09-0018 from further consideration to include in the UGB for 2008-2028 planning period (area in NW quadrant identified with red/cross-hatch on map) <u>Goal 7 – Composite Wildfire Risk Ratings</u> • The TAC spent a substantial amount of time discussing these maps and concluded that the rankings for the purpose of the CWPP (to identify priority lands for treatment) shouldn't be assumed to be the same as rankings for potential urbanization • Ultimately, the TAC did not recommend (split vote) using the map of Composite Wildlife Risk Ratings in the Stage 2 mapping; but instead to consider the information on wildfire risk in the Goal 14 ESEE analysis in Stage 4 <u>Goal 7 – Floodplains</u> • The TAC recommended that this map be used for informational purposes, but exception lands would not be ranked based on proximity to floodplains <u>Factor 3 Map for Proximity to Schools</u> • The initial map focused on proximity to existing/planned elementary schools; the TAC recommended showing proximity to all existing/planned public

TAC Meeting	Topic	Boundary TAC Recommendations
		schools • The TAC also recommended showing all parcels owned by the School District in the 2-mile study area; whether or not they are developed or included in current School Facility Plan <u>Factor 3 Map for Proximity to Parks</u> • The TAC recommended showing all parcels owned by the Park District in the 2-mile study area; whether or not they are developed or included in current Park Facility Plan <u>Additional Factor 3 Maps</u> The TAC recommended the following additional Stage 2 mapping: • Map illustrating boundaries of irrigation districts, irrigated lands and canals in study area (to be completed in Phase 2) • Map identifying water quality limited streams in study area (to be completed in Phase 2)
7	Discuss options and approach for using Stage 2 base maps in Phase 2	The TAC discussed whether to develop and apply "weighting" to the 20+ Stage 2 maps to help form scenarios in Phase 2. • The TAC did <u>not</u> recommend weighting the Goal 14 factors or Stage 2 base maps • TAC recommended that the team return with a single composite map for each of the four factors of Goal 14 to focus on the overlap of the best performing lands identified in green (good) on the individual Stage 2 maps

Appendix C

PHASE 2 MILESTONES

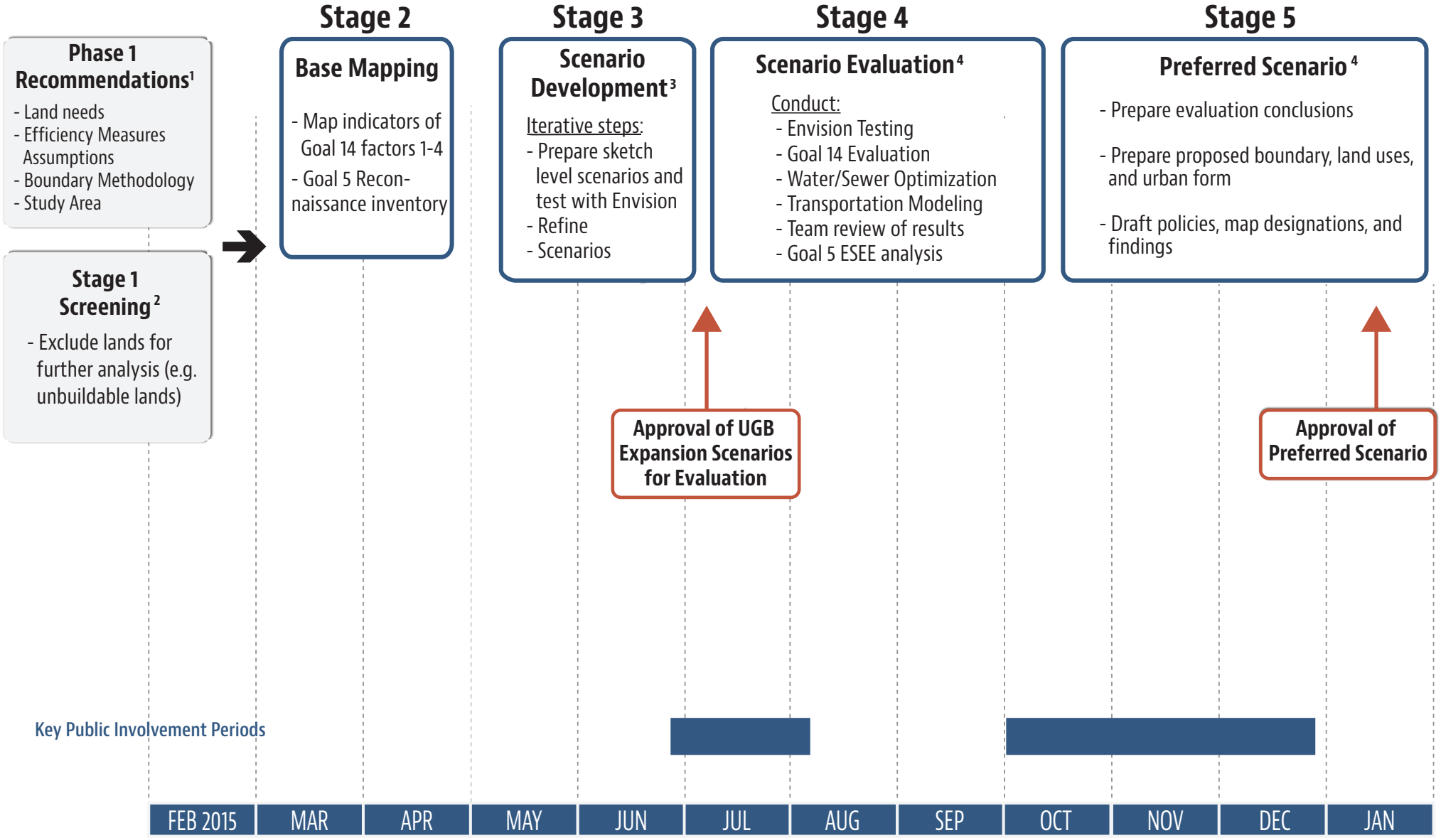


Phase 2 Milestones

rev. 3/9/2015

Preliminary and Subject to Change

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER



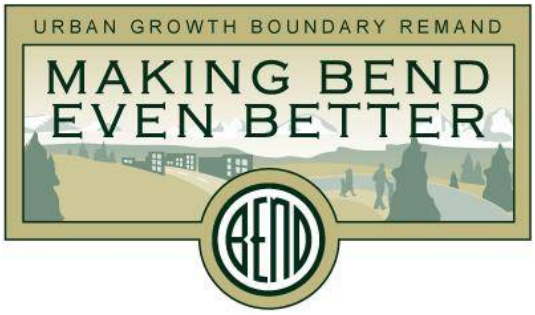
Notes:

1-4: Steps per City Attorney Memorandum, Aug 19 2014: 1 = Step 1; 2 = Step 2; 3 = Step 3A Preparation; 4 = Step 3A (3B if necessary)

Additional work during Phase 2 includes: Housing Needs Analysis (HNA), Economic Opportunities Analysis (EOA), Buildable Lands Inventory (BLI)

Appendix D

EFFICIENCY MEASURES



Efficiency Measures within Envision Tomorrow

The table below describes the efficiency measures (EM) that were tested through Envision Tomorrow's Building Prototypes and Development Types. For Package B and C, separate sets of building types and development types were developed. The values were applied to the scenario maps using the Scenario Builder tool within Envision Tomorrow.

Number	Efficiency Measure (EM)	Package A – Existing Code	Package B – Revised Code EM	Package C – Revised Code & Additional EM
1	Increase minimum gross density for RS from 2.0 to 4-5 DU/acre	RS = 3.1 DU/ac	RS = 3.1 DU/ac	RS = 4.6 Du/ac
2	Increase minimum gross density for RM from 7.3 to 10-12 DU/acre	RM = 7.4 DU/ac	RM = 7.4 DU/ac	RM = 11.2 DU/ac
3	Allow Accessory Dwelling Units (ADUs) in all single-family zones	NA	Added SFR building type with ADU type. Categorized it as MFR with 2 units on each site. 1 bedroom at around 750 feet and house with a mix of 3 and 4 bedrooms. Density is 17.7 Du/AC net	Added SFR building type with ADU type. Categorized it as MFR with 2 units on each site. 1 bedroom at around 750 feet and house with a mix of 3 and 4 bedrooms. Density is 17.7 Du/AC net
4	Allow cluster / cottage housing development	No Cottage units in RS or RM	Set of cottage homes to comprise 5% of the RS and RM Development Types	Set of cottage homes to comprise 5% of the RS and RM Development Types
5	Allow duplexes and triplexes in SFR zones outright	Duplex set to 3% of RS and RM Triplex set to 7% of RM	Duplex set to 7% of RS and RM Triplex set to 7% of RM	Duplex set to 7% of RS and RM Triplex set to 7% of RM

Number	Efficiency Measure (EM)	Package A – Existing Code	Package B – Revised Code EM	Package C – Revised Code & Additional EM
6	Prohibit SFR detached from the RH zone	SFR detached = 5%	SFR detached = 5%	SFR detached = 0%
7	Decrease minimum lot sizes for SFR detached in RM zone		Reduced 3,000 sf building type to 2,500 sf	Reduced 3,000 sf building type to 2,500 sf
8	Decrease minimum lot sizes for SFR detached in RM zone		Reduced 2,500 sf building type to 2,000 sf	Reduced 2,500 sf building type to 2,000 sf
9	Decrease minimum lot sizes for SFR detached in RM zone		Reduced 2,000 sf building type to 1,500 sf	Reduced 2,000 sf building type to 1,500 sf
10	Reduce minimum lot dimensions for SFR Attached in RH zone		Reduced width from 20 feet to 18' and depth to 75 feet	Reduced width from 20 feet to 18' and depth to 75 feet
11	Reduce setbacks in RH and RM zones for SFR Detached		Reduced setbacks for detached building types: 1,500, 2000, 2,500, 4,000, 5,000 s.f. in RM and RH zones In some cases the maximum lot size coverage is exceeded.	Reduced setbacks for detached building types: 1,500, 2000, 2,500, 4,000, 5,000 s.f. in RM zones (No SFR detached was included in RH) In some cases the maximum lot size coverage is exceeded.
12	Increase maximum lot coverage for SFR Attached in RS zones to 50%		Set building coverage to 50%	Set building coverage to 50%
13*	Increase maximum lot coverage in RM zones to 60%		Reduced parking spaces to 1.5 per unit in order to reach 60% coverage	Reduced parking spaces to 1.5 per unit in order to reach 60% coverage

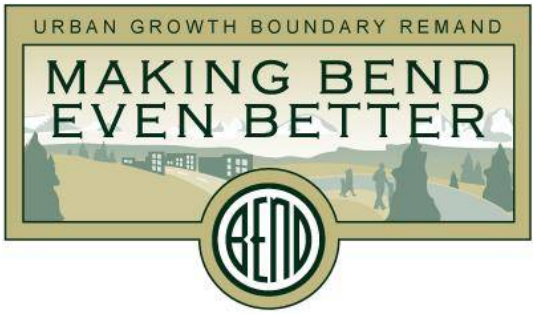
Number	Efficiency Measure (EM)	Package A – Existing Code	Package B – Revised Code EM	Package C – Revised Code & Additional EM
14*	In the RH zone – allow greater lot coverage. Potential actions: eliminate maximum lot coverage requirements; allow minimum parking and minimum landscaping requirements to set upper limit on lot coverage		For Building types used by the RH, reduced parking As follows, existing>new Residential, listed as spaces per unit 2.5 > 1.5 1.75 > 1 1.5 > 1 Retail (listed as spaces per 1,000 sf) 3 > 1.5 Office (listed as spaces per 1,000 sf) 3 > 1.85 3>1.5 for 4-story bldgs 2.85 > 1.5 2 > 1.5 Landscaping standards did not need changing to reach or exceed max FAR	For Building types used by the RH, reduced parking As follows, existing>new Residential, listed as spaces per unit 2.5 > 1.5 1.75 > 1 1.5 > 1 Retail (listed as spaces per 1,000 sf) 3 > 1.5 Office (listed as spaces per 1,000 sf) 3 > 1.85 3>1.5 for 4-story bldgs 2.85 > 1.5 2 > 1.5 Landscaping standards did not need changing to reach or exceed max FAR
15	ADUs – waive off street parking requirement	NA	SFR/ADU building type only included parking for the main house	SFR/ADU building type only included parking for the main house
16	Duplex and Triplex – reduce parking from 2 to 1.5 per unit	Parking set to 2 spaces per unit	Set to 1.5	Set to 1.5
17*	Reduce parking requirements for multi-family housing	Varies by building types	For MFR Building types reduced parking As follows, existing>new Residential, listed as spaces per unit 2.5 > 1.5 1.75 > 1 1.5 > 1	For MFR Building types reduced parking As follows, existing>new Residential, listed as spaces per unit 2.5 > 1.5 1.75 > 1 1.5 > 1

Number	Efficiency Measure (EM)	Package A – Existing Code	Package B – Revised Code EM	Package C – Revised Code & Additional EM
18	Increase minimum required density for master planned developments form 60% to 80% of maximum zone density, and reduce requirement threshold from 40 to 20 acres	60%	No change	Created RS and RM Masterplan Development Type set to 80% of max. Applied to vacant sites of 20 acres or more
19	Increase building height for higher intensity areas	Varies by building types and zone	20% of the Urban Mixed Use development types contains buildings of 5 and 8 stories	20% of the Urban Mixed Use development types contains buildings of 5 and 8 stories
20	Expand lot coverage in ME zone from 60% to 80%	60%	Parking requirements for 1 and 2 story office were reduced. Could not reach 80% threshold without employing structured parking, which doesn't match economic profile of ME areas	Parking requirements for 1 and 2 story office were reduced. Could not reach 80% threshold without employing structured parking, which doesn't match economic profile of ME areas

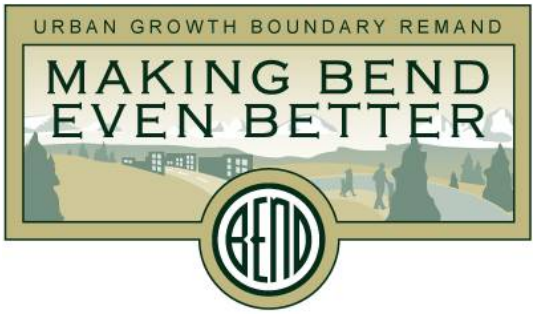
*Per TAC direction on February 11, 2015, parking reductions were applied only in selected higher density and mixed use areas of the City.

Appendix E

STAGE 2 MAPS



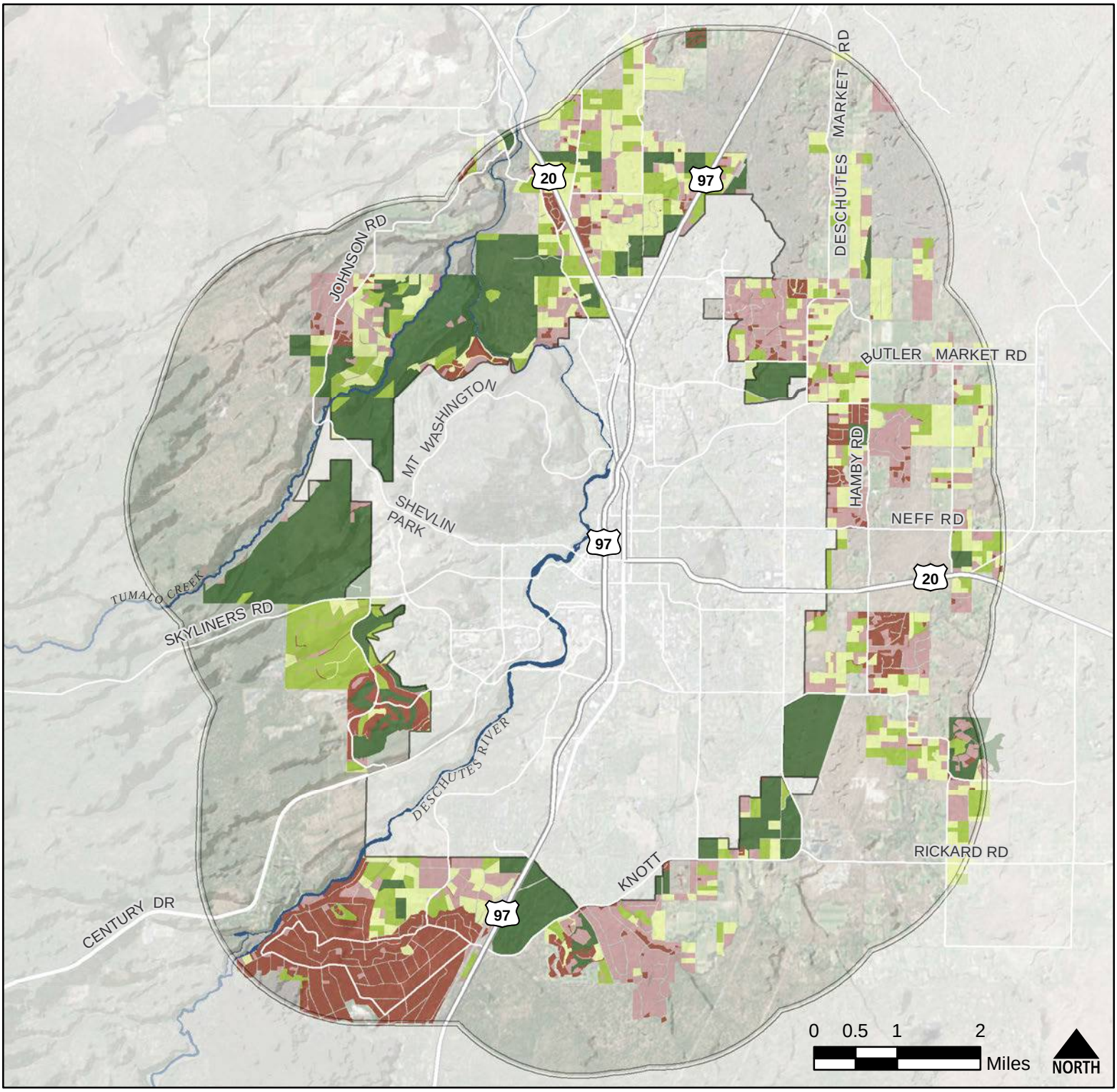
Factor 1 Maps



STAGE 2 MAPS FOR FACTOR 1 OF GOAL 14: EFFICIENT ACCOMMODATION OF IDENTIFIED LAND NEEDS

- Parcel Size
- Improvement to Land Value Ratio
- Distance from UGB
- Steep Slopes (>25%)
- Subdivisions with Known CC&Rs

Priority 2 Exception Land Parcel Size



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

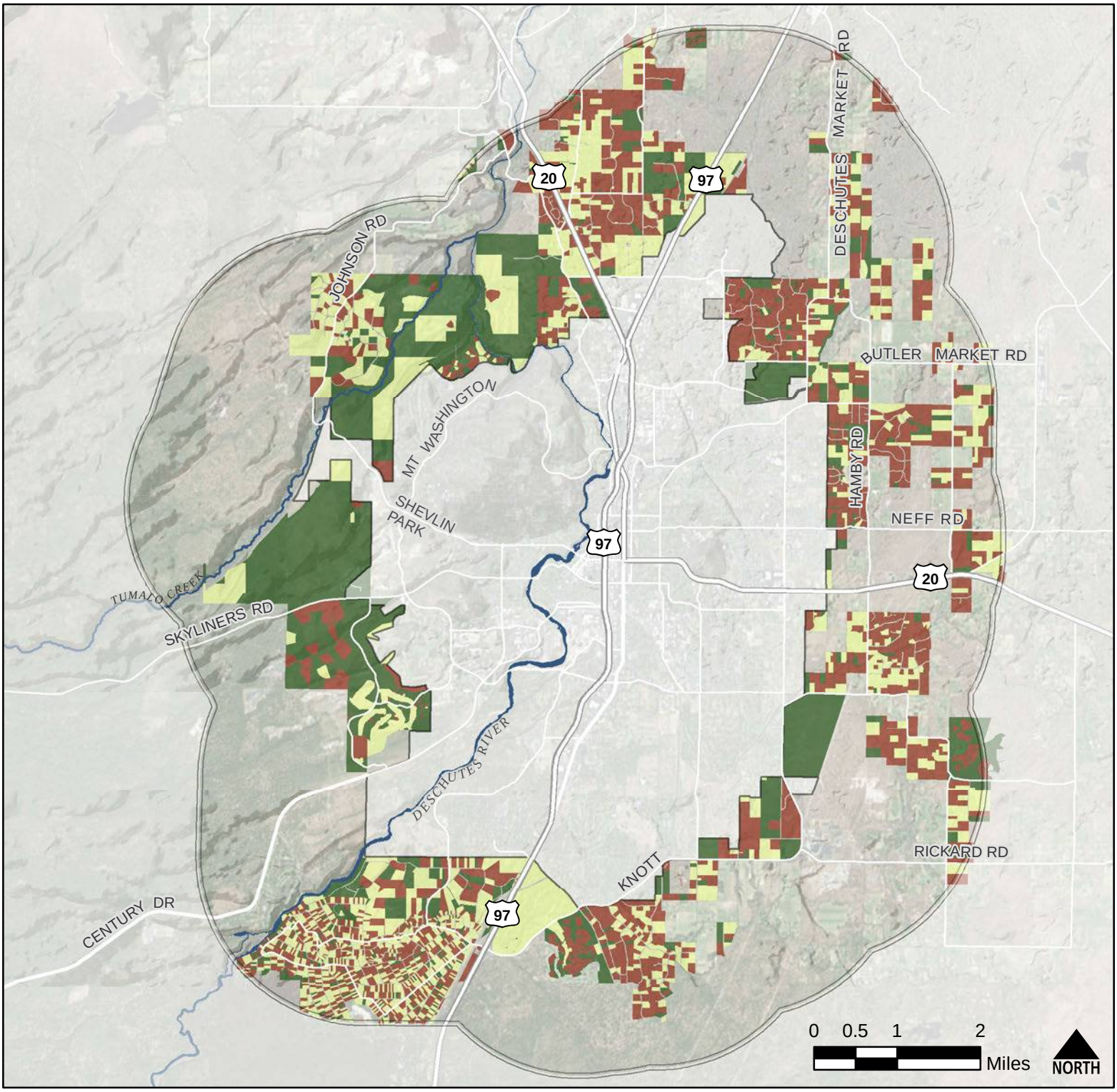
Prepared 1/2/2015

Improvement to Land Value Ratio

- 2 Miles from UGB
- Urban Growth Boundary
- Streams/Rivers
- Roads/Highways

Exception Land Improvement to Land Value Ratio

- No Improvement Value
- 1 and Below (Improvement less than Land Value)
- Above 1 (Improvement more than Land Value)

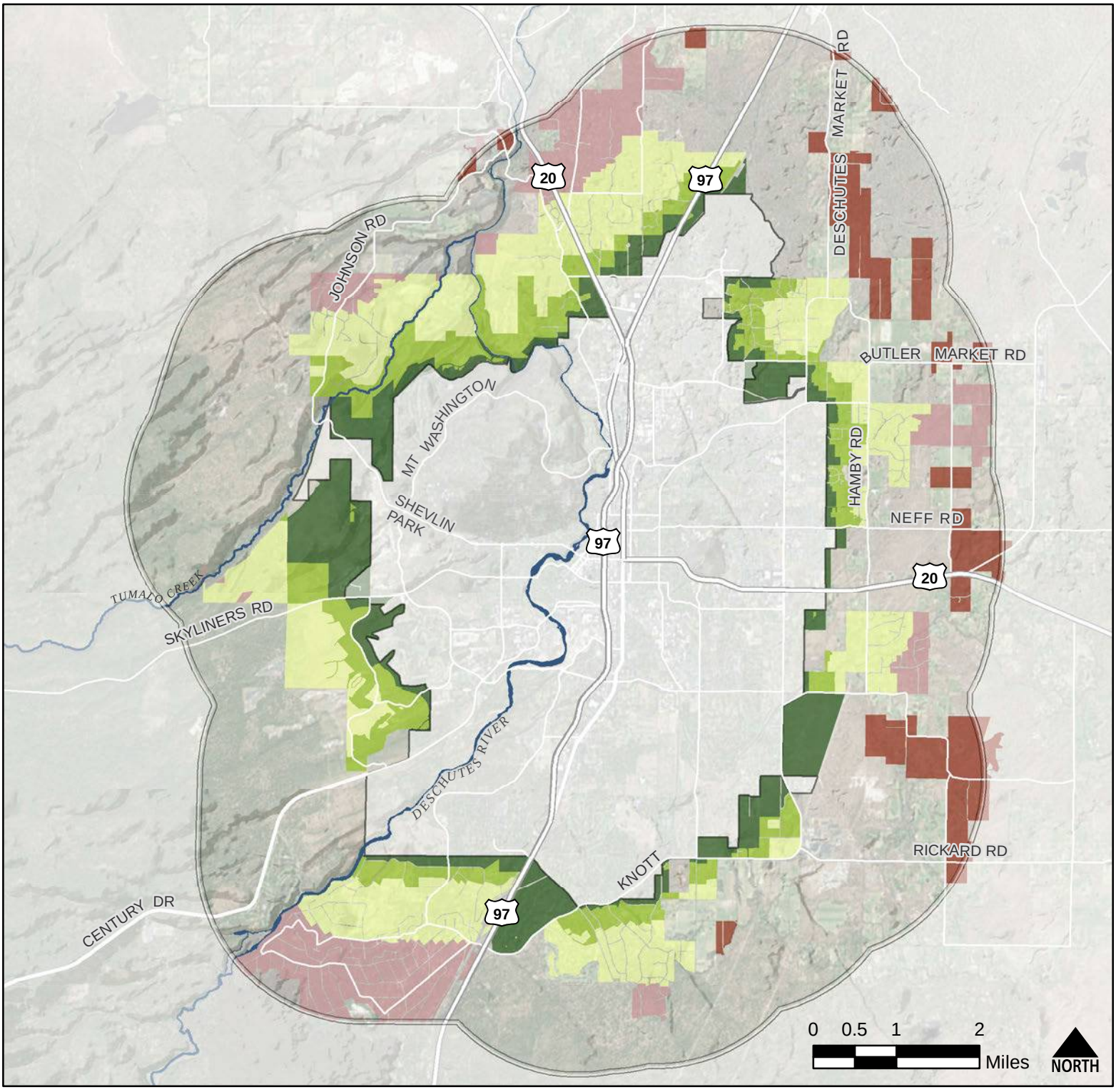


URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

Prepared 1/20/2015

Taxlot Distance from UGB



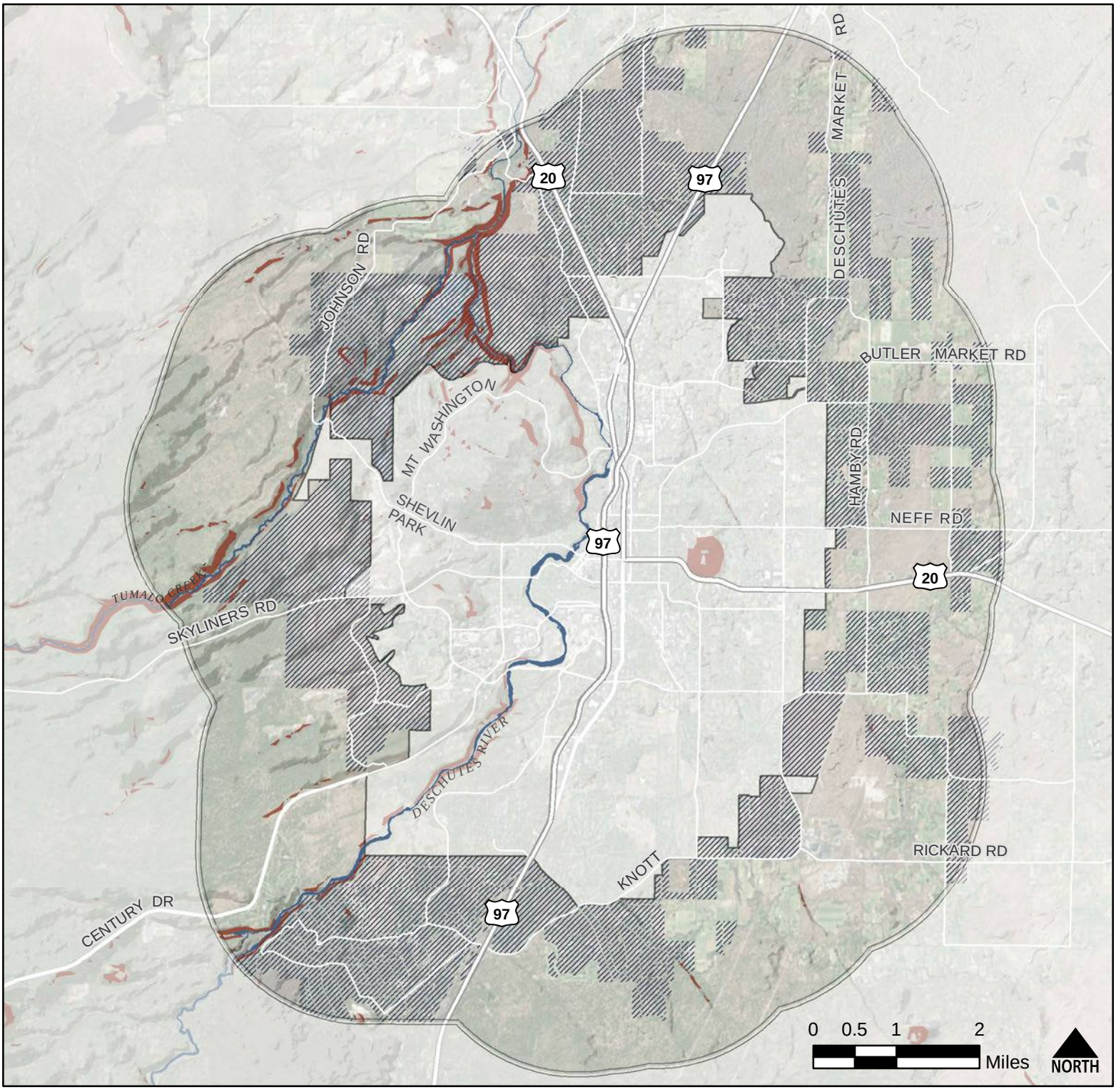
URBAN GROWTH BOUNDARY REMAND

Note: Distance from UGB is from individual tax lots. If a tax lot is contiguous, then the whole tax lot is shown as contiguous even though portions may be farther away.

Service Layer Credits: Deschutes County GIS (2014)

Prepared 1/20/2015

Steep Slopes



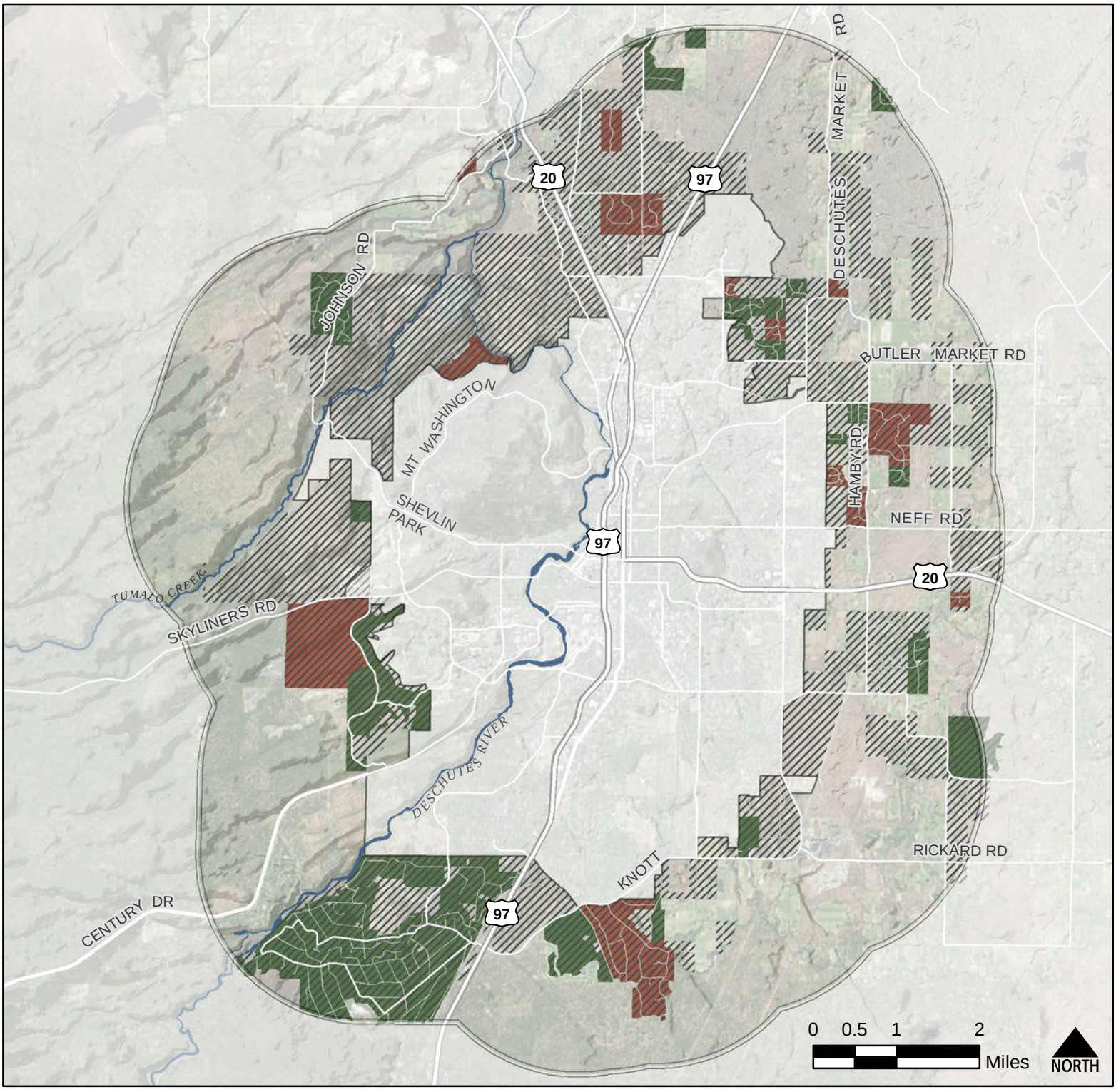
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/6/2015

Subdivisions with Known CC&Rs



URBAN GROWTH BOUNDARY REMAND

Note: analysis of known CC&Rs is a work in progress and subject to change.

Service Layer Credits: Remand Record (entered 12/01/2008); Deschutes County GIS (2014)

Prepared 3/5/2015

Factor 2 Maps

STAGE 2 MAPS FOR FACTOR 2 OF GOAL 14: ORDERLY & ECONOMIC PROVISION OF PUBLIC FACILITIES AND SERVICES

Transportation Maps

- Physical Barriers to Connectivity
- 2040 Reliance on Congested Corridors
- Connectivity to Complete Roadway Grid

Water Map

- Water Analysis (City of Bend Service Area)

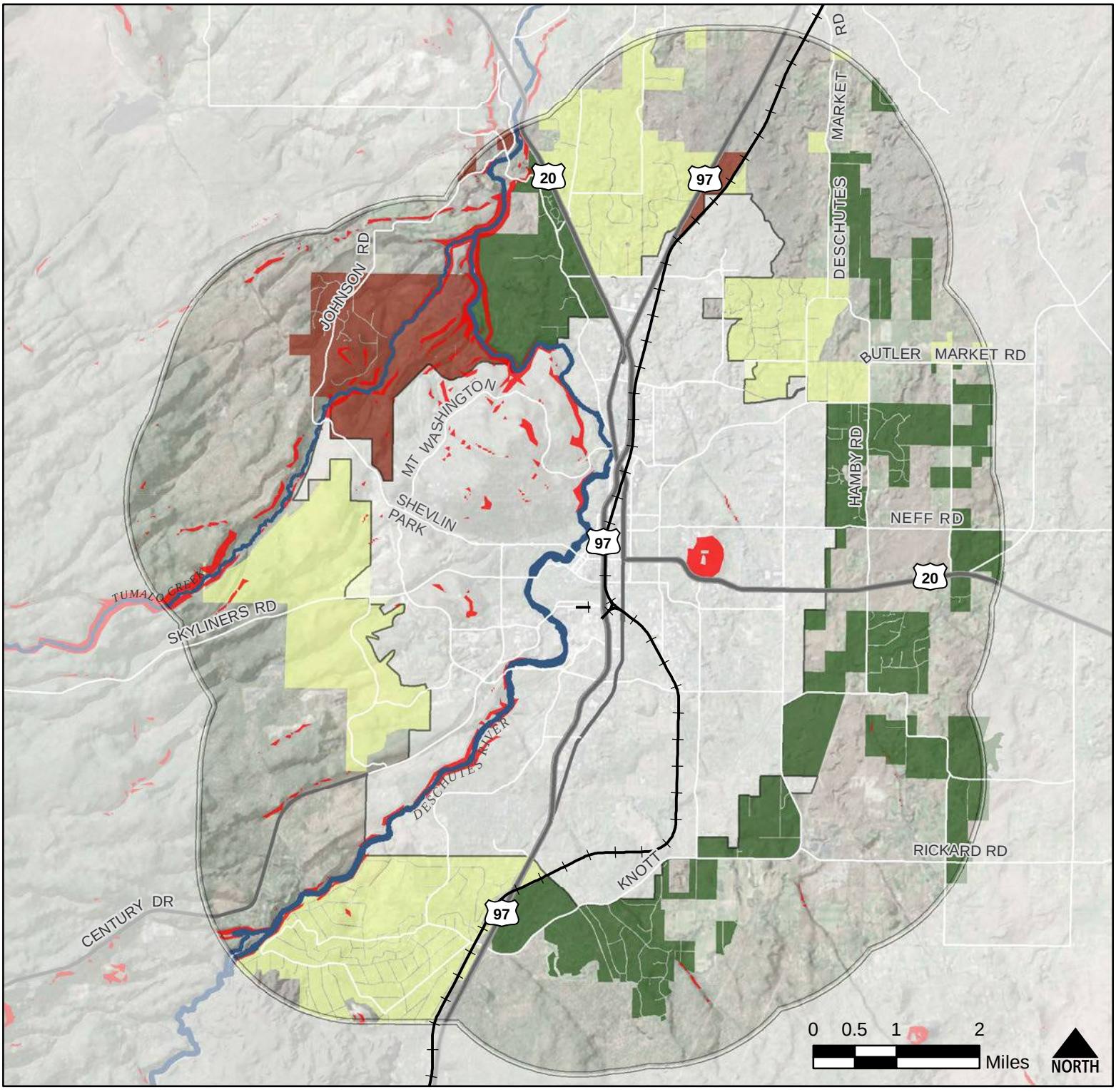
Wastewater Map

- Preliminary Analysis of Potential UGB Expansion Basins

Stormwater Maps

- Surficial Geology
- Drinking Water Protection Areas (GIS Base Map)
- Proximity to Drinking Water Protection Areas

Physical Barriers to Connectivity



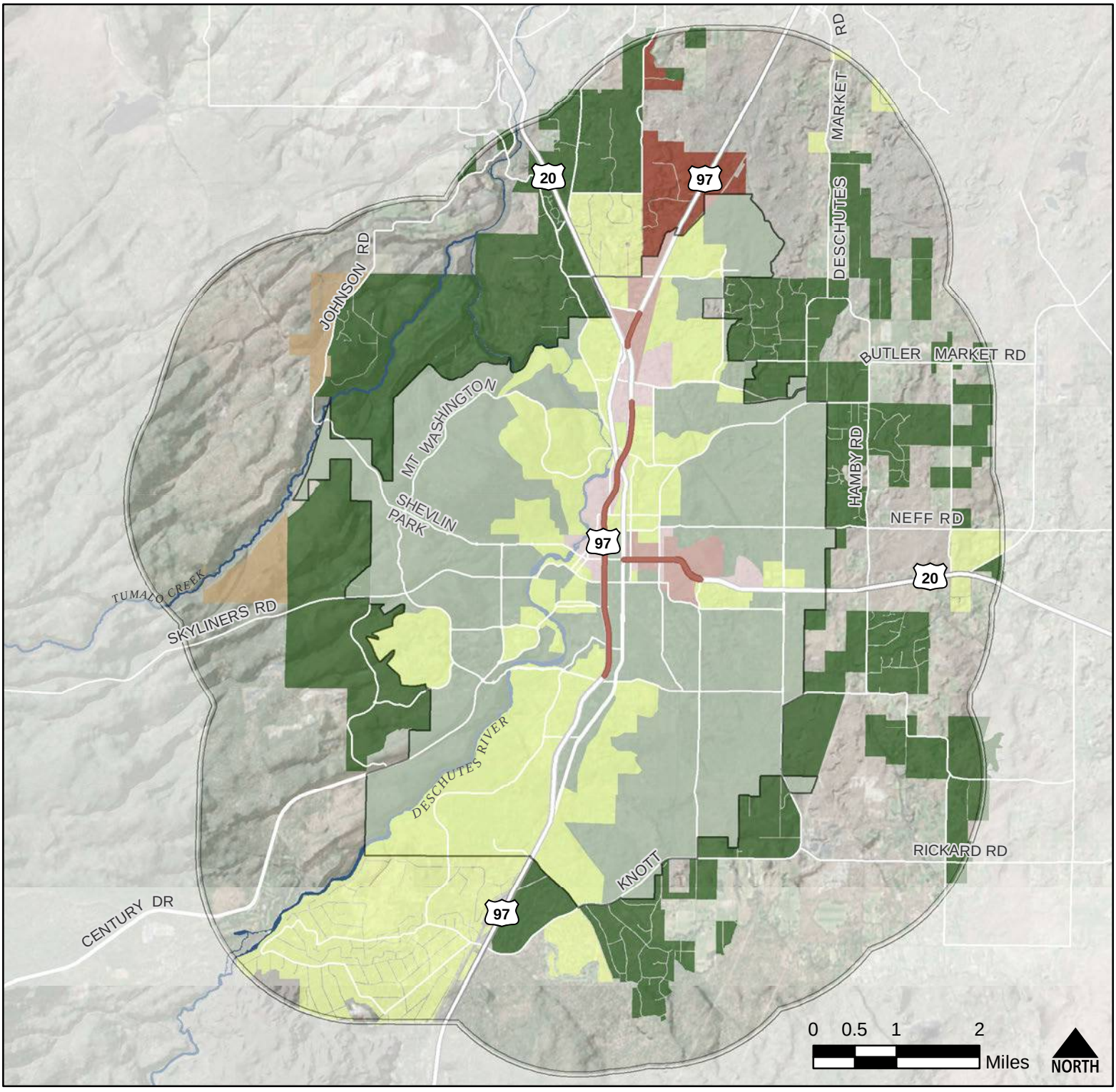
URBAN GROWTH BOUNDARY REMAND

Barrier rankings based on geographic area and not by individual parcel

Service Layer Credits: DKS, Deschutes County GIS (2014)

Prepared 3/5/2015

2040 Exception Land Reliance on Congested Corridors



URBAN GROWTH BOUNDARY REMAND

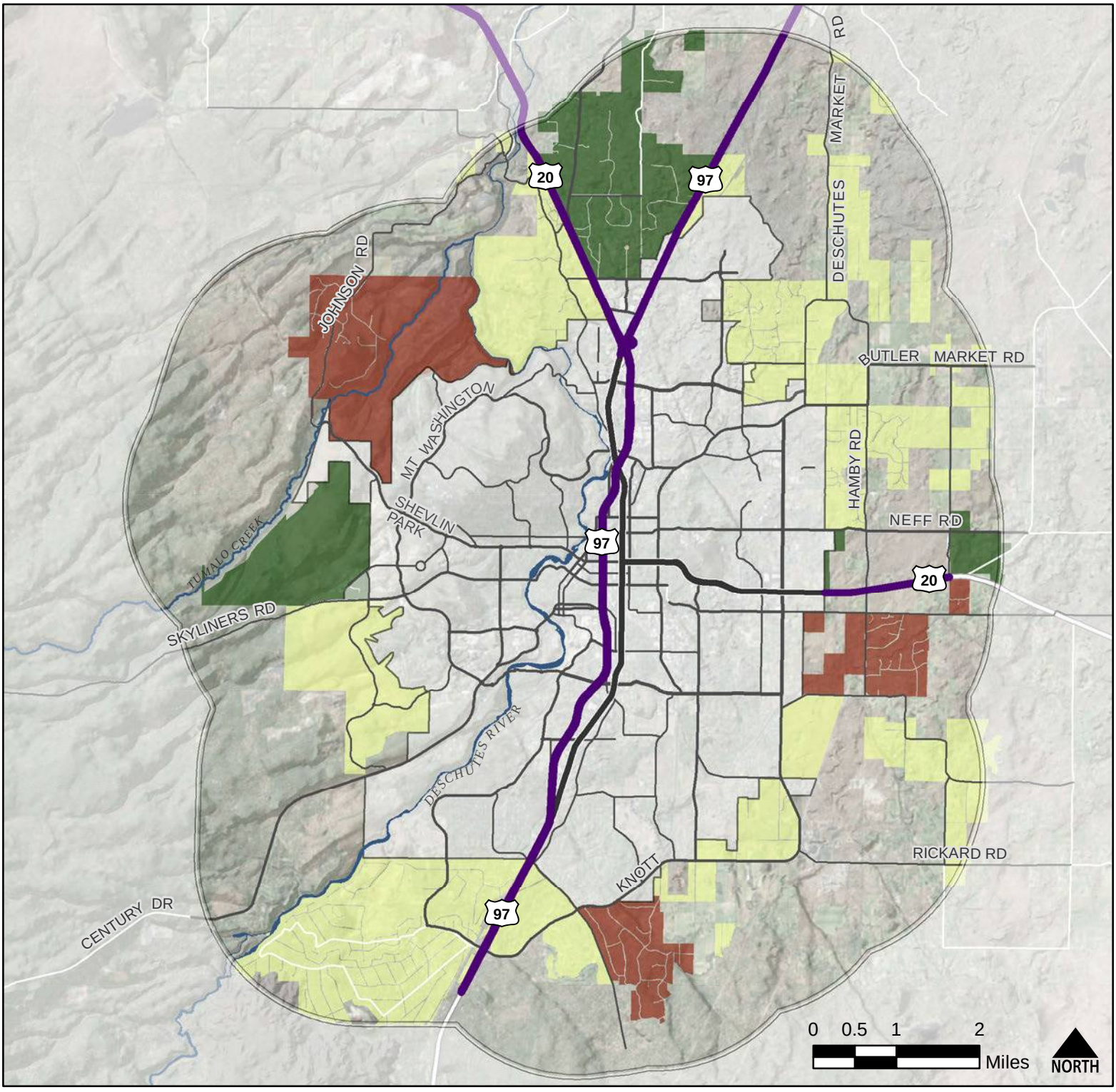
Corridor reliance rankings based on geographic area and not by individual parcel

Service Layer Credits: DKS, Deschutes County GIS (2014)

Prepared 3/5/2015

03644

Connectivity to Complete Roadway Grid



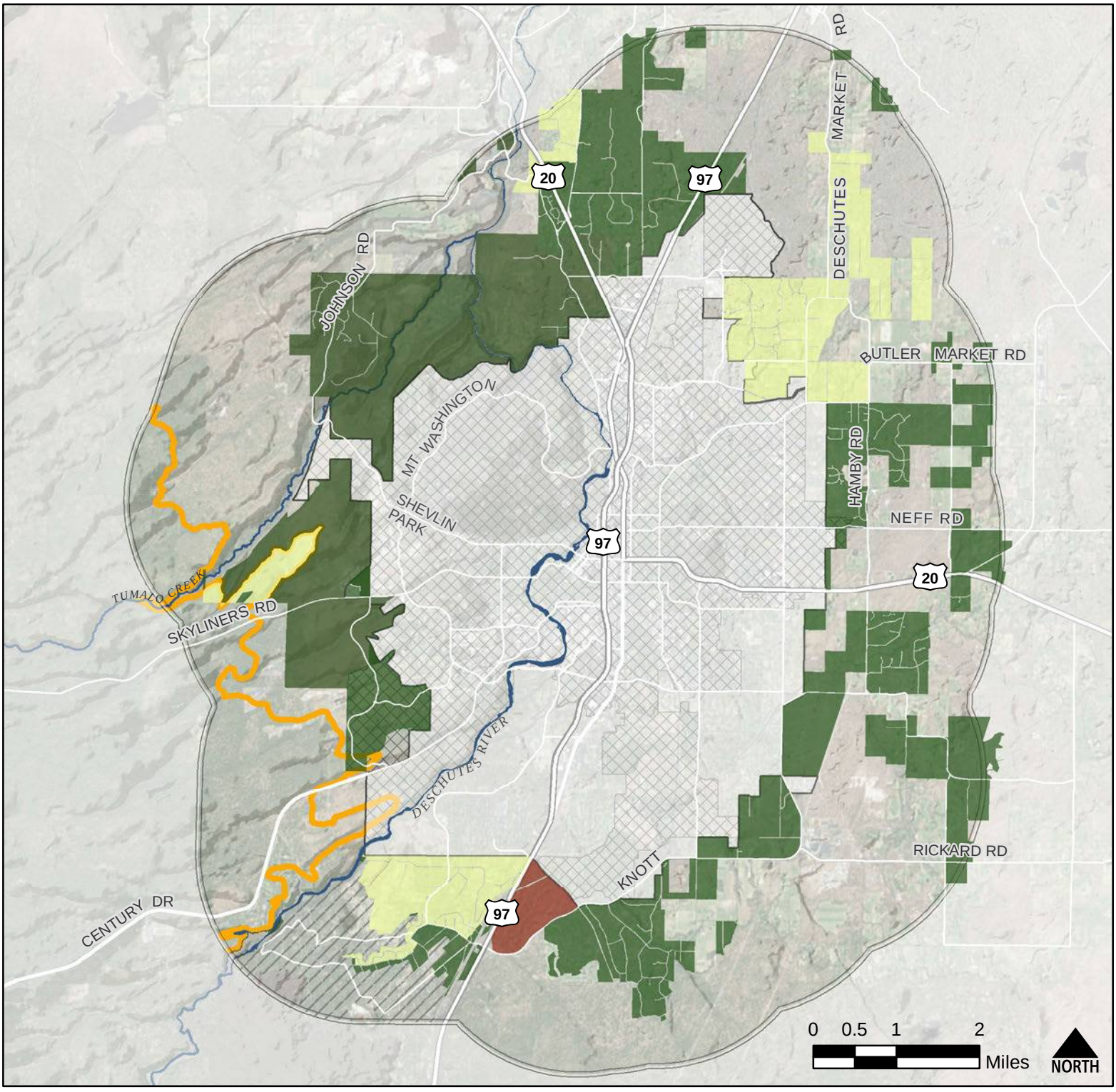
URBAN GROWTH BOUNDARY REMAND

Connectivity rankings based on geographic area and not by individual parcel

Service Layer Credits: DKS, Deschutes County GIS (2014)

Prepared 3/5/2015

Water Analysis: Bend & Avion Service Areas



URBAN GROWTH BOUNDARY REMAND

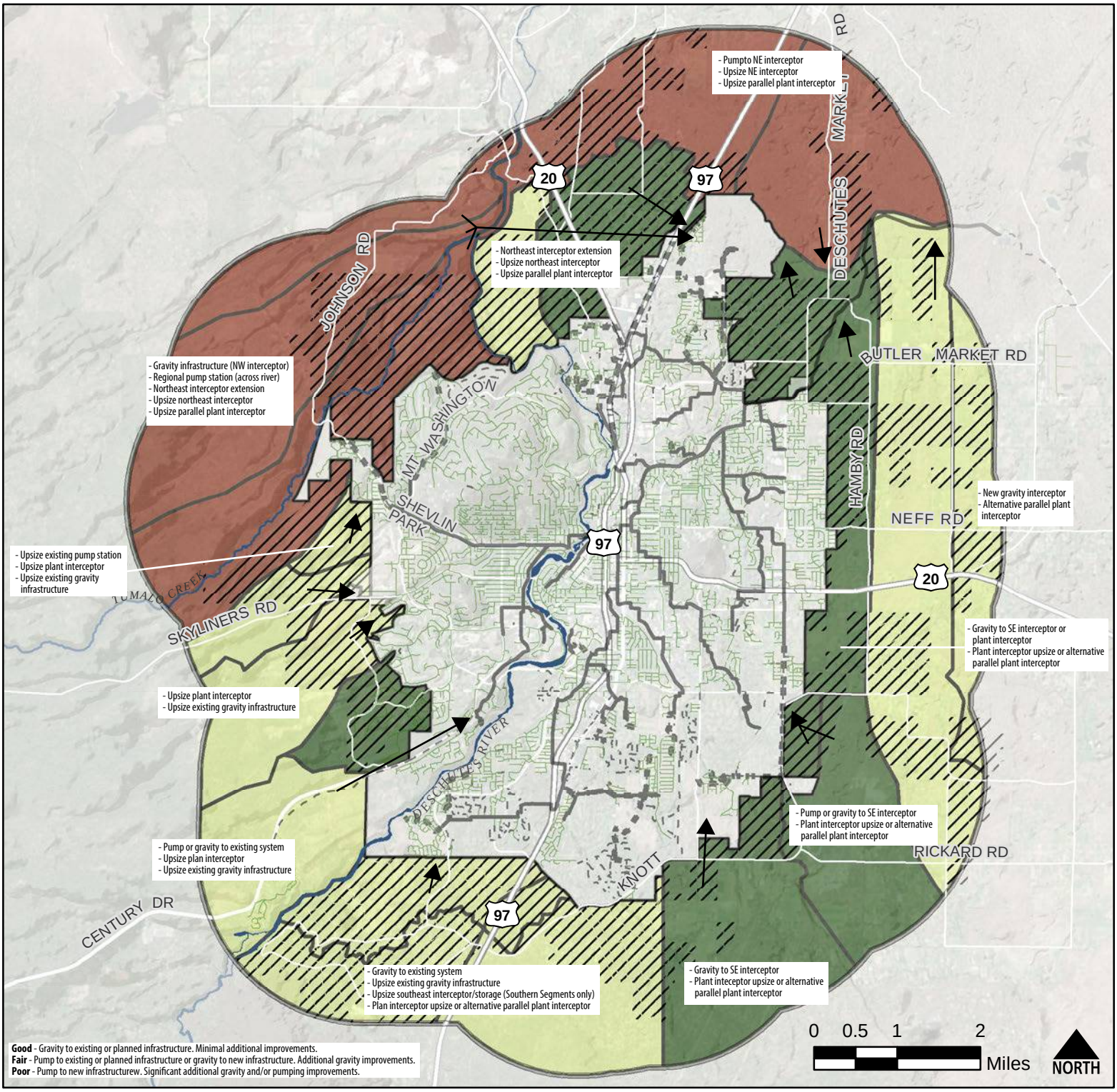
Water analysis ranking based on geographic area and not by individual parcel

Service Layer Credits: MSA (2014), NRCS, Deschutes County GIS (2014), Avion Water Company (2014)

Prepared 3/12/2015

03646

Preliminary Analysis of Potential UGB Expansion Wastewater Basins



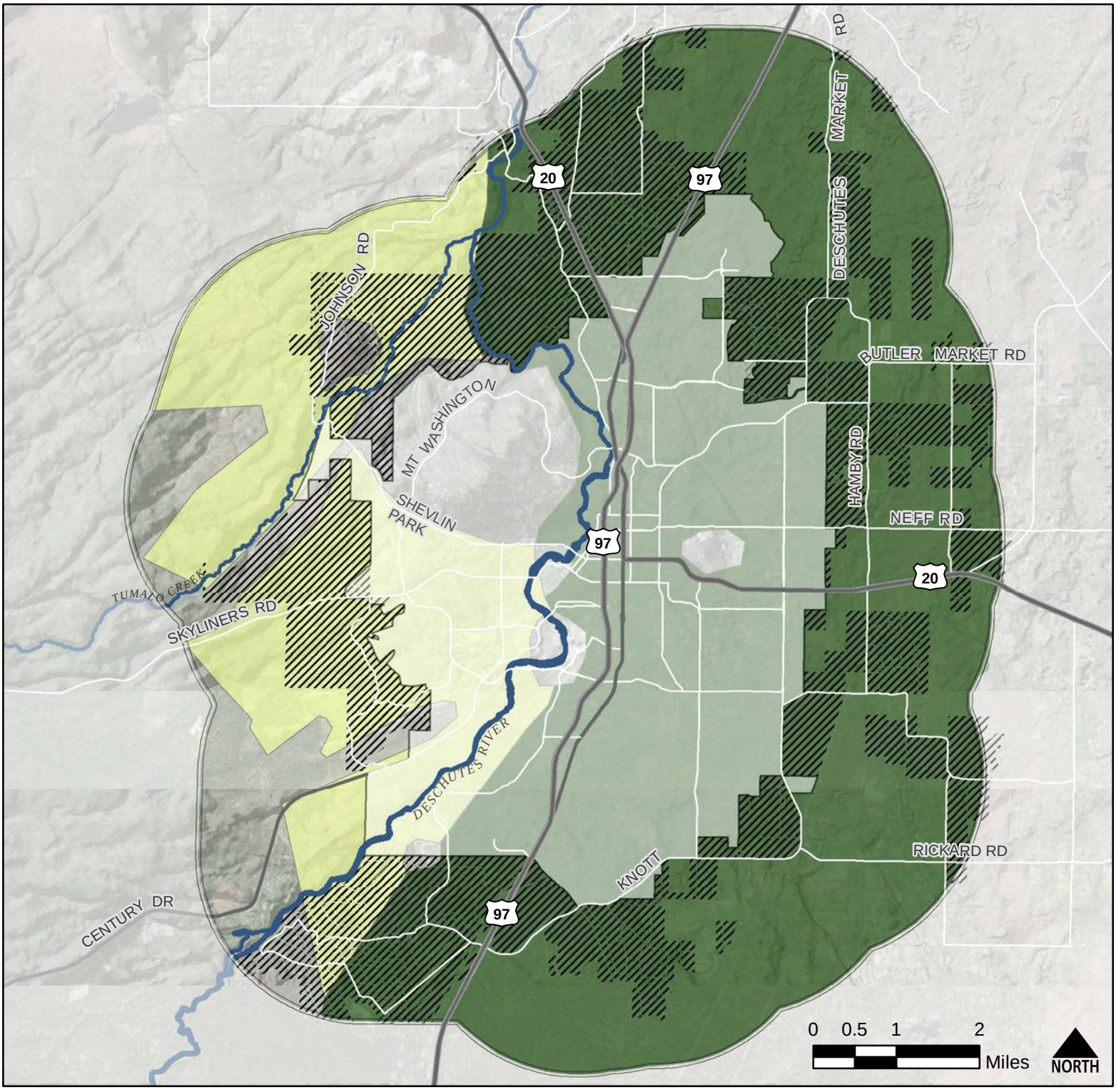
URBAN GROWTH BOUNDARY REMAND

Wastewater basin analysis rankings based on geographic area and not by individual parcel

Service Layer Credits: MSA Maps & Memo (2015), Deschutes County GIS (2014)

Prepared 3/5/2015

Surficial Geology



URBAN GROWTH BOUNDARY REMAND

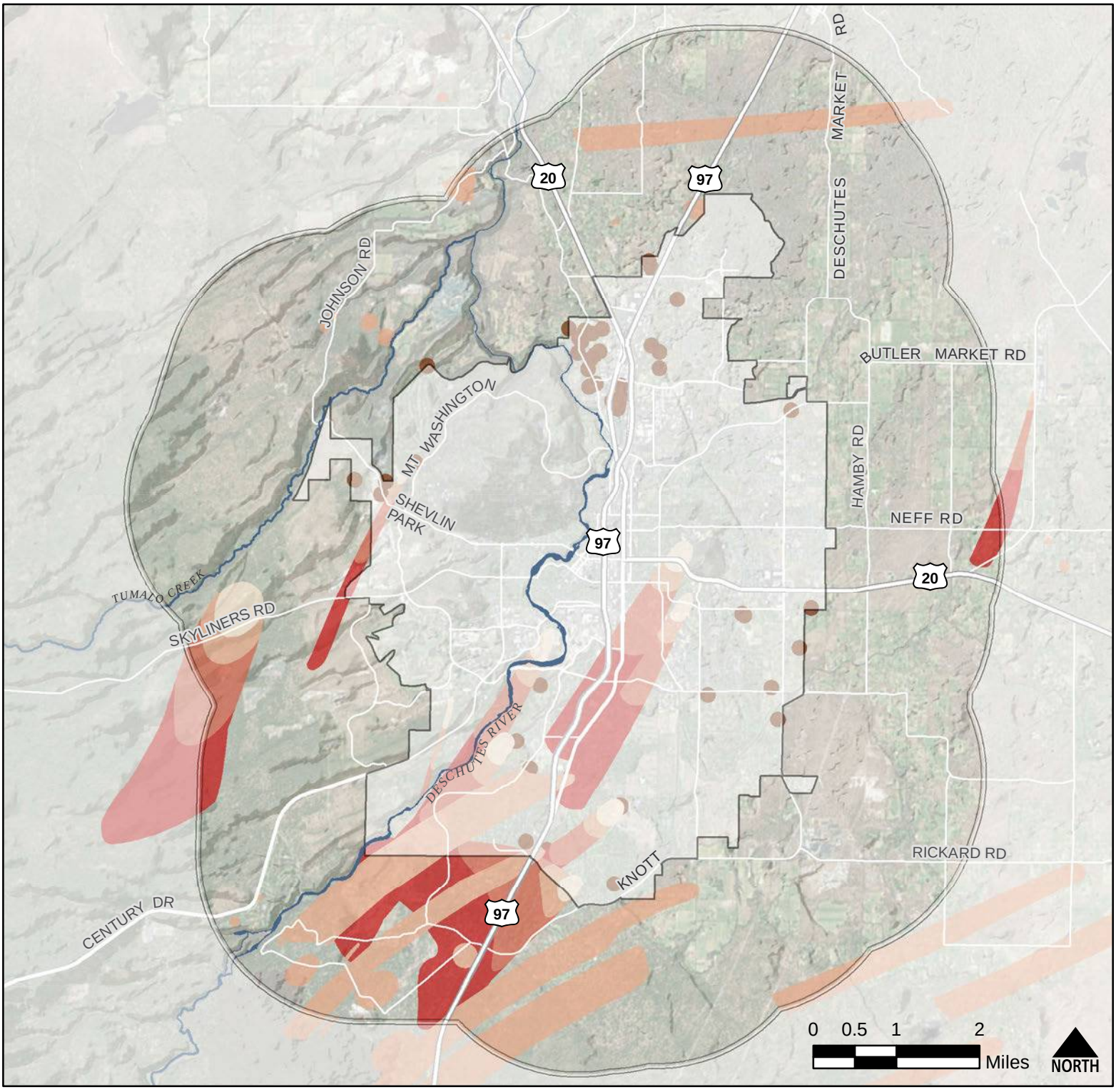
Service Layer Credits: Deschutes County GIS (2011), USGS (2005)

QTst - Tuffaceious Sedimentary Rocks and Tuffs (lower permeability)
Qb - Basalt and Basaltic Andesite (higher permeability)

Note: The locations of geologic features shown are approximate. Rankings based on geographic area and not by individual parcel.

Prepared 3/12/2015

Drinking Water Protection Areas (DWPA)



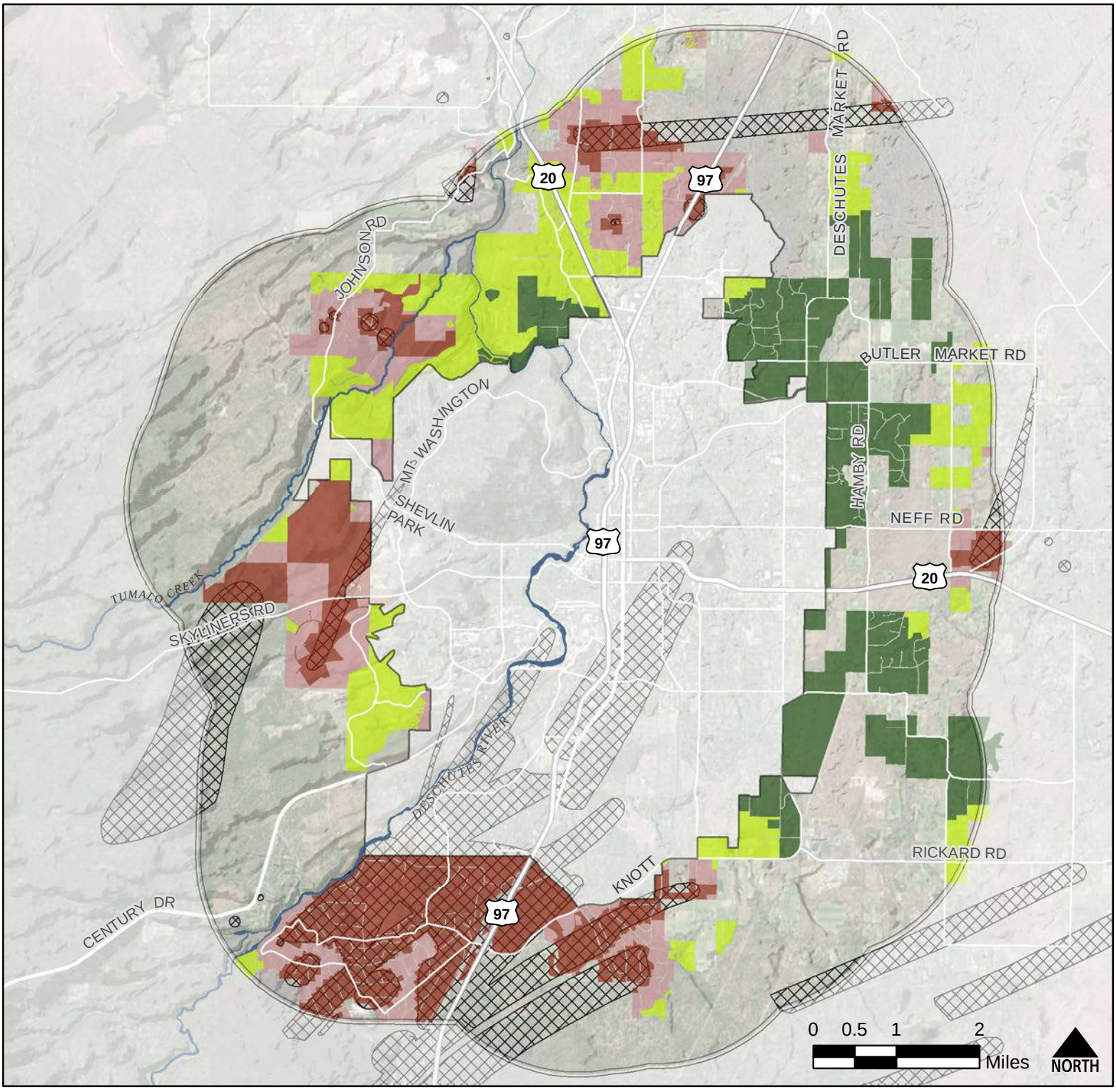
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Deschutes County GIS (2014), City of Bend (2011)

Prepared 3/6/2015

Exception Land Distance from Drinking Water Protection Areas (DWPA)



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014), City of Bend (2011)

Prepared 1/20/2015

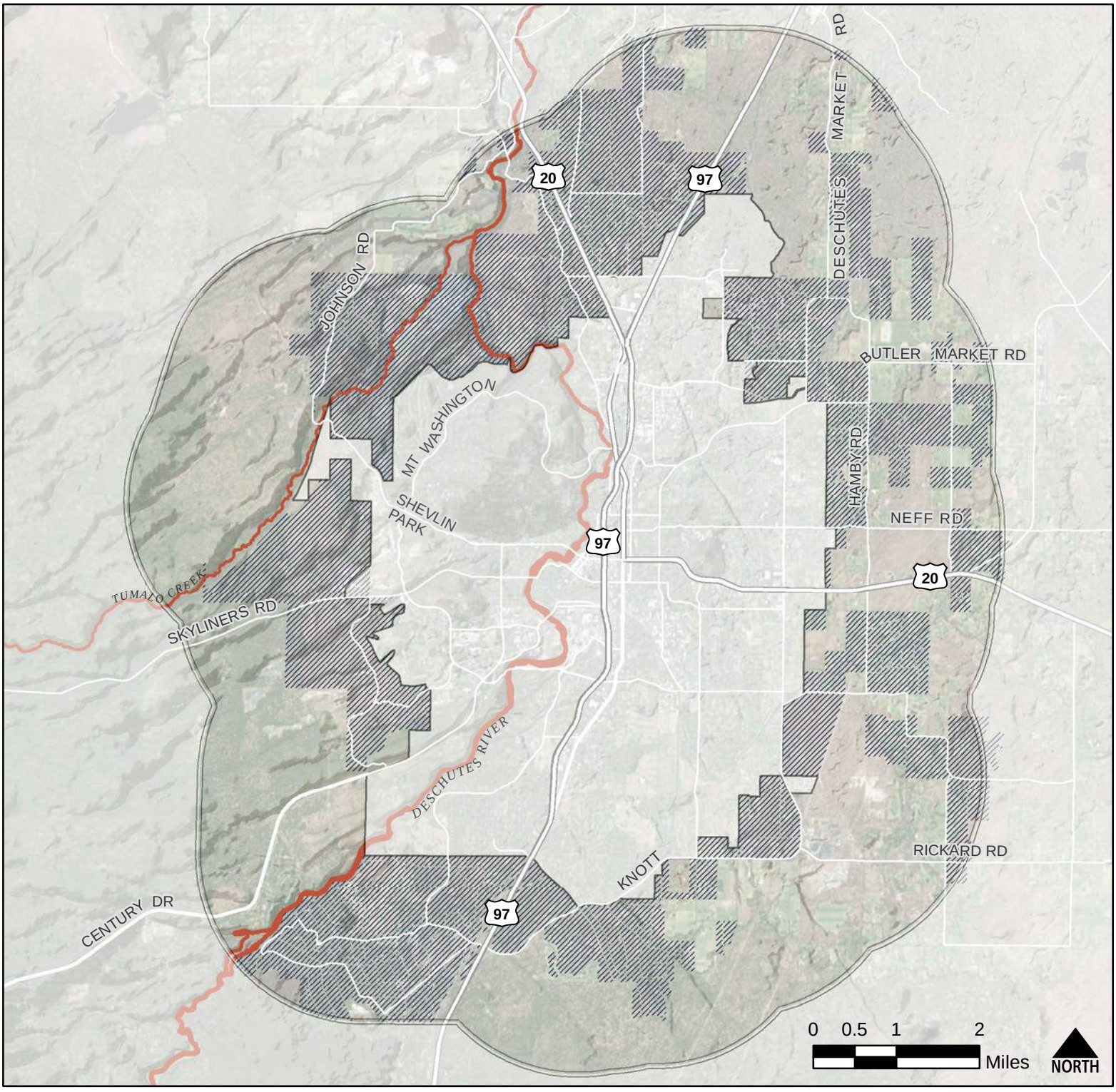
03650

Factor 3 Maps

STAGE 2 MAPS FOR FACTOR 3 OF GOAL 14: ESEE CONSEQUENCES

- Riparian Corridors
- Exception Land & Big Game Winter Ranges (ODFW)
- Proximity to Winter Range
- Federal/State Scenic Waterways
- Mineral & Aggregate Resources
- Fire Risk – CWPP Boundary Subareas (not for use in Stage 2)
- Composite Wildfire Risk Ratings (not for use in Stage 2)
- 100-year Floodplains
- Proximity to Elementary Schools & Parks
- Greenprint Overall Priorities

Riparian Areas - 100' buffer form Deschutes River & Tumalo Creek



URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/6/2015

03652

Exception Land & Big Game Winter Ranges

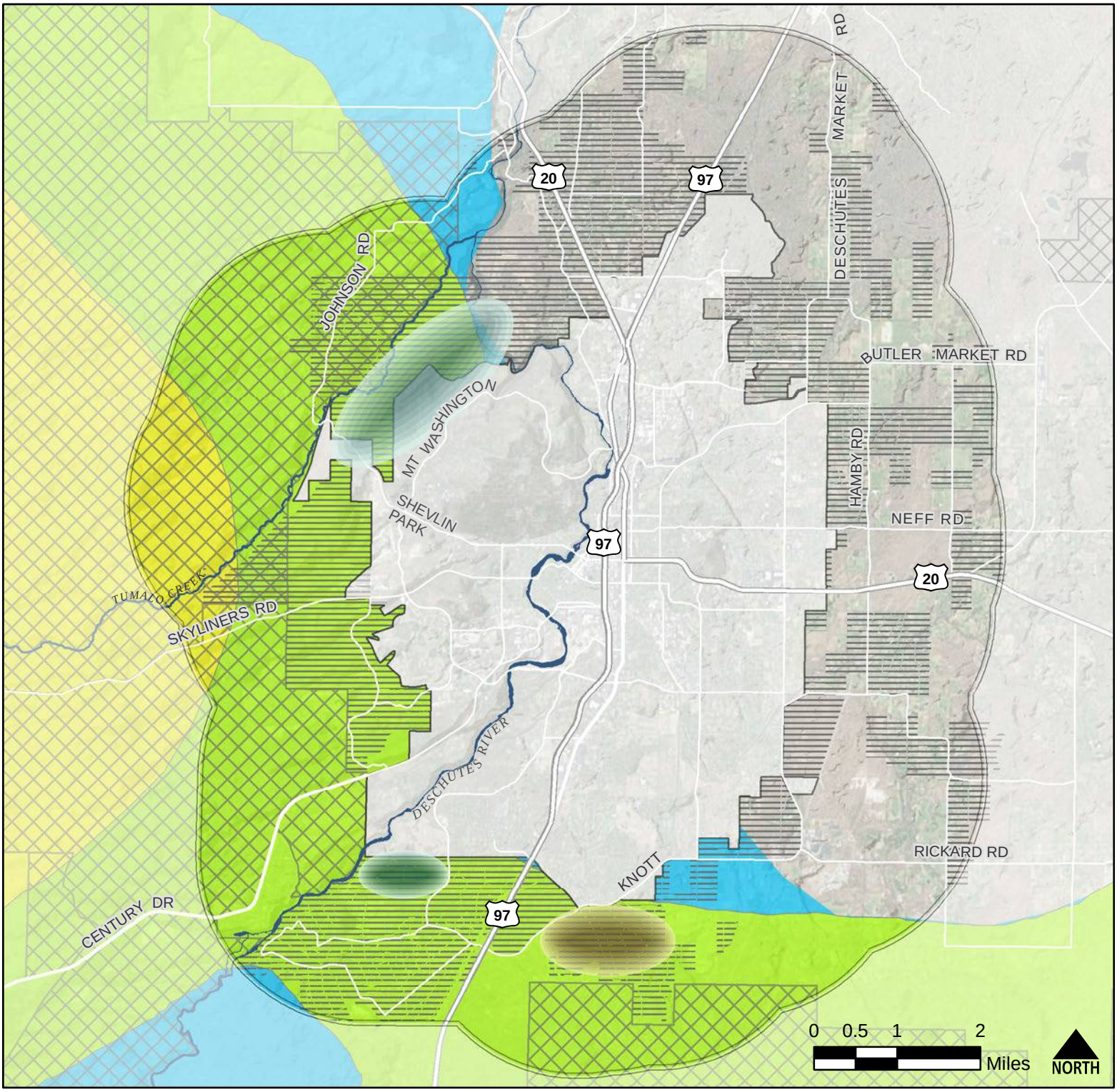
- 2 Miles from UGB
- Urban Growth Boundary
- Streams/Rivers
- Roads/Highways
- Exception Land

ODFW Deer & Elk Winter Range

- Elk
- Deer
- Elk & Deer

ODFW Potential Winter Range

- Elk
- Deer
- Wildlife Area Combining Zone



URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Oregon Department of Fish and Wildlife (2011-2012). Deschutes County GIS

Note: Areas of potential concern based on interviews with ODFW

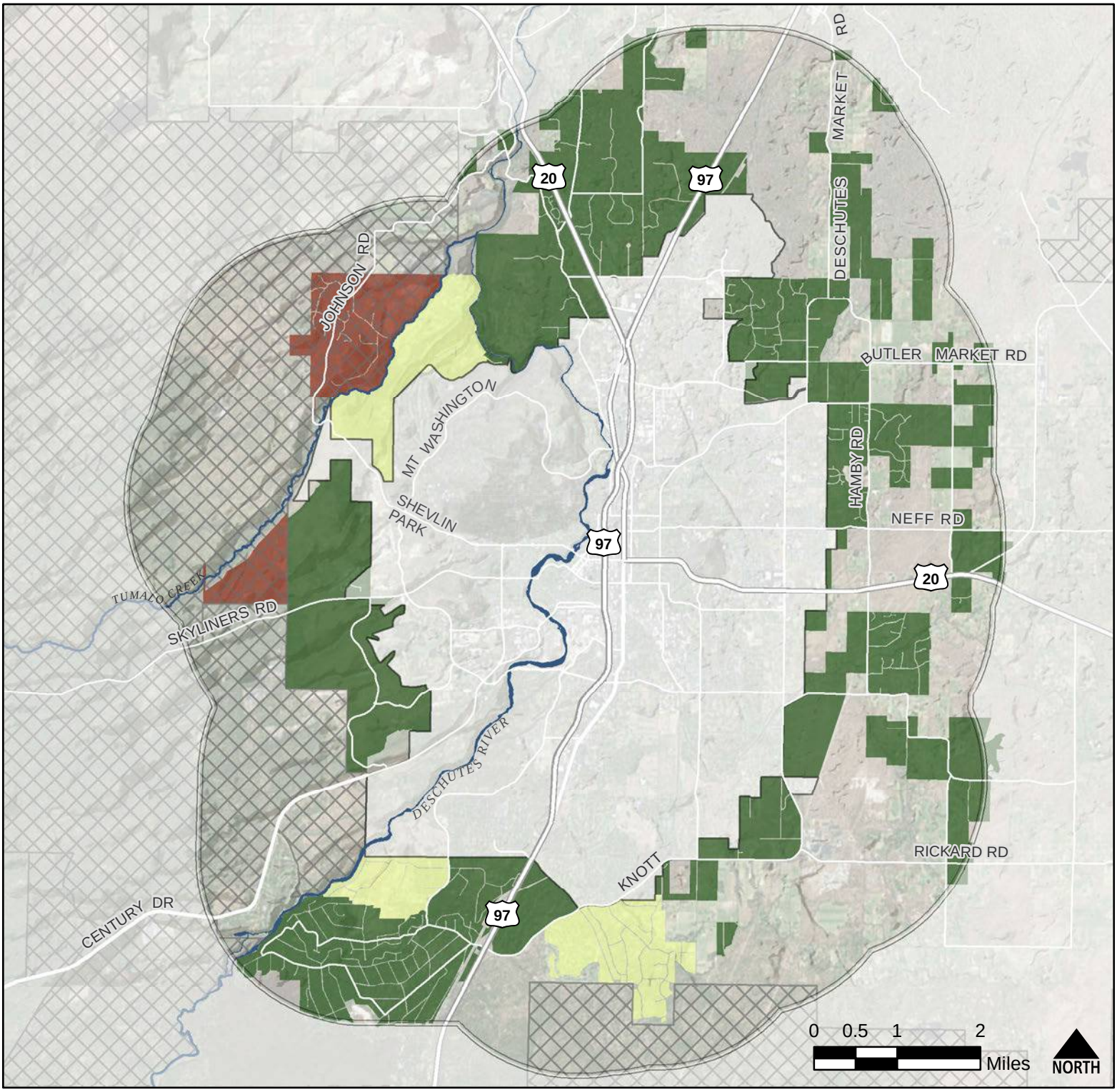
Prepared 3/6/2015

Proximity to Winter Range/Wildlife Area Combining Zone

- 2 Miles from UGB
- Urban Growth Boundary
- Streams/Rivers
- Roads/Highways
- Wildlife Area Combining Zone

Exception Land Proximity to Winter Range/Wildlife Area Combining Zone

- Outside Wildlife Combining Zone
- ODFW Areas of Potential Concern
- Inside Wildlife Combining Zone



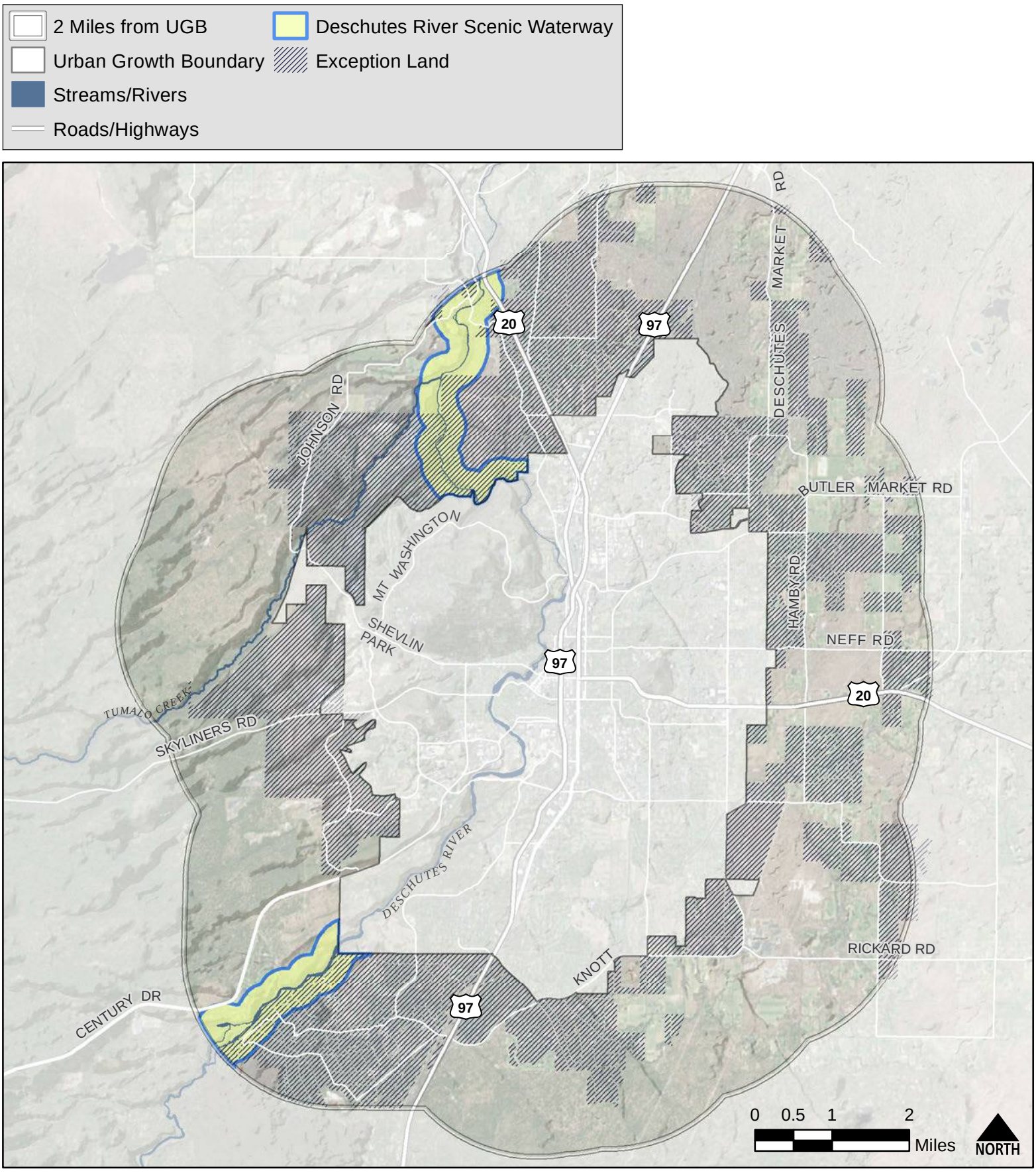
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Oregon Department of Fish and Wildlife (2011-2012). Deschutes County GIS

Note: Exception areas shown on ODFW Big Game Winter Range Map will require ESEE analysis as part of Goal 14: Factor 3.

Prepared 3/12/2015

Federal/State Scenic Waterways



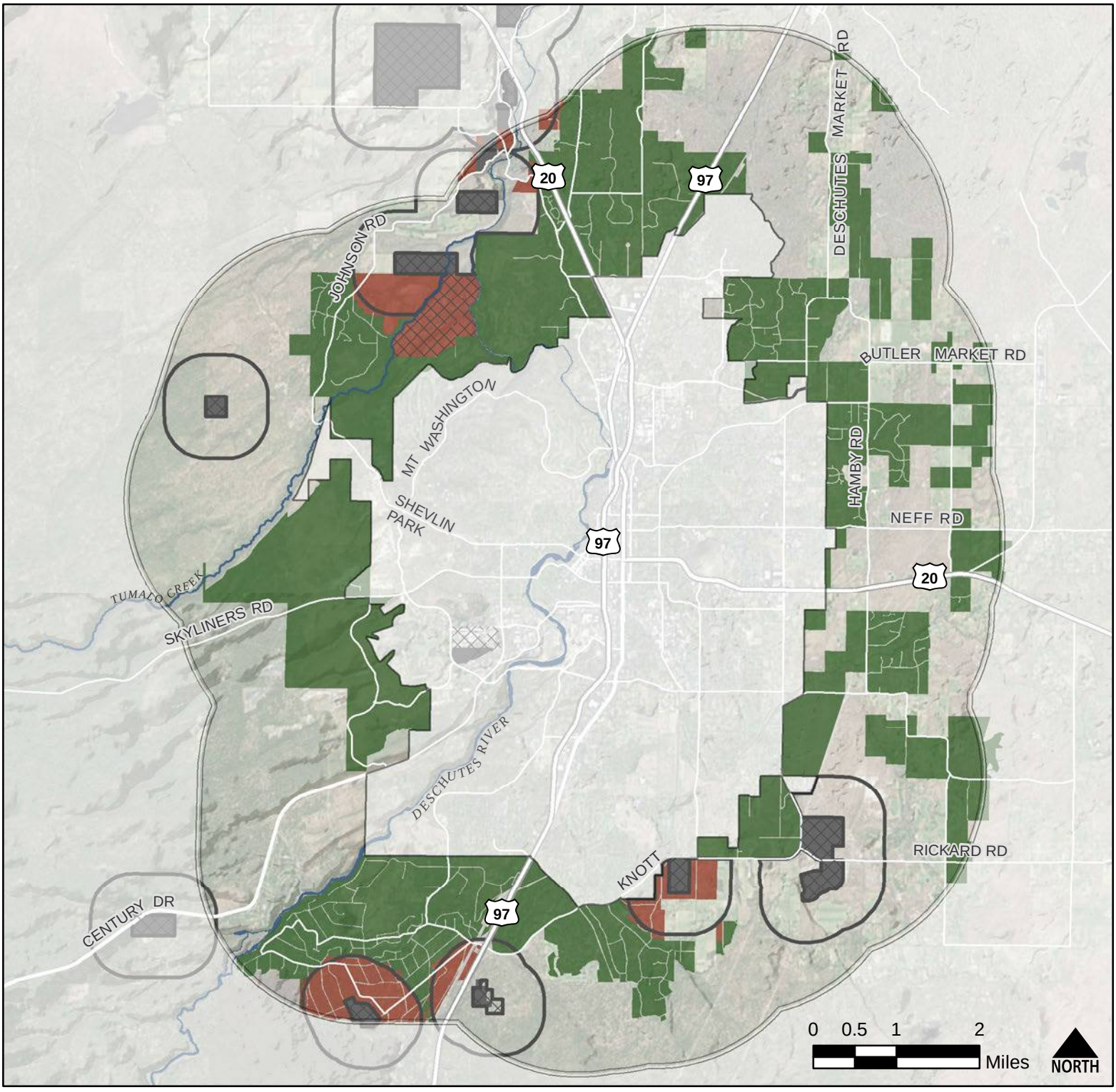
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATIONAL PURPOSES ONLY

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/6/2015

Exception Land Proximity to Surface Mining Impact Areas



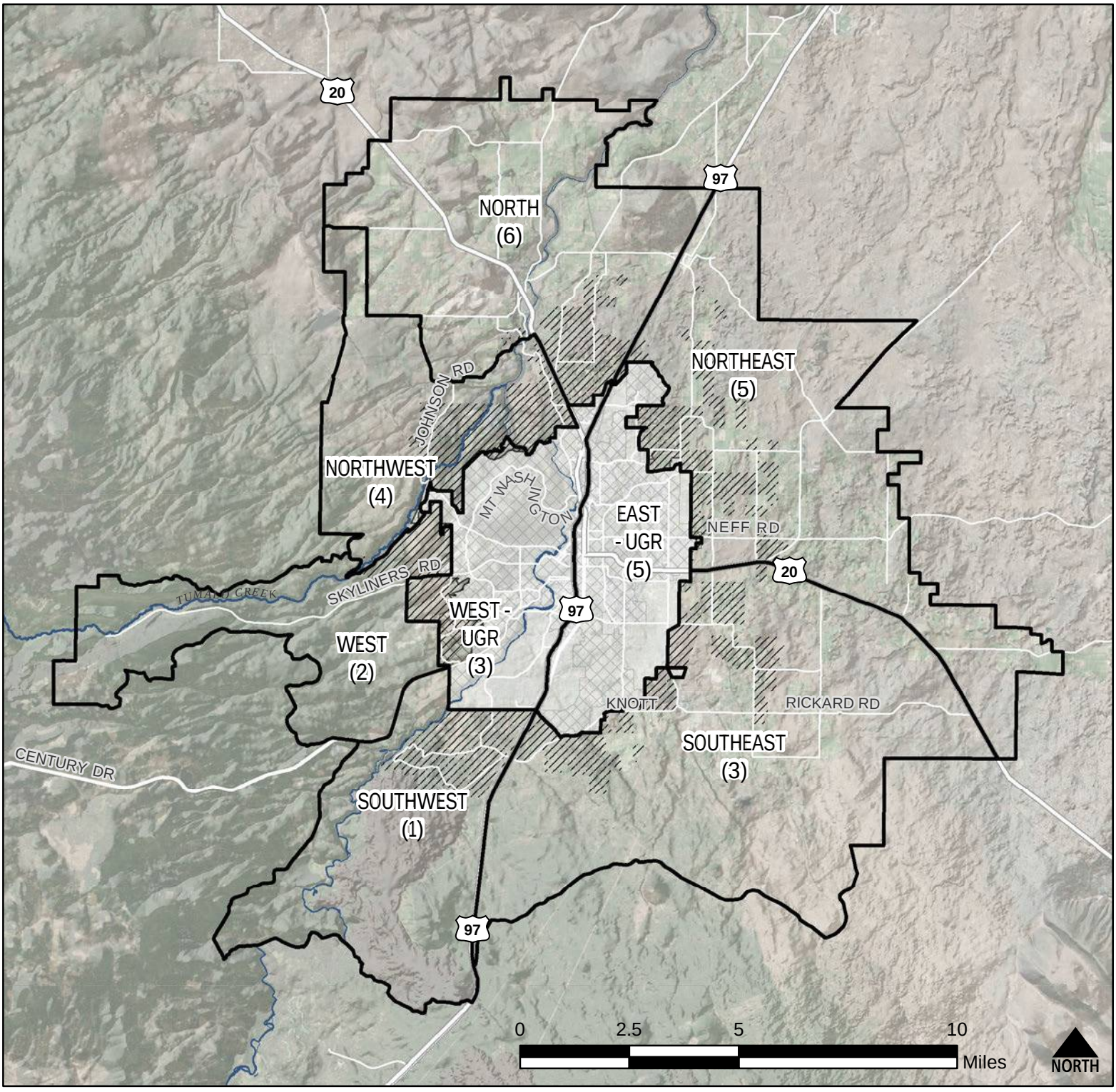
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

Prepared 2/13/2015

03656

Greater Bend CWPP Boundary Subareas



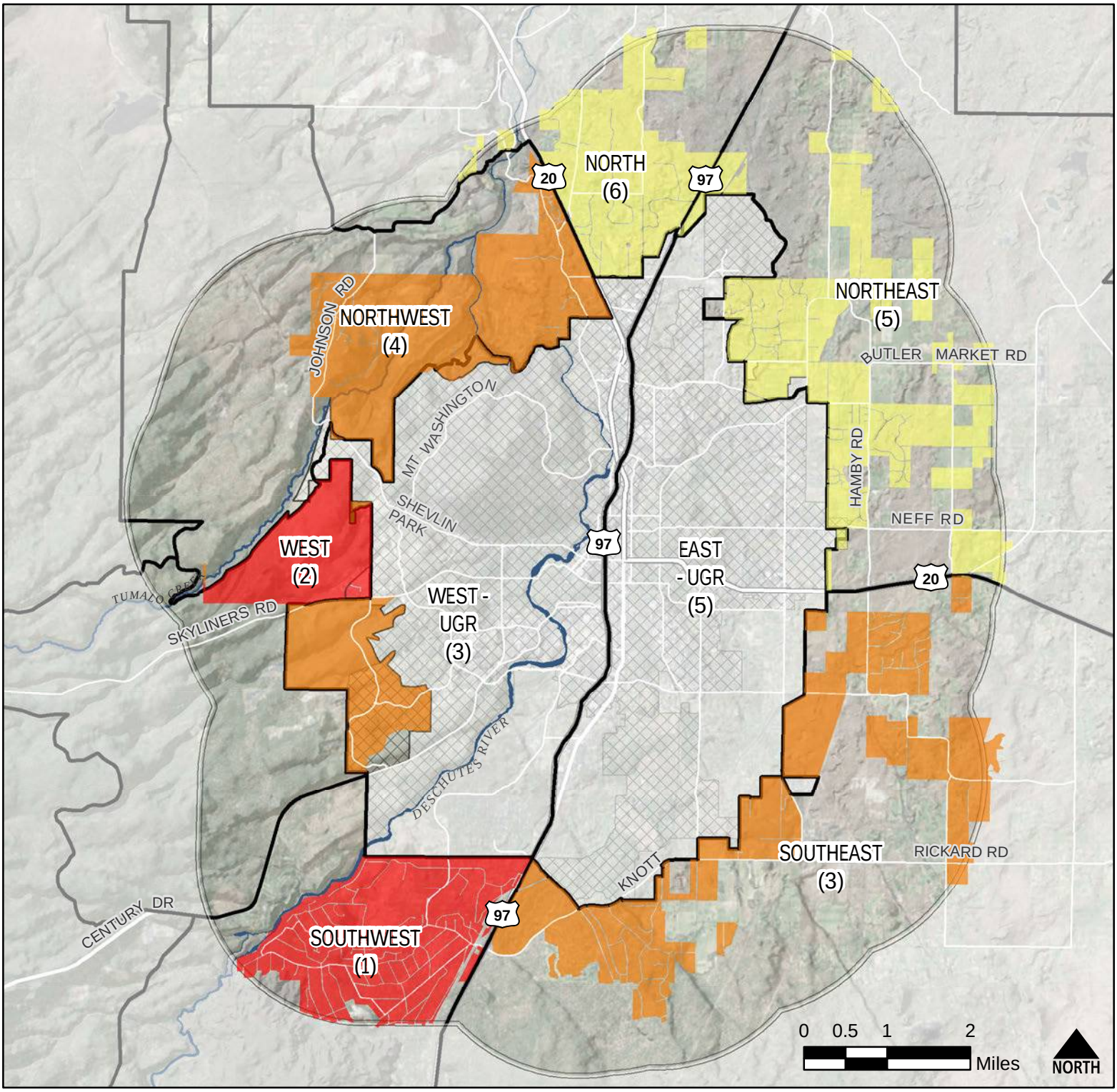
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Project Wildfire (2011), Deschutes County GIS (2014)
Rating Source: CWPP Table 8 - Composite Ratings

Prepared 3/6/2015

Composite Wildfire Risk Ratings



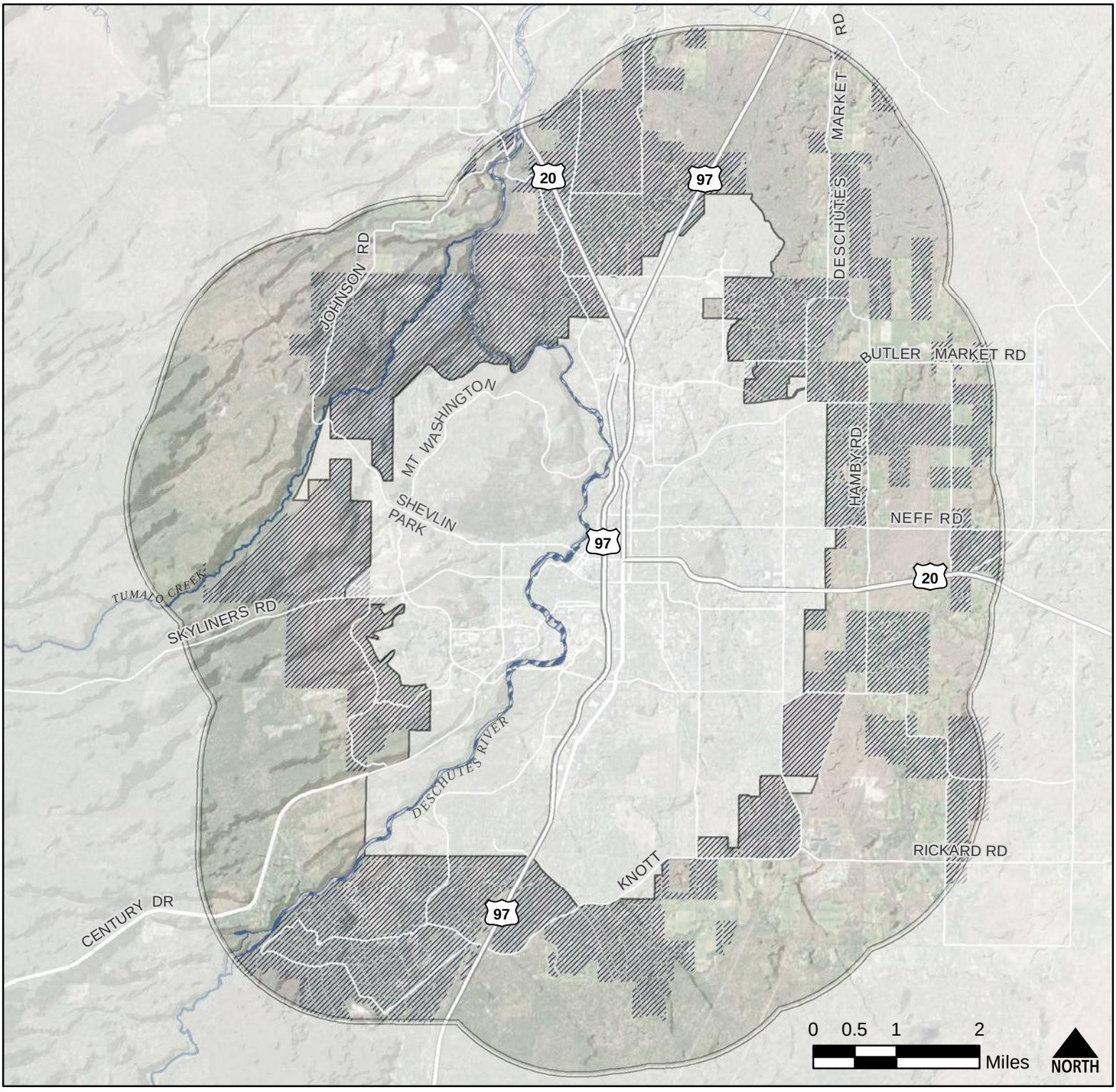
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY; NOT TO BE USED IN STAGE 2

Service Layer Credits: Project Wildfire (2011), Deschutes County GIS (2014)
Rating Source: CWPP Table 8 - Composite Ratings

Prepared 3/6/2015

100-year Floodplain



URBAN GROWTH BOUNDARY REMAND

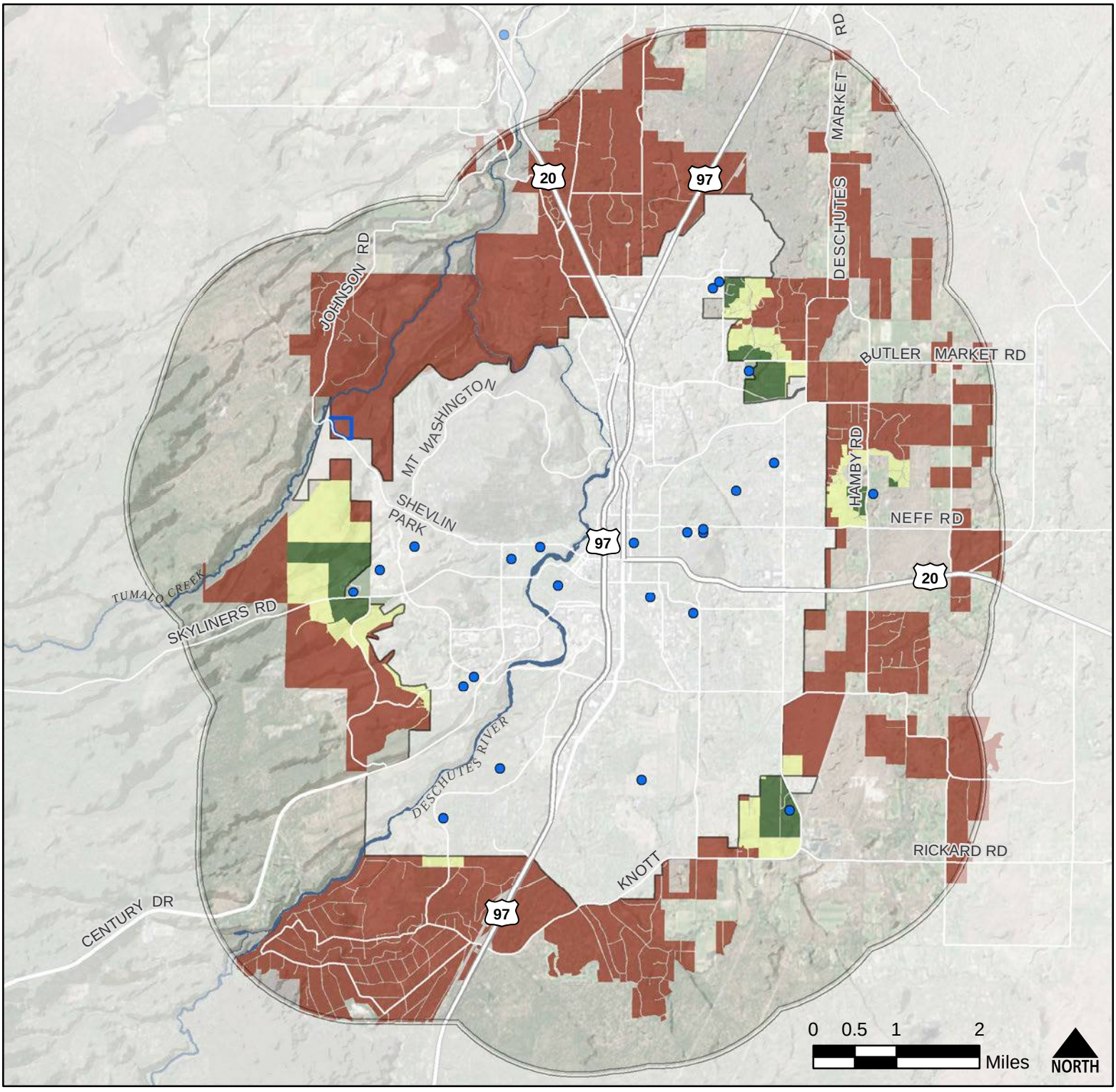
FOR INFORMATION USE ONLY

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/6/2015

03659

Exception Land Proximity to Schools



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

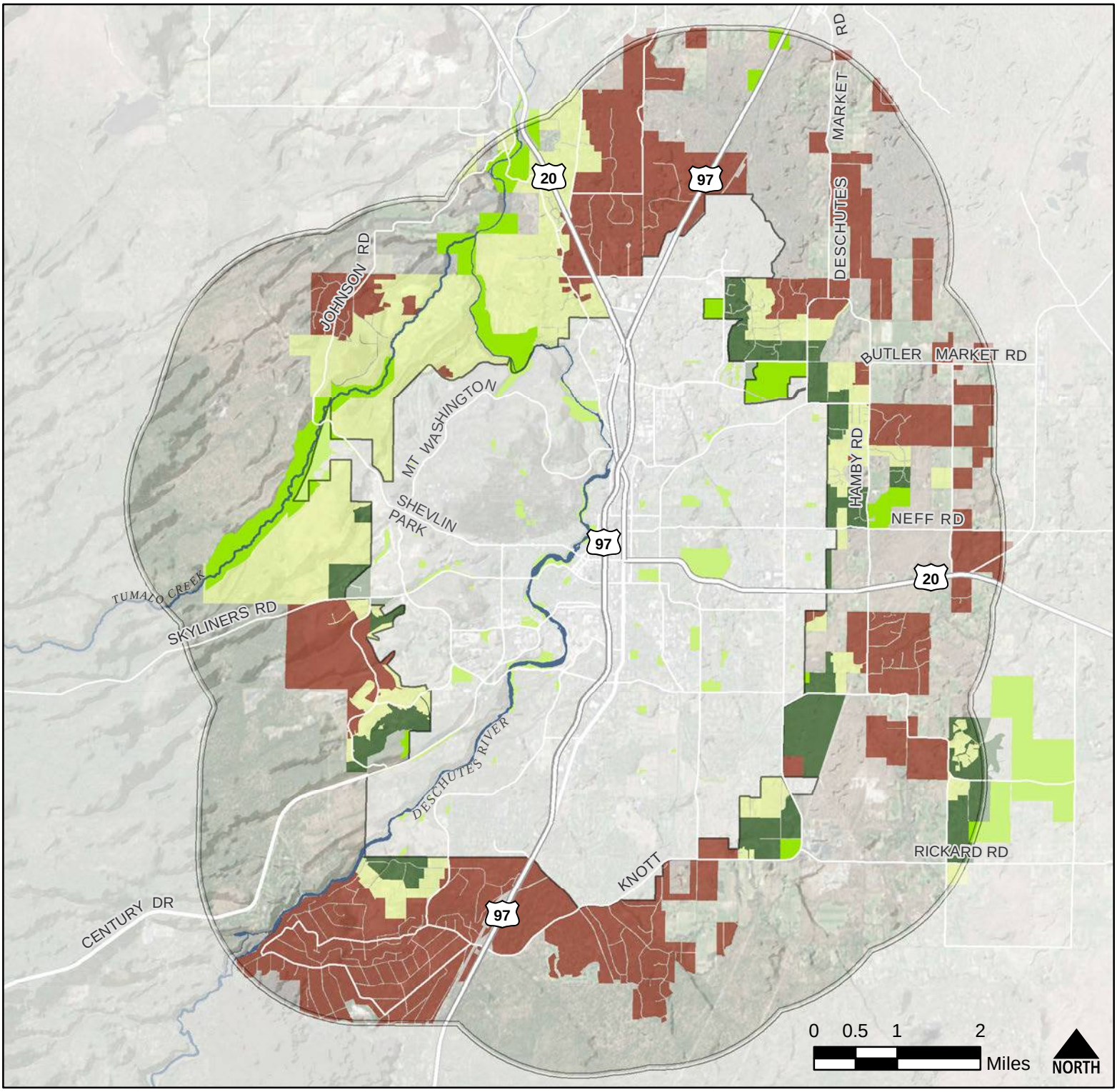
Prepared 3/5/2015

Exception Land Proximity to Parks

- 2 Miles from UGB
- Urban Growth Boundary
- Streams/Rivers
- Roads/Highways
- Park

Proximity to Parks

- Within .25 Miles (Not Including Nature Parks)
- Within .5 Miles (Including Nature Parks)
- Greater than .5 Miles



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/6/2015

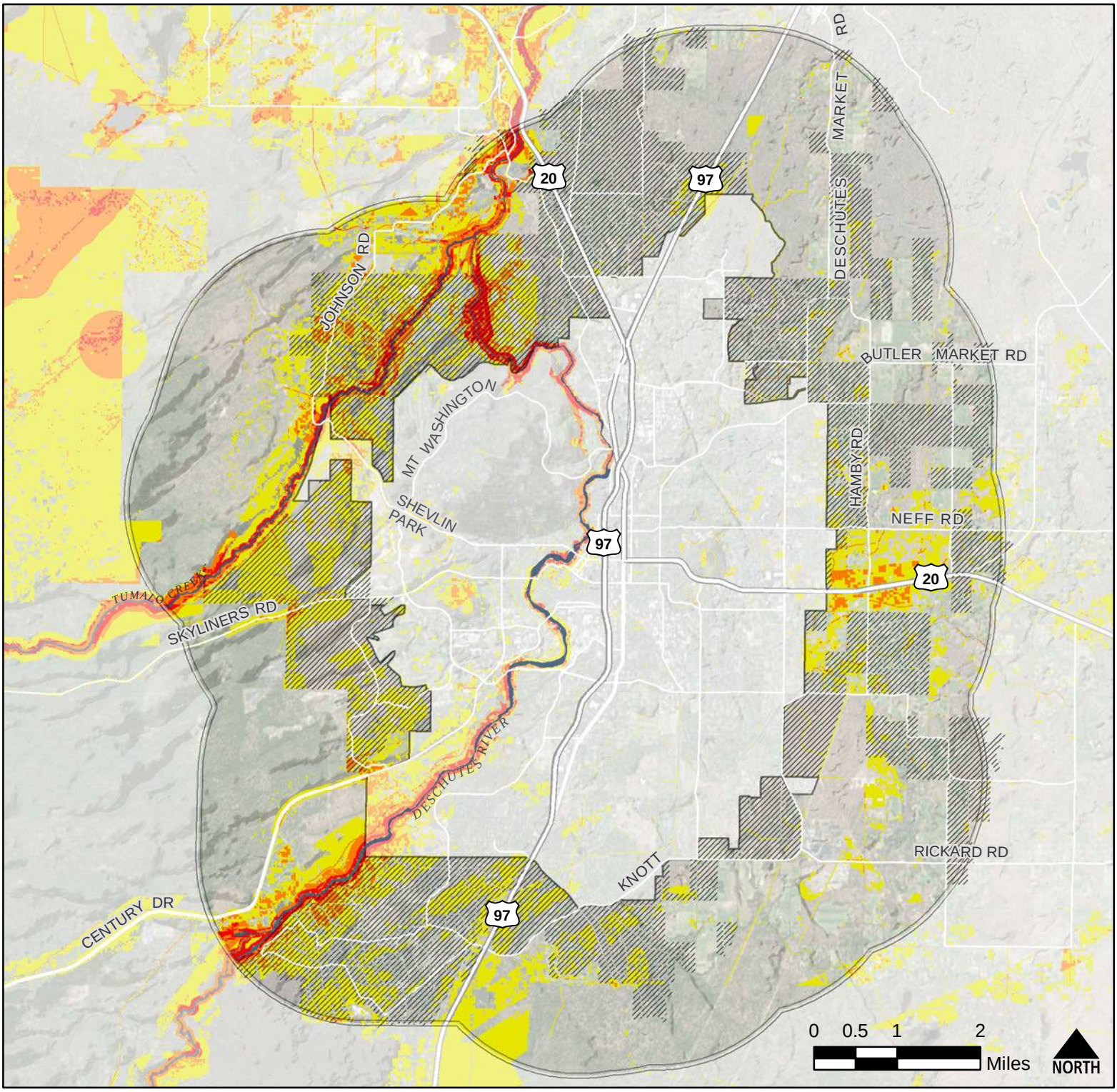
Greenprint: Overall Priorities

Exception Land
2 Miles from UGB
Urban Growth Boundary
Streams/Rivers
Roads/Highways

Overall Conservation Priorities

Priorities

Highest Number of Goals Overlap
Second Highest Number of Goals Overlap
Third Highest Number of Goals Overlap



URBAN GROWTH BOUNDARY REMAND
BEND

FOR INFORMATIONAL PURPOSES ONLY

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/10/2015

03662

Factor 4 Maps

STAGE 2 MAPS FOR FACTOR 4 OF GOAL 14: COMPATABILITY WITH FARM/FOREST ACTIVITIES ON NEARBY FARM AND FOREST LAND

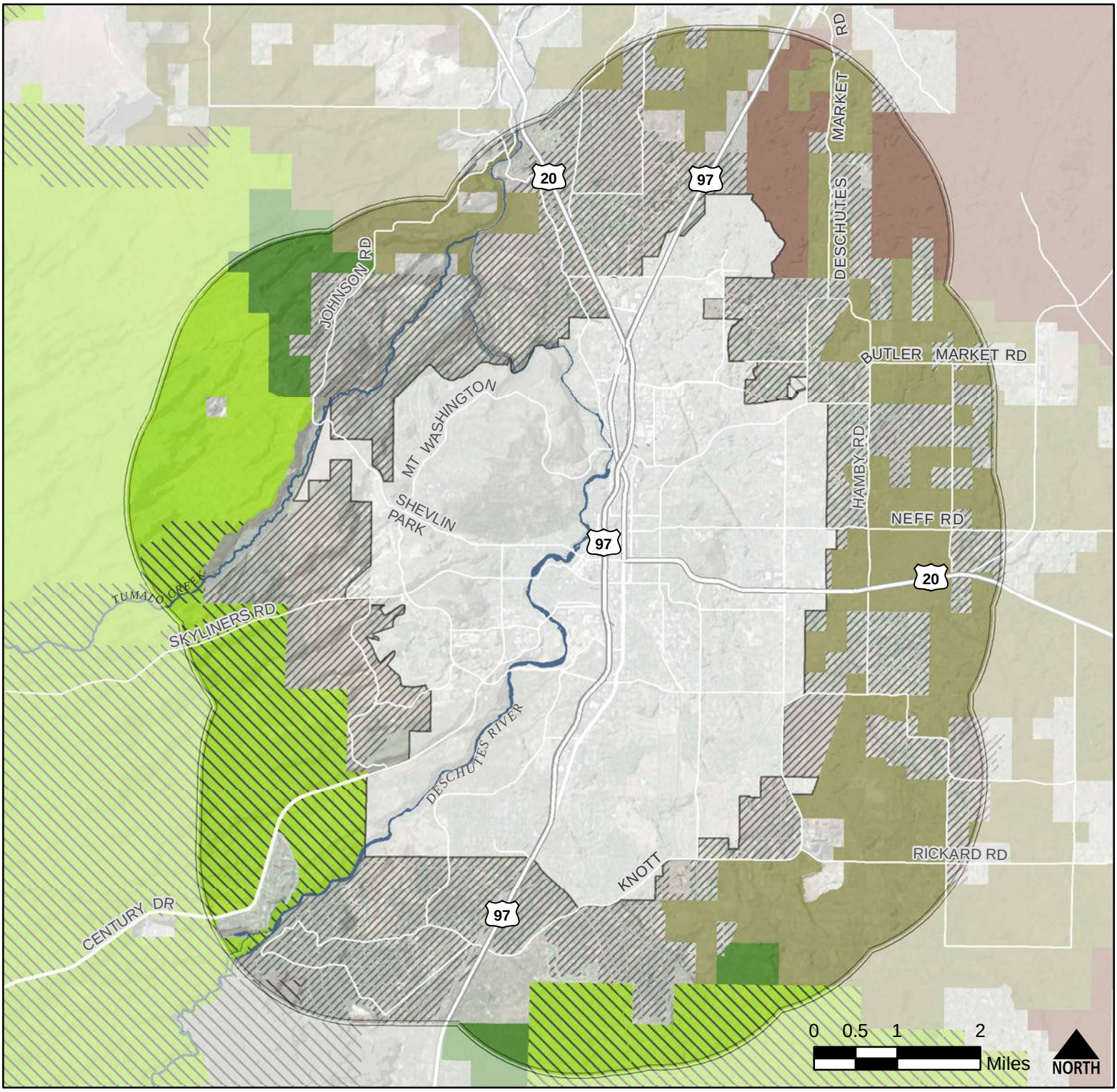
- Farm/Forest Zoning in Study Area
- Proximity of Exception Parcels to zoned Forest Land
- Proximity of Exception Parcels to High Value zoned EFU Land

EFU and Forest Use Zones

- 2 Miles from UGB
- Urban Growth Boundary
- Roads/Highways
- Exception Land
- Deschutes National Forest

ZONE

- EFU - ALFALFA SUBZONE
- EFU - TUMALO / REDMOND / BEND SUBZONE
- Forest Use Zone (F-1)
- Forest Use Zone (F-2)



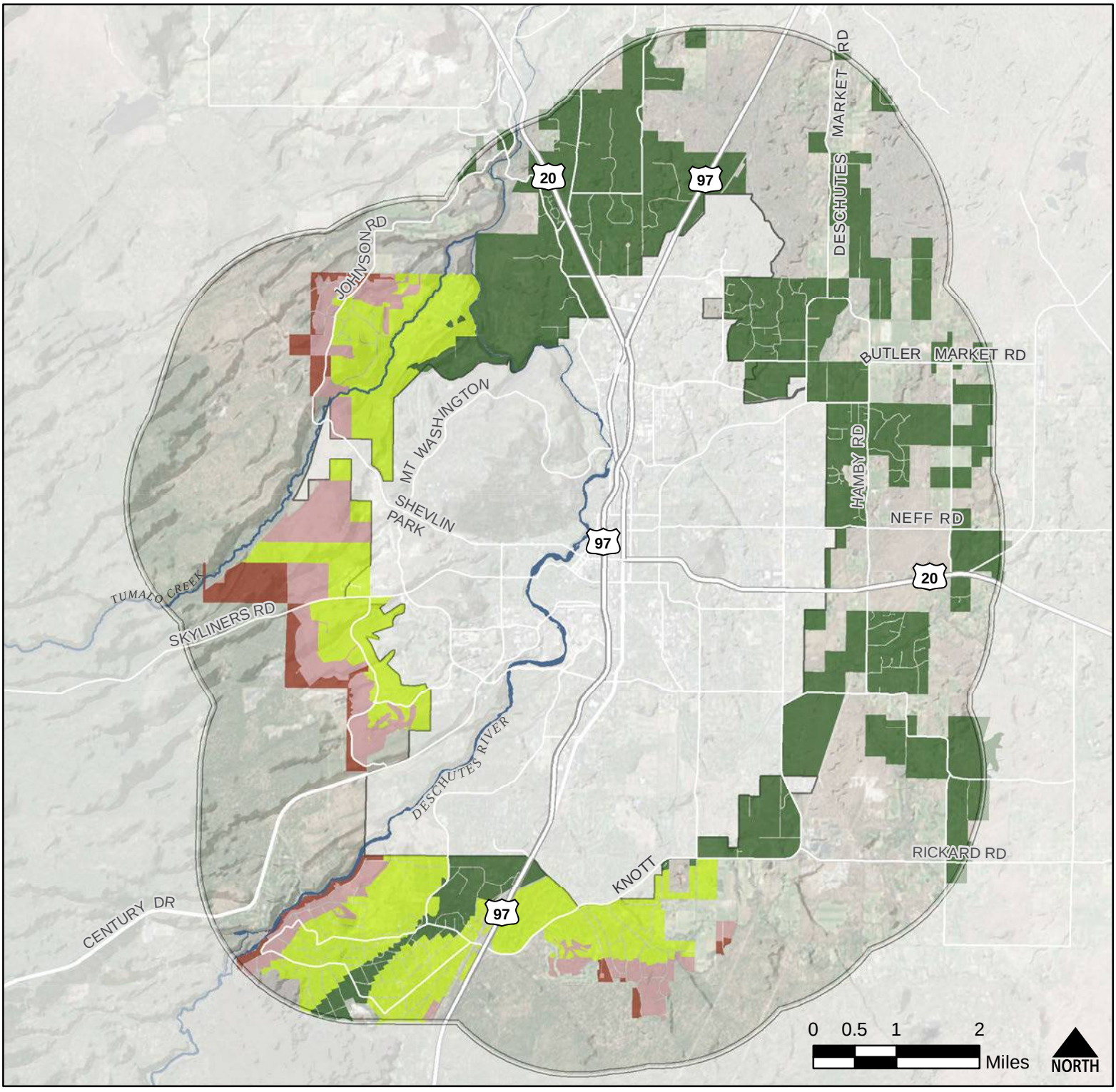
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/6/2015

Exception Land Distance from Forest Use Zoned Parcels



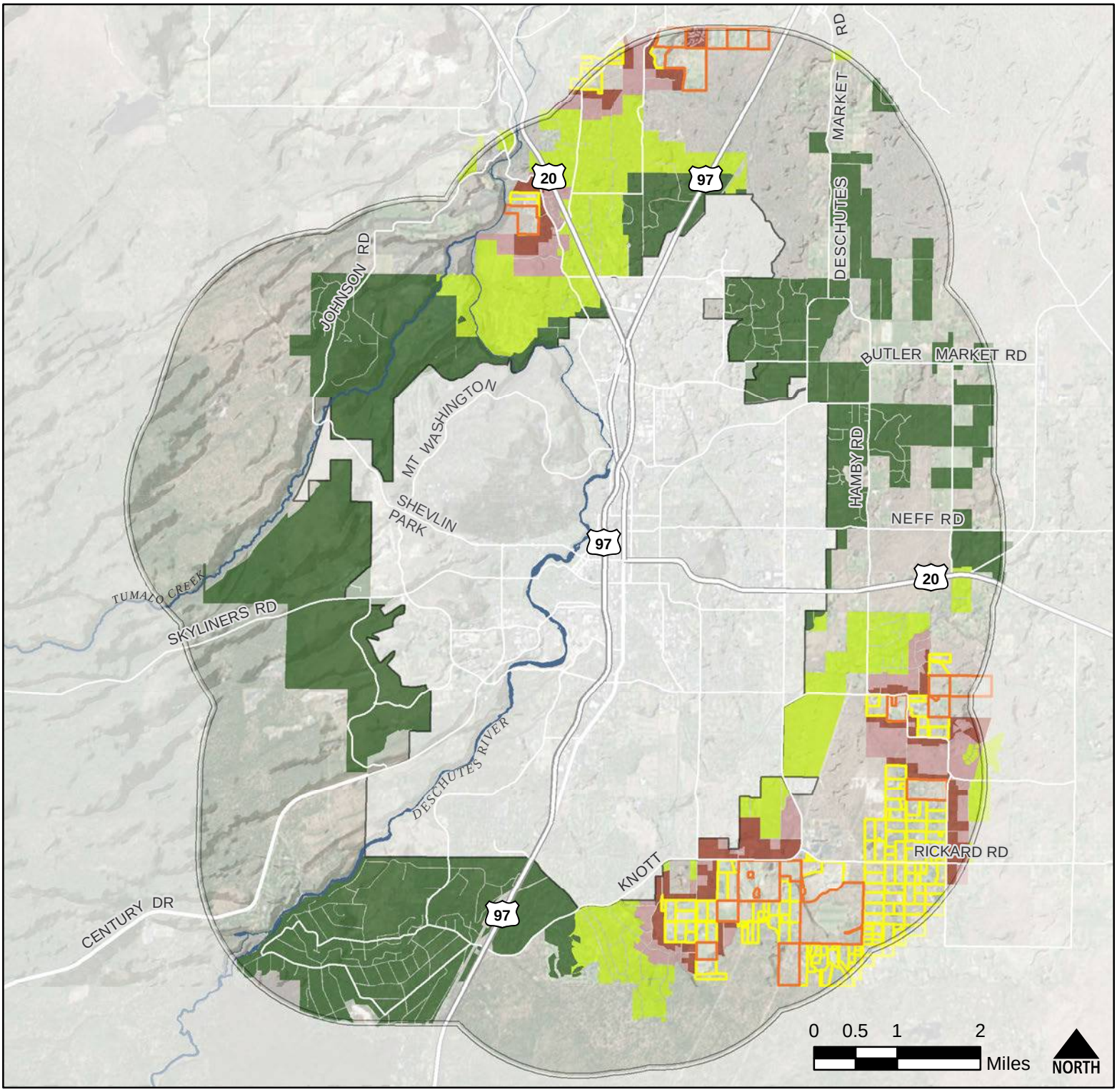
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

Prepared 2/17/2015

03665

Exception Land Distance from EFU Zoned Parcels



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)

Prepared 3/5/2015

03666

Memorandum

March 12, 2015

To: Bend Remand UGB Steering Committee
Cc: Project Team
From: Joe Dills and Brian Rankin
Re: Structure and Role for Technical Advisory Committees in Phase 2

OVERVIEW

The purpose of this memorandum is to summarize a proposed structure and role for the Technical Advisory Committees in Phase 2 of the Bend Remand process. This proposed structure follows direction from City Council leadership in recent discussions with the project management team.

Looking Back

- Feedback from TAC members has been very positive about the process
- The three-TAC structure appears to have helped create broad ownership of, and support for, key recommendations.
- From a technical viewpoint, the TACs have added expertise and helped the team do its work – they are an important brain trust for the project.
- Managing three TACs has been very hard work and expensive. Each round of meetings requires three full meeting packets and two days of meetings by the team and TAC members.
- The comprehensive approach, and short period between meetings, sometimes reduces the team's ability to focus on individual issues or deliverables.

Looking Forward - The Work of Phase 2

The following is a summary of key working tasks for Phase 2. This is preliminary, but indicative of the steps and efforts that ideally the TACs would be involved in.

a. Scenario development
   - Further work on criteria and weighting
   - Stage 2 mapping
   - Scenarios workshop
   - Recommendations to USC on alternative scenarios for evaluation

b. Scenario evaluation and proposed UGB

- Sorting through a complex set of evaluations to shape the conclusions
- Creation of a hybrid scenario
- Review of refined evaluations and Goal 14/Remand compliance justification
- Recommendations to USC on the proposed UGB

c. Urbanization Report
   - General Plan policies required to support the UGB and growth strategy
   - Review of other parts of the report, documenting the UGB update

d. Other Key Reports
   - Review of final proposed Housing Needs Analysis, Economic Opportunities Analysis, and Buildable Lands Inventory

Project Management and Process Considerations

The project management team recommends that the City:

- Continue the process of building broad ownership of, and support for, UGB recommendations through continued participation by the TAC brain trust.
- Streamline the Committee structure to avoid TAC member and team fatigue.
- Reduce the level of "simultaneous work" by the team in Phase 2, while still implementing a work plan and schedule that keeps making good progress.
- Focus on scenario development during the April to June time period – this is critical path task and time period.
- When the hybrid scenario and its key findings are being prepared, focus mainly on those activities. It is another critical path milestone.

PHASE 2 TAC ROLE AND STRUCTURE

- Appoint a Phase 2 Boundary TAC comprised of members of the Boundary TAC, plus two members each from the Residential and Employment TACs (co-chairs as the starting point for invitation and appointment). The role of the Phase 2 Boundary TAC is to serve as the primary TAC for scenario development, evaluation, and UGB recommendation to the USC.
- Involve both the Phase 2 Boundary TAC and the balance of Phase 1 TAC members in:
  - Scenario development workshop in May-June (similar to December workshop)
  - Other workshops and involvement as identified during the process
- Convene the Residential TAC to review/finalize the HNA and related policies.(1-2 meetings)
- Convene the Employment TAC to review/finalize the EOA and related policies. (1-2 meetings)
- Involve both the Residential and Employment TAC in the review of the proposed final Buildable Land Inventory.
- Urbanization Report and urbanization policies – will likely be reviewed by the Phase 2 Boundary TAC.

Correspondence

Email, March 12 2015

Email, March 1 2015

Damian Syrnyk

From: Robin Vora <robinvora1@gmail.com>
Sent: Thursday, March 12, 2015 9:25 PM
To: Damian Syrnyk; Brian Rankin; Joe Dills; Mike Riley; CouncilAll; CityPlanningCommissionAll; Mary Dorman
Cc: board@deschutes.org
Subject: Re: March 19, 2015 Meeting of the UGB Steering Committee (wildfire risk)
Attachments: RobinVoraCommentStage2Mapping_1Mar2015.rtf

Follow Up Flag: Follow up
Flag Status: Flagged

I submitted a "minority opinion" March 1, 2015 stating that more work was needed to assess wildfire risk in relation to UGB expansion. Here is a link to an article about a study that scored homes in communities in the Western U.S. for wildfire risk. Note that they show Bend/Redmond has 9,128 homes at Very High Risk.

http://wildfiretoday.com/2015/02/26/report-wildfires-pose-risk-to-nearly-900000-homes-in-the-western-u-s/. That number would likely get bigger with a bigger UGB perimeter on the west and south sides of Bend and that should have been given more consideration in our scoring recommendations in relation to wildfire risk. Note they rank Bend/Redmond fourth in the Western U.S. on a list of Core Based Statistical Areas (metropolitan areas) ranked by homes at Very High Risk. It would be interesting to find out the process they used to score homes over such a large area. As I mentioned in that previous email, increasing exposure to wildfire through UGB expansion comes at a high potential cost to the taxpayer, local and national. This report estimates the value of the 9,218 home at Very High Risk in Bend-Redmond at $2.3 billion dollars. Then there are the homes that are just High Risk. I urge the UGB Steering Committee to give this more consideration than was given to it by the Boundary TAC team.

Please feel free to also forward this to the Boundary TAC team.

Robin Vora

1679 NE Daphne Dr.

Bend, OR 97701

On Thu, Mar 12, 2015 at 1:19 PM, Damian Syrnyk <dsyrnyk@bendoregon.gov> wrote:

> The Steering Committee for the City's Urban Growth Boundary Remand project (USC) will meet from 3 p.m. to 5 p.m. on Thursday, March 19 in the Council Chambers of Bend City Hall. The public is invited to attend the meeting and will have an opportunity to comment.

The UGB Steering Committee will review and act on recommendations from the project's Technical Advisory Committees (TACs) from the first phase of the project. The recommendations include:

- Strategies for efficient use of Bend's remaining land within the current UGB
- The estimated capacity for future growth on those lands, and
- The proposed process for evaluating UGB expansion scenarios during the second phase of the project.

The three project TACs are comprised of approximately 60 citizens who have been working since August of 2014 to help shape Bend's future growth. The Urban Growth Boundary is a line on the City's General Plan map that identifies Bend's urban land. State law requires that this land contain an estimated 20-year supply of land for employment, housing and other urban uses.

The Steering Committee meeting will include presentations by the project team and comments from members of the three project TACs. The UGB Steering Committee will decide whether to approve and/or refine the TAC recommendations, which will be the basis for further analysis in the next phase of the study.

The meeting agenda and materials will be posted on the City's website in advance of the meeting: http://bendoregon.gov/index.aspx?page=970.

Please contact Brian Rankin at brankin@bendoregon.gov or Damian Syrnyk at dsyrnyk@bendoregon.gov with any questions.

Damian Syrnyk, AICP | Senior Planner

Growth Management | City of Bend

541-312-4919

dsyrnyk@bendoregon.gov

www.bendoregon.gov

Damian Syrnyk

From: Robin Vora <robinvora1@gmail.com>
Sent: Sunday, March 01, 2015 8:21 PM
To: Joe Dills; Brian Rankin; Mary Dorman; Matt Hastie; Damian Syrnyk; Mike Riley
Subject: Stage 2 Mapping Comment

Follow Up Flag: Follow up
Flag Status: Flagged

To: UGB Boundary Committee
UGB Steering Committee

After sitting on it for a few days I wish to change my vote on submittal of Stage 2 maps to the UGB Steering Committee from an “Abstention” to “No.”

I do not believe we have completed our homework on Riparian Corridors and Fire Risk. We were less than objective in our rankings of those two maps and the Wildlife Winter Range map. Please also submit this email to the Steering Committee as a minority opinion. You are welcome to share it with the rest of the UGB Boundary TAC committee.

The Riparian Corridor mapping recommendation does not give enough consideration to the fact that residential lawns and driveways, and any on-site sewage systems, contribute a significant amount of nutrients, herbicides, pesticides, oil product residues, and pathogens to nearby river and wetlands. Riparian corridors are also important wildlife habitat.

The Committee recommendation to exclude only a 50 foot buffer on Tumalo Creek and 75 foot buffer on the Deschutes River, where slopes are less than 25%, offers inadequate protection to rivers and riparian areas. The recommendation ignores abundant science.

For example, a USDA Natural Resource Conservation Service guide for protection and restoration of riparian areas recommends a 150-foot buffer for water quality protection and 750-foot for wildlife dependent on wetlands and watercourses (pp. 13-14). An objective recommendation from the Committee would consider this and similar science and recommendations. If we follow our color mapping scheme, we should exclude areas within 150 feet of the river banks (high water, black or dark red color), and show in bright red any lands within 750 feet of the river banks because it is important wildlife habitat. These distances should be greater on steeper slopes. (I don't know if that threshold for steep slopes should 25% or less.)

The Winter Range map ignores the fact that wildlife habitat currently degraded by development is still wildlife habitat that possibly could be partially restored through mitigation measures in the city code or land purchases for conservation. I think the Committee made the right recommendation to exclude the two dark red areas, and show the "potential ODFW Addition" as a second risk category that should be bright red. The additional mapped Big Game Winter Range on the west and south sides of the city, between Rickard Road and Hwy 20 (p. 53 of packet), should be a yellow-green color to separate it from land that is not mapped as Big Game Winter Range, which could be shown as dark green. There should be a difference in mapping of land that is winter range and land that is not.

I believe the Fire Risk map also needs more work and is not ready for submittal. The Committee didn't seem to grasp the fact that the areas adjacent to and near forests -- forests have large volumes of easily combustible fuel and high probability of wildfire -- have a much higher risk of wildfire (and therefore increased risk to public safety) than potential UGB expansion areas in the east and northeast.

I do not believe planners can come up with a complex cost-estimate ranking to separate out areas in the west and south. Such a cost estimate would have to consider more than wider roads or water hydrants. It would have to include maintenance of fuel treatments on adjacent and nearby private and public lands. It would have to consider fire ignition probability during extreme fire danger when temperatures are over 90 degrees F and west or southwest winds are gusting at more than 30 mph. Fires can easily spot 2 or more miles under extreme conditions and start new fires.

A fire analysis would have to consider the ability of local fire resources to respond to a major fire adjacent to the city, including when there may be many local fires burning at the same time. This often happens after lightning storms. A cost analysis would have to include the cost of bringing in national fire management teams and resources, including air resources, at a cost of many millions of dollars to the taxpayer.

The Two Bulls, Awbrey Hall, Bridge Creek, 18, and Skeleton Fires have provided plenty of warning in the recent past. It is just a matter of time before a B & B scale fire comes racing into the west or southern part of Bend. Encroachment of forests and shrub lands with urbanization has long been recognized nationally as a major problem and a consequence of poor land use decisions. One has to only look at Southern California to see some of the consequences.

At our meeting the Committee voiced opinions that it did not want to do a lot of complex ratings such as would be needed to do true block-by-block fire risk analyses and mitigation cost estimates. As I suggested at our meeting, a simple ranking would be to show the area depicted as Big Game Winter Range (p. 53 of packet) as High Fire Danger (bright red), and the north and east sides of the UGB expansion study area as light green-yellow, low fire risk. Otherwise, I believe the Fire Risk map is not

objective and is inadequate if it does not at least differentiate fire risk adjacent to ponderosa pine forest versus fire risk adjacent to scattered juniper-shrub and irrigated pastures.

Thank you for your time and consideration. I believe it is better to be upfront and objective from the start and not have to again redo under remand. While I can understand landowners' desire to develop their properties, land use planning must also consider the environmental consequences and cost to local residents and the general taxpayer. I realize we have a tight timeframe, but in haste we should not do incomplete work and then have to take more time later to make adjustments.

Robin Vora

1679 NE Daphne Dr.

Bend, OR 97701

USC 3/19 (1)

URBAN GROWTH BOUNDARY REMAND

BEND

Sign in Sheet

Meeting: UGB Steering Committee

Date: 3/19/15

Location: City Hall

Name	Organization	Email Address
Mike Mayea	Local citizen	VocaL_Neuron@outlook.com
Jon Bryant	ODOT	
Bill Gregorious		WGREGORIUS@GMAIL
Dale VanValkenburg		
Jade Mayea		
Kim & Marylou Elton	self	
JOHN DOTSON		
Mary Orton	TPOC	mary@maryorton.com
Gary Timm		garytimm7@gmail.com
Peter Christoff		
Carolyn Cook		CookyRooc@yahoo.com
Ruth Williamson	TAC Boundary	
Dale Munson		dmunson@bendbroadband.com
Tony Debone	DESCHUTES COUNTY	
Craig Late	Craig Late Consulting	
Mary Newbold	COLW	

Minority Report on "How to Apply the Housing Mix"

Executive Summary

In the "Section 1: Phase 1 Growth Scenarios—Introduction" section (page 14 of 125 of the USC Meeting 3 packet), there is the following statement: "The recommendations presented in this memorandum are based on the consensus or majority vote recommendations of the Residential and Employment TACS." This report explains the minority opinion for one of the recommendations where there was *not* consensus: how to "apply" the housing mix to meet housing need. This is presented in the "Comparison to need" section (pp. 33-34 of 125) of the packet.

The majority (11-4) voted to change the "needed housing mix" of new dwelling units for the 2008-2028 planning period by "applying" that mix (as determined previously by the TAC and adopted by the USC) to only the last 70% of the 20-year period. The result of that choice is to change the effective target for meeting need from 55% single-family detached (SFD), 10% single-family attached (SFA), 35% multifamily (MF) to 60% SFD, 9% SFA, and 31% MF.

Put into more tangible terms, the majority chose to change the housing mix target for the 16,681 needed new units by increasing the number of new single-family detached dwelling units by 810 while reducing the number of multifamily dwelling units by 630. This minority report will explain why we believe this to be a poor decision.

Background and Chronology

At the August 4, 2014 Residential Lands TAC meeting (Meeting 1), the team (Angelo Planning Group, City planners, etc.) presented extensive data on demographic and housing trends in the context of the Remand's Goal 10 requirements: specifically, which assumptions about Bend housing needs for the 2008-2028 planning period have been acknowledged by LCDC (and therefore not to be revisited through the current process) and which needed addressing as per the Remand. Housing density and housing mix fall into the latter category, and were therefore the focus of the TAC's work.

At the August 25, 2014 RL TAC meeting (Meeting 2), the team once again presented the Remand's directive to properly address the Goal 10 and ORS 197.296 requirement that the City provide needed housing types for households at all income levels. Great pains were taken to ensure that we understood that this is to identify *Housing Need* for the 2008-2028 planning period. This is done through a Housing Need Projection, a key component of which is identification of a housing

mix that satisfies the Goal 10 and Goal 14 requirements and rules. The team reviewed the population and demographic data it had presented at Meeting 1 and how that data informs choosing a mix that will best meet the needs of the expected population for the 2008-2028 planning period. After spirited discussion, the TAC chose what has come to be known as Trend 2: 55% SFD, 10% SFA, and 35% MF mix for the 16,681 new units. This was presented at the September meeting of the USC, which adopted that recommended mix after similarly spirited discussion and after a vote that mirrored the vote of the TAC.

At the November 17, 2014 RL TAC meeting (Meeting 4), the team was asked by the TAC to provide data on what residential development had occurred from 2008 to date so that we had more data to inform decisions on what we needed to do in order to meet the Remand's requirement that we provide needed housing for the projected 2028 populace.

The team brought that information to the RL TAC at its January 26, 2015 meeting (Meeting 6). In light of that information, the TAC was presented two options on how to "apply" the needed housing mix (Trend 2) that was adopted by the USC in September. These were labeled Option A and Option B (explained below). The TAC voted 11-4, with a number of TAC members not present, to recommend Option B to the UGB Steering Committee.

What the new information is and is not

The information brought to the TAC at Meeting 6 was the number of dwelling units permitted by type (SFD/SFA/MF) in the period from 2008 to 2014. This was *not* a reset on calculating remaining *need*. That would have required data on population increase from 2008-2014, analysis of demographic changes from 2008-2014, plus population increase projections and demographic projections for the period from 2014 to 2028. *The calculation of the needed housing mix for the planning period of 2008-2028, as required by the Remand, is not changed by the newly supplied information.* The new information simply indicates how much more difficult it will be to meet that need.

Using the additional information: Option A versus Option B

The team brought two options for us to consider in determining how to "apply" the Trend 2 housing mix. That is, how should we use the information about what has occurred in the previous six years to determine how to meet the needed housing through 2028.

Option A applies the Trend 2 mix to the 2008-2028 planning period upon which the Trend 2 need was calculated. Option B applies the Trend 2 housing mix to only that portion of the planning period that still remains (2014-2028).

The team supplied a table entitled "Application of Trend 2 Housing Mix Assumptions for the 2014-2028 period" (ref: Table 3, p. 9 of 92, RL TAC Meeting 6 packet) to help us see the effects of our choices. That table was, however, incomplete. It is reproduced in full below, but with some additional columns that help illustrate the full story. Those additional columns are shaded in this expanded table. Unshaded columns are exactly as presented by the team (but with emphasis added on some dates). Each of the column pairs indicates the number of dwelling units of each type and that type's percentage of the whole.

Column 1	2	3	4	4.1	5	6	6.1	6.2	7	8	8.1	8.2
Housing Type	**2008-2028** need projection (Trend 2)		Units permited [sic] 2009 to end of July 2014		Option A **2014-2028** remaining need by housing type (Trend 2)		Option A **2008-2028** need by housing type (Trend 2)		Option B **2014-2028** remaining need-mix applied to total (Trend 2)		Option B **2008-2028** need by housing type	
Single-family detached (including mobile homes)	9175	55%	2411	83%	6764	49%	9175	55%	7574	55%	9985	60%
Single-family attached	1668	10%	112	4%	1556	11%	1668	10%	1377	10%	1489	9%
Multifamily	5838	35%	389	13%	5450	40%	5838	35%	4819	35%	5208	31%
Total	16681	100%	2912	100%	13770	100%	16681	100%	13770	100%	16682	100%

The team recommended that the TAC recommend Option B, and gave three reasons, reproduced verbatim here from the RL TAC packet (also found on page 34 of 125 in the USC Meeting 3 packet).

1. "The City will be considering policy options to achieve the needed mix. Those policies were not in place between 2008 and 2014. Because the City had not adopted any policies to help achieve the needed mix, one would not anticipate any substantial changes in development trends (which is what was observed between 2008 and 2014)."

   Minority response: As described to the USC at its last meeting, the Trend 2 Housing Mix calculation was done by looking at the projected population increase during the 2008-2028 planning period, the projected demographic breakdown of the forecast additional population during the 2008-2028 planning period, and the expected needs of that additional population during the 2008-2028 planning period, all based on the best data available for the dominant demographics (Echo Boomers, aging Baby Boomers, and Latinos/Hispanics).

The result of that analysis led the RL TAC, and subsequently the USC, to conclude that the housing mix of the additional 16,681 dwelling units to be built in the 2008-2028 period, *in order to meet the need*, should be 55% SFD (9175 units), 10% SFA (1668 units), and 35% MF (5838 units).

The implication in Reason 1 that development trends observed between 2008 and 2014 were consistent with previous development trends is simply not true. The housing mix in 2007 was 75% SFD, 3% SFA, and 22% MF (RL TAC Meeting 2 packet, Table 4, p. 13 of 32). By comparison, the housing mix of the new units from 2008-2014 was 83% SFD, 4% SFA, and 13% MF!

What was actually observed between 2008 and 2014, in the absence of policy options to achieve the needed mix, suggests that achieving the *actual needed new housing* for Bend's population by 2028 requires an even more aggressive target for the remaining years.

Option A describes exactly that target: it is the housing mix needed for the period 2014 to 2028 in order to meet the *needs* of the 2028 populace as calculated earlier.

2. "The application of the alternative methodology (Option A) would result in a total need of 49% single-family detached housing types. This is 6% lower than the Trend 2 need discussed in the TAC and USC meeting and was not a part of those discussions."

   Minority response: The first sentence is exactly correct.

   The second sentence is at best misleading. The Trend 2 mix discussed in the TAC and USC meeting described the mix that satisfied the need *for the 2008-2028 planning period*. Option A describes *exactly* the mix going forward that meets that need. Option B results in a housing mix over the 2008-2028 planning period of 60% SFD, 9% SFA, and 31% MF. That is, single-family detached is 5% *higher*, not 6% *lower*, than Trend 2. More alarmingly, multifamily units are 4% lower than Trend 2 (and 2% lower than Trend 1).

   The choice of Option B fails to meet the needs of the current and future population, serving to exacerbate the affordability crisis that we face today.

3. "DLCD staff have given a provisional acceptance of the recommended methodology."

   Minority response: If the overriding goal of the City is to get whatever it can past LCDC via the path of least resistance, then this is indeed a valid reason for choosing Option B. If the goal of the City is to have its next proposal

acknowledged by LCDC while also serving the projected needs of its current and future residents, then Option A is the better choice.

The team's reasons were not the only ones considered during that meeting. TAC members brought up a couple of additional reasons for choosing Option B. Since those are not presented in the USC Meeting 3 packet, they are included here in the interest of completeness. (Having heard the way in which proponents of Option B subsequently mischaracterized the arguments of those in favor of Option A, we include here the disclaimer that we *may* have similarly misunderstood the majority arguments, though we think not.)

The reasons appear to fall into two major categories: economic and political.

The *economic* argument is that the market simply will not support what would need to be done in order to achieve the mix prescribed by Option A within the remaining years of 2008-2028 planning period.

That argument appears to be based on the accumulated experience of those in the Bend development community. We do not call into question the depth or quality of their development knowledge. It is noteworthy, however, that that experience is based on what has occurred under current Bend Development Code and current Bend plan designations.

A presentation from Fregonese Associates later that same meeting showed the first results from the Envision Tomorrow tool. Efficiency measures, in the form of changes to the BDC and the current zoning, led to dramatically different results than results from applying that tool to the Base Case (no changes to code or plan). While achieving Option A may be more difficult than achieving Option B, those presentations suggest that we should not give up so easily on doing the right thing.

The *political* argument is that it would be too difficult for City Council to accept and defend the choices it would have to make (code and plan) in order to achieve Option A. The choices Council will have to make to achieve Option B will be difficult enough. That may well be true. It seems, however, that should be a choice for City Council to make, not for an advisory committee to assume.

Conclusion

We believe that the recommendation of the TAC to choose Option B over Option A comes down largely to the question of the ultimate goals of this project.

At the Technical Advisory Committee Orientation back on July 29, 2014 the team presented four project goals approved by Bend City Council (these preceded the

broader set of goals adopted by the USC at its September meeting). The very first goal of the project was clear: "Complete local adoption by 2016." This is a worthy and important goal, primarily because if done right, it best serves the community to expeditiously complete the process and move forward with implementing it. However, we need to be mindful of not sacrificing community needs on the altar of expedience.

The choice between Option A and Option B looks at first glance to be wrangling over numbers (810 more single-family detached, 179 fewer single-family detached, and 630 fewer multifamily dwellings with Option B).

But it is more than that. It is also a statement about the City's commitment to adopting a target that best addresses the needs of current and future residents. As such, we urge you to adopt Option A as the best direction for moving forward.

One final note: this minority report should in no way be interpreted as implying disagreement with subsequent recommendations from the TAC, even though the choice of Option B did, in some small ways, inform those recommendations. In particular, this minority report does not imply a negative opinion of the "bookends" recommendation; rather, it asks to have the USC direct the Boundary TAC to adopt a more appropriate housing mix target (Option A) to inform its work going forward.

Respectfully submitted,

Sid Snyder, for the minority

Damian Syrnyk

From: Gary Timm <garytimm7@gmail.com>
Sent: Thursday, March 19, 2015 9:42 AM
To: Damian Syrnyk; Brian Rankin
Subject: Re: Boundary TAC Minority View Re Upcoming USC meeting

Brian and Damian,

I have read both Robin Vora's and Paul Dewey's submitted comments and I am in total agreement with all of their comments relative to fire risk, riparian buffers, and wildlife range.

Gary Timm
UGB TAC

Sent from my iPad

On Mar 18, 2015, at 3:55 PM, Damian Syrnyk <dsyrnyk@bendoregon.gov> wrote:

> UGB Steering Committee members,
>
> Please find enclosed an email message from Paul Dewey of the Boundary TAC in which he has asked that three documents be sent to you and the Boundary TAC.
>
> Staff will have copies for you tomorrow at the Steering Committee meeting.
>
> Thanks, Damian

<image001.png> Damian Syrnyk, AICP | Senior Planner
Growth Management | City of Bend
541-312-4919
dsyrnyk@bendoregon.gov
www.bendoregon.gov

<image002.png> <image003.png> <image004.png> <image005.png>

From: Paul Dewey [mailto:paul@deweylaw.net]
Sent: Wednesday, March 18, 2015 3:02 PM
To: Brian Rankin; Damian Syrnyk
Subject: Boundary TAC Minority View Re Upcoming USC meeting

Hello Brian and Damian:

After reviewing the materials compiled for the upcoming USC meeting, I wish to email both the USC and the rest of the Boundary TAC my support for Robin Vora's earlier submittals documenting his objections to the Boundary TAC's decisions on the Fire Risk, Riparian Corridor and Wildlife Winter Range maps.

Regarding fire, I do not believe there is a more critical issue to be considered in deciding what additional lands should be brought into the UGB. The TAC's decision not to accept any fire assessment map and to instead defer consideration of fire issues until later in the process is not appropriate. As reflected in the rejected fire risk map (page 108 of the packet) and the attached report of Dick Johnson, a wildland fire expert, there are substantial differences in fire risk among various areas that may be brought within the UGB. Those differences must be understood and assessed now. The fire issue is growing in importance, as reflected in recent articles on the drought and high cost of fighting wildland fires, and as reflected in the County Hearings Officer's decision yesterday to deny the proposed Miller Tree Farm subdivision applications on the west side of Bend.

Regarding wildlife habitat, see the attached report by ODFW documenting impacts on deer winter range.

Thank you for your consideration,
Paul

Paul Dewey, Attorney at Law
1539 NW Vicksburg Ave.
Bend, OR 97701
541-420-8455
pdewey@bendcable.com

<Dick Johnson Bend UGB fire report.pdf>

<Dick Johnson Qualifications.pdf>

<Bend UGB Residential Developmen Impacts on Wildlife Habitatt.pdf>

Damian Syrnyk

From: Dale Van Valkenburg <Dale@brooksresources.com>
Sent: Thursday, March 19, 2015 11:22 AM
To: Damian Syrnyk; Brian Rankin
Cc: Karen Swirsky
Subject: RE: Boundary TAC Minority View Re Upcoming USC meeting

Damian –

Please distribute the following response to the recently submitted Minority Reports on the Boundary TAC recommendations to the UGB USC in advance of this afternoon's meeting.

Dale Van Valkenburg
Director of Planning & Development
Brooks Resources Corporation
dale@brooksresources.com
541-382-1662, extension 120

Boundary TAC and USC:

I feel it is necessary to respond to Robin Voira and Paul Dewey's recent "minority reports", especially as they pertain to The Tree Farm proposal west of Bend.

The threat of wildfire is a major concern throughout Central Oregon, and we would all be remiss if we did not address this real and present danger in our UGB work. However, while Paul focuses his efforts on excluding certain west side properties from consideration for inclusion in the UGB, what the Boundary TAC learned from Craig Lentz, the fire expert brought in by the city to address this issue, it is HOW any potential expansion occurs that is much more important than the WHERE. The underlying fact of the discussion is that according to the Community Wildfire Protection Plan (CWPP), ALL of Central Oregon is within an extreme fire hazard area. Ongoing fire fuel reduction, adequate water supply for fire-fighting, multiple evacuation routes, fire resistive building materials, and general public awareness of the issues are essential considerations for both existing city residents and any expansion area. We further learned that the various sub-categories on the fire hazard rating map included as part of the CWPP actually reflect the priority for fuel treatment, not necessarily relative fire hazard. Those conditions on the ground can change, as evidenced by the extensive fire fuel reduction program that has taken place on the Miller property and other properties in the area since the last CWPP was completed in 2011. For these reasons, the significant majority of the Boundary TAC concluded that the maps were not particularly useful as a screening tool. The Boundary TAC did not dismiss the threat of wildfire danger as Paul (and Robin) seem to suggest. As the late Bruce White correctly noted in front of USC back in September, the fire issue has been adopted as a proxy for those opposed to west side expansion of the UGB.

As it pertains to The Tree Farm project, Paul is correct that the County Hearings Officer issued a denial of the project yesterday. However, a read of the rather lengthy Hearings Officer's decision will reveal that the denial was not based on a legal or policy decision that development on the property is inappropriate based on wildfire or wildlife. In fact, the Hearings Officer agreed with the applicant on every significant legal and policy decision point in question in the

proposal. The denial was not based on the where or what of fire and wildlife mitigation, but rather on the how, who and when of the fire and wildlife plans submitted in support of the proposal. Specifically, the Hearings Officer found that those plans needed to be refined to identify how the fire and wildlife management plans would work together, who would undertake the specific mitigation measures, and how the ongoing measures would be enforced and transferred over from the developer to the HOA in the future. The Hearings Officer found that she could not impose these as conditions of approval, but her decision does provide a checklist of what needs to be included in each of these plans to make them complete and approvable. She also included extensive findings of conformance and conditions of approval for the County Commission to consider upon appeal. The simple refinements to the wildfire and wildlife management plans required by the Hearings Officer can be easily accomplished through an appeal to the County Commission, and will afterward provide a template for the implementation of such plans for future projects in the County, as well as creating provision for the City to consider implementing in any expansion areas.

As to wildlife protection, the Boundary TAC received testimony on this topic from Corey Heath of the Oregon Department of Fish and Wildlife. Mr. Heath made it clear that the department's priority for protection of wildlife habitat was in the existing county-mapped deer winter range, and within some specific areas that elk have been using outside of the designated winter range. The Boundary TAC voted to exclude properties that are within the designated deer winter range from further consideration (including more than 380 acres of land within The Tree Farm project). The Boundary TAC also voted to downgrade properties within the non-mapped elk wintering areas outside of the designated winter range. Based on the information presented to us, there was simply no basis for any further land exclusion or downgrading for wildlife reasons. Again, this appears to be an issue adopted as a proxy for those opposed to western expansion of the UGB.

I should note that I personally abstained from the vote on the wildlife map, as I do not believe there has been adequate data presented nor public process necessary to downgrade properties where wintering elk have been observed but that are not within the designated winter range.

Dale Van Valkenburg
Director of Planning & Development
Brooks Resources Corporation
dale@brooksresources.com
541-382-1662, extension 120

From: Damian Syrnyk [mailto:dsyrnyk@bendoregon.gov]
Sent: Wednesday, March 18, 2015 3:55 PM
To: Anne Aurand; Barbara Campbell; Bill Wagner; Brian Rankin; Carolyn Eagan; Casey Roats; Colin Stephens; Damian Syrnyk; Doug Knight; Eric King; Gary Firestone; Jim Clinton; Jon Skidmore; Justin Finestone; Mary Winters; Mel Oberst; Nancy Flannigan; Nathan Boddie; Nick Arnis; Patrick Griffiths; Rex Wolf; Robyn Christie; Russell Grayson; Sally Russell; Tom Hickmann; tony_debone@co.deschutes.or.us; Tyler Deke; Victor Chudowsky; Wendy Robinson
Subject: FW: Boundary TAC Minority View Re Upcoming USC meeting

UGB Steering Committee members,

Please find enclosed an email message from Paul Dewey of the Boundary TAC in which he has asked that three documents be sent to you and the Boundary TAC.

Staff will have copies for you tomorrow at the Steering Committee meeting.

Thanks, Damian

Damian Syrnyk, AICP | Senior Planner
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To: Brian Rankin; Damian Syrnyk
Subject: Boundary TAC Minority View Re Upcoming USC meeting
Attachments: Dick Johnson Bend UGB fire report.pdf; Dick Johnson Qualifications.pdf; Bend UGB Residential Developmen Impacts on Wildlife Habitatt.pdf

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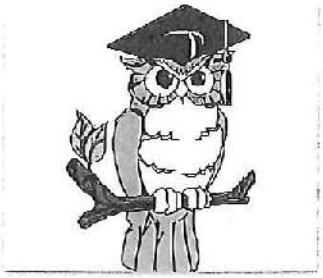


Wildfire Risk Management

Addison L (Dick) Johnson

15615 Wingville Lane
Baker City, Oregon 97814 USA
Phone & Fax # (541) 523-3294
Email: wildfire-3294@msn.com

Summary of Qualifications:

I am a proven professional with over 50 years of fire experience including over 30 years of experience with the U.S. Dept. of Agriculture, Forest Service in progressively responsible positions.

Research

The first 12 + years with the Forest Service's Riverside Fire Lab assisting in the research of:

- Fuels in the Fuel Break project;
- Fire Behavior (fire behavior is the study of the physics of pyrolysis and it's interaction with weather, topography and fuels) with Clive Countryman and Richard Rothermel; and
- Fire control techniques and Fire Meteorology with Mark Schroeder.

My expertise was in applying basic or applied research to the practical aspects on the ground. *During this period I also was called upon to assist or lead investigations into fire fighter deaths.*

Hands on Experience

The last 18 years of my Forest Service career were spent in the National Forest system putting into practice the theory and methodology of the of fire behavior, fuels management, weather measurement and its effect on fire behavior..

- This included re-introducing under-story burning not only in this area, but throughout western U.S. and internationally.
- During this period I also took advanced studies in Fire Management at the University of Washington. (this was the equivalent to a Master's Degree in Fire Management).
- Also during this period I was selected to assist or lead Washington Office research efforts into the aerial application of retardants and this continued after my retirement.

- Over the years I have fought and/or re-introduced fire in all of the western and southern states in various capacities:
    - As a Type II Incident Commander (manages incidents slightly less political than a Type I) I have managed several fires in both Oregon and California during the five year period that I held that position.
    - As a National or Type I Fire Behavior Analyst I have provided analysis of present and future behavior of a fire and its associated risk to prevent loss of life and evaluate the threat to property.
    - During my Federal career I also was called upon to teach post graduate level courses and act as the lead instructor in classes throughout the western U.S.

For five years, after my retirement from the Forest Service, I was the Wildland Fire Coordinator and instructed fire management courses at Central Oregon Community College.

I have been recognized in both Federal and State (Washington & Oregon) court systems as an expert in my field.

I am familiar with this area near Tumalo Creek as I was the Fire Consultant for Shevlin Park for the Parks and Recreation District and reintroduce under-burning there and at the High Desert Museum.

While living in Bend, I was the fire behavior analyst for project Impact (Wildfire) and Chaired the City of Bend Fire Department Civil Service Commission.

Personal side

Beginning in 1967 I have been trained and certified as a Structural Fire Fighter and Chief Officer. I continue to this day as a volunteer and as Assistant Chief with lead responsibilities for Wildland Fire and Hazardous Materials for Baker Rural Fire Protection District.

I am continuing to train both structural and wildland firefighters to this day.

I have been certified in the following areas:

Certified by:	Certification:
National Wildfire Coordinating Group	Incident Commander Type II
National Wildfire Coordinating Group	National Fire Behavior Analyst Type I
National Wildfire Coordinating Group	Training Specialist
National Wildfire Coordinating Group	Type I complex prescribed burn boss
Department of Public Safety Standards and Training	Structural Fire Fighter
Department of Public Safety Standards and Training	Structural Fire Instructor
National Fire Protection Assoc.	Wildland Urban Interface Protection Specialist
National Fire Protection Assoc.	Wildland Urban Interface Coordinator

Type 2: National and State Level – a federally or state certified team; has less staffing and experience than Type 1 IMT's and is typically used on smaller scale national or state incidents.

Type 1: National and State Level – a Federal or State certified team: it is the most robust IMT (Incident Management Team) with the most experience; is fully equipped and self-contained.

Wildfire Risk Management

Addison L (Dick) Johnson
15615 Wingville Lane
Baker City, Oregon 97814 USA
Phone & Fax # (541) 523-3294
Email: wildfire-3294@msn.com

3/18/2015

Expansion of Bend Urban Growth Boundary to the West:

To Whom It May Concern;

The proposed expansion to the west of the current city of Bend Urban Growth Boundary will increase the fire not only to residents but also to public and emergency personnel.

This also has the potential to put a large amount of both private and public funds at risk; this would not be just insurance companies and private individuals but also the City of Bend City, Deschutes County, Oregon State and potentially Federal FEMA funds. See the recent report on these costs in KTVZ's "**Report: 13,000 Deschutes Co. homes at high wildfire risk**" the analysis of wildland fire risk by "CoreLogic" for various insurance companies.

Why the concern for the Westside? This area has a historically higher risk of destructive wildfire than other potential growth areas, as shown in the Central Oregon Fire Atlas, to the East and North East. Note the fact that there is a lack of larger fires to the East and North East of Bend shown in the fire history map. Even smaller fires are noticeably less on the East side, than on the West side.

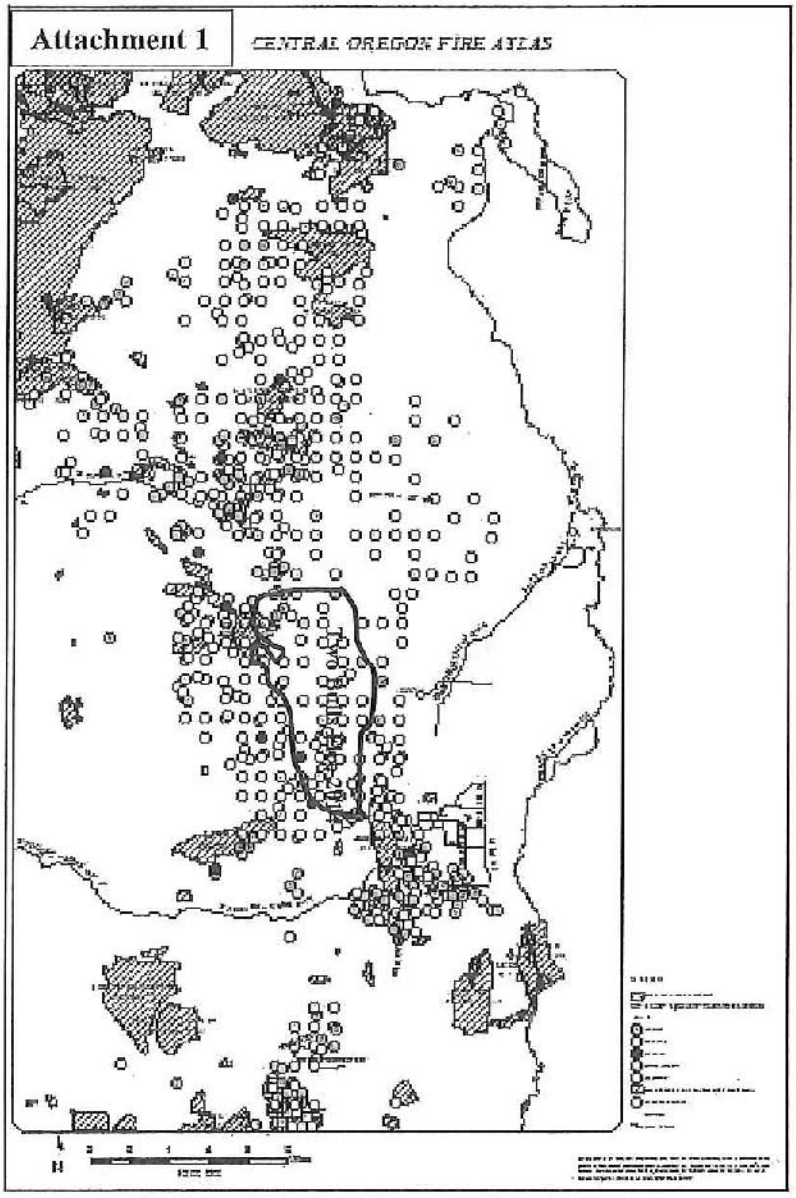
Why is this? The west side of Bend is closer to the Cascades; this creates orographic lifting which induces thunderstorms and increases ignitions. Also the West side of Bend is a higher recreation area. Whether its high school kids having a party or camp fires, motor bikes running in the hills, human caused ignitions have a greater occurrence in this area.

In addition the ponderosa pine forest on west side have a history of large fires. During the summer fire season there is also a potential for greater North and North West winds in the area to the west of Bend. As John Saltenberger stated in his Masters thesis "**WEATHER RELATED UNUSUAL FIRE BEHAVIOR IN THE AWBREY HALL FIRE**", this area can exhibit unusually violent and destructive fire behavior due to a combination of topography, fuels and weather. The central Oregon Fire Atlas shows the channeling of the topography from the North and North West. The average and/or normal summer afternoon winds in the area, drives fires to the South or South East. This fire behavior can be seen not only in the Awbrey Hall but also the more recent Rooster Rock and Two Bulls fires.

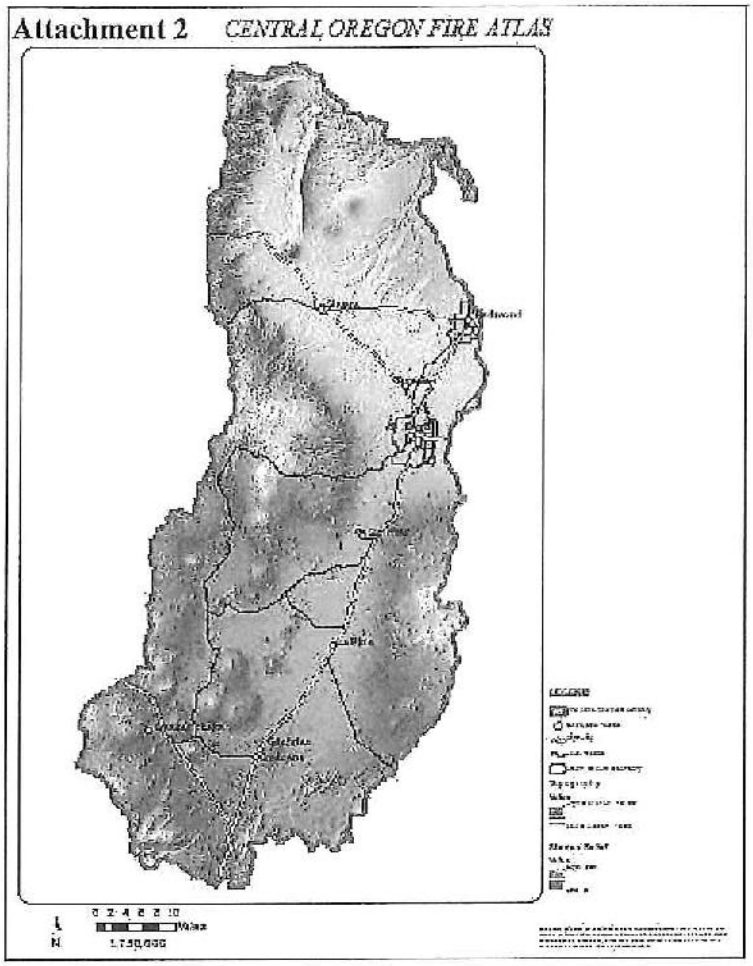
The next question is can these risks be mitigated? Yes, first don't build any further in this area and if increasing the UGB is actually necessary, then expand to the East and North East where there is a reduced and manageable risk.

Addison L. Johnson

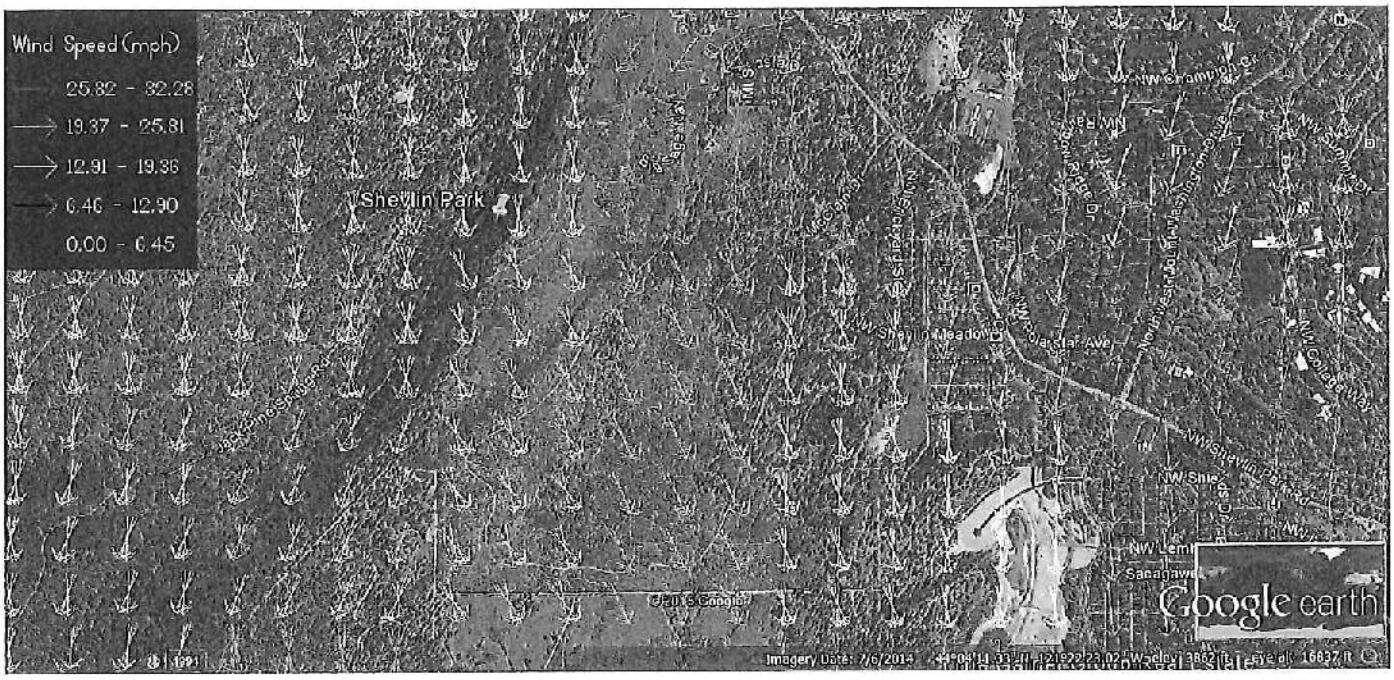
Attachment 1 CENTRAL OREGON FIRE ATLAS



Attachment 2 *CENTRAL OREGON FIRE ATLAS*



Attachment 3



PNW
Pacific Northwest
Research Station

Science
FINDINGS

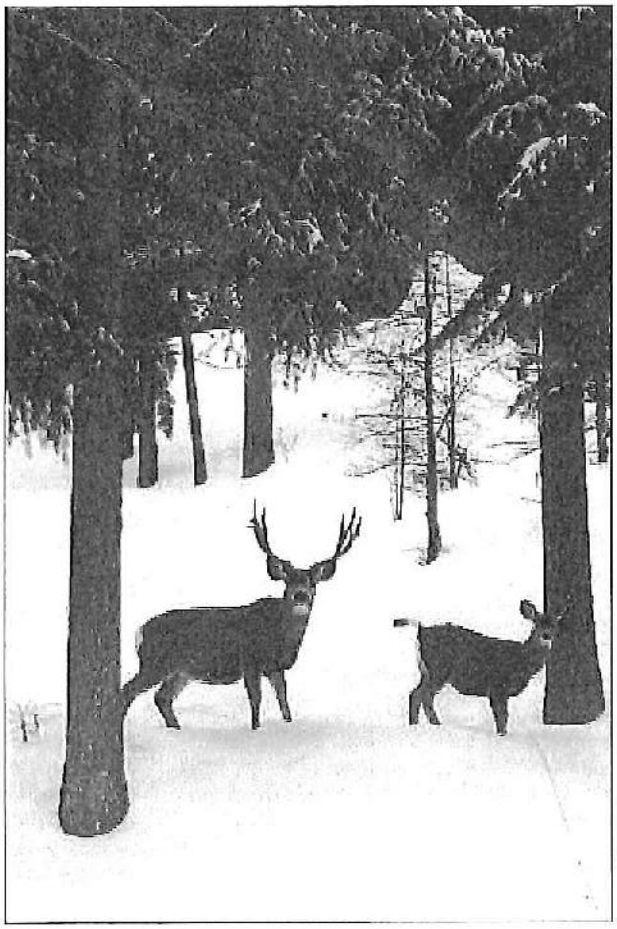
issue one hundred forty / march 2012

"Science affects the way we think together."
Lewis Thomas

Seasonal Neighbors: Residential Development Encroaches on Mule Deer Winter Range in Central Oregon

"The question is not whether your part of the world is going to change. The question is how."
—Edward T. McMahon

Situated in the high desert east of the Cascade Range, Deschutes County in central Oregon boasts a pleasant climate and a unique combination of geological features, making it a mecca for year-round outdoor recreationists. Hunters, fishermen, campers, hikers, mountain bikers, rock climbers, water sport enthusiasts, off-road vehicle riders, skiers, golfers, and wildlife viewers have helped make it the fastest growing county in Oregon.


Nick Myatt/ODFW

In the winter, mule deer migrate to lower elevations in central Oregon. Roads and residential development are disrupting this migration.

A booming outdoor recreation industry, coupled with traditional activities related to timber sales, ranching and agriculture, have boosted Deschutes County's population nearly sevenfold since 1960. Most of that growth occurred in the past 20 years—the population almost doubled between 1990 and 2010, concentrated around the county seat of Bend and four major destination resorts. A report released by the county in 2004 anticipates about 70 percent more population by 2025.

The area's civic leaders, land use planners, and public land managers are charged with a delicate balancing act: fostering a vibrant economy while working to ensure that the area's attractions remain healthy and sustainable for future generations. So when two large areas of private forest in central Oregon were being considered for high-density housing and

IN SUMMARY

Mule deer populations in central Oregon are in decline, largely because of habitat loss. Several factors are likely contributors. Encroaching juniper and invasive cheatgrass are replacing deer forage with high nutritional value, such as bitterbrush and sagebrush. Fire suppression and reduced timber harvests mean fewer acres of early successional forest, which also offer forage opportunities. Human development, including homes and roads, is another factor. It is this one that scientists with the Pacific Northwest Research Station and their collaborators investigated in a recent study.

As part of an interagency assessment of the ecological effects of resort development near Bend, Oregon, researchers examined recent and potential development rates and patterns and evaluated their impact on mule deer winter range.

They found that residential development in central Oregon is upsetting traditional migratory patterns, reducing available habitat, and possibly increasing stress for mule deer. Many herds of mule deer spend the summer in the Cascade Range and move to lower elevations during the winter. An increasing number of buildings, vehicle traffic, fencing, and other obstacles that accompany human land use are making it difficult for mule deer to access and use their winter habitat. The study provides valuable information for civic leaders, land use planners, and land managers to use in weighing the ecological impact of various land use decisions in central Oregon.

recreation, the Pacific Northwest Research Station was asked to evaluate the potential ecological impacts.

Jeff Kline, a research forester and economist with the station, created a set of fine-scale land use projections to support the resulting interagency assessment of the possible ecological effects of the proposed resort on a parcel known as Skyline Forest. Because a primary interest was the impact on mule deer winter range, Kline also used his land use projections to separately evaluate where future development is likely to affect the deer's traditional migratory patterns in the greater Bend area.

KEY FINDINGS

- In the central Oregon study area, mule deer that summer in the mountains migrate to lower elevations for wintering. Increasing residential development in their traditional winter range is causing direct and indirect habitat loss that could contribute to a decline in mule deer population.
- By 2000, development in traditional mule deer crossing areas was sufficient to disrupt migratory patterns.
- Projections suggest greater development in the future, especially in key wintering areas and along migration corridors.
- Even at low building densities, development could adversely affect mule deer migration and winter use through fencing, collisions with motor vehicles, and human activities on private and public property.

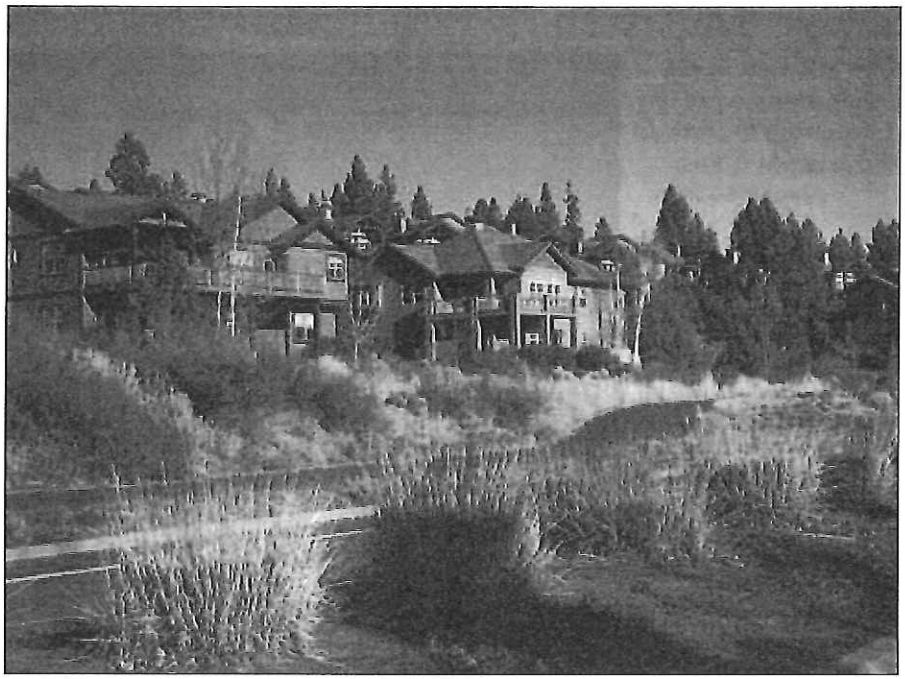
LAND USE PROJECTIONS IN CENTRAL OREGON

As a foundation for his land use projections, Kline used historical data that was originally created by counting buildings in aerial photos taken during the 1970s, '80s, '90s, and 2000s. The data are used to construct a statistical model that correlates new buildings with population trends and certain socioeconomic variables, such as the buildings' location relative to cities and transportation corridors. The model forecasts where buildings will be built in the future if trends follow the rates and patterns of the past.

"My projections are what you might call 'naïve projections,'" says Kline. "They just say 'here's what happened in the past, and if we follow the same pattern and the same correlation in the future, this is what would happen.'"

When Kline overlaid maps of mule deer habitat with maps showing his land use projections, a major problem was revealed: land development is increasingly infringing on mule deer habitat and blocking passage between the deer's summer and winter ranges. By 2000, development was already present in many locations within mule deer winter range, "some of it at sufficiently high densities to influence winter use and migratory patterns," says Kline.

The problem is not so much that development is spreading out across the wide area of the deer's winter range, he notes, but that it tends to locate in "key choke points." It affects the deer's ability to move freely among the lower elevation areas where they are accustomed to wintering. "In some locations, development coincides with narrow sections of winter range with the potential to disrupt movement of individuals throughout the range," says Kline.



Jeff Kline

The population of Deschutes County, Oregon, nearly doubled between 1990 and 2010, with most of the growth concentrated around the city of Bend.

In addition, as residential development increases, land managers with responsibility for protecting adjacent public lands are removing brush and trees within defined limits to protect property against fire. These preventive measures reduce forage and cover needed by wintering mule deer. "Residential developments have a footprint that extends way beyond the development," says Glen Ardt, a wildlife habitat biologist with the Oregon Department of Fish and Wildlife (ODFW) who collaborated with Kline on the study. "There is also indirect loss of habitat due to disturbance from the people and pets that radiates out from these residences."

STRESSED OUT IN CENTRAL OREGON

Along with Rocky Mountain elk and bald eagles, mule deer are often used as iconic representations of the Old West. They provided essential life support for Native Americans and early pioneers, and they continue to be a valuable economic, aesthetic, and ecological resource for central Oregon. In fact, deer hunting and wildlife viewing are major sources of revenue for the state. According to ODFW, residents and nonresidents spent $517.9 million on activities related to hunting and $1.02 billion on activities related to wildlife viewing in 2008.

Despite long-term management by ODFW, average spring mule deer population in the Upper Deschutes management area has shrunk by nearly 55 percent since 1960. Several factors are likely at play, including fewer quality foraging opportunities brought about by various changes on the landscape. Invasive cheatgrass and encroaching juniper are crowding out more nutritious plants such as bitterbrush and sagebrush. Wildfire suppression and less timber harvesting has led to fewer acres of early successional forest, which provide foraging opportunities for the deer. Human development in the deer's traditional winter habitat is another factor.

Like many Oregonians and visitors from around the world, mule deer enjoy spending time in the high Cascades in the summer. They browse on the forest undergrowth and accumulate fat reserves for the coming winter. However, as forest composition in the mountains has changed in recent decades due to fire suppression, it is becoming harder for mule deer to find nutrient-dense forage, says Ardt.

"A lot of white fir has come in underneath the ponderosa pine and has reduced the amount of forage that's out there. Forage for deer, like bitterbrush and buckbrush, gets shaded out when the forest canopy overtops it and it doesn't get the sunlight it needs to live," he says. In addition, more traffic on forest roads and an intensification of recreational activities—off-road vehicle use and mountain biking in particular—disturbs wildlife and affects browsing habits. Consequently, many deer enter the cold season without a sufficient layer of fat to sustain them through the winter.

Deer are not equipped to handle deep snow, so by the time a foot or so has accumulated in the higher elevations, they migrate down the mountain, attempting to spread out on the desert west and east of Bend. Dodging motor vehicles and finding quality forage in the flatlands are only two of the challenges they face as winter approaches. With each passing season, they encounter more and more obstacles along the paths they have traditionally used to access their winter range.

Laurie Houston

Recreational opportunities in Deschutes County have attracted visitors and new residents but may negatively affect the deer's browsing habits.

"Not only do you have loss of habitat (owing to development and recreation), but you have development breaking up the habitat and inhibiting movement," says Kline. "In the mountainous West, the most likely place people are going to develop is the lower elevation flats, so you have development locating right where the grazing animals want to congregate in the wintertime."

Ardt believes that a main contributor to the decrease in the mule deer population in central Oregon is stress. Insecurity in their environment causes deer to react much as humans do when faced with the unexpected. "When disturbance occurs, wildlife either freeze, flee, or fight. And just because they don't flee, it doesn't mean they aren't being disturbed," he says. "Studies have shown that when an animal is disturbed, its cortisol level goes up—that's a stress hormone."

Even if forage is available, the deer may not browse if they are disturbed, and undernourished or stressed-out deer can die prematurely. Stress also can cause a doe in poor condition to abort or reabsorb a fetus, says Ardt, which further reduces the herd. "If they are disturbed, they are using energy they wouldn't otherwise, which can be critical in mid to late winter when their body condition is at its poorest or during the post-fawning and rearing periods when energy demands are higher," he says.

Purpose of PNW Science Findings

To provide scientific information to people who make and influence decisions about managing land.

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USDA United States Department of Agriculture

Forest Service

TRACKING MIGRATORY PATTERNS

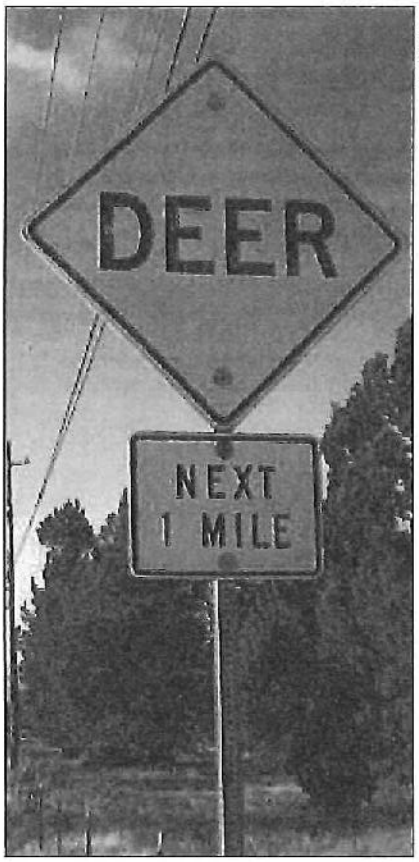
In the 1960s, the ODFW conducted its first study to try to determine exactly how mule deer move from their winter range to their summer range in central Oregon. At that time, deer were trapped, tagged, and collared, which provided a way for biologists, foresters, loggers, hunters, and others to observe deer movements and report sightings to the ODFW. "These methods allowed us to better identify summer and winter ranges, project movement between the two, and determine animal distribution between wildlife management units," says Ardt.

In 2005, the agency embarked on a new study to update and refine its understanding of deer behavior and movement. The Oregon Department of Transportation (ODOT) provided funding to the ODFW to purchase global positioning system (GPS) collars that are helping to determine mule deer crossing behavior on Highway 97, the main highway that runs north and south through the Bend metropolitan area and separates the deer's summer and winter ranges.

A total of 457 mule deer in central and south-central Oregon have been fitted with GPS collars and 250 of these collars have been recovered. The remaining collars are expected to be recovered within the next year. Although observations from the 1960s revealed that deer were moving across Highway 97 to the flatlands east of Bend to winter, data collected from the GPS collars indicate that deer are choosing to go north instead of east. "A lot of that is probably due to the amount of traffic that's on Highway 97 now between Bend and Sunriver [a popular resort]," says Ardt. As it turns out, more deer are killed on secondary and residential access roads than on the main highway.

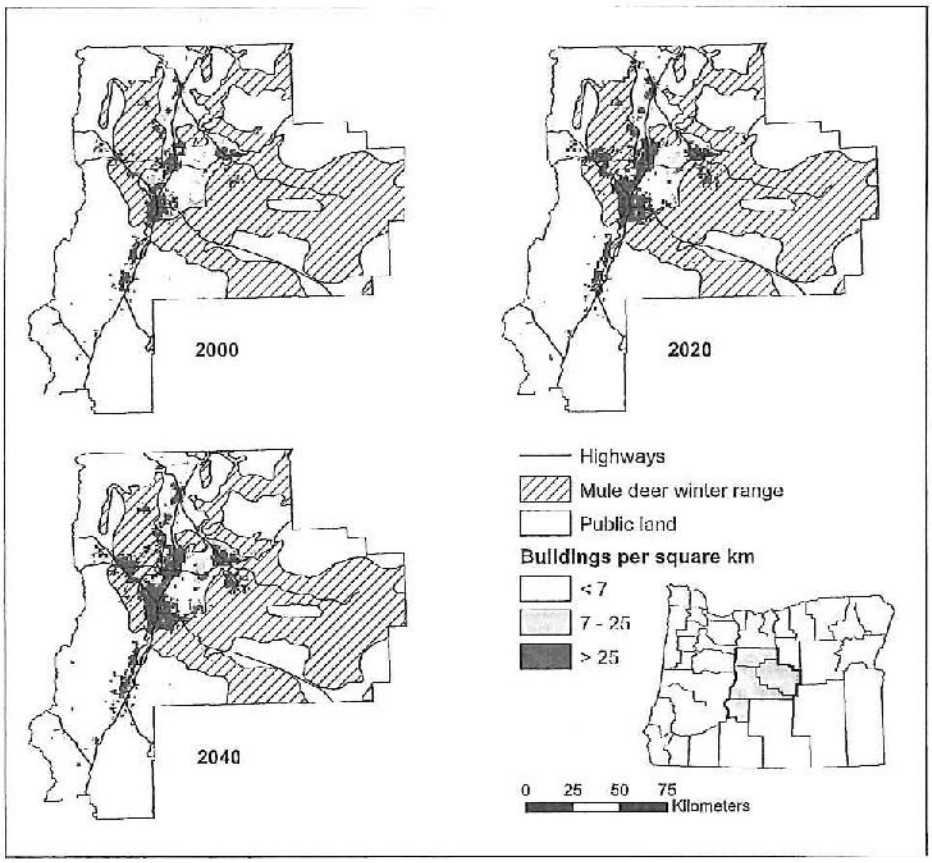
One might wonder why, if people and cars stress them so much, deer can be found munching on the landscaping in people's backyards in the winter. Ardt speculates that it's because it is where they have always wintered, and data from GPS tracking supports that theory. "Telemetry data show deer moving through another deer's summer or winter area to get to their own, thereby showing their strong fidelity for a particular area," he says. It's the homing instinct in action.

Jeff Kline



Jeff Kline

Mule deer outfitted with GPS collars revealed strong fidelity to a particular area, even if it meant crossing major roads to get there.



By 2040, development in and around Bend, Oregon, is projected to further constrain mule deer access to winter habitat.

WANTING OUR DEER AND DEVELOPMENT, TOO

Kline's projections indicated that the Skyline Forest property could be developed as early as 2020. He says this finding originally was met with some skepticism because the property is currently zoned as forest land, but he points out that zoning laws can change and land developers can work around existing codes.

"Just because land is zoned the way it is doesn't mean that things won't happen—things do happen—people get exceptions," he says. "And the history in our land use data suggests that it is so—we can see development in areas that were previously forest and farmland. The land use planning system gives some level of protection, but it's not infallible. Some people tend to think of it as a permanent protection, but it really isn't."

It would seem that Skyline Forest is an example of how things can change. The property's owner wanted to build a resort, but the Deschutes Land Trust has been working to conserve as much of the land as possible. In June 2009, the Oregon legislature passed a bill that permitted the property's current owner to develop a small portion of the land if they sell the remainder to the trust for preservation. The owner was given a five-year time limit on the deal, but the downturn in the housing market has stalled the plans, so the future of Skyline Forest is still unknown.

Kline says his projections give landscape planners and managers data to inform their decisionmaking about what conservation measures may be necessary for certain plots of land, given population trends and past development patterns. "They could use information like this to figure out where development is likely to be," he says. "We're not trying to make any judgments about whether development is good or bad. We're just saying, 'here's how buildings are growing on this landscape.'"

Jeff Kline

Conservation easements and land use zoning are tools that could be used to maintain existing mule deer migration corridors.

Several options are available that could meet a variety of land use goals in the area, says Kline. "Land use planning might do the job, but there might be other things to consider that would augment planning," he says, such as establishing conservation easements or an outright purchase of land that is set aside for habitat conservation. He also suggests that policymakers might consider providing consistent or increased funding to existing state programs that protect and enhance critical winter habitat.

"The fate of animals is...indissolubly connected with the fate of men."
—Émile Zola

LAND MANAGEMENT IMPLICATIONS

- Resource managers may want to initiate or expand efforts to work with landowners, local land use planning officials, and nonprofit conservation organizations to consider how to address anticipated development within mule deer winter range.
- Modified land use zoning, conservation easements, and land purchases might be considered to help maintain existing migration corridors and minimize disturbances associated with new development.
- Policymakers might consider providing more consistent or increased funding to existing state programs that protect and enhance habitat.

FOR FURTHER READING

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March 17, 2015

Victor Chudowsky, Chair
UGB Steering Committee
City of Bend
710 NW Wall Street
Bend, OR 97701

Chair Chudowsky,

As the UGB Steering Committee prepares to review the Phase 1 recommendations from the three advisory committees, we would like to applaud the city, its consultant team and the volunteers who have committed hours of work toward this effort. It has been our pleasure to participate in the UGB remand process and see the enthusiastic public participation and quality work that has resulted to this point. We appreciate the vision and leadership that you and the rest of the Steering Committee have provided and feel very confident that this effort is on the right track. We regret that DLCD is unable to have a representative at your Steering Committee meeting on March 19 as we will all be in Salem at our quarterly department meeting. In our absence, city staff has requested that we submit a letter

The department's representatives have enjoyed working with city staff, consultants, and community leaders on issues regarding residential and employment needs and development related to the Bend Urban Growth Boundary remand project. We believe that the city's work to date on its residential and employment needs and analysis of inventory, if completed as recommended by the respective technical advisory committees (TACs), should satisfy all the requirements of the remand from the Oregon Land Conservation and Development Commission in 2010, and should move Bend forward on a path that provides adequate and appropriate housing and employment to meet the needs of the city's population.

The Residential TAC has benefitted from excellent and thorough information provided by city staff and the project team on housing and residential land supply issues in Bend. This has included an updated buildable lands inventory with thorough information regarding the impacts upon buildable land of recent development trends, private deed restrictions upon development, and public land ownership. An updated housing needs analysis detailed the amount and types of housing needed by Bend's population, both current and projected. The project team also provided the TAC with information and analysis of nine study areas within the existing Bend Urban Growth Boundary where additional housing might be accommodated. A thorough analysis of "efficiency measures," methods for providing additional housing within the existing Urban Growth Boundary, was also prepared by the project team. All of this information provides an adequate factual basis for the decisions to be made by Bend regarding its future residential growth patterns and need for an urban growth boundary expansion.

We support the Residential TAC's recommendation to target a housing mix for the 2016-2028 period of 55 percent single-family detached, 10 percent single-family attached, and 35 percent multi-family housing types. Based upon the results of the residential housing needs analysis the city has prepared, the current mix of housing, weighted more heavily toward single-family detached residences, does not match the

housing affordability needs of Bend's population, resulting in individuals and families paying too high a percentage of income towards housing costs, or being forced to live in nearby more affordable communities. Additional higher density housing, which is generally more affordable, will reduce these problems for much of Bend's population.

We also support the Residential TAC's recommendations regarding the proposed range of "efficiency measures" adoption and residential zoning changes. While a final policy decision that plans for residential development toward the higher end of the range would be optimal, adoption of a final product anywhere within this range will mark a significant policy adjustment for the city that will provide for housing meeting the affordability needs of its population and promoting more efficient and cost-effective use of land within the existing urban growth boundary. Within the range of policy options the city will be able to make policy choices, such as the level of "minimum density" residential development standards, the modification of parking standards, the modification of rules affecting accessory dwelling units, and the eventual development pattern of the Juniper Ridge area, based upon public input and a reasoned decision-making process.

In regard to the employment, city staff, the consultants and members of the Employment TAC have put together sound recommendations related to projected employment growth and potential for redevelopment of employment lands. The work completed in Phase 1, including employment growth scenarios, is very solid and complies with State Planning Goal 9.

As the process moves into Phase 2, the work of the Boundary Committee will become increasingly significant. The recommendations from the Housing TAC and Employment TAC provide a solid foundation upon which to build growth scenarios that go beyond the existing UGB. The Boundary TAC has developed key indicators and performance measures to evaluate comparative growth scenarios in Phase 2. These are consistent with the four Goal 14 factors which are required to be evaluated for any UGB expansion and will provide an excellent basis for selecting and justifying a preferred UGB growth scenario.

In summary, the recommendations of the Residential, Employment and Boundary TACs are based upon a solid factual base of information and provide a range of decision options, all of which would serve to resolve the issues within the existing Bend Urban Growth Boundary in the 2010 LCDC Remand Order.

We look forward to continued work with the city in this effort and look forward to a successful result. We will be glad to continue to assist with the process in whatever capacity you would find our participation the most valuable.

Sincerely,

Gordon Howard, Urban Specialist
Tom Hogue, Economic Specialist
Scott Edelman, Central Region Representative

March 19, 2015

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BENDOREGON.GOV

Dear Mayor Clinton and City Councilors,

The adoption and acknowledgement of an expanded Urban Growth Boundary is of the upmost importance to the business community. The Bend Economic Development Advisory Board (BEDAB) hosted a presentation given by Long Range Planning Manager, Brian Rankin, on Tuesday March 17, 2015.

The Board is pleased by the progress that has been made to date. Thank you for your continued attention to this business community priority.

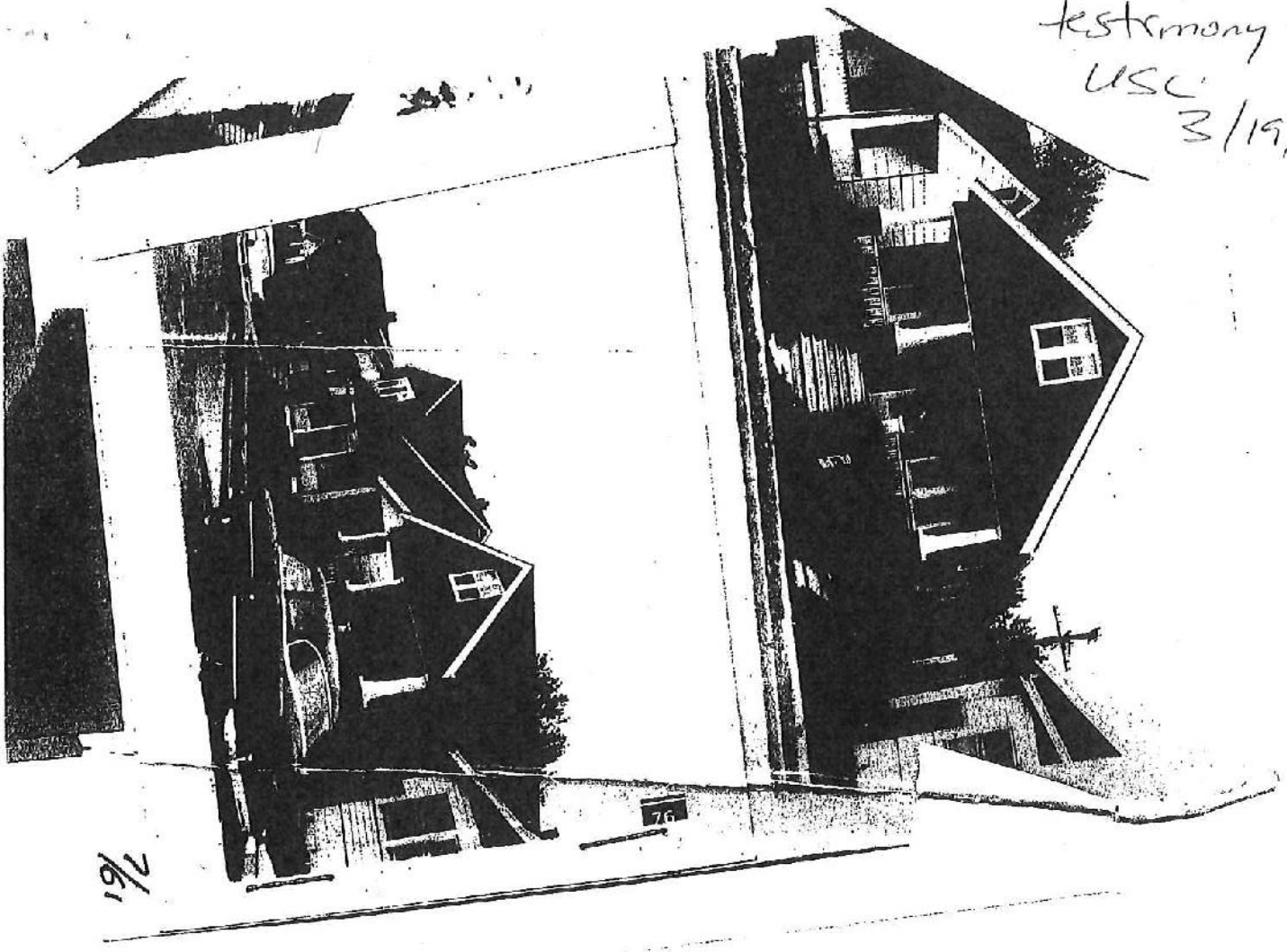
As the City of Bend moves into Phase 2 of the Urban Growth Boundary project, we request that you please accept the recommendations of the Technical Advisory Committees. The acceptance of their recommendations is critical to staying on schedule for the April 2016 local adoption. The adherence to the schedule is the most important priority of the business community.

The BEDAB will stay closely involved in Phase 2 of the Urban Growth Boundary project and will work with the larger business community to provide future recommendations.

Sincerely,

Wally Corwin, Chair
BEDAB

Mayea
testimony to
USC
3/19/2015



From Michael J. Mayea

Cpl. USMC(Ret.)

Dear Council, UGB groups, thank you for your selfless service.

1)See picture of house for 7600 in 1961 in Detroit.

2) Summary: The breakdown followed this family from Detroit, to LA, to Bend. UGB symptomatic. A house for 7,600 in Detroit for 3 percent now costs 100 times as much but there are no jobs in Bend like Detroit. (See picture)

3)1960 to 1980s, Bend was a refuge. Now the sickness of decay via delay to create obfuscating uncertainty is heisted as seen in 2006 UGB, almost ten years old, ten years late, ten years not 20 year supply calculated.

4) When one gets a financial handhold, Gov-God gets at least half. Then half again. Then half again, annually, then multi half. 30 percen loss of value each ten years. The UGB delay is very much in keeping with destroying local humans to benefit nobody. Wolves in sheepskin or lambskins move in to solve the problem they create. They use our kids teen angst centered minds and university teachers who also have not grown up, noticed that government NEVER BUILDS THAT. It is why UGB is ignored as it is by media. Humans are scum, as their ineffable indications

proclaim.

5) Yours truly wanted to change the world, joined the Marines, got accidentally injected with a radioactive dye which in 1980 burnt my spinal cord for life.

After making excellent notes, they decided (D.o.D.) to conceal, forgetting their initial honesty. They literally beat me for seeking medical help for spinal cord injury. The 35 years since then educate me as to the national, state, breakdown that causes the UGB delay, hurting most all locals severely, whether they know it or not. The ravaging of me in 1980 is now upon all Central Oregonians, playing out with great precision. I try to caution you.

..35 years later, the V.A. STILL is able, in Bend, far from Portland VA, to run my life, delay, deter, discourage, using DELAY. Just like the UGB delay kills off without anyone to blame.

It is not fully about money. THey conceal error with new BS each news day, is a habit by now for State, Fed, people hurting MOST EVERY CENTRAL OREGONIAN. They both misdiagnose as if their careers depend on it (they do), and the access to spinal cord specific medical treatment cannot be got. Plenty o drugs tho.

Just like State of Oregon ravages vitality by robbing timely UGB expansion. Drugging with distraction.

Bend is the key common factor.

6) Bend UGB (see map) shows that one area of Bend did not need a group, because that is where reasonable minds could and DID agree the growth was best- NE Bend. They went along with dozens of groups jumping on the wagon- and all of us, near ten years later, have lost most everything while State ravages health, financial strength, from everyone near and far who is a average person.

7) All manner of bird, bug, owl, chicken, dirt, tree, slime, rat, is shown as more important than human beings, so the UGB is somehow a bad thing, because it helps the local citizens, by bringing land, lot, mortgage, rental, prices down to something that working people can afford without suffering impoverishment.

8) Our newspaper, TV, Radio, has failed us, keeping close track for a couple years, and keeping track since the 1990s, Bend is purposely muted, mugged, then distracted.

The reason the spinal cord injection, maiming for life, like a chemical burn, shows Bend about UGB is because it could not happen if I were a Portland, Oregon, or Portland Maine, or Virginia, or any big city citizen. When you want to maim someones life and get away with it- you pick Central Oregon

victims, the whole damn city cannot even defend itself, far less the individuals.

They rapaciously exploit us and implement emotional workarounds to keeping a budget, law, seeming devoted to making our honorable City Council impotent to fight against the bullshit tide.

Please turn back from seeking more distractions, the ten year late beginning, ten year late reaction, ten not twenty year buildable land supply, helps rape current and future citizens of their monies, so banks, government employees, can ride us like asses.

Thanks for considering this.

radio, church, wife, kids, co-workers," said Ramiro Hernandez, a previously uninsured truck repair shop owner who enrolled himself and his family in Joliet, Illinois, on Saturday. Technicians anxiously monitored the federal HealthCare.gov website for any new bugs. The administration provided no statistics on weekend sign-ups, instead releasing numbers that showed tens of thousands of consumers were trying to connect, online and by phone.

Iraqi chemical weapons — The CIA, working with U.S. troops during the occupation of Iraq, repeatedly purchased nerve-agent rockets from a secretive Iraqi seller, part of a previously undisclosed effort to ensure that old chemical weapons remaining in Iraq did not fall into the hands of terrorists or militant groups, according to current and former U.S. officials. The extraordinary arms purchase plan, known as Operation Avarice, began in 2005 and continued into 2006, and the U.S. military deemed it a nonproliferation success. It led the United States to acquire and destroy at least 400 Borak rockets, one of the internationally condemned chemical weapons that Saddam Hussein's Baathist government manufactured in the 1980s but that were not accounted for by U.N. inspections mandated after the 1991 Persian Gulf war. The effort was run out of the CIA station in Baghdad in collaboration with the Army's 203rd Military Intelligence Battalion and teams of chemical-defense and explosive ordnance disposal troops, officials and veterans of the units said.

Canada rail strike — About 3,000 locomotive engineers and conductors at the Canadian Pacific Railway walked off the job Sunday morning in a dispute over wages and benefits. Although the company said it would try to maintain some service by using managers, the strike is likely to disrupt major industries throughout North America, including automakers, oil companies, paper businesses, lumber suppliers and agriculture and mining companies.

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

USC Meeting #3

Bend UGB Remand

March 19, 2015

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

Phase 1 Growth Scenario

Bend UGB Remand

March 19, 2015

Remand Requirements

URBAN GROWTH BOUNDARY REMAND

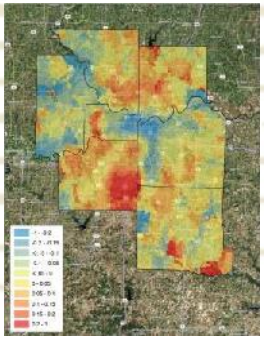
Revise Buildable Lands Inventory

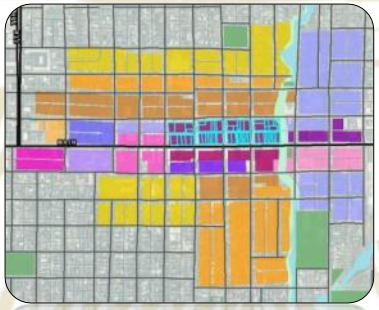
Reconsider Housing Needs (type and mix)

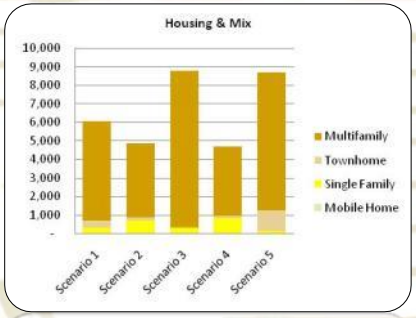
Consider additional “efficiency measures” and infill potential

Scenario Planning with Envision Tomorrow

URBAN GROWTH BOUNDARY REMAND



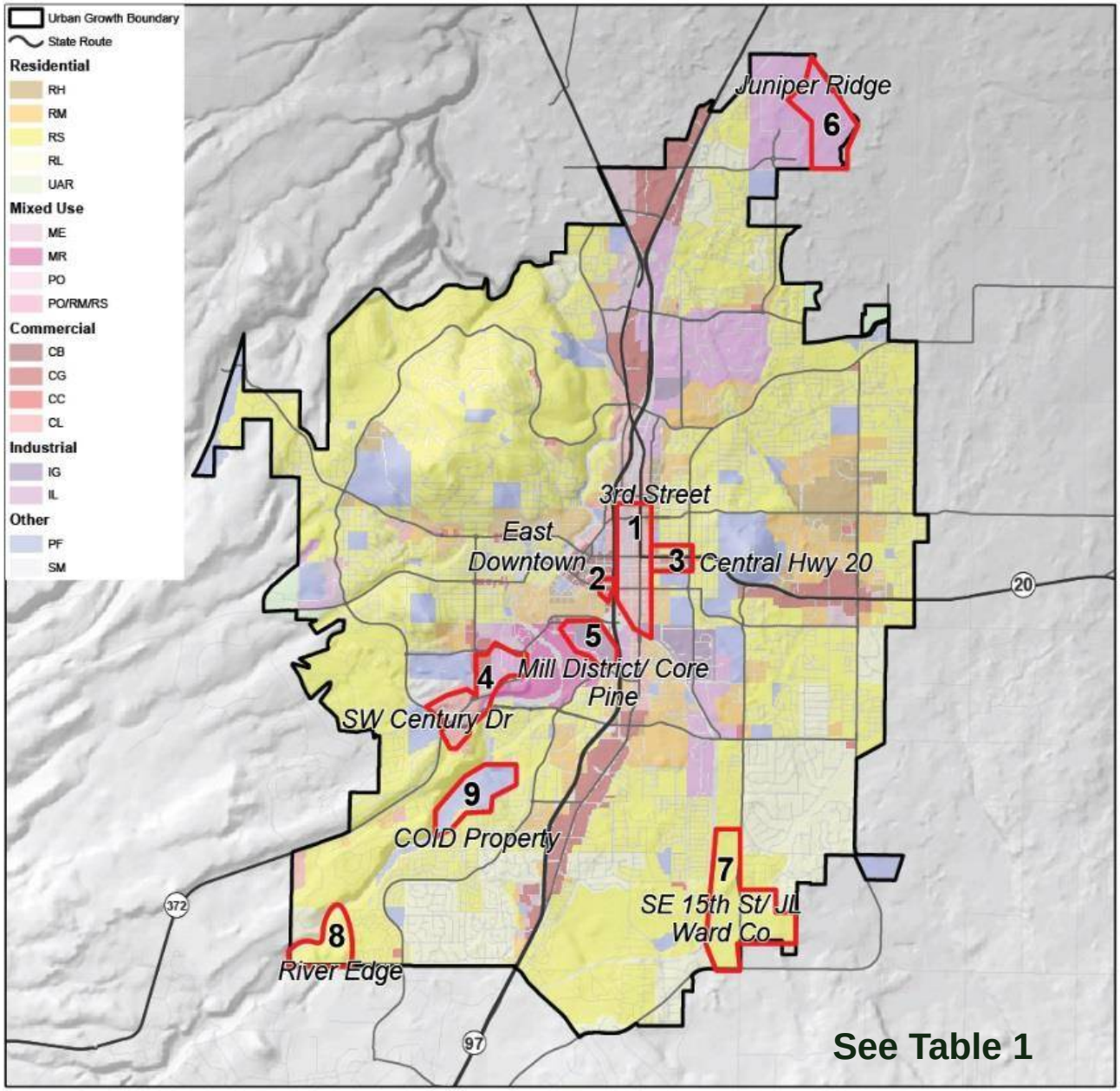




Baseline Analysis → **Create Building & Development Types** → **Scenario Development** → **Evaluation**

Buildable Lands Inventory → **Development Type Assumptions** (Table 2) → **"Painting" of Development Types** (Table 1) + **Efficiency Measures** (Appendix D) → **Capacity Analysis** (Table 9)

Opportunity Areas



URBAN GROWTH BOUNDARY REMAND

BEND

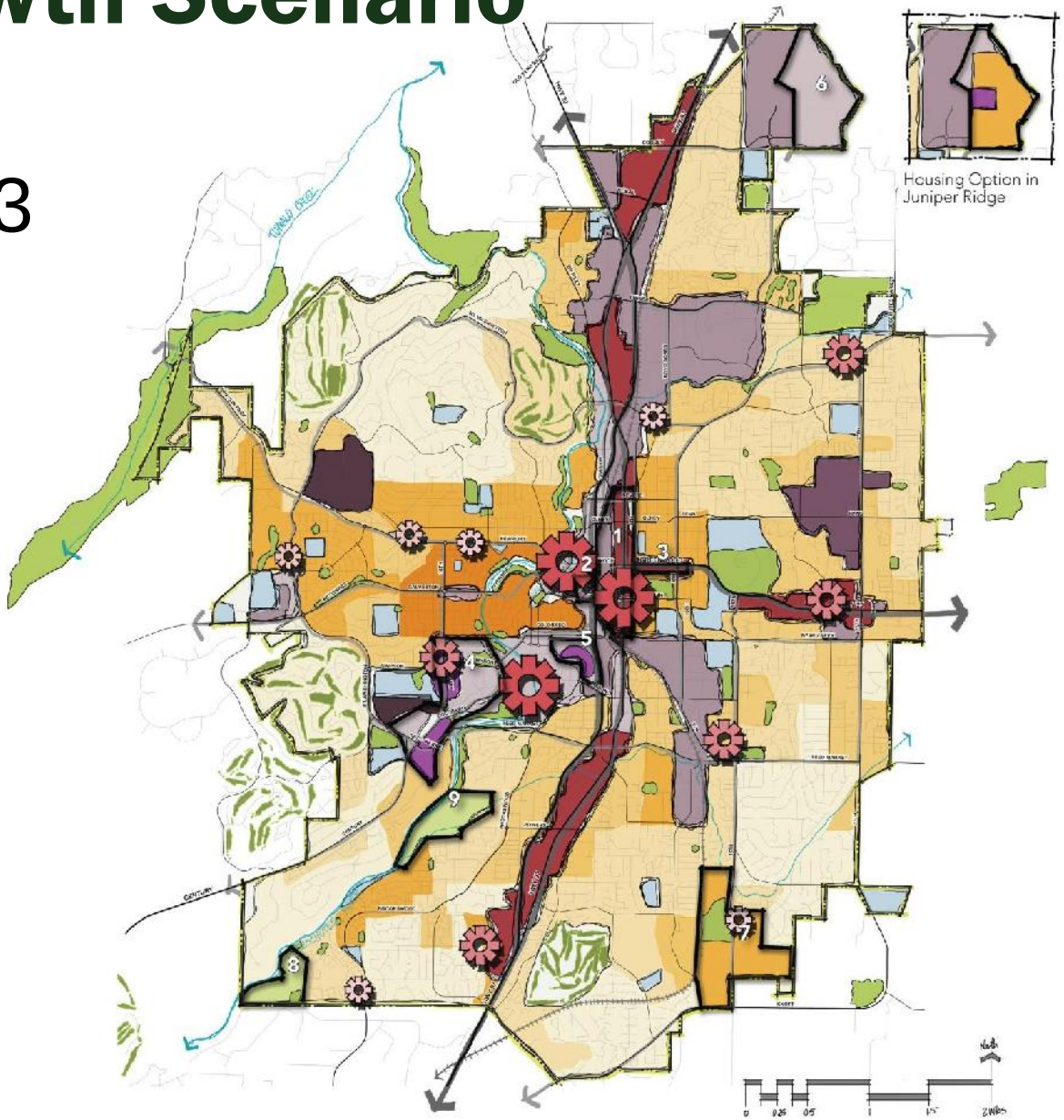
Efficiency Measures (Examples)

URBAN GROWTH BOUNDARY REMAND

- Reduce minimum lot size for Single Family Detached Housing in RM Zone
- Reduce Parking for Duplexes from 2 to 1.5 Spaces Per Unit
- Allow Cluster/Cottage Development
- Increase minimum density for master-planned developments on large parcels from 60% to 80%

Phase 1 Growth Scenario

- Refinement of 3 Maps & 3 Efficiency Measure Packages
- **Low & High Bookends of Res/Emp Capacity**



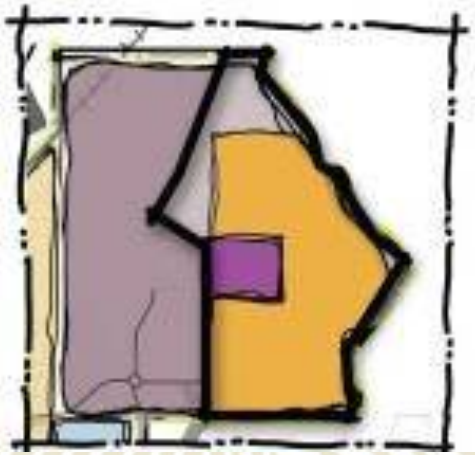
Juniper Ridge: Two Options

URBAN GROWTH BOUNDARY REMAND

Mixed Employment

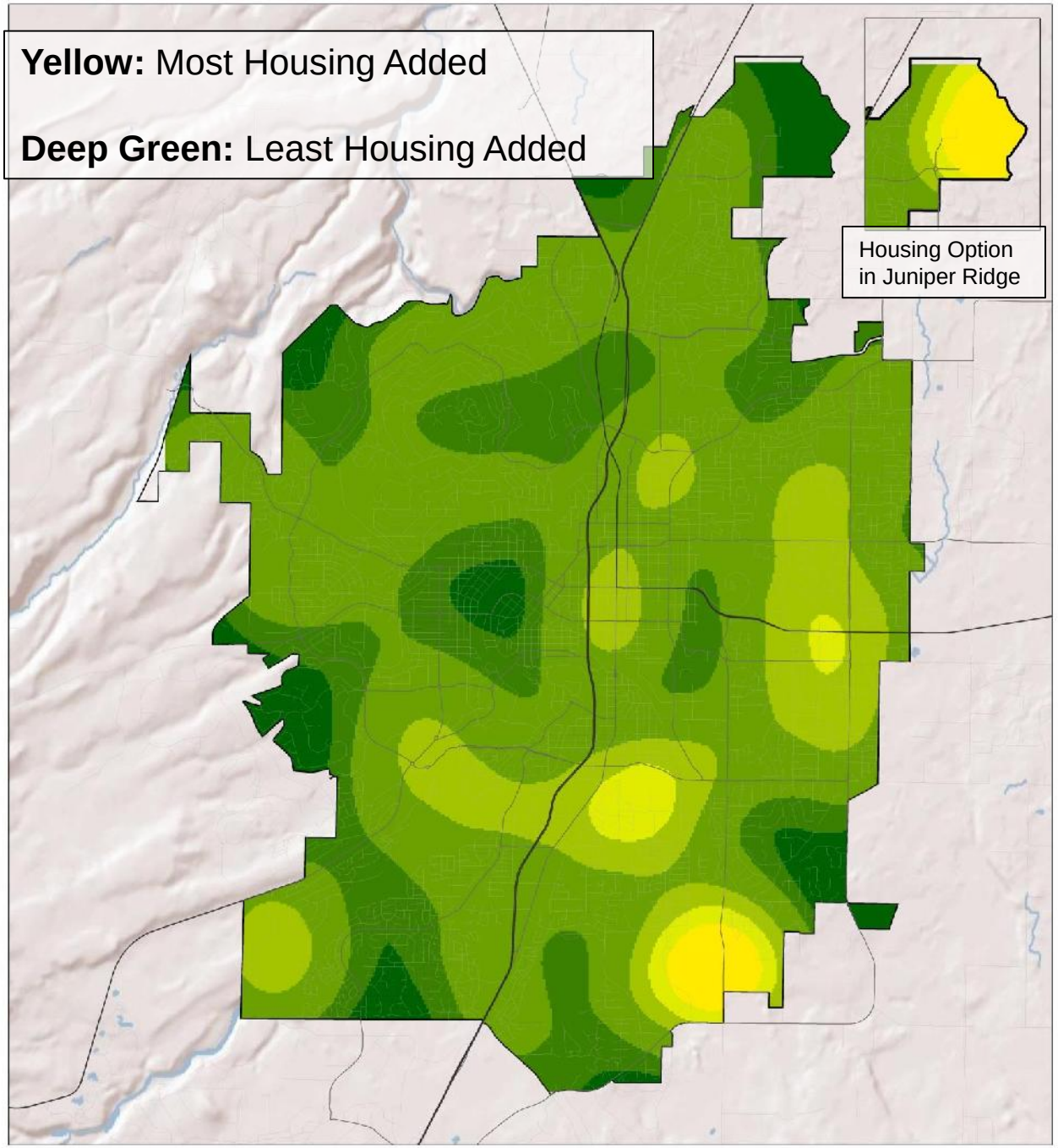
41% Industrial
31% Office
3% Civic
16% Retail
4% Hotel

New Neighborhood



Mix of Res. Standard (Masterplan), Res Medium, Res. High, Neighborhood Mixed Use, and some Mixed Employment

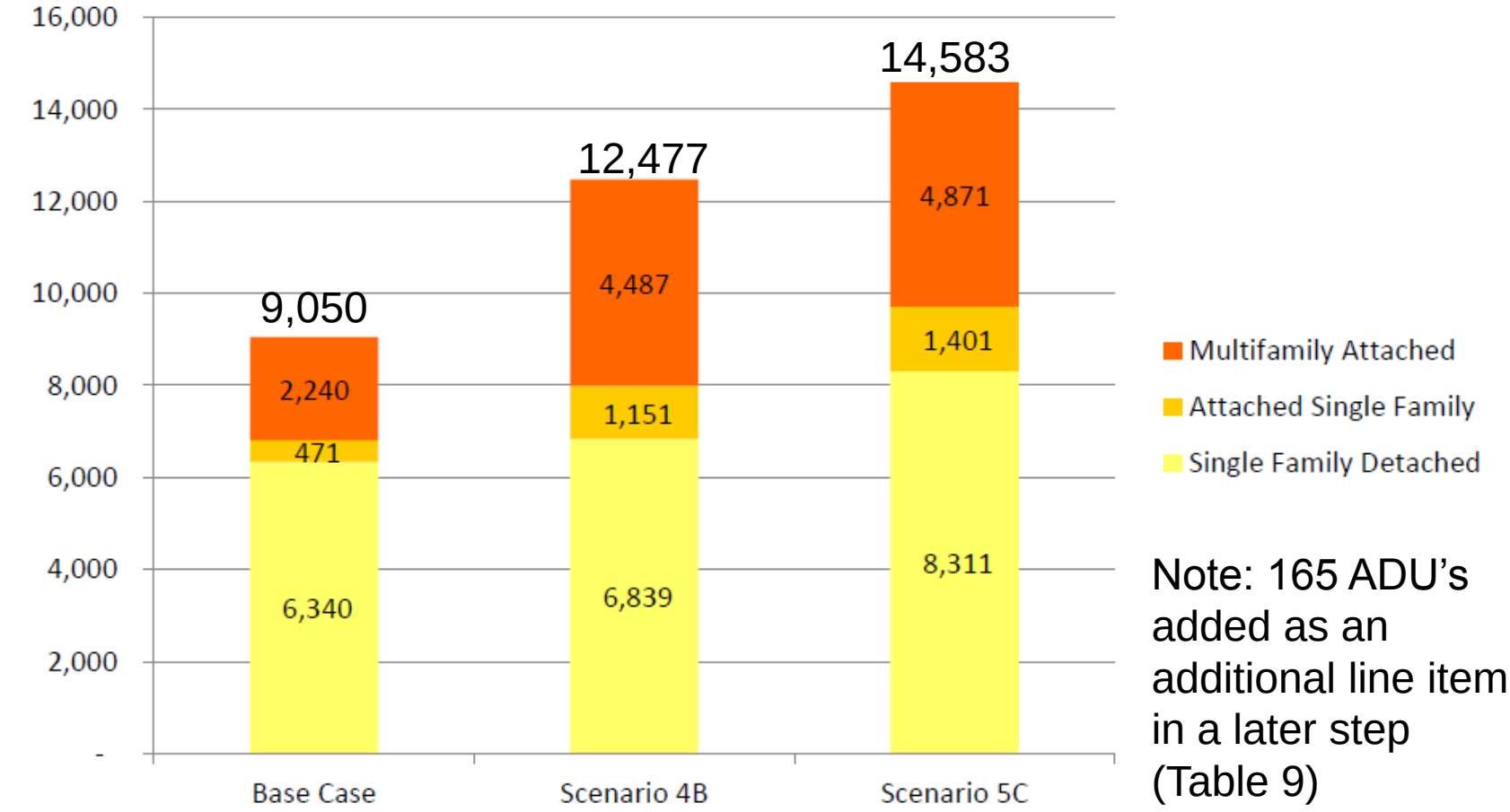
Added Housing



Results: Housing

URBAN GROWTH BOUNDARY REMAND

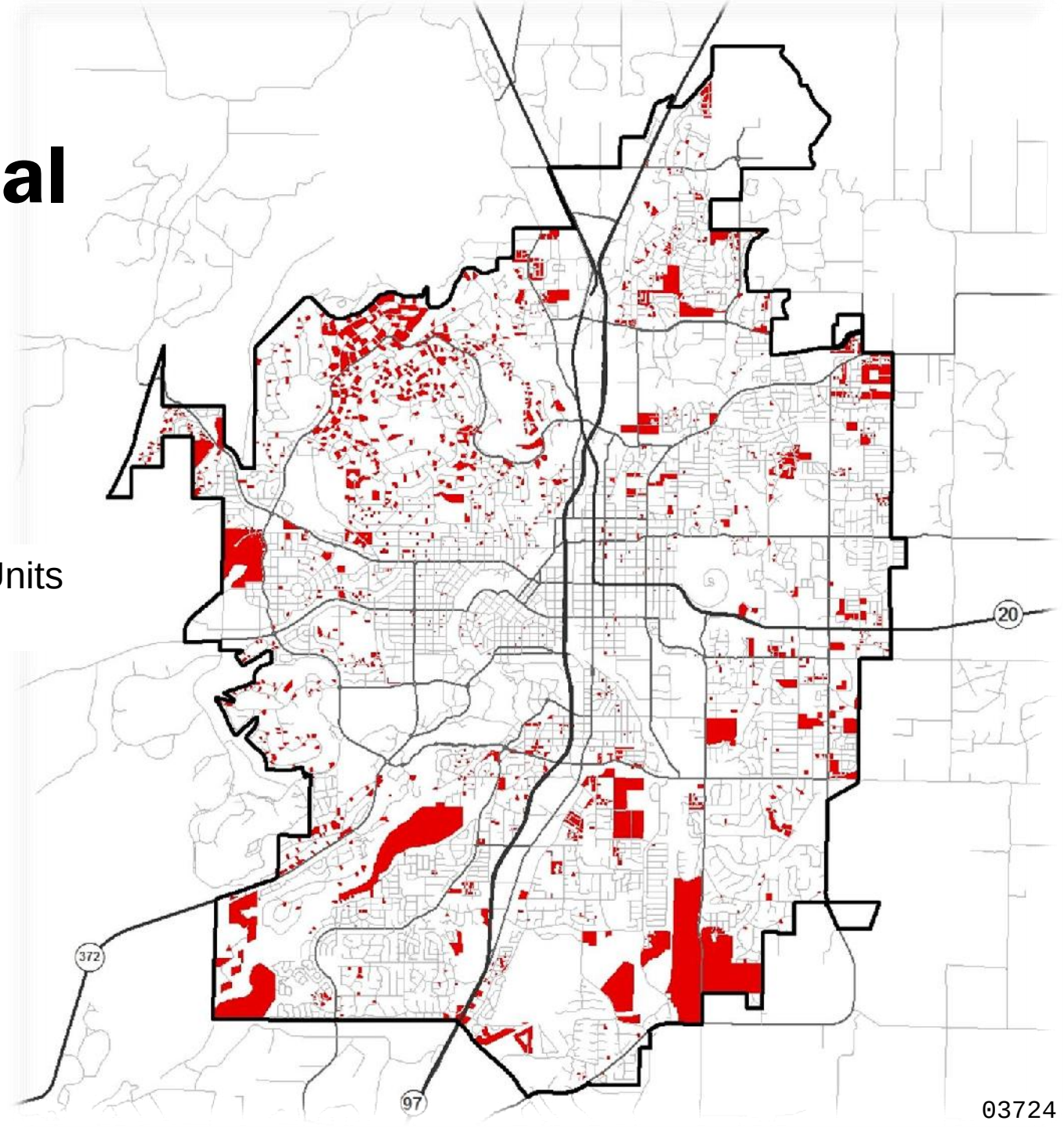
Figure 3. Housing Capacity and Mix



Note: 165 ADU's added as an additional line item in a later step (Table 9)

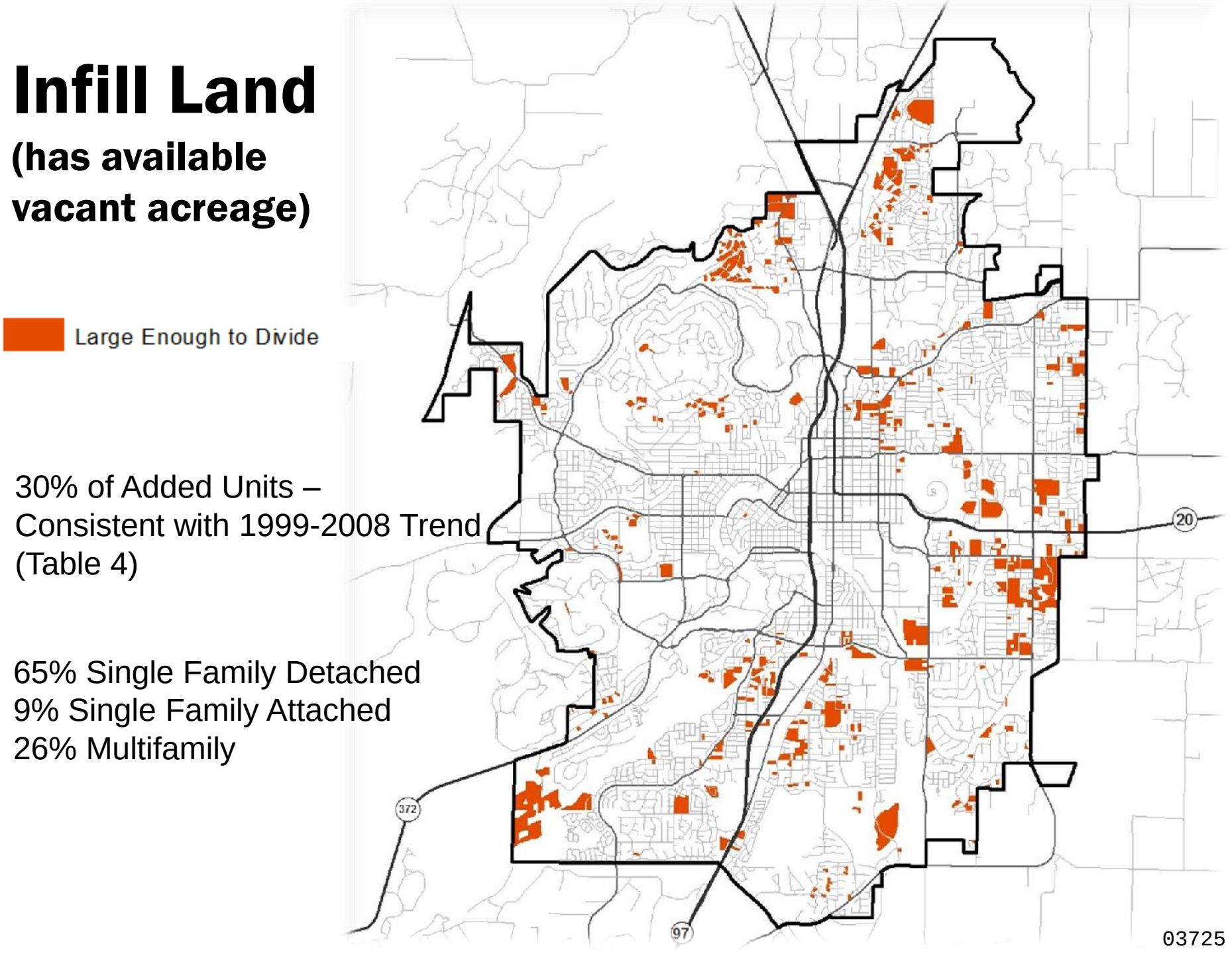
Vacant Residential

About 60% of Added Units (Table 4)



Infill Land

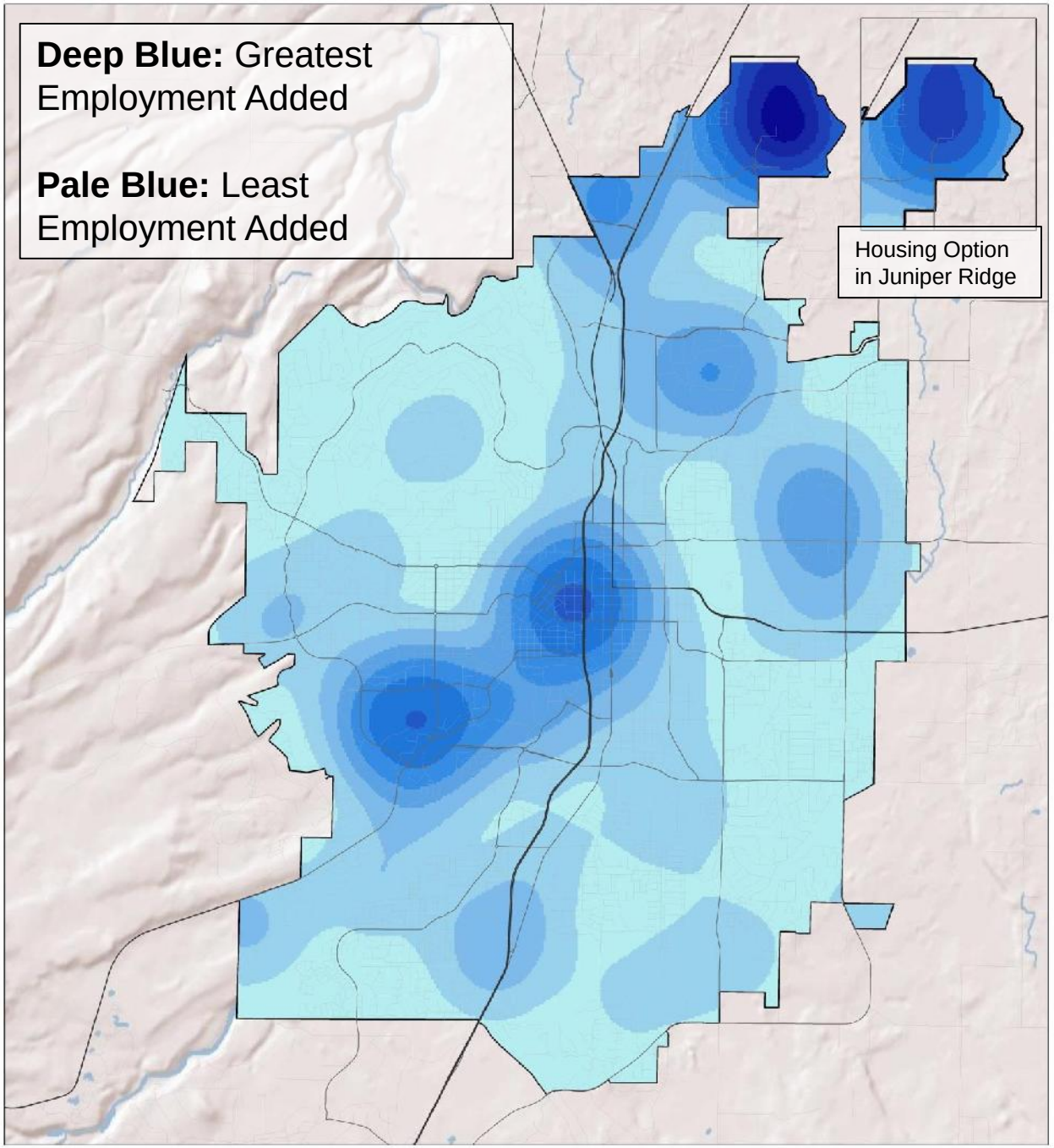
(has available vacant acreage)



30% of Added Units –
Consistent with 1999-2008 Trend
(Table 4)

65% Single Family Detached
9% Single Family Attached
26% Multifamily

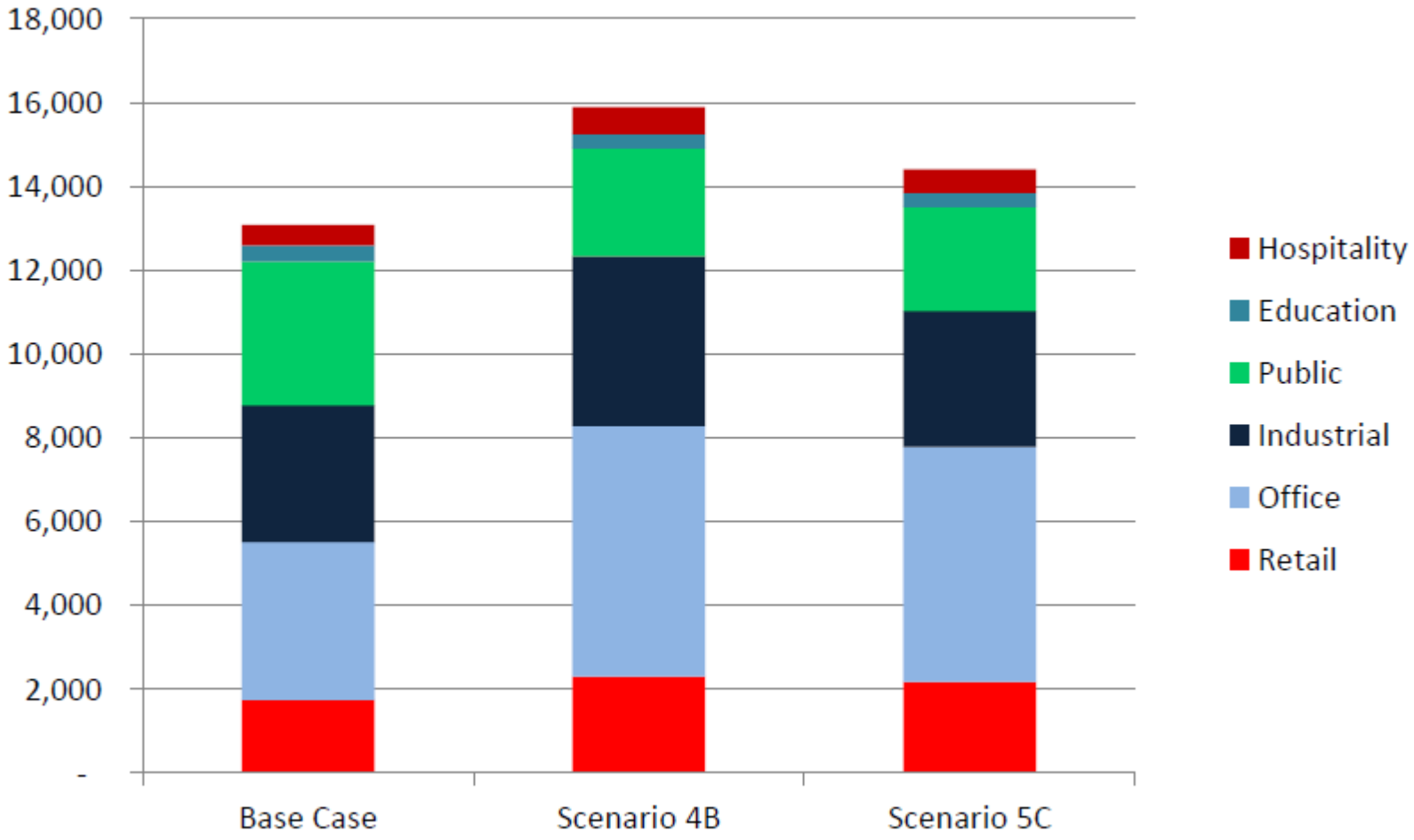
Added Jobs


Deep Blue: Greatest Employment Added
Pale Blue: Least Employment Added
Housing Option in Juniper Ridge

Results: Employment

URBAN GROWTH BOUNDARY REMAND

Figure 5. Potential Employment Capacity



Comparison to Need

URBAN GROWTH BOUNDARY REMAND

Table 13. Housing Capacity Comparison to Need

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Single Family Detached	9,225	6,839	-2,386	8,311	-914
Single Family Attached	1,677	1,316	-361	1,566	-111
Multifamily Attached	6,331	4,487	-1,844	4,871	-1,460
Total Housing Units	17,234	12,642	-4,592	14,748	-2,486

Table 14. Employment Capacity Comparison to Need

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Total Jobs	20,626	15,887	-4,739	14,413	-6,213

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

BEND

Boundary TAC Work

Define Study Area

- 2-mile area
- Only exception lands
- McMinnville Process

Evaluate Study Area

- Over 25 maps created
- Implement Goal 14 factors
- Characterize areas, identify best lands after balancing

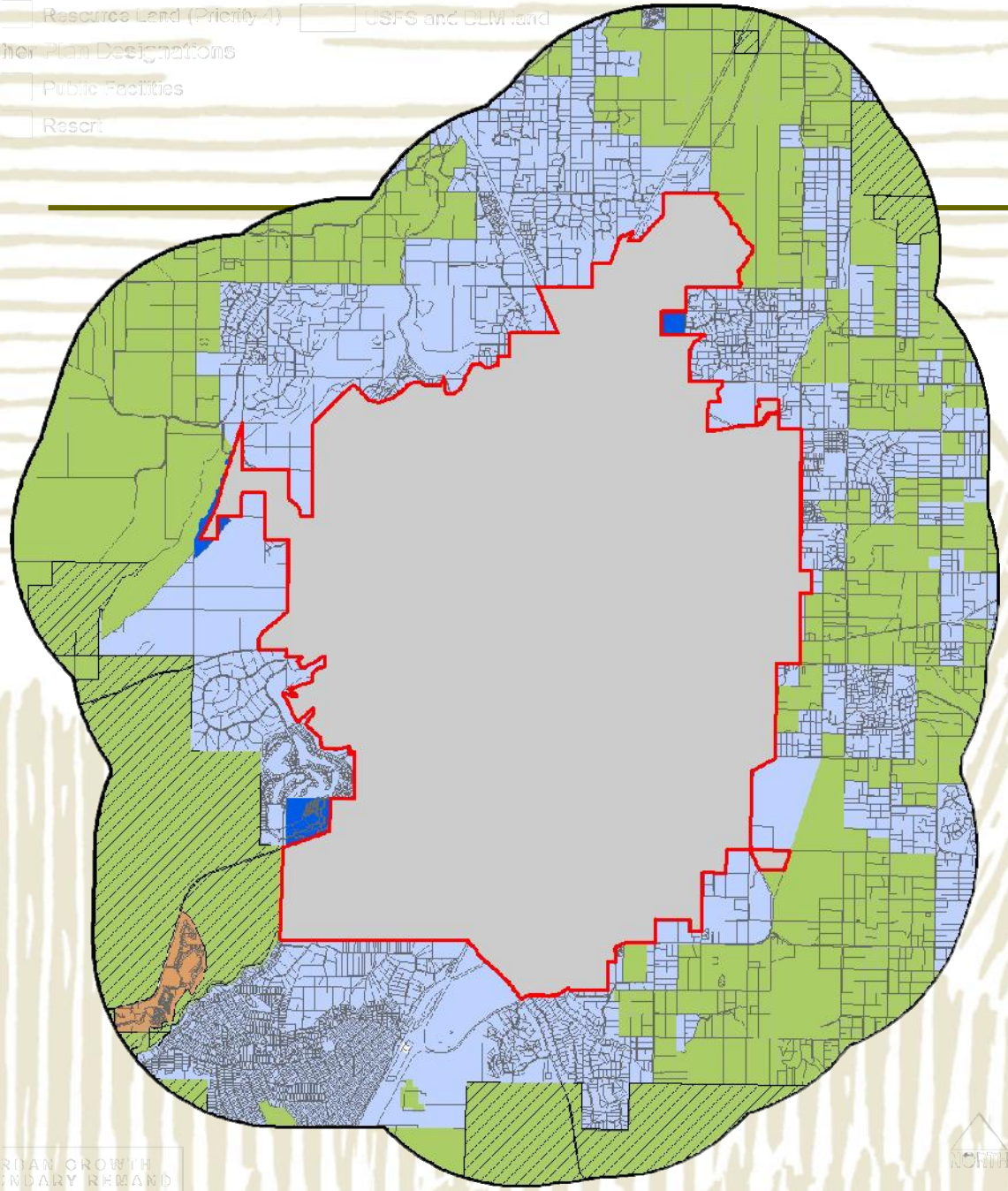
Phase 2 below

Evaluate Specific Boundaries

- Scenarios formed to meet identified land needs
- Evaluate with more detailed models
- Analyze, balance, refine, select preferred alt

Follow up

- Goal 5 safe harbor or standard ESEE
- Plan policies regarding urbanization



URBAN GROWTH BOUNDARY REMAND

BEND

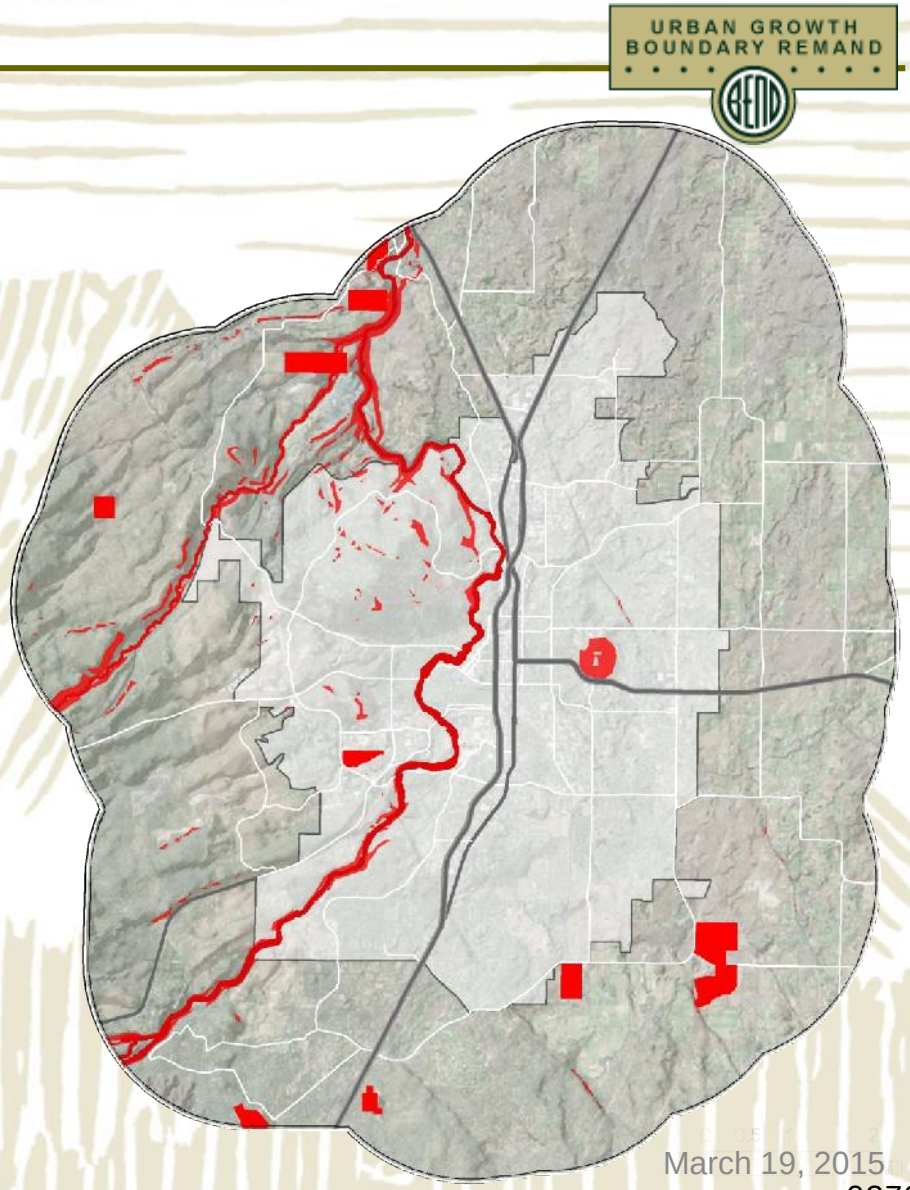
UGB Study Area by Priority Class

- Exception Land (Priority 2)
- Resource Land (Priority 4)
- Public Facilities
- Resort
- Urban Growth Boundary
- Proposed 2 Mile Study Area
- USFS and BLM Land

March 19, 2015

Identify Unbuildable Lands

- Following exception lands identified as unbuildable
  - 100-year floodplain
  - Steep slopes (25% or greater)
  - Riparian areas
  - Federal wild & scenic rivers
  - Oregon scenic waterways
  - Significant aggregate sites



Phase 2 Milestones

URBAN GROWTH BOUNDARY REMAND

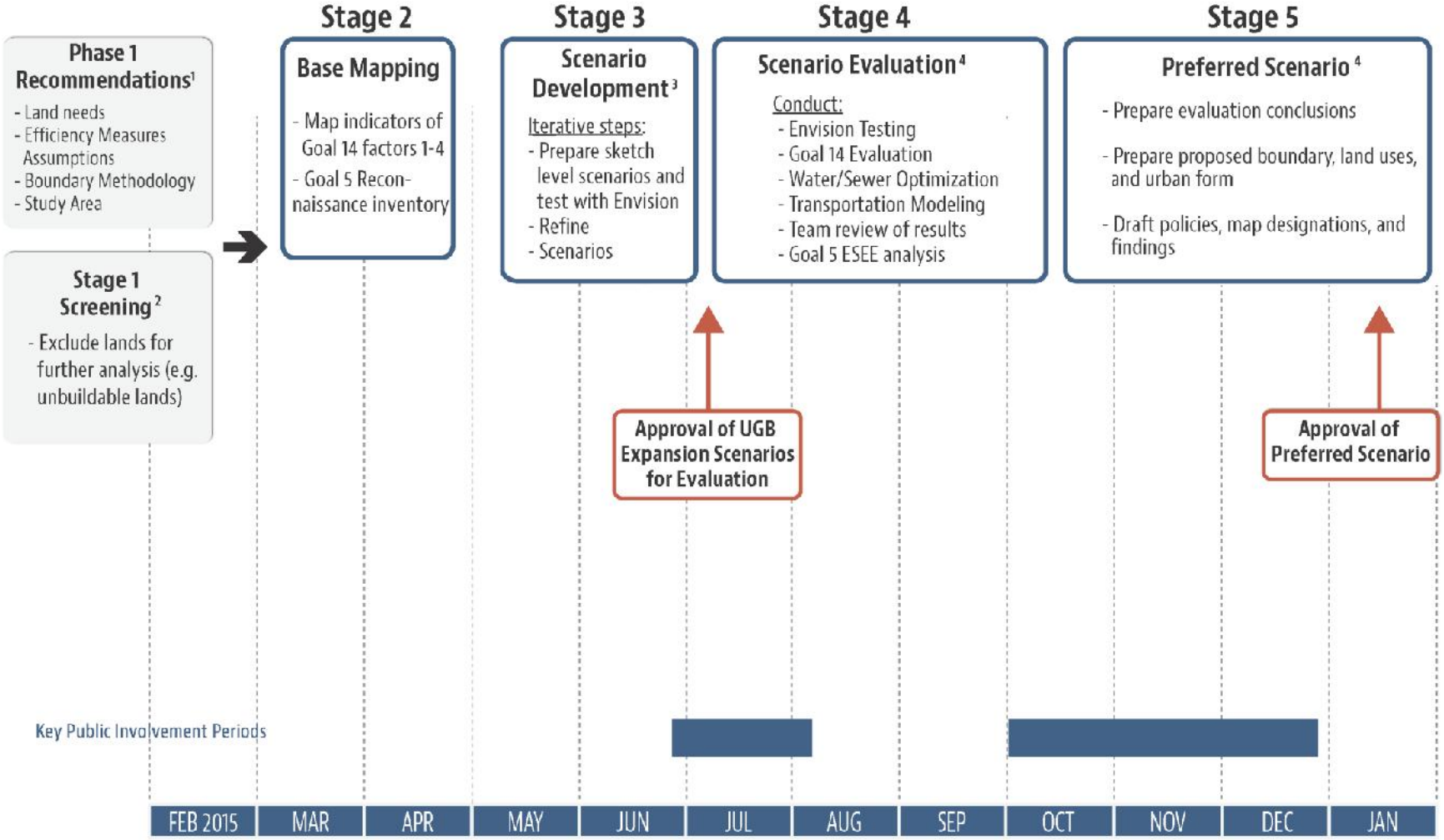
- Guidance from the Boundary TAC
  - Simplify the complex requirements into key stages
  - Consider Goal 14 factors together so trade-offs can be evaluated
- Consider Goal 14 factors at two stages:
  - Stage 2 base mapping
  - Stage 4 scenario evaluation

Phase 2 Milestones

rev. 3/9/2015

Preliminary and Subject to Change

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER



Notes:

1-4: Steps per City Attorney Memorandum, Aug 19 2014: 1 = Step 1; 2 = Step 2; 3 = Step 3A Preparation; 4 = Step 3A (3B if necessary)

Additional work during Phase 2 includes: Housing Needs Analysis (HNA), Economic Opportunities Analysis (EOA), Buildable Lands Inventory (BLI)

Base Mapping (Stage 2)

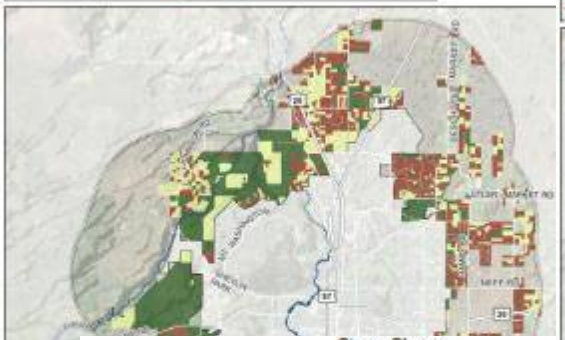
URBAN GROWTH BOUNDARY REMAND

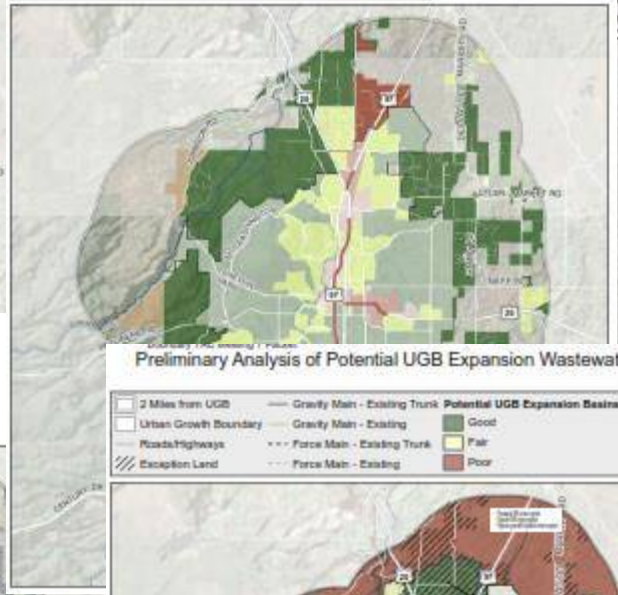
- Use “key indicators” for Goal 14 factors
  - Help narrow scope of study area
  - Focus on exception lands that “perform best” on multiple indicators
  - Don’t spend effort gathering data on exception lands that “perform worst” on multiple indicators
  - Use GIS for analysis tool

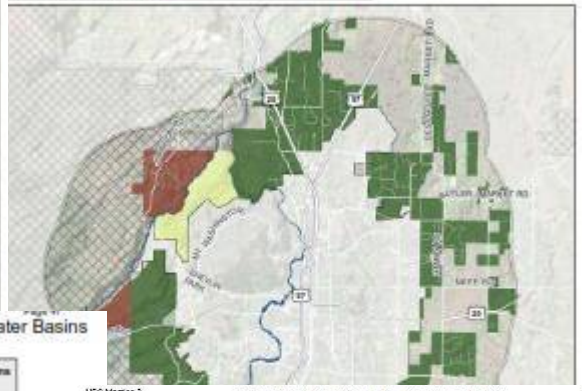
#1 Efficient Accommodation	#2 Orderly and Economic PF	#3 ESEE	#4 Compatibility with ag and forest
• Parcel size • Improvement to land values • Topography • CCRS	• Trans – barriers, reliance on congested corridors, system connectivity • Water – gravity system, pressure zones • Sewer – gravity, maximize existing and planned systems • Storm water – DWPA, geology, water quality limited streams	• Presence of Goal 5 resources • Fire risk • Planned parks, schools • Proximity to irrigation district facilities • Greenprint conservation areas	• Proximity to forest and farm land

Evaluating over 18,000 acres of exception land in 2-mile study area per above.

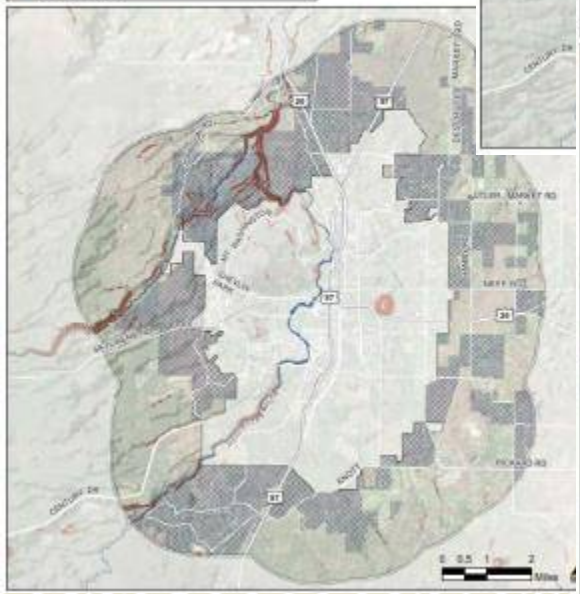
Study Area Evaluation



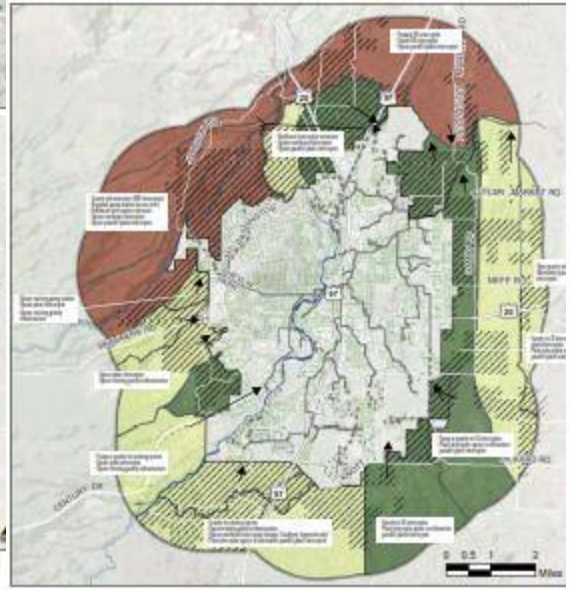




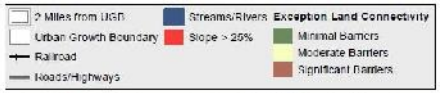
Steep Slopes

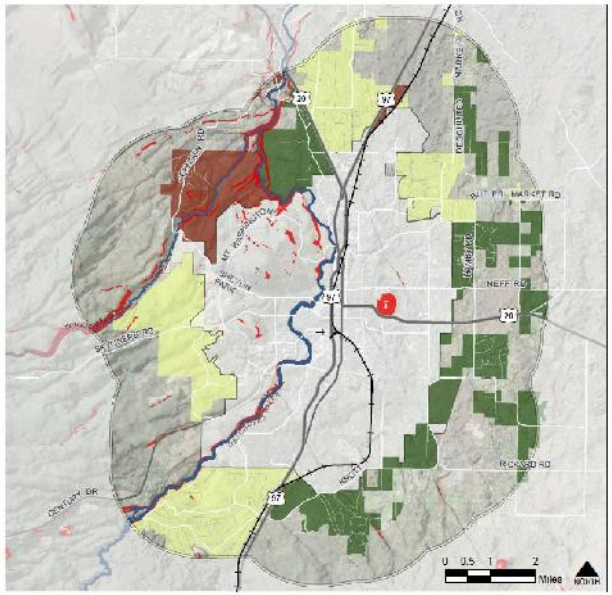


Preliminary Analysis of Potential UGB Expansion Wastewater Basins



Physical Barriers to Connectivity





Examples: Study Area Evaluation

Scenario Evaluation (Stage 4)

URBAN GROWTH BOUNDARY REMAND

- Use more robust and comprehensive models to evaluate alternative scenarios in Phase 2
  - Envision Tomorrow
  - Sewer and water optimization
  - Transportation modeling
  - Scenario performance measures are linked with Goal 14 factors

#1 Efficient Accommodation	#2 Orderly and Economic PF	#3 ESEE	#4 Compatibility ag & forest
• Urbanized acres • Housing units in UGB • Jobs in UGB • Density of jobs and housing • % growth by infill	• Trans – VMT, mode split, % along transit, intersection density, new lane miles, costs, new arterials and collectors, many others w TDM • Water – **Optimization**, costs, system improvements • Sewer – **Optimization**, costs, improvements • Stormwater – Acres in DWPA and impervious soils	• Acres in Goal 5 resource areas • Acres in Goal 7 hazard prone areas • Housing units within walking distance of schools, parks, trails • Housing mix and affordability • Jobs housing balance • GHG emissions • Impervious area • Job growth in downtown	• Perimeter of UGB proximate to farm and forest land and high value ag land

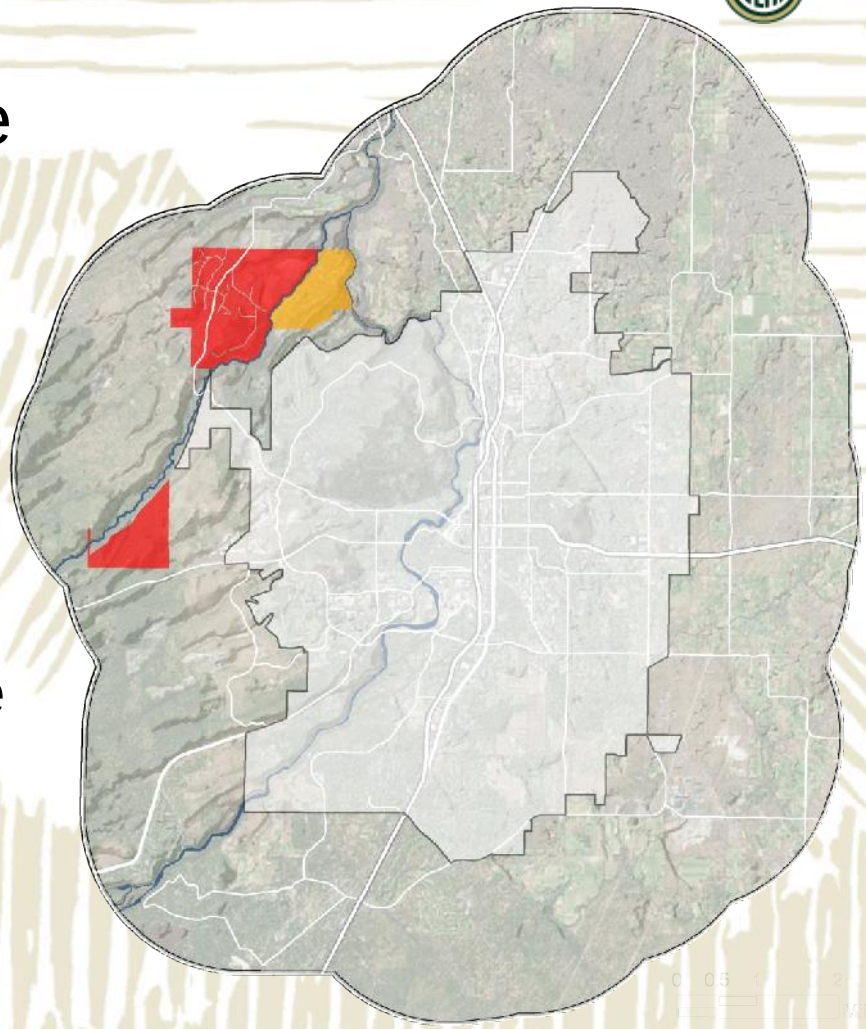
Evaluating three expansion scenarios with Envision Tomorrow, TDM, Optimization.

UGB Scenario Evaluation

Screening Based on Goal 5 Resources

URBAN GROWTH BOUNDARY REMAND

- Guidance from Court decision on McMinnville UGB case
- Boundary TAC recommended screening a few exception areas based on Goal 5 resources
  - Big Game Winter Range
  - Aggregate Site in NW Quadrant



Approach for Using Stage 2 Maps

URBAN GROWTH BOUNDARY REMAND

- Boundary TAC recommended "roll up" of individual maps into one composite map for each of the Goal 14 factors
  - Make best use of information gathered to date
  - Help move quickly to development of scenarios in Phase 2
  - Composite maps a key tool for April 30 workshop

Key Conclusions

URBAN GROWTH BOUNDARY REMAND

- Expect to be able to meet land needs on exception lands
- Good base of information to help form scenarios
- More integrated look at lands inside/outside of the UGB
- UGB methodology very responsive to the remand

Meeting Agenda

Urban Growth Boundary Technical Advisory Committee – Meeting 8
Tuesday, April 7, 2015 10:00 AM – 12:30 PM
Municipal Court Room – Bend Police Department
555 NE 15th Street
PLEASE NOTE THE LOCATION

Meeting Purpose and What is Needed from the TAC

The purposes of this meeting are to:

- Review draft Stage 2 composite maps (un-weighted)
- Consider a recommended process for how to use the maps to:
  - Narrow the 16,163-acre pool of Exceptions Lands
  - Support development of UGB scenarios in the April 30th scenario workshop
- Review assumptions for the calculation of the range of acreage needed for UGB expansion

The specific discussion recommendations, i.e. the feedback we would like from the TAC, are listed in the packet materials.

1. Welcome — 10:00 AM

a. Convene and welcome to new Boundary TAC members — Co-chairs
b. Approval of minutes
   - Meeting 7 – page 3 of packet
c. Where we are in the process – a brief look back and look forward — Joe Dills, Brian Rankin

For additional project information, visit the project website at http://bend.or.us or contact Brian Rankin, City of Bend, at brankin@bendoregon.gov or 541-388-5584

Accessible Meeting/Alternate Format Notification
This meeting/event location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats, language translations or any other accommodations are available upon advance request at no cost. Please contact the City Recorder no later than 24 hours in advance of the meeting at rchristie@ci.bend.or.us, or fax 385-6676. Providing at least 2 days notice prior to the event will help ensure availability.

2. Stage 2 – Proposed Composite Maps and Process *Discussion and Action*		10:15 AM
	a. Briefing - Stage 2 composite maps and recommendations for how they should be used	Andrew Parish, Joe Dills, Mary Dorman, APG
	b. TAC discussion – working from the memo (page 10 of packet) and through to the recommendations	
	c. Action: discussion and action on the recommendations (page 20 of packet)	
3. Break		11:30 AM
4. Calculation of the Range of Acreage Needed for UGB Expansion *Discussion and action*		11: 40 AM
	a. Briefing – Assumptions and calculations	Andrew Parish, Mary Dorman, APG
	b. TAC discussion – working from the memo (page 31 of packet) and through to the recommendations	
	c. Action: discussion and action on the recommendation (page 35 of packet)	
5. Public Comment		12:00 PM
6. Project Information, Next Steps		12:15 PM
	a. Project information b. Next meeting – April 30th scenarios workshop	Brian Rankin
7. Adjorn		12:30 PM

City of Bend
Boundary & Growth Scenarios Technical Advisory Committee
Meeting #7
Meeting Notes
Date February 24, 2015

The Boundary & Growth Scenarios TAC held its regular meeting at **9:00** am on Tuesday, February 24, 2015 in the Council Chambers of Bend City Hall. The meeting was called to order at 9:02 am by Sharon Smith.

Roll Call

☐ Toby Bayard	☐ Steve Hultberg	☐ John Russell
☐ Susan Brody	☐ Nick Lelack	☐ Sharon Smith
☐ Paul Dewey	☐ Brian Meece	☐ Rod Tomcho
☐ John Dotson	☐ Charlie Miller	☐ Dale Van Valkenburg
☐ Rockland Dunn	☐ Mike Riley	☐ Robin Vora
☐ Scott Edelman	☐ Ron Ross	☐ Ruth Williamson

Discussion

1. Welcome.

Sharon called the meeting to order at 9:04 am. Joe Dills of the consultant team asked for reports from the other TACs. Dale gave the update from the Residential TAC, which last met on Monday the 23rd. The Residential TAC made final recommendations to the Boundary TAC and the USC on the bookends for Phase 2. These included efficiency measures and zone changes and were presented to both the Residential and the Employment TACs. The TAC approved the recommendations listed on page 29 of their packet along with some additional bulleted recommendations on vehicle miles traveled (VMT), accessory dwelling units (ADU's), planning period yield, potential new efficiency measures, and financial incentives. Brian Meece reported on the Employment TAC and gave a similar report and further noted that the bookends are in clay, not stone. These may change further in Phase 2. After the TAC reports Joe asked for approval of the minutes from Meeting #6. The TAC approved the minutes by consensus.

2. Approach to Goal 5 and review of Stage 2 Base Maps

Joe introduced this item as a series of decisions outlined in the meeting packet (See pages 9 through 16). Karen Swirsky of the City gave the presentation of this topic, beginning with the material starting on page 10 of the packet. This presentation focused on the Goal 5 resources for which TAC direction was sought: riparian corridors, wildlife habitat, State Scenic Waterways, and Mineral and Aggregate Resources.

Riparian Corridors. Karen this discussed use of the safe harbor standard and inventory for Goal 5 resources. Tumalo Creek may require a standard Goal 5 inventory. If the creek is included in a UGB expansion, the City will need to complete either a safe harbor or standard Goal 5 inventory for the creek. At that point, the City would then need to decide which program to use to protect the resource (safe harbor or Goal 5 standard). The TAC discussed different options for buffers along the riparian corridors that ranged from 50 to 75 feet, including the standards employed by the County in the Landscape Management Combining Zone. The TAC further discussed applying a different standards if the river was located in a steep canyon. The potential costs of consultant help was also

covered, and could run from $6,000 to as high as $20,000. Mary Dorman of the consultant team presented the team recommendations as shown on the bottom of page 12, which are reproduced below:

Project Team Recommendation – Riparian Corridors

- Obtain more detailed topographic data to clearly identify segments of the Deschutes River and Tumalo Creek where the safe harbor inventory is an option early in Phase 2.
- If the TAC proposes including any of the steeper segments of the Deschutes River or Tumalo Creek in UGB alternatives, proceed with a targeted standard inventory of the resource values in these segments and draft ESEE analysis to balance potential urbanization and protection of the riparian resources.
- If the USC selects a preferred UGB scenario that includes segments of the Deschutes River and/or Tumalo Creek, package any needed amendments to plan and code provisions (e.g., Waterway Overlay Zone) to comply with the goal 5 rule.

Questions for the Boundary TAC

- Does the TAC agree with the recommended approach and timing to address Goal 5 riparian corridors?
- Should exception lands abutting or within a certain distance of riparian corridors be ranked lower (fair or poor) than other exception lands on the Stage 2 base maps? If yes, what distance is appropriate to consider for proximity?

Joe asked for a motion on the first question on page 12. Brian moved approval, John Dotson 2nd. This motion passed unanimously.

The TAC then took up the second question on page 12. The TAC discussed whether it would be useful to the project to rank exception lands abutting or within a certain distance of riparian corridors. Paul thought it would be helpful. Steve had the opposite view. Robin added that steep slopes with soil erosion potential should be considered. The TAC discussion touched on addressing this during the economic, social, environmental, and energy (ESEE) analysis for the Goal 5 resource.

Motion: Charley moved a "no" answer to the second question: exception lands abutting or within a certain distance of riparian corridors should not be ranked on the Stage 2 base maps. Brian 2nd this motion. The discussion on this motion addressed what level of Goal 5 work will be needed as development gets closer to the creek. The TAC passed this motion on a 9 in favor - 5 opposed vote. After the vote was taken there was brief discussion as to whether there was some middle ground. After this discussion, the TAC consensus was to move on to the next topic.

Wildlife Habitat. Karen presented this topic, directing the TAC to pages 12 to 14 of the packet. Karen referred the TAC to 5 items on the top of page 13 of the packet. The Safe Harbor for wildlife habitat under Goal 5 allows the City to limit the inventory to consideration of available information where one or more of the following conditions exist:

a) The habitat has been documented to perform a life support function for a wildlife species listed by the federal government as a threatened or endangered species or by the state of Oregon as a threatened, endangered, or sensitive species;

b) The habitat has documented occurrences of more than incidental use by a species described in subsection (a) of this section;

c) The habitat has been documented as a sensitive bird nesting, roosting, or watering resource site for osprey or great blue herons pursuant to ORS 527.710 (Oregon Forest Practices Act) and OAR 629-024-0700 (Forest Practices Rules);

d) The habitat has been documented to be essential to achieving policies or population objectives specified in a wildlife species management plan adopted by the Oregon Fish and Wildlife Commission pursuant to ORS Chapter 496; or

e) The area is identified and mapped by ODFW as habitat for a wildlife species of concern and/or as a habitat of concern (e.g., big game winter range and migration corridors, golden eagle and prairie falcon nest sites, or pigeon springs).

Karen noted that the Oregon spotted frog was listed in 2014, and their habitat in Bend is located along the stretch of the Deschutes River that flows through the Mill District. Karen then introduced Corey Heath with the Oregon Department of Wildlife (ODFW). ODFW published a 2009 map that is on page 53 of the packet (Titled "Exception Land and Big Game Winter Ranges"). This map identified those county exception lands that were also located within the Wildlife Area Combining Zone. The map further identified three areas in ovals or ellipses that represented areas of particular concern for ODFW; these were exception areas outside of the WA zone that had potential deer and elk winter range. The map on page 54 (titled "Proximity to Winter Range/Wildlife Area Combining Zone") was brought into the discussion because it shows two areas in red in the existing WA zone and one in yellow that are also of concern to ODFW. The TAC discussion on wildlife habitat touched on whether elk are as important as deer in protecting habitat, the orientation of the ellipses for browse and cover, and the movement of elk and deer herds along the exception lands west and southwest of Bend.

Motion: The team recommendations regarding Wildlife Habitat were presented on page 14 of the packet (See also Map on page 54) are reproduced below:

Project Team Recommendation – Wildlife Habitat

- Screen the exception lands within the designated Wildlife Overlay (see map on page 54 of packet) from further consideration for UGB scenarios. The county's protection program under the Wildlife Overlay is based on density restrictions, clustering requirements and open space protection (50%). Potential urbanization of these exception lands would inherently conflict with protection of the big game winter range.
- Consider other big game habitat identified by ODFW (not currently designated or protected by Deschutes County) as part of the Factor 3 ESEE analysis and balancing to evaluate candidate UGB expansion areas.

Questions for the Boundary TAC

- The TAC originally decided not to use the Big Game Habitat maps for initial screening. In the light of the additional clarification provided by ODFW, does the TAC support the recommended screening of the two exception areas within the designated Wildlife Overlay from further consideration?
- Should exception lands abutting or within a certain distance of the designated Wildlife Overlay or identified by ODFW be ranked lower (fair or poor) than other exception lands on the Stage 2 base maps? If yes, what distance is appropriate to consider for proximity?

1st recommendation (just red areas) – John moved approval; Susan 2nd. Motion passed with 13 in Favor, no opposed, and one abstention (Steve H).

2nd recommendation (big game) Yes they should be ranked – Paul moved approval, John Dotson 2nd. After some discussion, Paul withdrew his motion and John his second.

A new motion was presented: used a buffering (cross hatch vs. dark green on maps) in Stage 2 mapping. This motion was not moved and did not receive a second.

Sharon made a different motion with respect to the second question on page 14: adopt the map on page 54 of the packet as ranking at this stage. Rod 2nd this motion. The discussion on this motion

clarified that the effect of this motion would pull out the three (3) ellipses identified by ODFW from consideration, takes the areas in red off the table, and yellow gets ranked lower. No extra buffering at this stage. The motion passed with 11 in Favor, none opposed, and four abstentions (Dale, Robin, Paul, and John Dotson).

State Scenic Waterways. The team directed the TAC to the recommendation on page 15 of the packet (See also the map on page 55) that is reproduced below:

Project Team Recommendation – State Scenic Waterways

- If the proposed UGB expansion includes any sections of the Scenic Waterway, apply or revised code provisions to assure protection required under Goal 5.

Question for the Boundary TAC

- Assuming application of the protection program for the scenic waterway (setback for structures), should exception lands abutting or within a certain distance of the designated Scenic Waterway be ranked lower (fair or poor) than other exception lands on the Stage 2 base maps? If yes, what distance is appropriate to consider for proximity?

Motion: Dale made a motion to map corridors as yellow, based on the team recommendation. Toby 2nd this motion. The motion passed unanimously.

Mineral and Aggregate Resources. The team presented the recommendation on this topic, also at the bottom of page 15 and the top of page 16 (See also the map on Page 56 of the packet).

Project Team Recommendation – Mineral and Aggregate Resources

- Aggregate sites do not need to be included in the UGB to allow continued mining. Assuming that the aggregate resources at the Shevlin Sand & Gravel site are not expected to be exhausted and the site reclaimed during the planning period (2008- 2028), the project team recommends screening the portion of the site under DOGAMI Permit 09-0018 from consideration for UGB scenarios. This would not affect consideration of the remainder of the property.

Questions for the Boundary TAC

- Does the TAC support the team recommendation to screen the portion of the aggregate site under DOGAMI Permit 09-0018? • If not screened, should the portion of the site zoned for Surface Mining and under active DOGAMI permit be ranked poor (red) because of conflicts between potential urbanization and continued mining of the aggregate resource during the planning period?

The discussion of this topic touched on existing and active mining permits from the Oregon Department of Geology and Mineral Industries (DOGAMI). Map 56 identifies both county designated Goal 5 surface mines and one that is permitted by DOGMAI and identified with a cross-hatched pattern.

Motion: Toby moved approval of the recommendation. Dale 2nd the motion. For discussion, Steve Hultberg clarified that the motion addressed cross-hatching of red areas on Map 56. The motion passed with 12 votes in Favor, no opposed, and two abstentions (Sharon and Paul).

3. Approach to Goal 7 and Review of Stage 2 Base Maps

Karen introduced this topic, and introduced Craig Letz. Craig is a consultant recently retired from the Forest Service over 25 years of experience in forest fire management. The packet discussion on this topic starts at page 16, and includes two maps at pages 57 and 58. Craig also handed out a copy of Table 8 from the Greater Bend Area Community Wildfire Protection Plan (CWPP). Craig's presentation touched on the development of the 2011 CWPP, which was a collaborative effort among

all the agencies that have a role to play in wildfire prevention as well as home owners associations (HOAs) and private property owners. Craig's presentation touched on several points, which are summarized here:

- evaluating risk – prioritizes where to direct resources for forest treatment
- red (on the CWPP Map) means higher risk – prioritized above other areas for treatment
- the 2006 CWPP based on a Fire Regime Class from the Oregon Department of Forestry (ODF)
- treatment causes how fire moves through a landscape
- Pages 16 -17 of the packet addressed ODF assessment of risk; risk of wildfire occurrence, hazard, protection capability, values protected, and; structural vulnerability
- Table 8 from the 2011 CWPP – the first column represents ODF's assessment of risk; second column a rating system from 1997 Senate Bill (SB) 360
- Proposed wildfire risk ratings: high, high, and highest (as shown on map at page 58).

The TAC discussion followed Craig's presentation and involved questions and comments on the maps showing risk and whether that included resistance to control. The ratings shown on the map at page 58 reflected a higher risk with a lower number; conversely those areas with a lower number represented those areas with the highest wildfire risk. With respect to the map at page 56 (Composite Wildfire Risk Ratings), the TAC inquired as to whether climate change was factored into the CWPP analysis, whether certain areas were properly rated given actions (such as treatments) that had taken place since 2011, whether project should include this data as part of the databased relied upon in completing the Goal 14 ESEE analysis later in the project.

Motion: Joe brought the discussion back to a question of whether the data on fire risk should be used in the ESEE completed during the Goal 14 boundary analysis in Stage 4. Sharon moved approval of this motion: using the data on wildfire risk during the Goal 14 boundary analysis in Stage 4. Toby 2nd this motion. The discussion on the motion included a suggestion to include considering of wildfire in estimating water and transportation costs. After the discussion, the motion – use the information on wildfire risk in the Goal 14 ESEE in Stage 4 – passed with 13 votes in Favor, two opposed, and no abstentions.

4. Update on status of other Stage 2 Base Maps for Factor 3

Mary Dorman of the consultant team gave the presentation on this topic. She identified several new maps for the TAC's review regarding the location of the flood plain (page 59), elementary schools (page 60), and parks (61) in the study area. Additional map work on water quality limited streams are forthcoming. The TAC's input on these maps included adding other schools (e.g. middle, high schools) to the map at page 60 and including other types of parks (neighborhood, regional) on the map at page 61.

Motion: The proposed motion to the TAC was to use the maps on pages 60 and 61 of the packet for use in Stage 2, as revised based on the TAC's input. Sharon moved approval of this motion, Ron 2nd the motion. The motion passed with two abstentions (Robin and Brian Meece).

5. Discuss how Stage 2 Base Maps could be used in Phase 2

This topic addressed how the Stage 2 Base Maps could be used in Phase 2 of the remand project. This discussion touched on the maps at pages 37 through 41 of the meeting packet (and also listed on page 36). The TAC discussed using the maps in the dialog with the community, and indicated that some maps were more important to certain TAC members than others. The suggestion was made to overlay all of the maps for a given factor (one of the four Goal 14 boundary location factors) and look at a composite of each factor. This would allow the TAC and team to see trends in lands colored red,

green, and yellow. The TAC also provided some feedback regarding the CCRs map (page 41) and ensuring that it reflected that Cascade Highlands and Tetherow had CCRs that would limit future redevelopment and that the map should so reflect this data.

Motion: Dale moved approval of a motion to look at one composite map per Goal 14 factor, with the understanding that the team will look at weighting. Susan 2nd the motion. The motion passed unanimously.

6. Roll up of Boundary TAC recommendations to the USC

Mary provided the introduction and recommendation to the TAC. The UGB Steering will be meeting on March 19, 2015 and will consider the TAC's recommendations on Phase 1 at that time. The portion of the meeting packet that the team recommends the TAC approve as the recommendation to the Steering Committee starts on page 23, and includes the TAC decisions listed on pages 23 through 29, the Stage 2 and Stage 4 mapping recommendations in Table 1 (pages 31-35), and the proposed maps on pages 36 to the end of the packet. The TAC discussion on this topic included adding costs related to wildfire (e.g. roads, water) be factored into scenario work.

Motion: Sharon moved approval to modify the second bullet under Factor 3, Stage 4, by adding the words "and costs" so that it reads "Development and costs (acres, number of housing units, number of jobs) in Goal 7 hazard prone areas. Dale 2nd the motion. The motion passed unanimously.

Additional items

Joe provided the TAC with a brief report on the scoping of Phase 2 of the project. This included providing the TAC a memorandum on the TAC structure going forward in Phase 2 that was included in the meeting packets for the Residential and the Employment TACs. Brian also provided some input on the meeting schedules in Phase 2.

Joe adjourned the meeting at 12:37 pm.

Action Items/Next Steps

Action	Assigned To
Goal 5 and Stage 2 Base Maps	Done ✓ Riparian Corridors ✓ Wildlife Habitat ✓ Scenic Waterways ✓ Mineral and Aggregate Resources
Goal 7 and Stage 2 Base Maps	Done ✓ Direction on incorporating wildfire costs in ESEE during boundary location analysis ✓ 100 year flood plain map completed for exception lands in study area
Other Stage 2 Base Maps for Factor 3	Done ✓ Maps approved, with revisions, for schools, parks ✓ TAC direction to have one composite map per Goal 14 factor (four factors) To Do:

	✓ Irrigation districts ✓ Water quality limited streams ✓ Team will looked at potential weighting ✓ Complete revisions to CCRs map
Roll Up of Boundary TAC Recommendations to the USC	Done

Memorandum

March 31, 2015

To: Phase 2 Boundary TAC
Cc: Project team
From: Angelo Planning Group Team
Re: Stage 2 – Proposed Composite Maps and Process

PURPOSE

The purpose of this memorandum is to:

a. Provide draft Stage 2 composite maps for TAC review
b. Recommend a process for how the maps will be used to:
   - Narrow the 16,163-acre pool of Exceptions Lands
   - Support development of UGB scenarios in the April 30th scenario workshop

As a reminder, the overall goal of Stage 2 is to "narrow the field". The 16,163 acres is far more than Bend's estimated land needs through 2028, which is in the range of 1,000 to 3,000 acres. By using the Stage 2 maps developed to date – which are based on Goal 14 criteria and the TAC's discussions – the TAC and team will be able to narrow the lands under consideration and prepare UGB scenarios using the best performing lands.

COMPOSITE STAGE 2 MAPS

Goal 14 Factor Composites

As discussed in February, the next step in the Stage 2 process is to combine the rankings on the Stage 2 maps for each of the four Goal 14 factors to prepare one composite map for each factor. The approach is to prepare "un-weighted" composite maps, so the information is displayed without value judgments about what factors are more important than others. Table 1 lists the maps that have been combined to form the composites. A detailed breakdown of how the maps were scored and combined is provided in Appendix B. The composite maps are shown in Figures 1- 4. These maps utilize the red-yellow-green "simple" ranking system that the TAC has used to date. The team also experimented with a 6-color display, but does not recommend its use, as the 6-color display shows differences between similar areas of land, which detracts from the overall patterns and connotes an inflated level of precision.

Table 1 – Goal 14 Factor Maps

Goal 14 Factors and Stage 2 Maps	Map Title of Composite
Factor 1: Efficient accommodation of identified land needs • Parcel Size • Improvement to Land Value Ratio • Taxlot Distance from UGB • Subdivisions with known CC&R's	**Figure 1**. Factor 1: Efficient Accommodation of Land Needs
Factor 2: Orderly & Economic Provision of Public Facilities and Services • Physical Barriers to Connectivity • Reliance on Congested Corridors • Connectivity to Complete Roadway Grid • Water Analysis: Bend & Avion Service Areas • Preliminary Analysis of Potential UGB Expansion Basins • Surficial Geology • Distance from Drinking Water Protection Areas	**Figure 2.** Factor 2: Orderly & Economic Provision of Public Facilities and Services
Factor 3: ESEE Consequences • Proximity to Winter Range/Wildlife Area Combining Zone * • Proximity to Surface Mining Impact Areas • Federal/State Scenic Waterways • Mineral & Aggregate Resources • Composite Wildfire Risk Ratings * • Proximity to Schools • Proximity to Parks	**Figure 3.** Factor 3: ESEE Consequences* ** Per TAC and USC direction, additional versions of the Factor 3 maps have been created, varying the inclusion of the Proximity to Winter Range/Wildlife Area Combining Zone map and the Composite Wildfire Risk Ratings map in the overall composite map. See Appendix A.*
Factor 4: Compatibility with Farm/Forest Activities on Nearby Farm and Forest Land • Proximity to Zoned Forest Land • Proximity to High Value zoned EFU Land	**Figure 4.** Factor 4: Compatibility with Farm/Forest Activities on Nearby Farm and Forest Land

Figure 1.

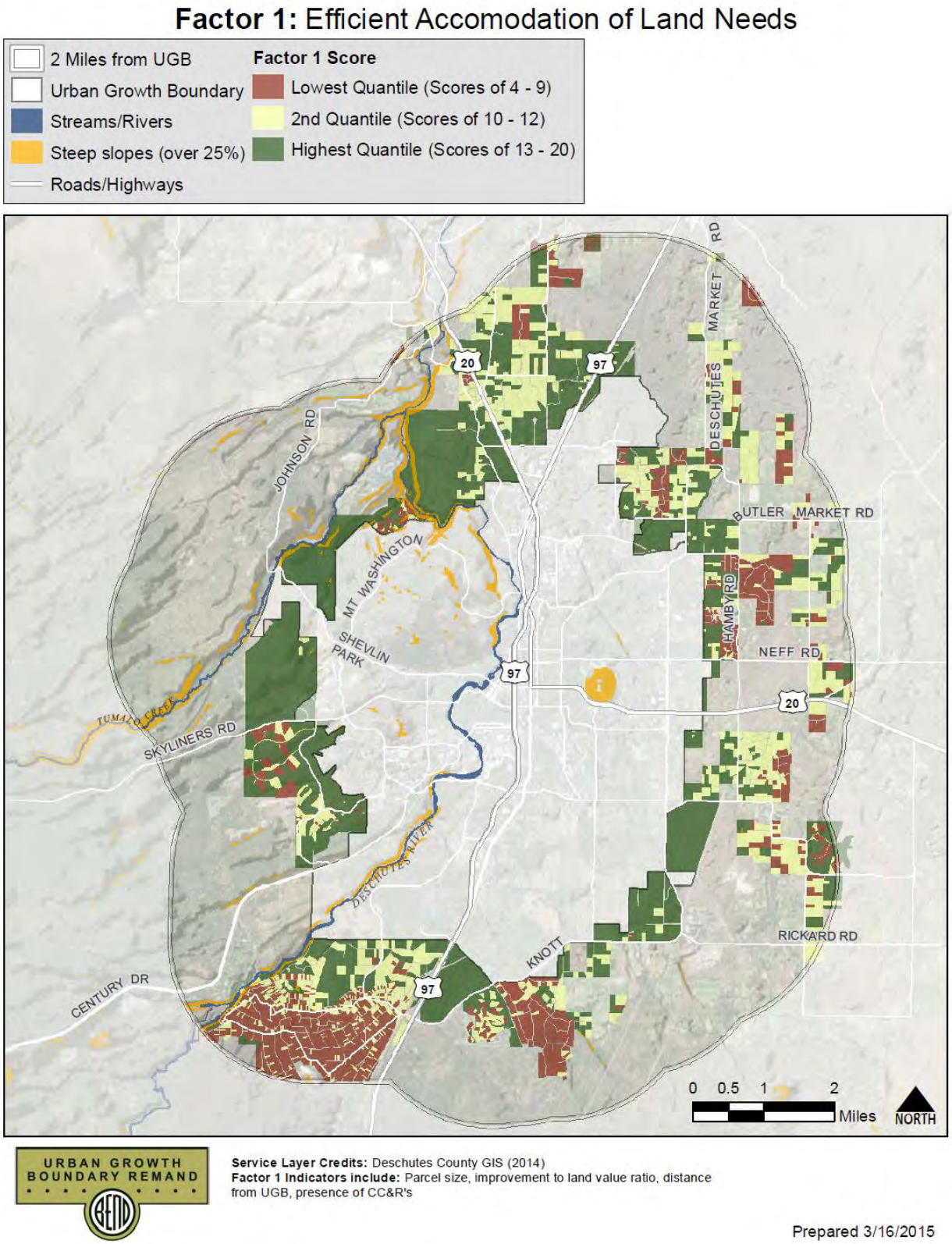
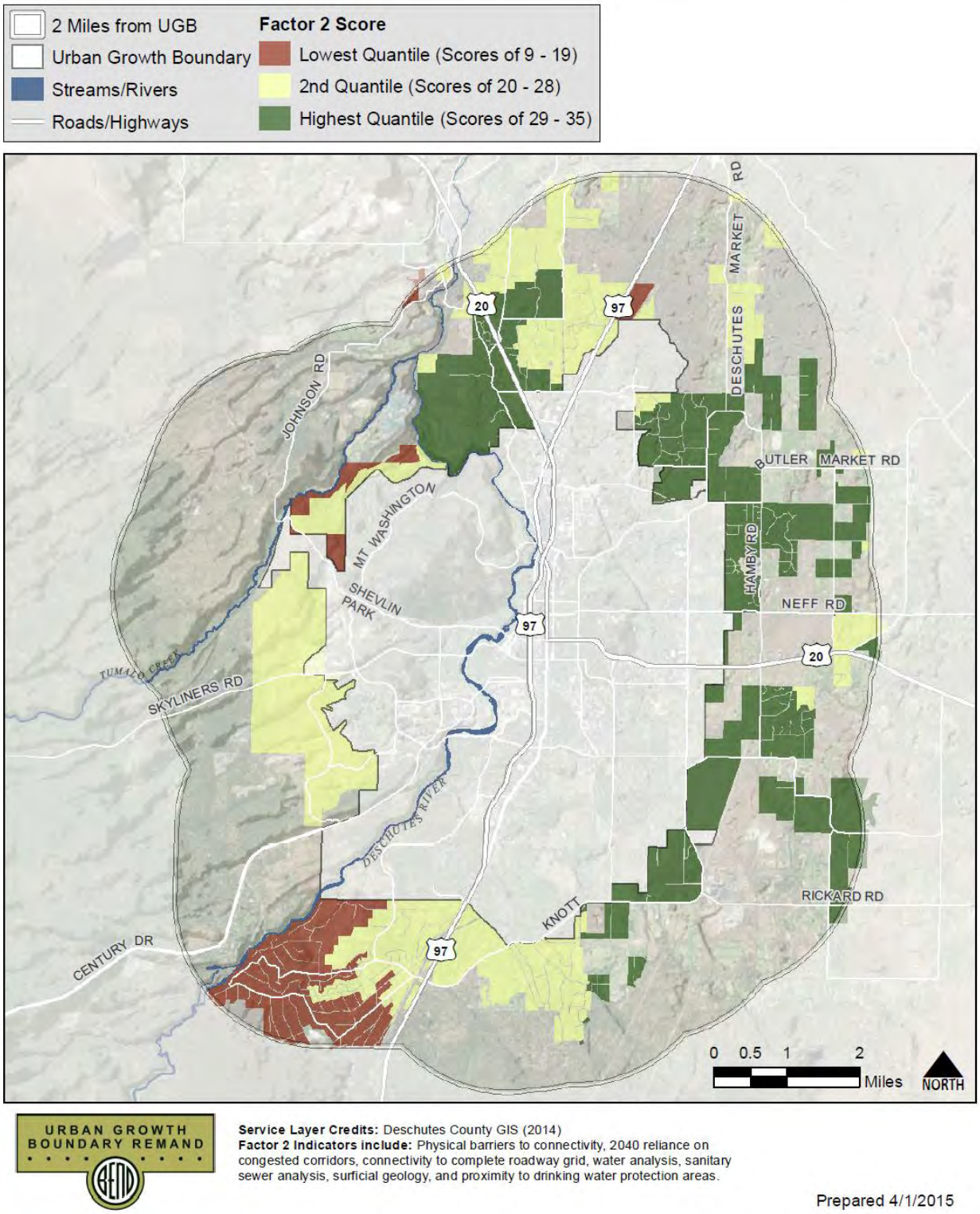

Factor 1: Efficient Accomodation of Land Needs
2 Miles from UGB
Urban Growth Boundary
Streams/Rivers
Steep slopes (over 25%)
Roads/Highways
Factor 1 Score
Lowest Quantile (Scores of 4 - 9)
2nd Quantile (Scores of 10 - 12)
Highest Quantile (Scores of 13 - 20)
JOHNSON RD
MARKET RD
DESCHUTES
BUTLER MARKET RD
HAMBY RD
NEFF RD
MT WASHINGTON
SHEVLIN PARK
SKYLINERS RD
TUMALO CREEK
DESCHUTES RIVER
RICKARD RD
KNOTT
CENTURY DR
20
97
0 0.5 1 2
Miles
NORTH
URBAN GROWTH BOUNDARY REMAND
BEND
Service Layer Credits: Deschutes County GIS (2014)
Factor 1 Indicators include: Parcel size, improvement to land value ratio, distance from UGB, presence of CC&R's
Prepared 3/16/2015

Figure 2.

Factor 2 Provision of Public Facilities and Services



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 2 Indicators include: Physical barriers to connectivity, 2040 reliance on congested corridors, connectivity to complete roadway grid, water analysis, sanitary sewer analysis, surficial geology, and proximity to drinking water protection areas.

Prepared 4/1/2015

Figure 3.

Factor 3: ESEE Consequences

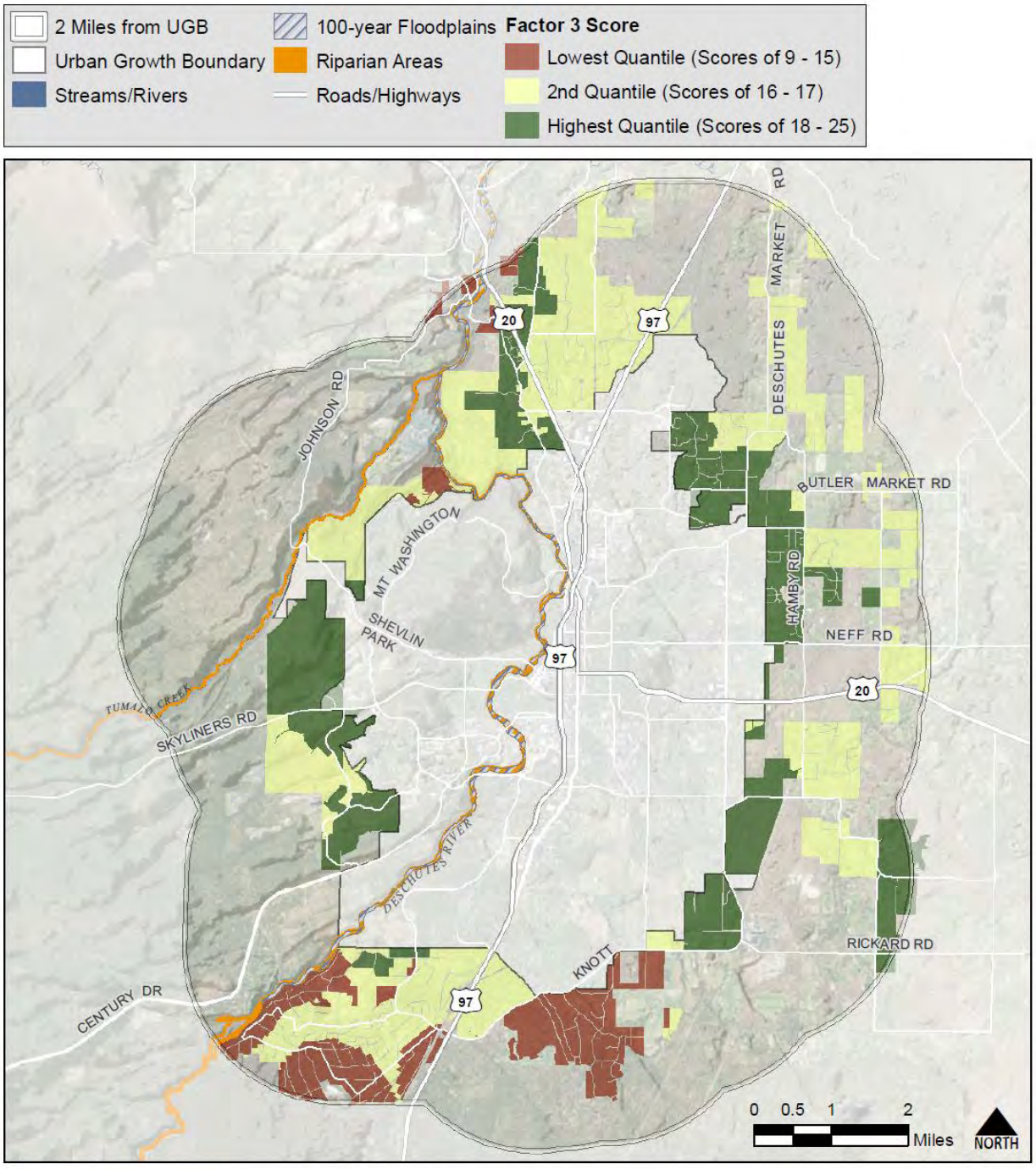
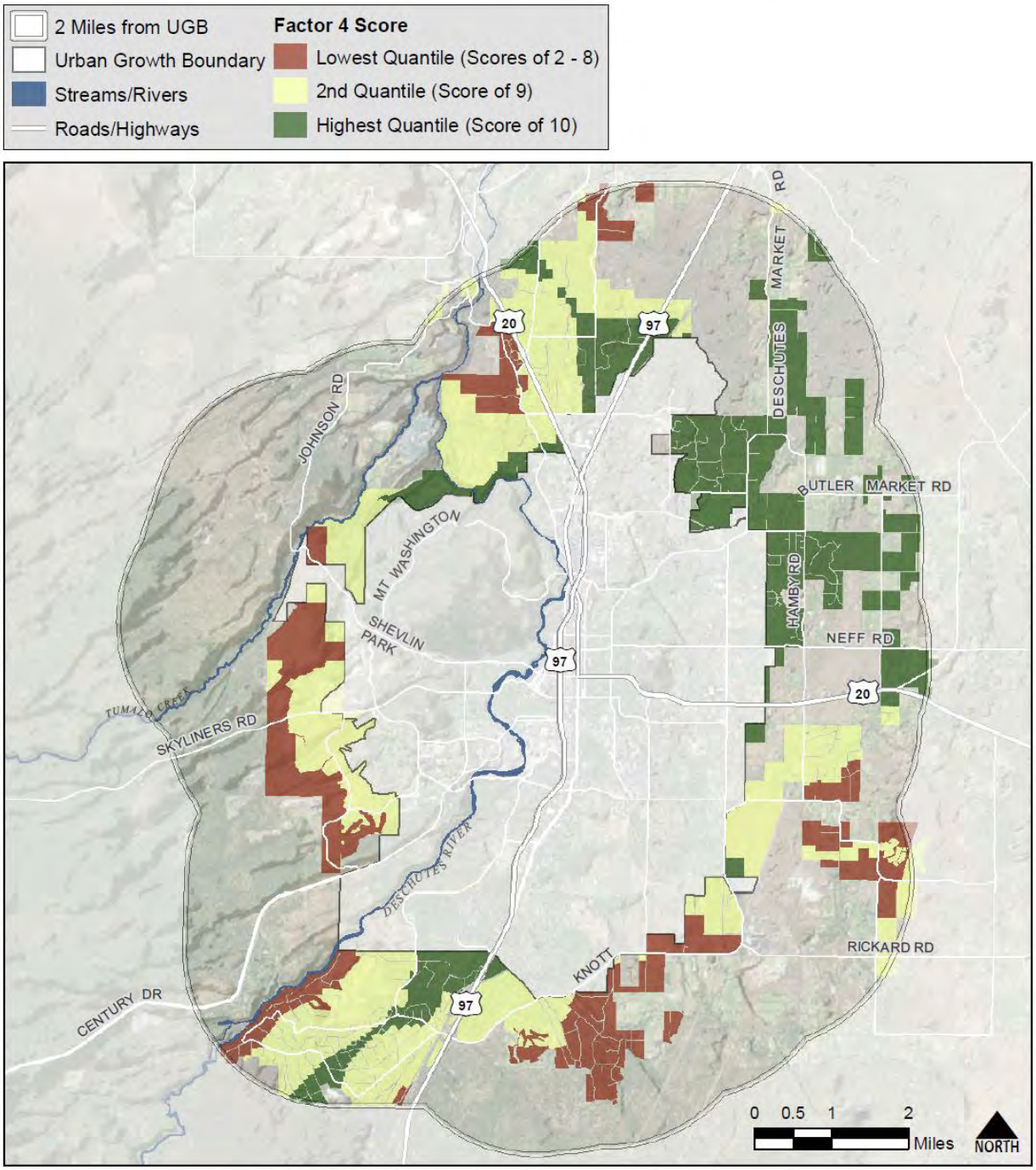


Figure 4.

Factor 4: Farm/Forest Compatibility



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 4 Indicators include: Proximity to forest land and high value EFU zoned lands.

Prepared 4/1/2015

Observations regarding the Factor Maps

a. The components of the Factor 1 map favor large, vacant parcels adjacent to the UGB, and this is precisely what we see. Smaller and improved parcels, as well as those farther away from the UGB, show up in lighter green or red.
b. The Factor 2 map combines the important elements of transportation, water and sewer. Each of these is important in its own right, and detailed analysis of scenarios will provide additional information about relative costs. In this map, we see parcels to the North and East generally performing better than those in the South and West because they are outside Drinking Water Protection Areas, have more favorable surficial geology, low barriers to transportation connectivity, and close proximity to planned wastewater interceptors. The worst-performing area under Factor 2 is the Deschutes River Woods area to the South because it did not receive a high rating in any category except Surficial Geology.
c. The Factor 3 map shows areas to the East, North, and West as the highest performing, and areas to the South as the lowest performing. The higher rankings are driven by proximity to schools and parks, and distance from significant Goal 5 resource areas. Alternate versions of this map that include the Fire Risk Ratings map and that remove the Wildlife Habitat map can be found in Appendix A. These changes do affect the relative performance of parcels – particularly on the West side.
d. The Factor 4 map shows high ratings of parcels to the Northeast, as well as parcels surrounded by urbanized areas, as these are not adjacent to designated farm or forest land. Areas to the West of the UGB are largely adjacent to forest land, and areas to the Southeast are generally near farm land.

A Roll-up Composite of Land Suitability Factors Adjacent to Bend

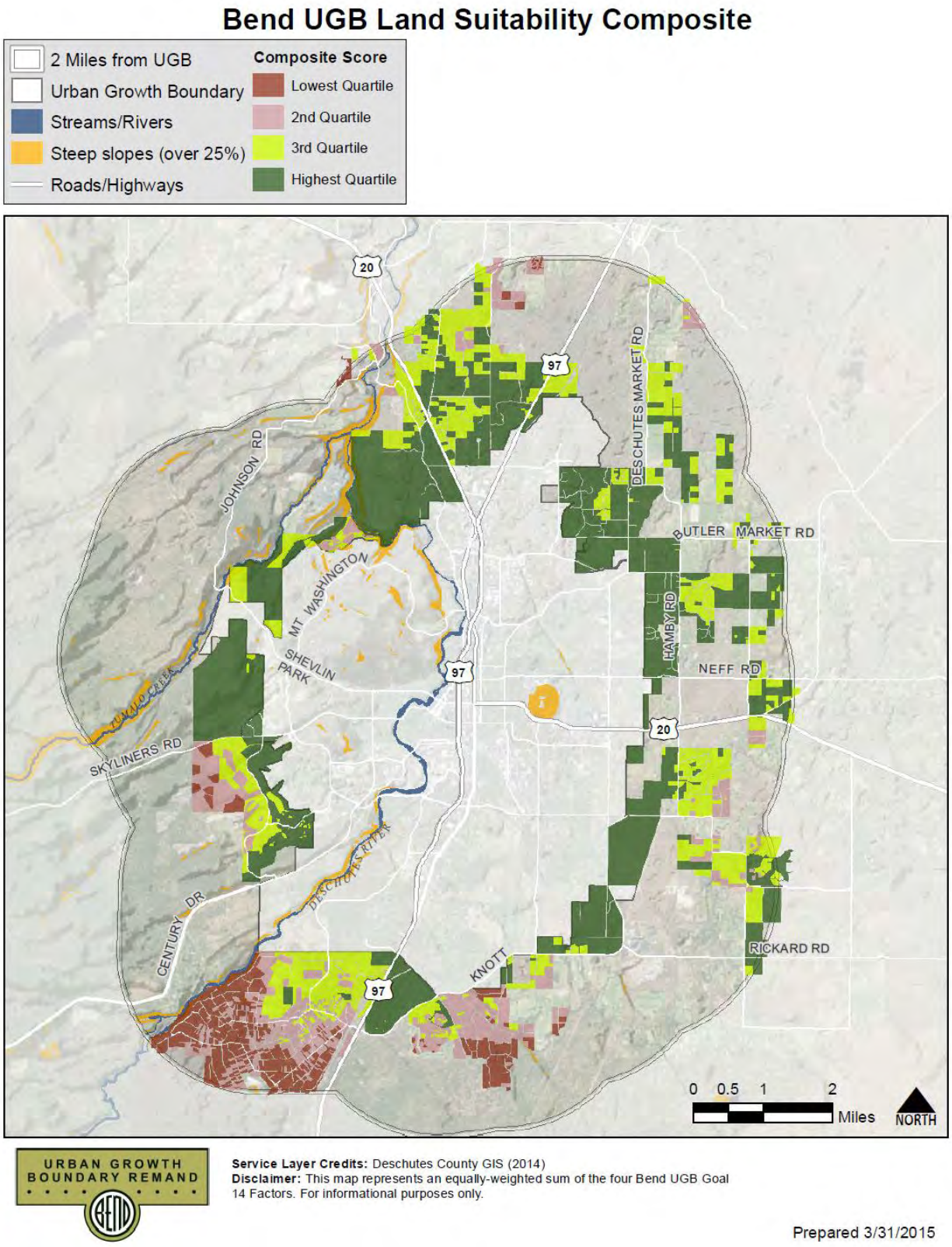
Figure 5 illustrates a composite of the four Goal 14 Factor composite maps. It is titled Bend UGB Land Suitability Composite. This is also un-weighted: each factor was overlaid on the others to produce composite scoring and color display.

Observations

The highest performing lands are to the East, adjacent to the UGB, reflecting the combined influence of relatively low levels of parcelization, ease of infrastructure provision, few negative ESEE consequences, and separation from Farm and Forest land. However, there are some high-performing exception lands in nearly every direction from the UGB.

The lowest-performing areas are Deschutes River Woods and the developed areas south of Knott Road. The developed area south of Skyliners Road also performs poorly.

Figure 5.


Bend UGB Land Suitability Composite
2 Miles from UGB
Urban Growth Boundary
Streams/Rivers
Steep slopes (over 25%)
Roads/Highways
Composite Score
Lowest Quartile
2nd Quartile
3rd Quartile
Highest Quartile
20
97
JOHNSON RD
DESCHUTES MARKET RD
BUTLER MARKET RD
MT WASHINGTON
SHEVLIN PARK
HAMBY RD
NEFF RD
SKYLINERS RD
CENTURY DR
DESCHUTES RIVER
KNOTT
RICKARD RD
0 0.5 1 2
Miles
NORTH
URBAN GROWTH BOUNDARY REMAND
BEND
Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 Factors. For informational purposes only.
Prepared 3/31/2015

Beyond the GIS – Annotating Areas of Lowest Suitability for UGB Expansion

After making the above-described maps, the team discussed the maps and concluded:

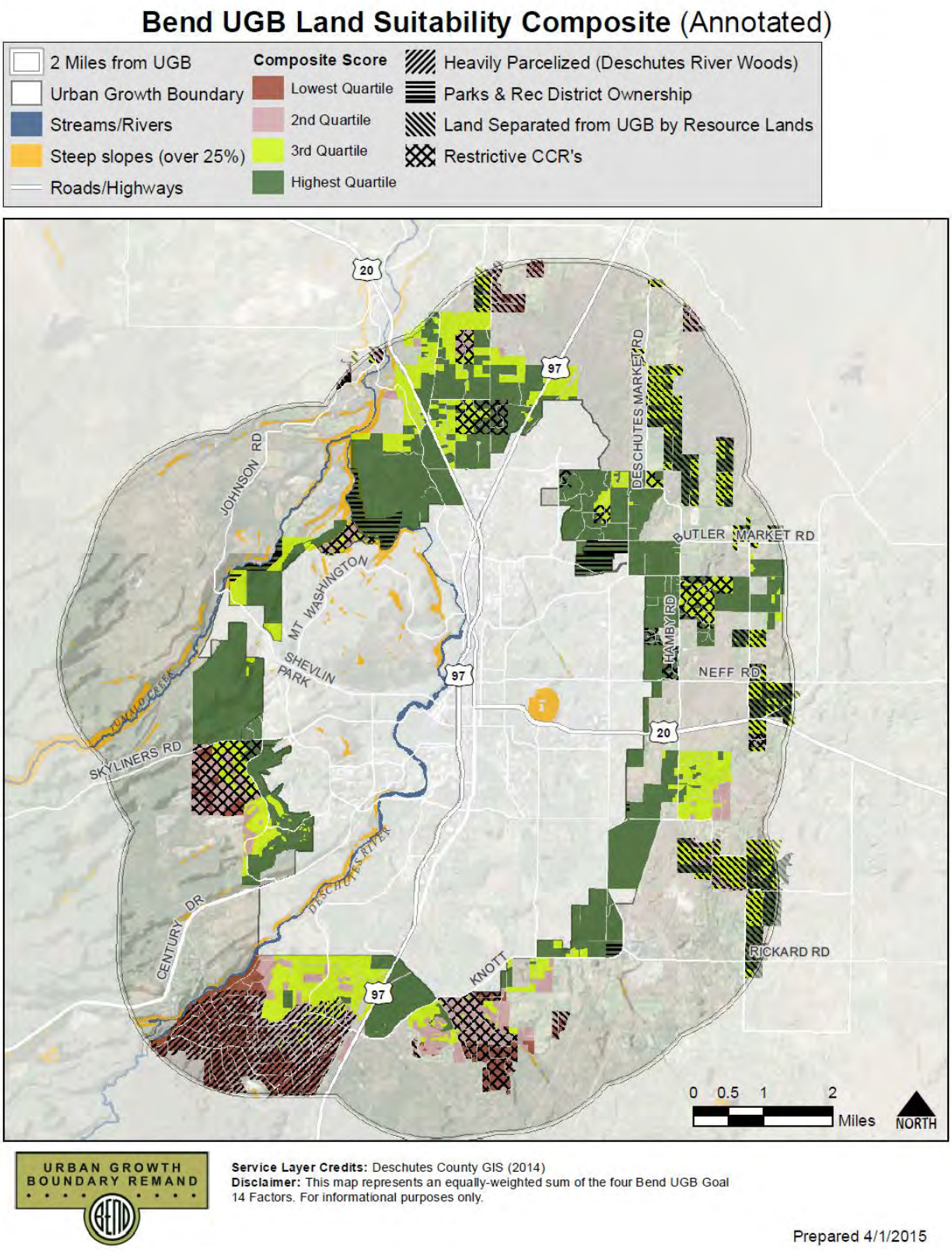
- Even though the composite maps are fairly course at showing best and worst lands, they show patterns that are helpful.
- At a minimum, the composite maps, and individual Stage 2 maps, are an extremely valuable data base and display of information.
- The composite maps do a pretty good job of identifying what lands ***do not*** perform well relative to Goal 14, i.e. the areas of lowest suitability for UGB expansion.
- There are areas within the 2-mile study area that have low suitability for urbanization which need to be annotated or highlighted on the maps. Those areas include: (a) rural subdivisions with CCRs; (b) "islands" that are either completely or mostly surrounded by resource lands; and, (c) edge parcels that are relatively small and very irregularly shaped, making them difficult to serve with infrastructure and develop as complete communities.

Building on the last bullet point, the team made the Annotated UGB Land Suitability Composite shown in Figure 6. This map uses Figure 5 as a base, and highlights the areas described above which have low suitability for near-term urbanization. The amounts of lands involved are:

- **Total Exception Land in 2 mile study area**: 16,163 acres in 4,782 Taxlots
- **Land Annotated as Not Suitable for Urbanization[1]:** 6,432 Acres in 2,739 Taxlots
- **Remaining Land to be Considered for Scenarios:** 9,731 Acres in 2,043 Taxlots

[1] "Not Suitable for Urbanization" includes heavily parcelized areas, Bend Parks & Recreation District Ownership, land separated from the UGB by resource lands, and subdivisions with restrictive CC&R's.

Figure 6.


Bend UGB Land Suitability Composite (Annotated)
2 Miles from UGB
Urban Growth Boundary
Streams/Rivers
Steep slopes (over 25%)
Roads/Highways
Composite Score
Lowest Quartile
2nd Quartile
3rd Quartile
Highest Quartile
Heavily Parcelized (Deschutes River Woods)
Parks & Rec District Ownership
Land Separated from UGB by Resource Lands
Restrictive CCR's
20
97
JOHNSON RD
DESCHUTES MARKET RD
BUTLER MARKET RD
MT WASHINGTON
SHEVLIN PARK
HAMBY RD
NEFF RD
TUMALO CREEK
SKYLINERS RD
DESCHUTES RIVER
CENTURY DR
KNOTT
RICKARD RD
0 0.5 1 2
Miles
NORTH
URBAN GROWTH BOUNDARY REMAND
BEND
Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 Factors. For informational purposes only.
Prepared 4/1/2015

RECOMMENDED APPROACH

The team's recommended approach for finishing the Stage 2 process and transitioning to scenario development is to:

1. *Stay with the un-weighted approach*. The TAC should consider the Bend UGB Land Suitability Composite (Figure 5), together with the Factor Maps (Figures 1-4) and any other Stage 2 maps members wish to use, as a data base informing qualitative judgments of most and least suitable lands. It will not be worthwhile to spend further time and resources trying to create the "perfect" Stage 2 composite map of best and worst performing lands.

2. *Use the Annotated Land Suitability Composite (Figure 6) as the basis for narrowing the pool of lands to be considered for UGB expansion.* Figure 6 identifies the least suitable lands, based on GIS analysis of the Goal 14 factors and additional indicators of low suitability (CCR lands, islands, and irregular edge parcels). When the low suitability lands are removed, the remaining pool of lands is roughly 9,700 acres, a reasonable starting point for identifying the 1000-3000 acres needed to complete Bend's land supply for 2028.

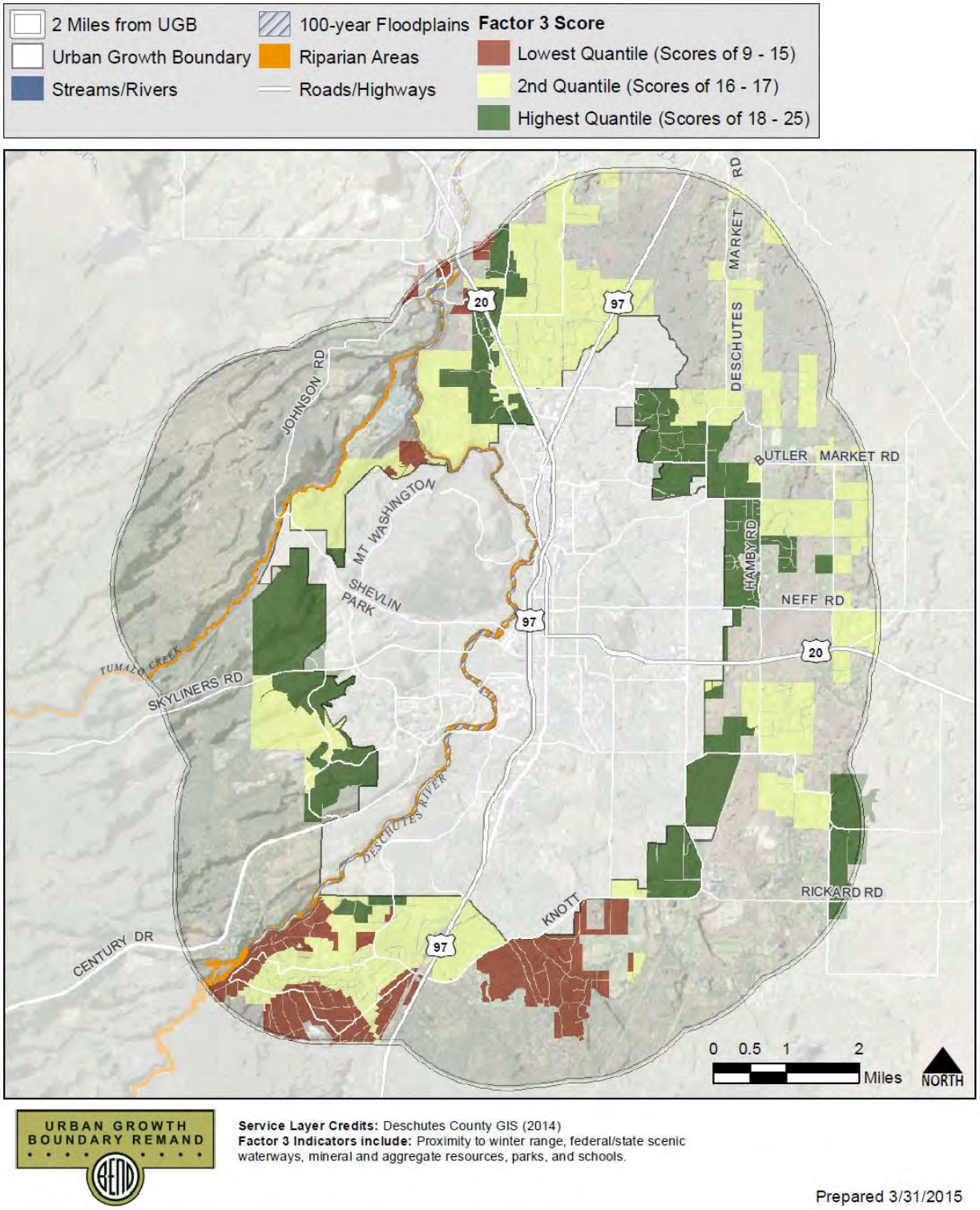
3. *Use the Annotated Land Suitability Composite (Figure 6) in the upcoming scenario workshop.* Participants at the workshop should use Figure 6, plus additional Stage 2 maps as information, as the basis for building scenarios. In this way, they will select – in the workshop – what areas are most suitable using their own value judgments about what are the best lands for urbanization in the 9,700 acres under consideration.

4. *Supplement the Stage 2 map set with new information (forthcoming) from the irrigation districts.* In addition to the information shown to date, city staff is working with surrounding irrigation districts to provide mapping information which will show their key facilities and irrigated parcels for use in the upcoming scenario workshop. Up to now, this information has been difficult to assemble due to time constraints. This additional information will allow the workshop participants to consider the location of irrigated lands and irrigation district infrastructure alongside information in the existing map series.

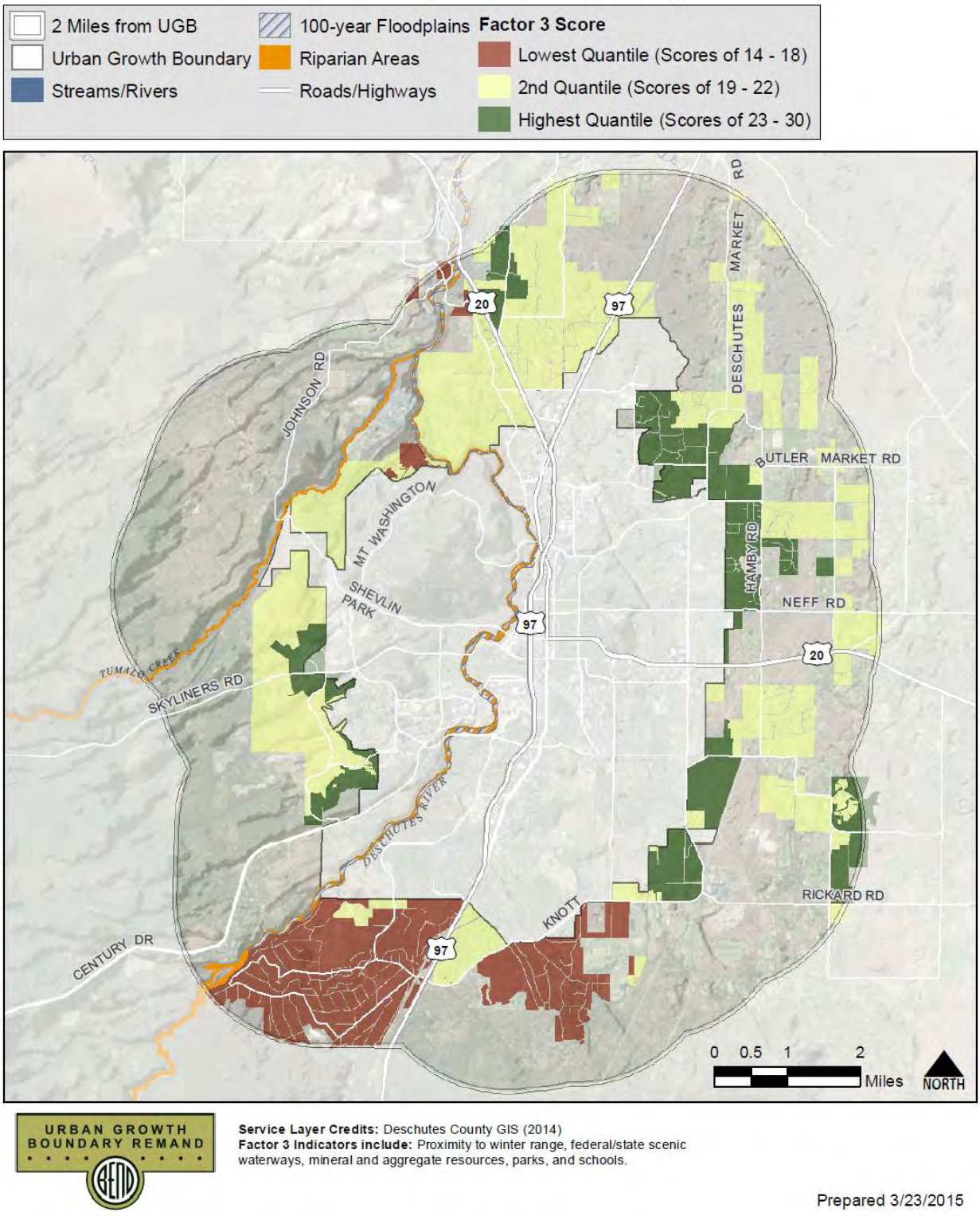
Recommendation: Approval of the approach described above.

APPENDIX A: ALTERNATIVE FACTOR 3 MAPS

Factor 3: ESEE Consequences



Factor 3: ESEE Consequences
(Including Fire Risk Ranking)

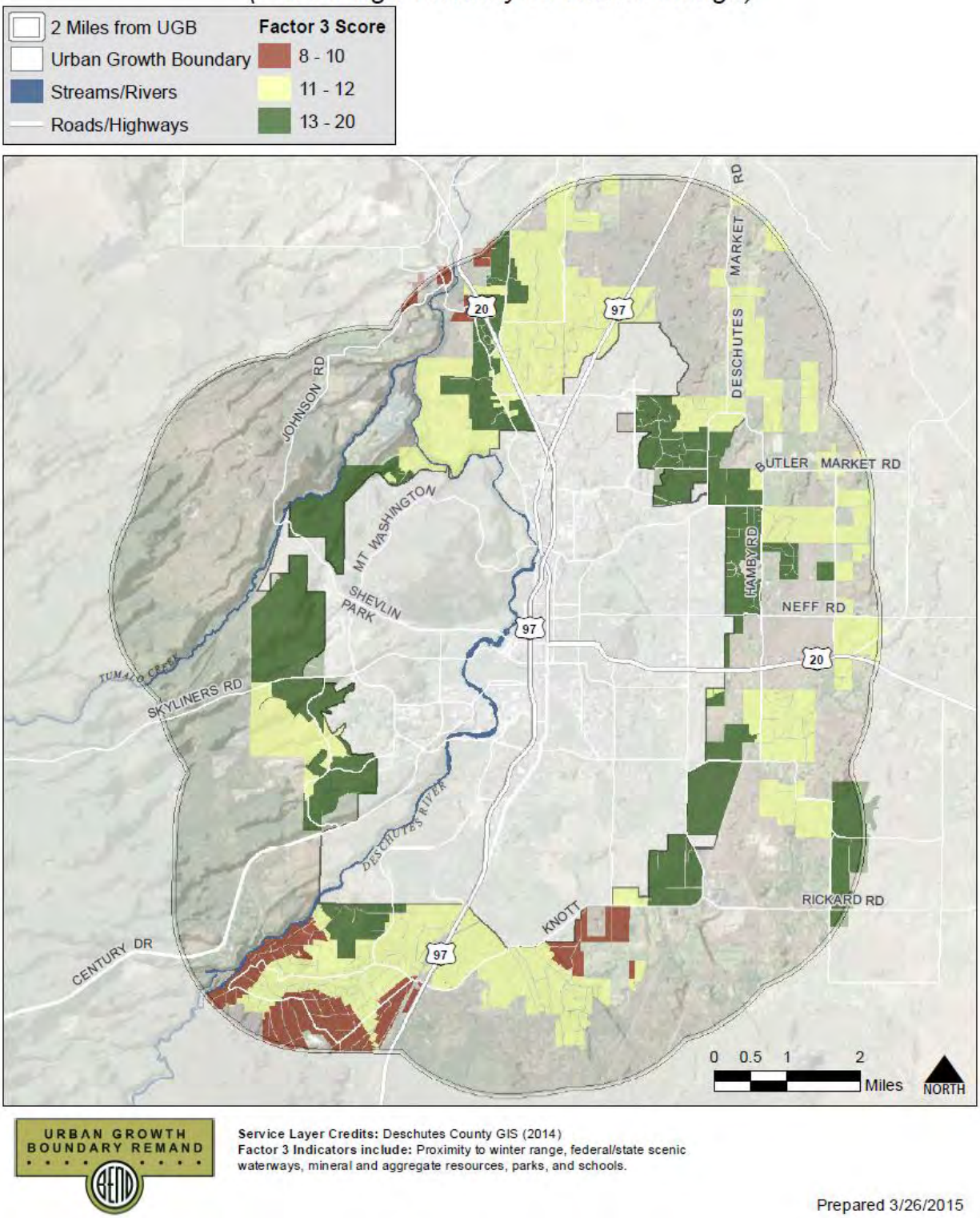


URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/23/2015

Factor 3: ESEE Consequences
(Excluding Proximity to Winter Range)

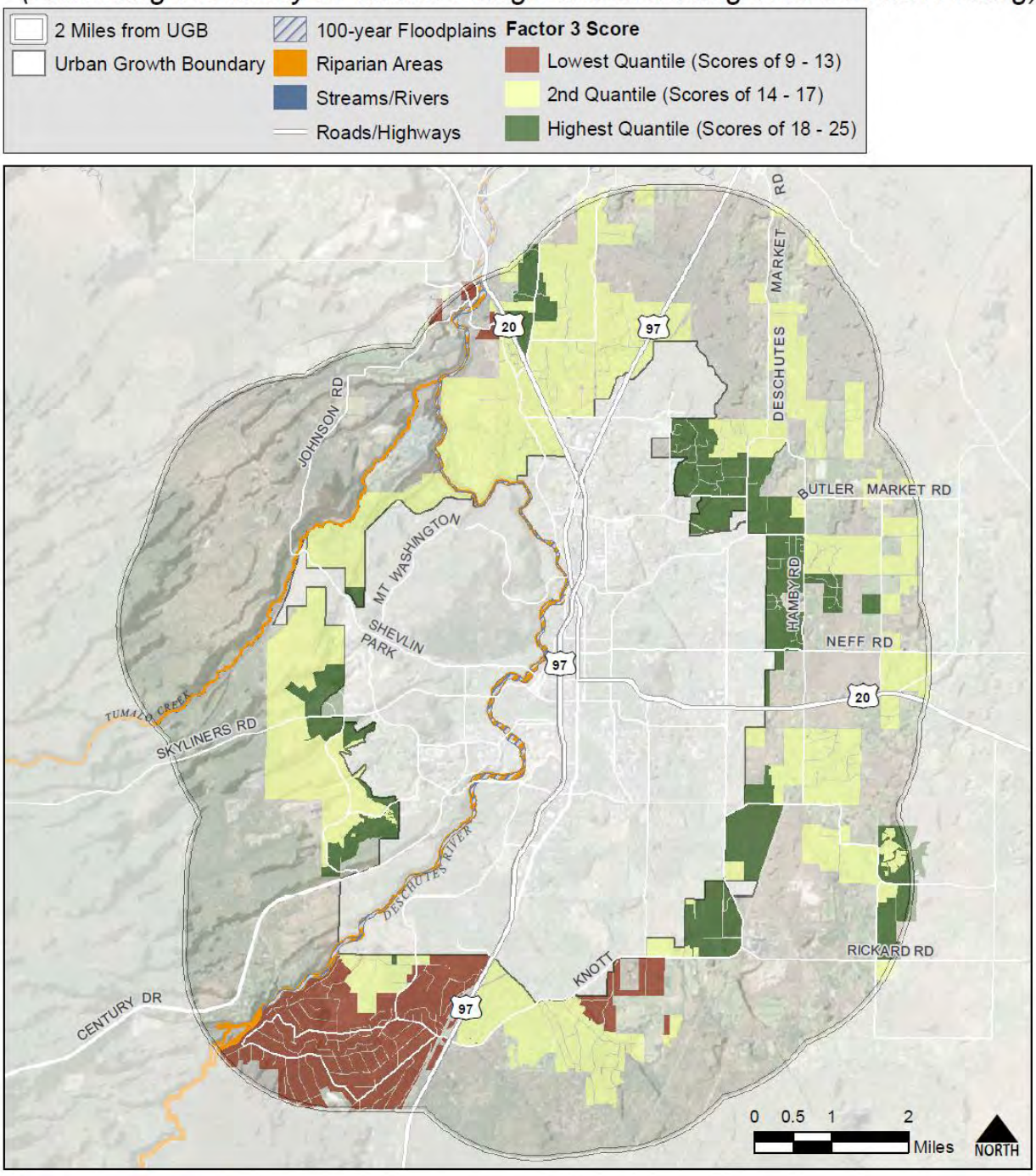


URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/26/2015

Factor 3: ESEE Consequences
(Excluding Proximity to Winter Range and Including Wildfire Risk Rating)



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/31/2015

APPENDIX B: SUMMARY OF STAGE 2 MAP CONSOLIDATION SCORING

Factor 1 Maps

Factor 1 Map Name	Map Key	Description	Legend	Scale
Parcel Size	1.1	Parcel size	• >20 • 10-20 • 5-10 • 2-5 • <2	• 5 • 4 • 3 • 2 • 1
Improvement to Land Value Ratio	1.2	Improvement to land value ratio	• No improvement value • Improvement less than Land Value • Improvement more than land value	• 5 • 3 • 1
Distance from UGB	1.3	Proximity to existing UGB – adjacency more efficient than edge of study area	• Contiguous • Within .25 miles • Within 1 mile • Greater than 1mile • Separated from UGB by Resource Land	• 5 • 4 • 3 • 2 • 1
Steep Slopes (>25%) **NOT INCLUDED IN RANKING - Visual overlay only**	1.4	Topography (25% slopes or greater)	• Steep Slopes	Overlaid on map
Subdivisions and Known CC&Rs	1.5	Existing CC&Rs prohibit or limit additional development	• *Exception land not a CC&R* • No land Division Restriction • Land Division Restriction	• 5 • 3 • 1

Factor 2 Maps

Factor 2 Map Name	Map Key	Description	Legend	Scale
Physical Barriers to Connectivity	2.1	Consideration of physical barriers to connectivity (new river crossings, railroad crossings, steep slopes, etc.)	• Minimal Barriers • Moderate Barriers • Significant Barriers	• 5 • 3 • 1
2040 Reliance on Congested Corridors	2.2	Consideration of key congested highway corridors based on the recently completed Bend MPO MTP. Using the Bend 2050 travel demand model, identify which exception lands have a higher reliance on a congested corridor.	• <= 30% of trips • 30-40% of trips • 40-50% of trips • >50% of trips	• 5 • 4 • 2 • 1
Connectivity to Complete Roadway Grid	2.3	Consideration of whether the existing major roadway network meets ideal grid-spacing. Rank exception areas with a more subjective approach based on ability to extend collectors into the study area. Also consider if subareas in the study area are adjacent or near well connected streets inside the current UGB.	• Good Connectivity • Fair Connectivity • Poor Connectivity	• 5 • 3 • 1
Water Analysis (City of Bend Service Area)	2.4	Consideration of exception areas that could be served by gravity by City of Bend and Avion water providers.	• Good • Fair • Poor • NO DATA	• 5 • 3 • 1 • 0
Sanitary Sewer Analysis	2.5	Gravity system: Consideration of areas that can be served via gravity. This would be illustrated with a map showing areas in the study area that can be served with gravity sewer vs. areas requiring additional pumping.	• Good • Fair • Poor	• 5 • 3 • 1

Factor 2 Map Name	Map Key	Description	Legend	Scale
		Maximize existing/planned improvement: Consideration of areas with capacity or planned short-term improvements. This would be illustrated with a map showing any areas in the study area outside of the current UGB that could be served with sewer without major new investments in addition to planned facilities in the Collection System PFP		
Surficial Geology	2.6	Consider presence of surface geology (welded tuff) that limits on-site stormwater management.	• Qb • NO DATA • QTst	• 5 • 3 • 1
Proximity to Drinking Water Protection Areas	2.7	Consider proximity to drinking water protection areas (DWPA).	• Greater than 1 mile • Within 1 mile • Within .25 miles • Contiguous	• 5 • 4 • 2 • 1

Factor 3 Maps

Factor 3 Map Name	Map Key	Description	Legend	Scale
Riparian Corridors **NOT INCLUDED IN RANKING – Visual overlay only**	n/a	Presence of significant Goal 5 resources or other resources.	• Riparian Area	Overlaid on map
Exception Land & Big Game	n/a			Separate informational

Factor 3 Map Name	Map Key	Description	Legend	Scale
Winter Ranges (ODFW) **NOT INCLUDED IN RANKING – Separate informational map**				map
Proximity to Winter Range **"TOGGLED" IN RANKING – see alternate Factor 3 Maps in attached appendix.**	3.1		• Outside • Potential ODFW Addition • Inside	• 5 • 3 • 1
Federal/State Scenic Waterways	3.2		• Parcel intersects Scenic Waterway boundary • Parcel outside Scenic Waterway boundary	• 3 • 5
Mineral & Aggregate Resources	3.3		• Outside of Impact Area • Within or Partially Within Impact Area	• 5 • 1
Fire Risk – CWPP Boundary Subareas **NOT INCLUDED IN RANKING – Separate informational map**	n/a	Relative wildfire risk and presence of other natural hazards (floodplains).		
100-year Floodplains **NOT INCLUDED IN RANKING – Visual overlay only**	n/a	Relative wildfire risk and presence of other natural hazards (floodplains).	• 100-year Floodplain	Overlaid on map
Proximity to Schools	3.4	Proximity to existing or planned schools or parcels owned by school district.	• Within .25 Miles • Within .5 Miles	• 5 • 3

Factor 3 Map Name	Map Key	Description	Legend	Scale
			• Greater than .5 miles	• 1
Proximity to Parks	3.5	Proximity to existing or planned parks, trails or parcels owned by parks district.	• Within .25 miles (Not including Nature Parks) • Within .5 miles (Including Nature Parks) • Greater than .5 miles	• 5 • 3 • 1
Composite Wildfire Risk Ratings **"TOGGLED" IN RANKING – see alternate Factor 3 Maps in attached appendix.**	3.6	Relative wildfire risk and presence of other natural hazards (floodplains).	• Highest Risk (1-2) • Higher Risk (3-4) • High Risk (5-6)	• 1 • 3 • 5

Factor 4 Maps

Factor 4 Map Name	Map Key	Description	Legend	Scale
Proximity of Exception Parcels to Zoned Forest Land	4.1	Proximity to designated forest land	• Greater than 1 mile • Within 1 mile • Within .25 miles • Contiguous	• 5 • 4 • 2 • 1
Proximity of Exception Parcels to High Value zoned EFU Land	4.2	Proximity to designated high-value agricultural land (irrigated).	• Greater than 1 mile • Within 1 mile • Within .25 miles • Adjacent	• 5 • 4 • 2 • 1

Memorandum

March 31, 2015

To: Phase 2 Boundary TAC

Cc: Project Team

From: Angelo Planning Group

Re: Preliminary Calculation of Acres Needed from Phase 1 Bookends

INTRODUCTION

The outcome of Phase 1 of the Bend UGB Remand Project was a set of "bookends" for residential units and jobs capacity within the existing UGB and an associated residual need. The purpose of this memorandum is to recommend a process to convert these "bookends" to a range of needed acres to be used in developing expansion scenarios during the April 30, 2015 workshop.

HOUSING AND EMPLOYMENT NEED

The tables below were taken from the March 13, 2014 memo to the UGB Steering Committee. They compare the capacity bookends for the existing UGB with the anticipated needs to give us figures for residual housing need by housing type, and residual need for total jobs.

Table 1. Housing Capacity Comparison to Need (2014-2028)

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Single Family Detached	9,225	6,839	-2,386	8,311	-914
Single Family Attached	1,677	1,316	-361	1,566	-111
Multifamily Attached	6,331	4,487	-1,844	4,871	-1,460
Total Housing Units	17,234	12,642	-4,592	14,748	-2,486

Table 2. Employment Capacity Comparison to Need (2014-2028)

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Total Jobs	20,626	15,887	-4,739	14,413	-6,213

CONVERSION TO ACRES

Converting housing units and jobs to an acreage figure requires assumptions about the density of development. The following section describes the project team's working assumptions, and Table 3 provides a summary of needed acres for housing, jobs and other lands.

Important note: The estimates cited below are for net acreage that is efficient to access and develop. Additional land will be needed for constrained sites, rural "infill" sites (parcels smaller than 5 acres with existing dwellings), and similar areas which would likely be less efficient to develop due to existing development patterns.

Residential

- **Single Family Detached Units:** The residual need for Single Family Detached housing ranges from 914 units on the low end to 2,386 units on the high end of the bookends. A net density of 5.28 units/acre is assumed, based on built densities in the RS zone from 2008-2014. Estimated land needs range from 173 to 452 net acres.
- **Single Family Attached Units:** There is a modest need for Single Family Attached units outside the UGB (between 111 and 361 units). These units will likely be built as part of RS, RM or RH designations. A net density of 12.98 units/acre is assumed, based on built densities for SFA units in all zones from 2008-2014. Estimated land needs range from 9 to 28 net acres.
- **Multifamily Units:** The residual need for multifamily housing ranges from 1,460 to 1,844 units. These units will likely be built as part of RM or RH designations. A net density of 22.4 units/acre is assumed, based on data on MF units in all zones for all years (very few MF units were built from 2008-2014). Estimated land needs range from 65 to 82 net acres.

Employment

Bend's 2008 EOA includes a table on net employment densities by plan designations. The densities were calculated through a GIS analysis of employment lands and geo-coded employment data from the Oregon Employment Department. For the purpose of employment densities outside the UGB, we have assumed an average of 15 employees per acre based on the average of observed densities for the following plan designations: CC, CG, CL, ME, IG, IL, and IP. Estimated land needs range from 316 to 414 net acres.

Table 3. Residential and Employment – Residual Need and Acreage Conversion

Residential Land Need	Density (net units/acre)	Residual (4B)	Residual (5C)	Acres (4B)	Acres (5C)
Housing (Net)	-	4,591	2,485	562	247
Single Family Detached	5.28	2,386	914	452	173
Single Family Attached	12.98	361	111	28	9
Multifamily Attached	22.4	1,844	1,460	82	65
Employment Uses on Residential Land				51	51
Net to Gross Conversions					
Vacancy Factor	*Non-Industrial Vacancy Factor for Employment Uses on Residential Land– 9.8%*			5	5
Right of Way	*21% of Net Housing and Employment Uses*			130	64
Residential (Gross)				**748**	**367**

Employment Land Need	Density (net units/jobs acre)	Residual (4B)	Residual (5C)	Acres (4B)	Acres (5C)
Employment (Net)	15	4,739	6,213	316	414
Large Industrial Sites		2 sites at 56 acres each		112	112
Net to Gross Conversions					
Employment Vacancy Factor – Industrial	*6.5% vacancy factor – industrial need Is 30% of total jobs. (Not applied to large industrial sites.)*			6	8
Employment Vacancy Factor – Non-Industrial	*9.8% vacancy factor – non-industrial need Is 70% of total jobs. (Not applied to large industrial sites.)*			22	28
Right of Way	*21% of Net Employment. (Not applied to large industrial sites.)*			72	95
Employment (Gross)				**528**	**657**

Other Lands	Additional Need	Acres (4B)	Acres (5C)
Parks (Net)	Identified park need in 2008 materials (likely needs to be updated to reflect any neighborhood and community parks and trails that have been built)	362	362
Parks – ROW	21% of Parks Need for ROW	76	76
Schools (Net)	Identified schools need in 2008 materials (likely needs to be updated to reflect schools that have been built and sites being held by BLPS for future schools)	192	192
Schools – ROW	21% of Schools Need for ROW	40	40
Parks and Schools (Gross)		**670**	**670**

Subtotal – Gross Housing, Employment, and Parks and Schools		**1,946**	**1,694**
Additional institutional and open space	Institutional – e.g. utilities, benevolent organizations, Open Space – golf courses, non-BMPRD public open space. Calculated at 12.8% of total land	249	217
TOTAL ACRES*		**2,195**	**1,911**

* Note the total land need estimates will likely be revised slightly downward to account for slightly less school and park land needs based on what has been constructed since 2008.

OTHER LAND NEEDS

Other land needs were addressed in the Remand and are summarized in Table 4. The land categories and the project team's current recommendations are provided below. The team has largely relied on methodologies and assumptions that have been approved or are based on existing evidence in the record.

- "Other" – including churches, benevolent/fraternal, utilities, canals, cemeteries, common areas, golf courses, RV parks – 12.8%
- Right of Way Assumptions – 21%
- Park and School Needs – 362 Acres for Parks and 192 Acres for Schools. These estimates are for net land needs based on amounts of school acres by occupied housing unit for new residents, and applying park Levels of Service for neighborhood and community parks and trails per capita. In both cases these include estimates based on the number of anticipated new housing units between 2008 and 2028 based on methodologies rooted in school and park planning documents, as modified to fit the remand requirements for a unique time period associated with the remand. The team suggests these base need estimates be used, but subsequent work with Bend-La Pine Schools and Bend Park and Recreation District should provide estimates of what facilities have been built since 2008 in order to subtract out these lands from the aforementioned need totals. This would more accurately represent these special district land needs going forward in order to account what has been constructed since 2008.
- Employment vacancy factor – 6.5% for industrial/mixed employment; 9.8% for commercial, public facilities, medical
- Second home land needs – 18% figure for second homes has been included in the needed housing units.
- Large Lot Industrial – Two, 56-net acre sites were approved by LCDC in addition to the employment land needs shown in Table 3. The team recommends converting these to gross acreages, but not applying other factors such as a vacancy rate, and "other lands."
- Employment in Residential Areas – The Employment Opportunities Analysis, which was approved by LCDC without the Remand directing further work on this issue, included a very small amount of land (51 net acres) for employment uses which take place in residential areas, but which are built upon residential land vs. employment designated

lands. This is intended to reflect the fact that the Development Code allows small scale offices and services in residential areas which, if not addressed, would consume land otherwise assumed to meet future housing needs. These acreage figures would need to be converted to gross acreages similar to other net figures.

RECOMMENDATION

The team recommends that the preliminary land needs in Table 3 be used as "bookends" for the April 30th scenario workshop. As noted, the total land need estimates will likely be revised downward slightly to account for schools and parks developed in the 2008-2014 period.

Table 4. Assumptions for Other Land Needs

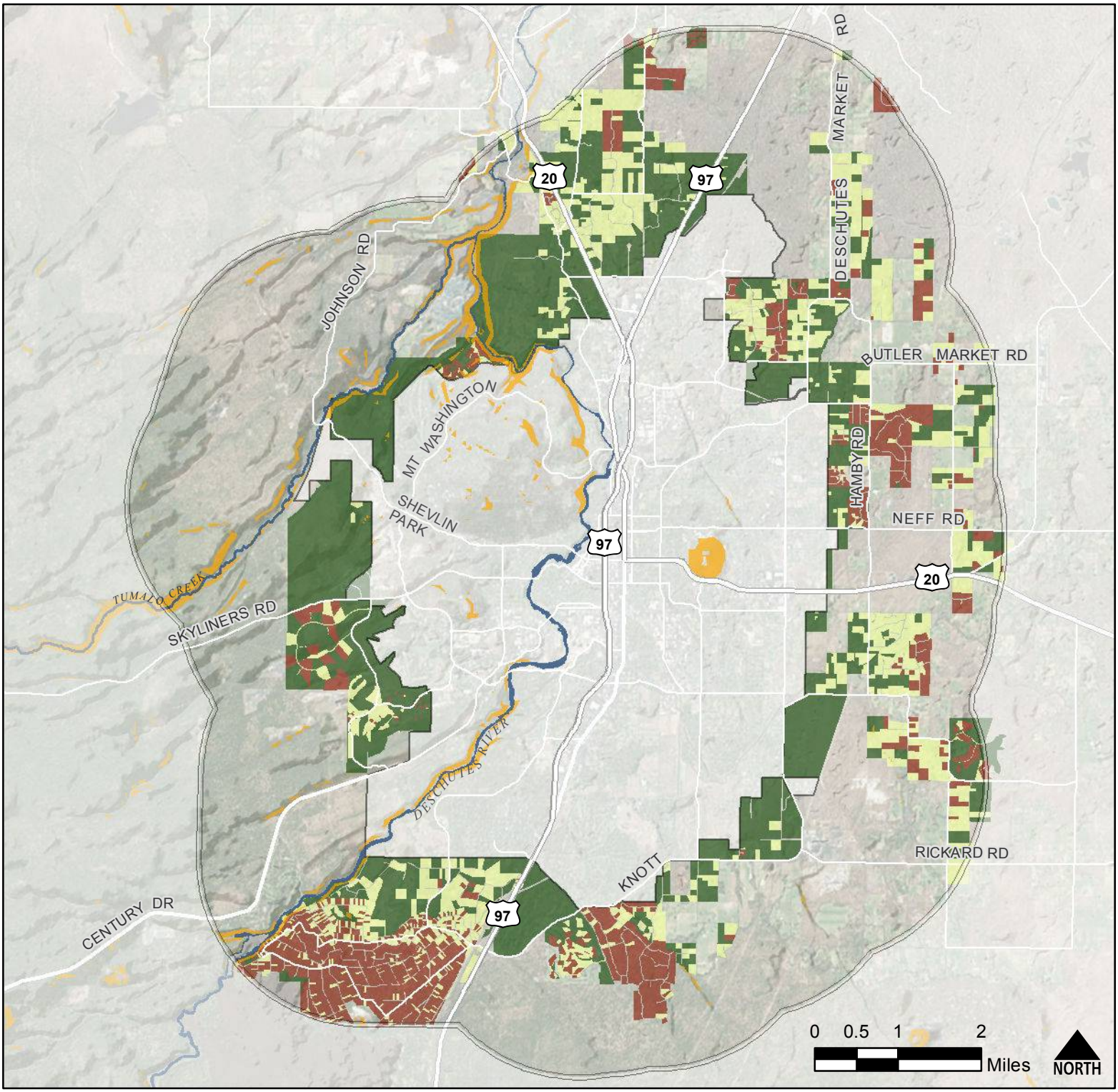
Remand Sub Issue	Issue & Background	Staff Recommendation and RTF Decision	Questions/Next Steps
4.1 – Other Land Needs Uses in the "Other Land" estimate include churches, benevolent/fraternal organizations, utilities, canals, cemeteries, common areas in developments, golf courses, properties owned by irrigation districts, parks (not managed by BMPRD), and RV parks. Memo from Colleen in record (revised December 16, 2008)	City had evidence in record to support use of 12.8% factor applied to residential land needs for "other" land needs. Prior UGB proposal used 15% factor for "other" land needs to account for increase land requirements for stormwater facilities in the future. DLCD pushed back on 15% without adequate evidence/justification.	Use the 12.8% factor for "other" land needs. Rely on existing evidence in the record and reduce legal risk.	APG will review the 2014 BLI and provide an update to the TAC on consistency with the 12.8% factor.
Right-of-Way Assumptions for UGB expansion area Not a specific remand issue.	Memo from Brian to City Council dated 12/4/08. Refinements suggested by DLCD based on BLI dated 2/25/08. GIS analysis done by Colleen. **21%** of existing UGB (averaged across all land use categories) in public and private ROW.	DLCD staff reviewed and approved refinements to ROW assumptions.	Apply the 21% ROW assumption outside the UGB.
4.2 – Park & School Land Needs 2008 UGB proposal identified a need for 192 acres for schools for	Remand focused on findings and clarification of evidence re. park land needs. (Two different estimates: 362 acres based on LOS	Use the 192 acre need estimate for schools and 362 acre need estimate for parks. Rely on existing evidence in the	Several factors have changed: population inside UGB, residual need, school and park development since 2008.

Remand Sub Issue	Issue & Background	Staff Recommendation and RTF Decision	Questions/Next Steps
the 2008-2028 planning period. Identified a need for 474 acres for public parks for 2008-2028 planning period.	standards; another estimate of 474 acres based on UGB proposal).	record and reduce legal risk.	Recommended next steps: update the school and park estimates, in coordination with the districts, using the same methods from 2008, residual housing need from 2014-2028 and housing mix assumptions.
5.6 – Vacancy Factor for Employment Land 2008 UGB was based on assumption that Bend would experience a 15% vacancy rate in employment lands over 20-year planning period.	Remand concluded that the City had not established that the 15% vacancy factor is based on substantial evidence.	Relied on evidence in the record and reduce legal risk. Vacancy factor of **9.8 percent** applied to commercial, public facilities, medical land uses – tend to allow office uses outright, not allow industrial uses. Vacancy factor of **6.5 percent** applied to the industrial/mixed employment land uses – tend to allow industrial uses outright, and tend to not allow purely office uses.	Next step: apply the vacancy rates to the employment land needs in the expansion areas.
2.5 – Second Home Land Needs 2008 UGB estimated that second homes could be expected to absorb 500 acres of residential land during the 2008-2028 period.	Commission accepted the substance of the city's findings with respect to second homes. City estimated second homes, equivalent to 18% of needed housing units, could be expected from 2008-2028 (slightly over 3,000 units). Based on average density assumption of 6 units/acre – these	If density assumption of 6 units/acre is revised, the 500-acre estimate adopted in 2009 will be revised upward or downward accordingly.	Second homes are already counted within the residual housing needs, so no additional calculation is required.

Remand Sub Issue	Issue & Background	Staff Recommendation and RTF Decision	Questions/Next Steps
	units would occupy about 500 residential acres that would otherwise be available for permanent residents.		
5.8 – Employment in Residential Zones **The 2008 EOA and UGB identified a need for 51 net acres to accommodate employment uses taking place on residentially zoned land.** **(See 2008 EOA, Table 39 for net acres; Table 46 for gross of 199 acres)**	The City determined that it was appropriate to consider employment uses in residential zones because such uses, which are encouraged by the development code, consume residential land. The Department agreed that the acreage at issue represents a small percentage of the overall employment land need and did not necessitate an in-depth analysis in order to make an adequate finding.	The City agreed that on remand it would move the analysis and calculation to the residential/other lands analysis and calculation.	Include the estimated land need for employment uses in residential zones (51 net acres/119 gross acres) in the overall land needs. Based on evidence in the 2008 EOA and record.
5.4 – Special Need for Two Large Industrial Sites **The 2008 EOA and UGB identified a need for approximately 112 acres to accommodate special site needs for two large industrial sites (see Table 46 of EOA).** **The 2008 proposal also identified special site needs for a new hospital site (112 acres south of Bend) and a new**	LCDC acknowledged the special site needs. However, the city did not identify whether there are sites that could reasonably accommodate these particular site needs within the prior UGB. In Phase 1, the Employment TAC voted not to proceed with the special site needs for the new hospital and university based on changes in circumstances since 2008.	N/A	Carry the special site need for the large industrial site needs (112 acres total) into Phase 2. Findings will be needed to document whether the special site need can be accommodated inside the existing UGB.

Remand Sub Issue	Issue & Background	Staff Recommendation and RTF Decision	Questions/Next Steps
university site (225 acres at Juniper Ridge).	The Employment TAC recommended carrying the special need for the large-site industrial (112 acres total) into the Phase 2 boundary consideration.		

Factor 1: Efficient Accomodation of Land Needs



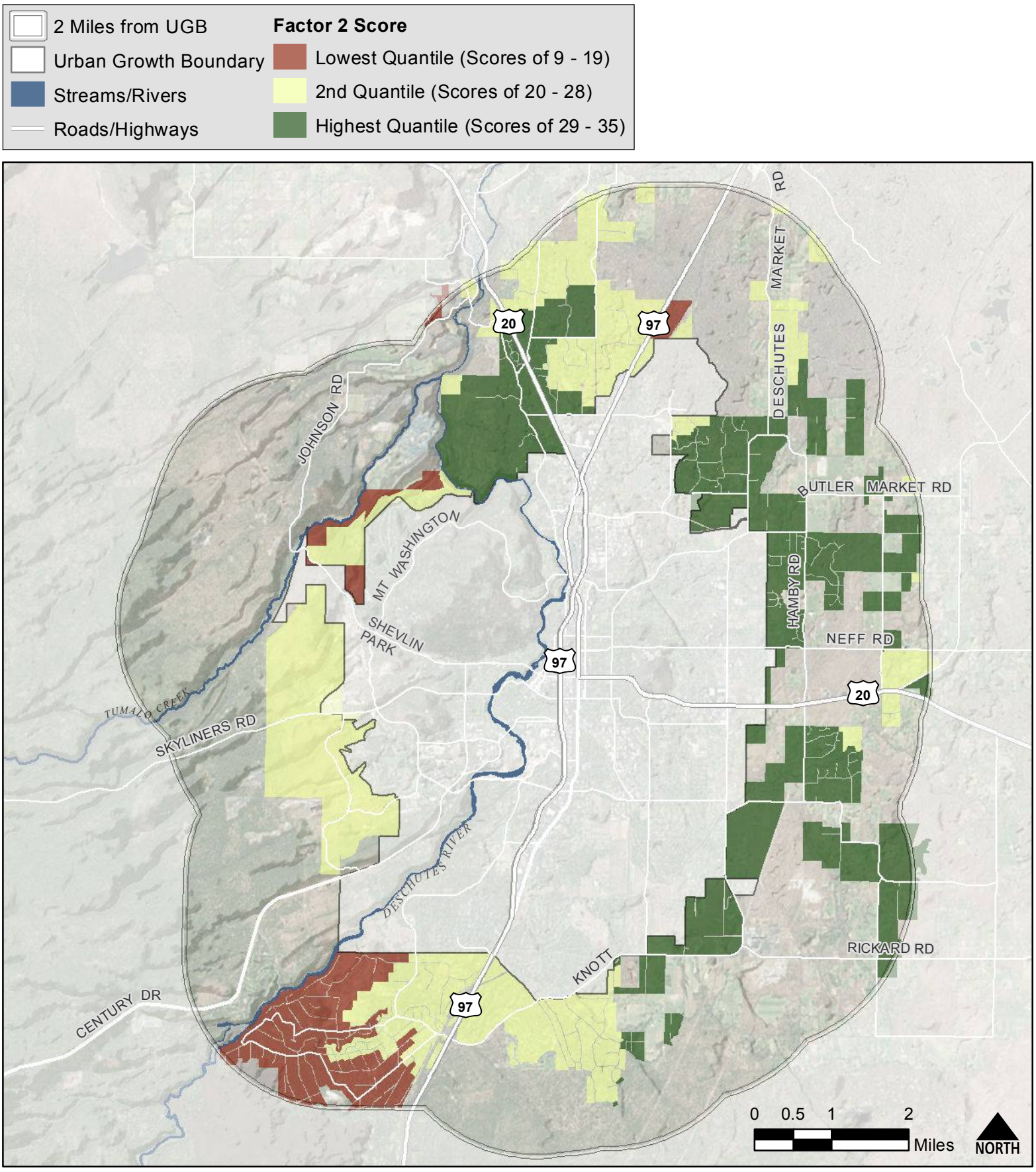
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 1 Indicators include: Parcel size, improvement to land value ratio, distance from UGB, presence of CC&R's

Prepared 3/16/2015

03782

Factor 2 Provision of Public Facilities and Services



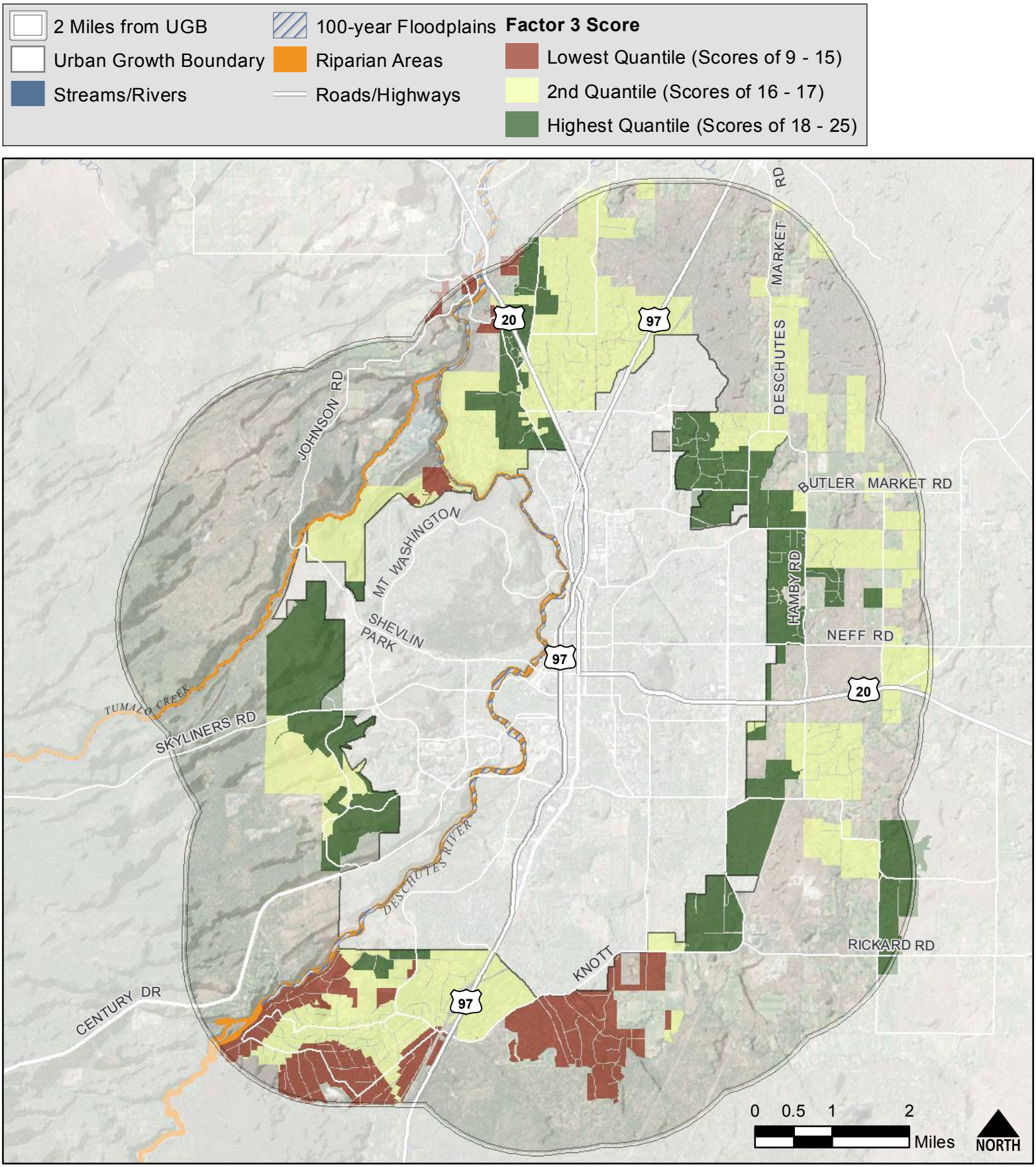
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 2 Indicators include: Physical barriers to connectivity, 2040 reliance on congested corridors, connectivity to complete roadway grid, water analysis, sanitary sewer analysis, surficial geology, and proximity to drinking water protection areas.

Prepared 4/1/2015

03783

Factor 3: ESEE Consequences



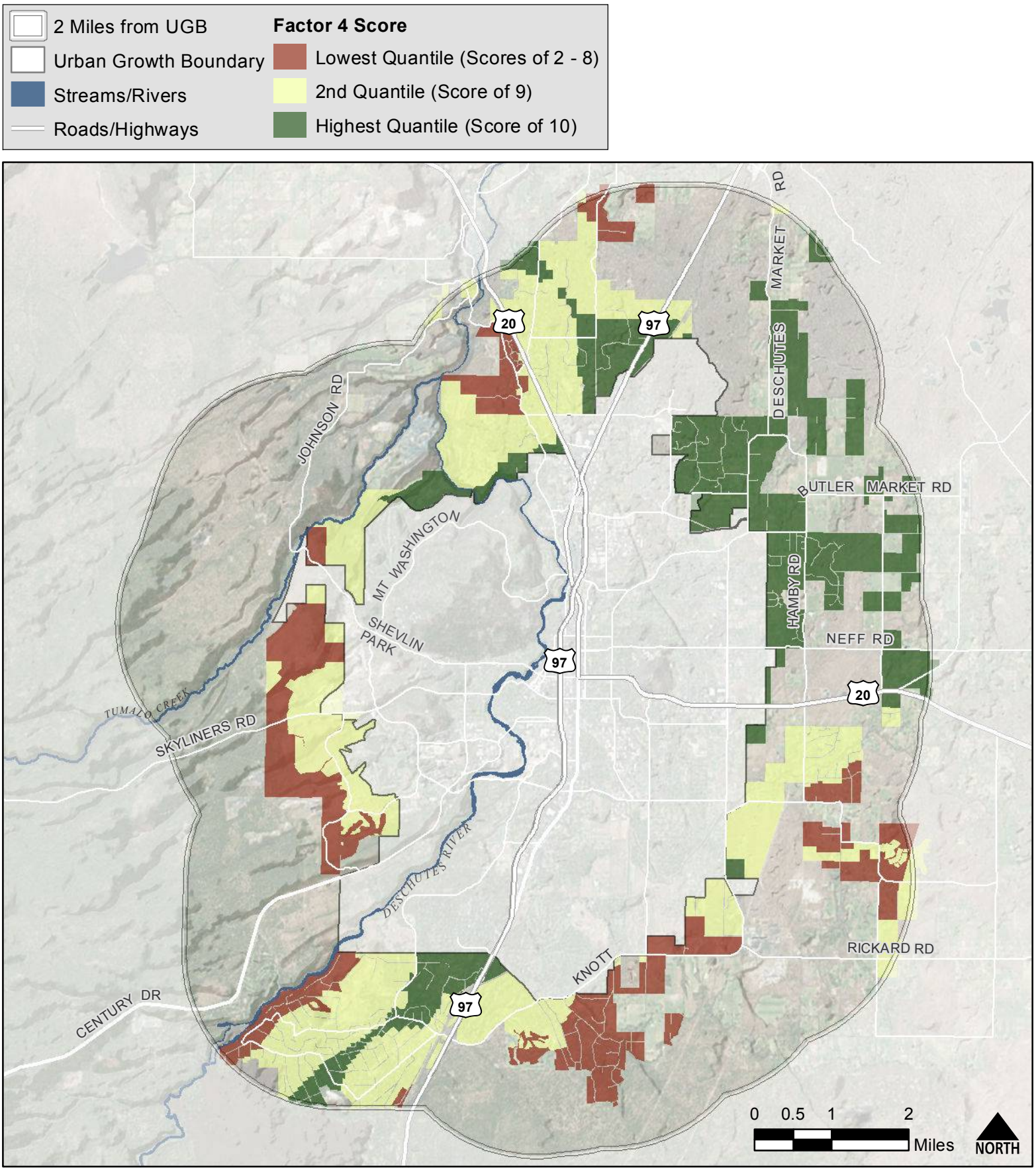
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/31/2015

03784

Factor 4: Farm/Forest Compatibility



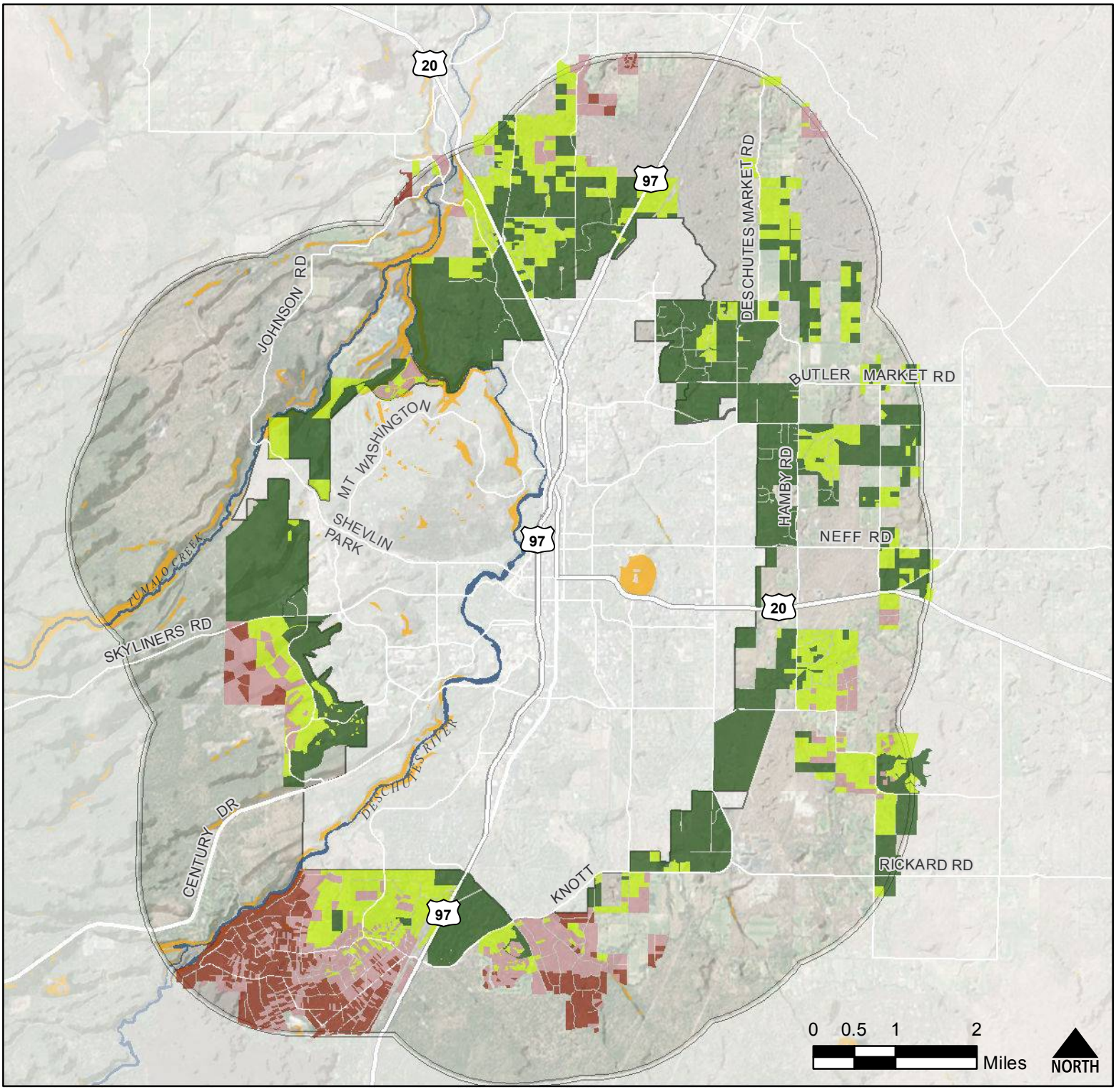
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 4 Indicators include: Proximity to forest land and high value EFU zoned lands.

Prepared 4/1/2015

03785

Bend UGB Land Suitability Composite



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 Factors. For informational purposes only.

Prepared 3/31/2015

03786

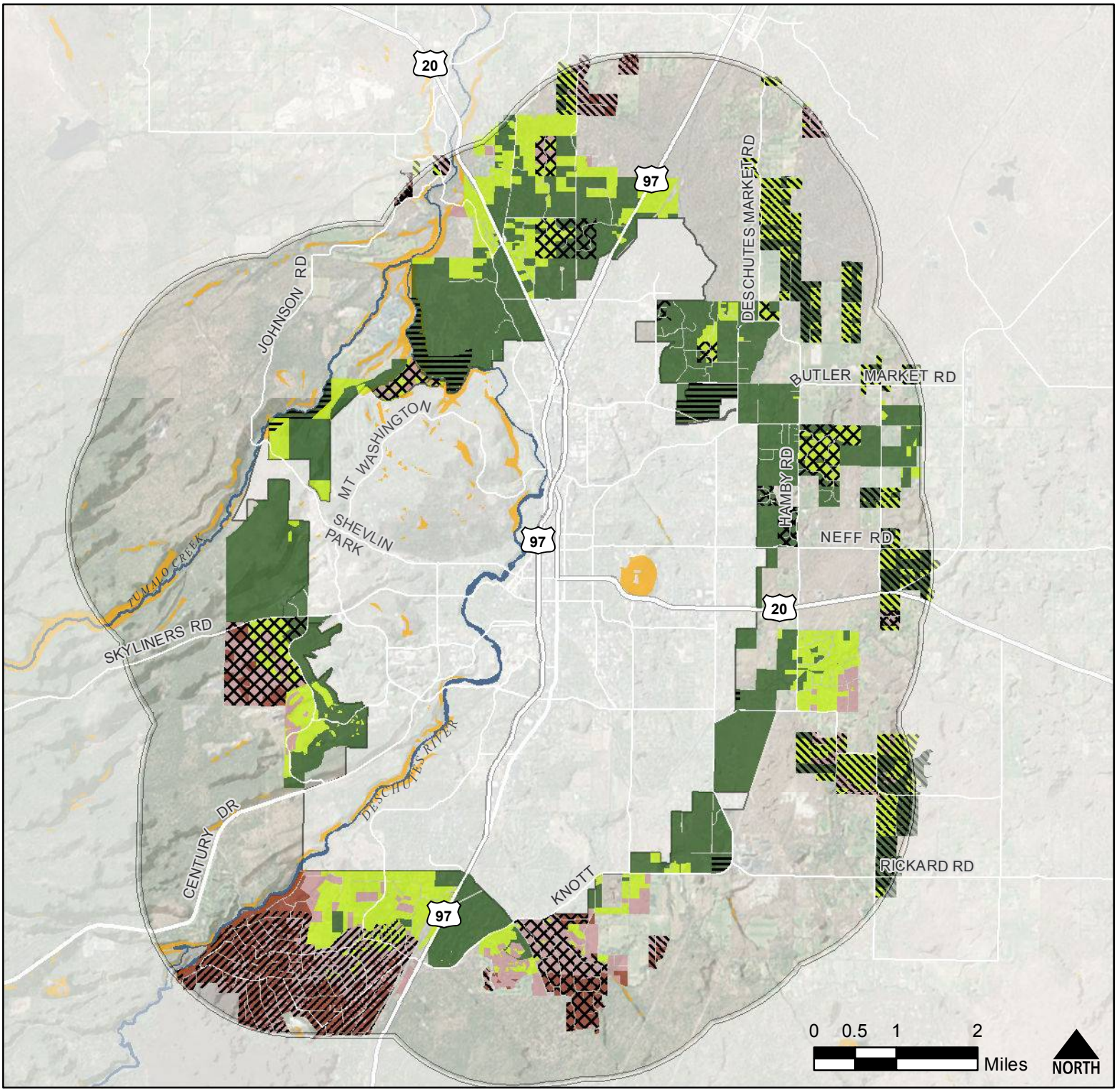
Bend UGB Land Suitability Composite (Annotated)

- 2 Miles from UGB
- Urban Growth Boundary
- Streams/Rivers
- Steep slopes (over 25%)
- Roads/Highways

Composite Score

- Lowest Quartile
- 2nd Quartile
- 3rd Quartile
- Highest Quartile

- Heavily Parcelized (Deschutes River Woods)
- Parks & Rec District Ownership
- Land Separated from UGB by Resource Lands
- Restrictive CCR's



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 Factors. For informational purposes only.

Prepared 4/1/2015

03787

Memorandum

April 4, 2015

To: Phase 2 Boundary TAC

Cc: Project team

From: Angelo Planning Group Team

Re: Stage 2 – Proposed Composite Maps Statistics

The tables below provide preliminary information describing the lands in the Stage 2 Annotated Bend UGB Land Suitability Composite.

Annotation Feature	Total Acres	Total Taxlots
Total Unsuitable Lands*	6,431	2,739
Heavily Parcelized	1,629	1,722
Parks & Rec District Ownership	440	146
Land Separated from UGB by Resource Lands	2,461	465
Restrictive CCR's	1,950	563

**Some taxlots fall into multiple categories.*

Suitability Score	Total Acres	Total Taxlots	Total Acres (Minus Annotated Exclusions)	Total Taxlots (Minus Annotated Exclusions)
Lowest Quartile	1,473	1,216	138	100
2nd Quartile	2,208	1,196	579	220
3rd Quartile	4,275	1,202	3,073	915
Highest Quartile	8,349	1,198	6,975	1,077

City of Bend
Boundary & Growth Scenarios Technical Advisory Committee – Phase 2
Meeting Notes
Date: April 7, 2015

The Boundary & Growth Scenarios TAC held its first meeting of Phase 2 of the Remand Project at 10:00 am on Tuesday, April 7, 2015 in the Municipal Court Hearing Room of the Bend Police Department.

Roll Call

- ☐ Toby Bayard
- ☐ Susan Brody
- ☐ Jim Bryant
- ☐ John Dotson
- ☐ Scott Edelman
- ☐ Ellen Grover
- ☐ Steve Hultberg
- ☐ Tom Kemper
- ☐ Nick Lelack
- ☐ Brian Meece
- ☐ Charlie Miller
- ☐ Mike Riley
- ☐ Wes Price
- ☐ Ron Ross
- ☐ John Russell
- ☐ Sharon Smith
- ☐ Gary Timm
- ☐ Rod Tomcho
- ☐ Dale Van Valkenburg
- ☐ Robin Vora

Discussion

1. Welcome

a. Convene and welcome new members. Joe Dills of the APG Team called the meeting to order at 10:01 am. He welcomed new TAC Members Wes Price, who also served on the Employment Lands TAC in Phase 1 and Tom Kemper who served on the Residential Lands TAC.

Brian informed the TAC that Wes and Tom Kemper were assigned as representatives to the Boundary TAC from Employment and Residential TACS

At this time, Rod asked if we're here to reach consensus, achieve a majority vote and recommendation to the city council. Brian responded by informing the TAC that he is working with legal counsel on establishing minority reports and a process for developing such reports. With respect to last meeting of the UGB Steering Committee, Brian indicated the TAC should not conduct discussions by group emails – that type of discussion is discouraged under Oregon's public meetings law.

b. Minutes of February 24, 2015 Boundary TAC meeting. Ron moved to approve the minutes; Dale provided a second to the motion. Minutes were approved unanimously.

c. Where are we in the process – a brief look back and look forward. Joe provided the TAC with a recap and report on our current status in the project. The project is now nine months to a boundary. The upcoming meetings include today's (April 7, 2015) Boundary TAC meeting; April 30, 2015 Boundary workshop from 2pm to 5pm, and; a June 9, 2015 Boundary TAC meeting. By end of June 2015, the project team will be back before the UGB Steering Committee (USC) seeking their approval of scenarios for UGB expansion. The team will then take these recommendations into the modeling process. Boundary TAC will be on hiatus in July and August while modeling is ongoing. Residential and Employment TACs will be reviewing technical documents during this period.

2. Stage 2 – Proposed Composite Maps and Process

Andrew Parrish of APG gave a powerpoint presentation on the Stage 2 maps included in the meeting packet. The presentation referred to Table 1 in the packet (See page 11) and series of maps for each Goal 14 Factor (Factors 1 through 4) starting on page 12 of the packet. Table 1 summarized the variables considered under each Factor and the corresponding Figure in the packet. Joe clarified that the approach used for this round of maps is still unweighted: no variables are given more weight than others. The presentation reviewed the maps for each factor, and highlighted that the Factor 3 map was presented in several versions. One version has both the wildfire and deer winter range habitat ratings toggled off per the USC's direction from their March meeting. The maps included:

Figure	Description
1	Factor 1: Efficient Accommodation of Land Needs
2	Factor 2: Provision of Public Facilities and Services
3	Factor 3: ESEE Consequences
4	Farm/Forest Compatibility
5	Bend UGB Land Suitability Composite
6	Bend UGB Land Suitability Composite (Annotated)

The maps also included an Appendix A, which consisted of several versions of Figure 3:

- Factor 3: ESEE Consequences
- Factor 3: ESEE Consequences (Including Fire Risk Rating)
- Factor 3: ESEE Consequences (Excluding Proximity to Winter Range)
- Factor 3: ESEE Consequences (Excluding Proximity to Winter Range and Including Wildfire Risk Rating).

After the team presentation, the TAC members had several questions for discussion, including whether to include schools and identify those already located outside the UGB, treating the covenants, conditions, and restrictions (CCR's) of the Tetherow resort like those of other adjacent subdivisions which prohibit further land divisions (e.g. subdivision or partition), and whether the composite maps should include versions with the wildlife and the wildfire data toggled "on" and "off." The TAC discussed wildfire further by considering actual risk, the Community Wildfire Protection Plan (CWPP) ratings for each area outside of Bend, and what effect urbanization might have on wildfire risk. Craig Letz, the wildfire consultant on the UGB team, offered that a meeting was being organized with the different fire agencies to consider the risk of wildfire and how this could be considered in the UGB Remand Project. The meeting was scheduled for April 20, 2015 from 1pm to 5pm in the Council Chambers. The team further mentioned that the fire stakeholders would include representatives from the Bend Fire Department, Deschutes County Rural Fire Protection District #2, Oregon Department of Forestry, Bureau of Land Management, and the County Forester.

The remaining TAC discussion of wildfire considered whether comprehensive plan policies and code language would be useful to mitigate wildfire, the historical fires that have occurred close to Bend, and whether to pursue more updated information on wildfire before proceeding. Joe mentioned that the 4/20 meeting of fire agency staff would be helpful and that a summary of their discussion would be included in the materials for the April 30 scenarios workshop. The TAC further discussed and agreed to use the summary of the 4/20 fire agency meeting as a resource at the 4/30/2015 UGB scenarios workshop.

Motion: With respect to the wildfire data, Sharon moved to not toggle this layer on and off and go with the existing annotated map. Steve provided a second to this motion. The motion passed with 12 votes in Favor and 5 votes Opposed.

The TAC then proceeded to take votes on the decisions list on page 20 of the packet, which are reproduced below:

1. *Stay with the un-weighted approach*. The TAC should consider the Bend UGB Land Suitability Composite (Figure 5), together with the Factor Maps (Figures 1-4) and any other Stage 2 maps members wish to use, as a data base informing qualitative judgments of most and least suitable lands. It will not be worthwhile to spend further time and resources trying to create the "perfect" Stage 2 composite map of best and worst performing lands.

Motion: Before a motion was made Scott Edelman raised a question of whether each factor had a highest possible score. The team confirmed that all factors were equally weighted. Dale Van Valkenburg ask for clarification on the Factor 2 maps and the last two bullets regarding welded tuft, distance from drinking water protection area (DWPA) and industrial development. After this discussion, Ellen moved approval of No. 1, Susan provided a second to the motion. The motion passed with 15 votes in Favor and one vote Opposed.

2. *Use the Annotated Land Suitability Composite (Figure 6) as the basis for narrowing the pool of lands to be considered for UGB expansion.* Figure 6 identifies the least suitable lands, based on GIS analysis of the Goal 14 factors and additional indicators of low suitability (CCR lands, islands, and irregular edge parcels). When the low suitability lands are removed, the remaining pool of lands is roughly 9,700 acres, a reasonable starting point for identifying the 1000-3000 acres needed to complete Bend's land supply for 2028.

Motion: Rod asked for clarification that the motion was to leave this map as is and adopt it and the 4/7 table. Brian moved approval of this motion with Sharon providing a second. Discussion on the motion – Robin discussed the area north of Mt. Washington Drive (west) as bright green, and whether to look at individual maps for sewer and wildlife. Motion passed with 13 votes in Favor, one vote Opposed, and no abstentions.

3. *Use the Annotated Land Suitability Composite (Figure 6) in the upcoming scenario workshop.* Participants at the workshop should use Figure 6, plus additional Stage 2 maps as information, as the basis for building scenarios. In this way, they will select – in the workshop – what areas are most suitable using their own value judgments about what are the best lands for urbanization in the 9,700 acres under consideration.

Motion: Before the motion was made, Alex Joyce gave a brief presentation on how the workshop would work, including the chip menu exercise, reporting back to the larger group, and the goal of looking for three distinct scenarios. The TAC also asked for clarification on the focus of the workshop being where and how to grow, discussing what lands are suitable for urbanization at the workshop; the experience from the prior (December 2014) workshop, the opportunity for a guided and self-guided tours of the UGB, and background materials to review before the workshop. No motion was made as the TAC came to consensus in support of this recommendation.

4. *Supplement the Stage 2 map set with new information (forthcoming) from the irrigation districts.* In addition to the information shown to date, city staff is working with surrounding irrigation districts to provide mapping information which will show their key facilities and irrigated parcels for use in the upcoming scenario workshop. Up to now, this information has been difficult to assemble due to time constraints. This additional information will allow the workshop

participants to consider the location of irrigated lands and irrigation district infrastructure alongside information in the existing map series.

Brian provided a quick update on the City's work with the four irrigation districts with serviced territory and irrigation facilities (e.g. canals, laterals) in the UGB study area. He had given a presentation on the project to the Deschutes Basin Board of Control, which consists of the managers of each basin irrigation district. The City is coordinating with the districts to bring this type of information into the workshop discussion on the 30th. No motions or votes were taken on this topic.

4. Calculation of the Range of Acreage Needed for UGB Expansion

Andrew Parrish of the consultant team gave a presentation of the acreage calculations presented in the packet in Table 3 (See pages 33 and 34). He also touched on how the calculations for other lands were addressed and elaborated on the discussion presented on page 34. The total "bookends" for each scenario was 2,195 acres for Scenario 4b and 1,911 acres for Scenario 5c. After the presentation, the TAC discussion touched on a vacancy factor for residential lands, the proportion of housing in Juniper Ridge under each scenario, and second homes and how they were included in the residential acreage calculation. In addition, the TAC discussion also included several factors that were considered by the Residential and the Employment TACs in their prior work, including aspirational land needs, efficiency measures, special site needs (such as those considered in 2008), and the amount of developable acres in Juniper Ridge.

Motion: After the close of the discussion, Joe asked for a motion on the acreage calculations presented on page 35, which is reproduced below.

The team recommends that the preliminary land needs in Table 3 be used as "bookends" for the April 30th scenario workshop. As noted, the total land need estimates will likely be revised downward slightly to account for schools and parks developed in the 2008-2014 period.

Tom Kemper moved approval of this motion, with John Russell providing a second. The motion passed unanimously.

5. Public Comment.

No public comment was provided at this time.

Ellen Grover offered an announcement of an event of potential interest to the TAC on 4/15/15.

6. Project Information, Next Steps

Joe adjourned the meeting at 12:25 am.

Action Items/Next Steps

Action	Assigned To
Approved the use of the annotated composite map	✓ Done
Approved staying with an un-weighted approach for the Land Suitability Composite	✓ Done

Approved the use of the Annotated Land Suitability Composite (Figure 6) for narrowing pool of land to consider for expansion	✓ Done
Approved use of Annotated Land Suitability Composite (Figure 6) for Use in the April 30 Scenarios Workshop	✓ Done
Approved the acreage calculation "bookends" of 2,195 acres for Scenario 4b and 1,911 acres for Scenario 5c.	✓ Done

URBAN GROWTH BOUNDARY REMAND

BEND

Sign in Sheet

(1)

Meeting: PHASE 2 BOUNDARY TAC

Date: 4-7-2015

Location: BEND MUNI COURT

Name	Organization	Email Address
Jody Ward	JL Ward Co	Jody@JLWardCo.com
Sharon Smith		
Scott Jackson	Landowner	
Jim BRYANT	ODOT	
John Russell	DSL	
Robin Vora		
Ron Ross		
Toby Bayard	None-self	tobybayard@hotmail.com
Rod Tomcho	Boundary TAC	
Moey Newbold	COLW	moey@centraloregonlandwatch.org
Kurt Petrich	KAPP	Kgpetrich@gmail.com
Nick Lelack	Deschutes Co	Nick.Lelack@deschutes.org
Wes Price		
Brian Meece		
Steve Hultberg		
Gary Vodden		randalrrri@gmail.com
Suzanne Butterfield	Swalley Irrig. Dist	suzanne@swalley.com
Ron Boozell		ron.boozell@gmail.com

URBAN GROWTH BOUNDARY REMAND

BEND

Sign in Sheet

Meeting: _____

Date: _____

Location: _____

Name	Organization	Email Address
Mark Troxel	DSV-Cascades	troxelm@onid.orst.edu
John DOTsa		
Dale VanValkenburg		

URBAN GROWTH BOUNDARY REMAND

Meeting Agenda

Wildfire Risk Discussion
Monday, April 20, 2015 1:00 PM – 4:00 PM
City Council Chambers, Bend City Hall

Agenda

1.	**Welcome**	1:00 PM
	a. Introductions and Ground Rules	Brian Rankin
	b. Project background – a brief look back and look forward	
2.	**Panel Discussion**	1:15 PM
	a. How Wildfire Has Been Addressed To Date b. Ideas for Analyzing Wildfire For Specific UGB Expansion Scenarios c. Ideas for Mitigation Strategies and Policy Development d. Multi-Agency Involvement and Coordination	Brian Rankin and Panel
3.	**Boundary TAC Discussion and Questions**	2:45 PM
4.	**Public Comment**	Time as allowed

For additional project information, visit the project website at http://bend.or.us or contact Brian Rankin, City of Bend, at brankin@bendoregon.gov or 541-388-5584

Accessible Meeting/Alternate Format Notification
This meeting/event location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats, language translations or any other accommodations are available upon advance request at no cost. Please contact the City Recorder no later than 24 hours in advance of the meeting at rchristie@ci.bend.or.us, or fax 385-6676. Providing at least 2 days notice prior to the event will help ensure availability.

Catalyst Questions

How Wildfire Has Been Addressed To Date

- Is there any other model, study, report, or source of data regarding fire risk to the Bend area (study area) that would have different conclusions about fire risk ratings at the scale of the study area? If so, what are those models, studies, or sources of data?
- Is the CWPP an appropriate planning level tool that helps differentiate different degrees of risk in the study area?
- Is it appropriate to apply the different area risk ratings to specific properties in the study area, or as the TAC has recommended, it is not appropriate to be used in this manner and is better applied through a more subjective consideration?

Ideas for Analyzing Wildfire for Specific UGB Expansion Scenarios

- Overall question: What is the best way to evaluate different degrees of risk, cost, and mitigation for different UGB expansion scenarios?
- Is the best approach site specific based on field work and mapping analysis, the direct or indirect use of the CWPP, or some other risk model?

Ideas for Mitigation Strategies & Policy Development

- What strategies are other communities using?
- How would transitions zones work to reduce fire risk?

Multi-Agency Involvement & Coordination

- Who are the key stakeholders that should and could be a part of this process?
- What kind of involvement is required, for how long, and to what degree?

TAC Questions (Questions submitted by members of the Boundary TAC)

- In what parts of the UGB expansion study area is wildfire risk the highest? Which parts the lowest?
- The west and south portions of that study area have had fires that have directly impacted the area or been close (e.g., Two Bulls, Awbrey Hall, Bridge Creek, 18, Skeleton). What major fires in recorded history have threatened the north, northeast or east parts of Bend (Rickard Road north to Hwy 97 around the northeast perimeter)?
- Please also address spotting in major fires such as occurred during the B&B Complex and how that affects fire risk within potential UGB expansion areas?
- What are the most common wind directions during extreme fire conditions, especially stronger winds?
- If development is built as fire-resistant (i.e. with defensible zones and fire resistant materials), can it actually help provide fire breaks in the case of a wildland fire?
- The Westside Fire Management Plan that is being executed along Skyliners Road and on forest lands is part of a larger National Strategy and National Plan to reduce fire fuels and provide a healthier forest.that is more resilient in the case of wildfire. Wouldn't you agree with this work being performed that Bend is in a better position now and more of a fire resilient community that it has been in the past 15-20 years?

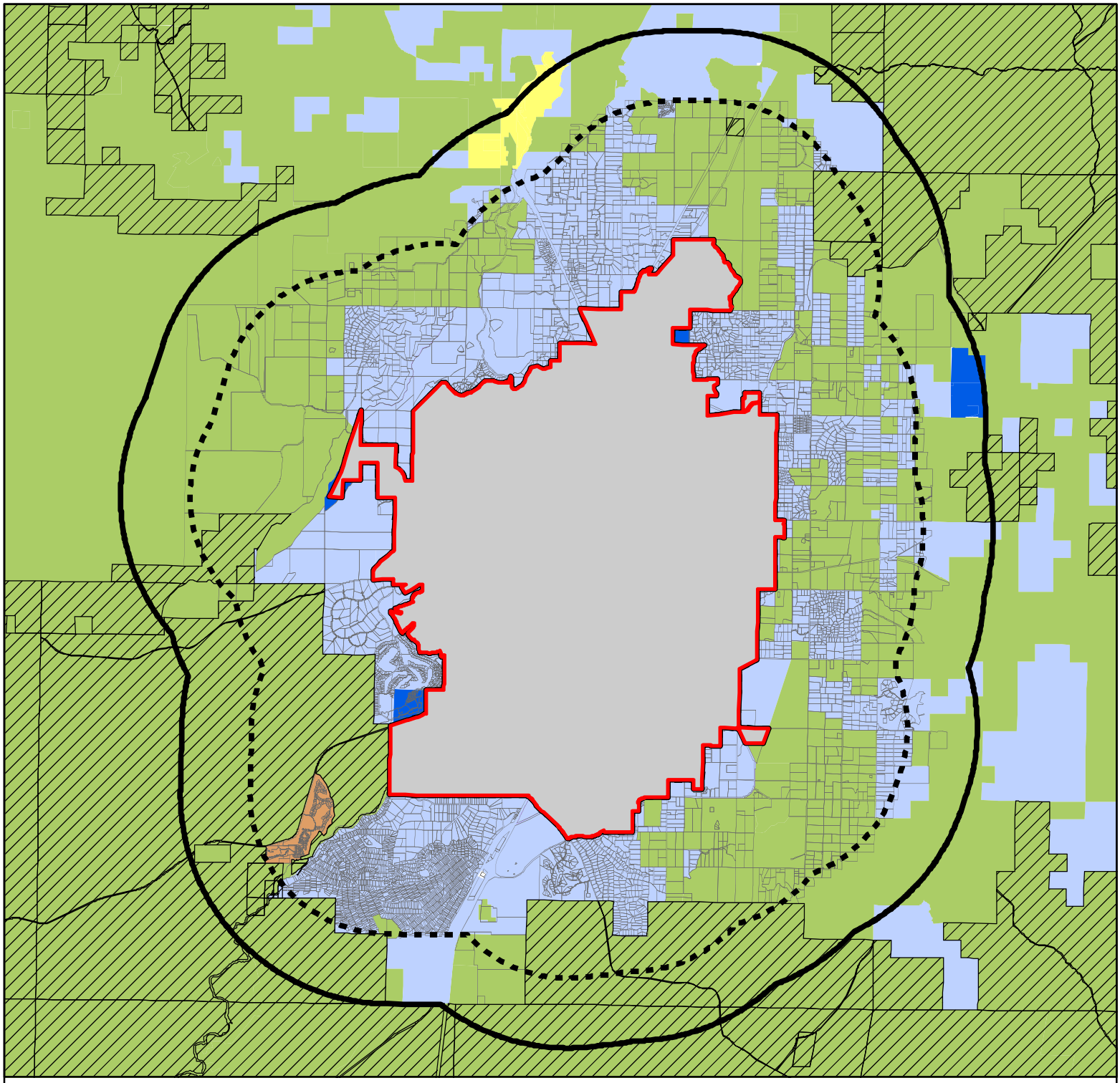
UGB Study Area by Priority Class*

Priority Category
- Limited Residential; Exception Land (Priority 2)
- Resource Land (Priority 4)

Other Plan Designations
- Public Facilities
- Resort
- Rural Community

- Urban Growth Boundary
- USFS and BLM land
- 2 Miles from UGB
- 3 Miles from UGB

* Priority of Land to be added to a UGB is defined in Oregon Revised Statutes (ORS) § 197.298



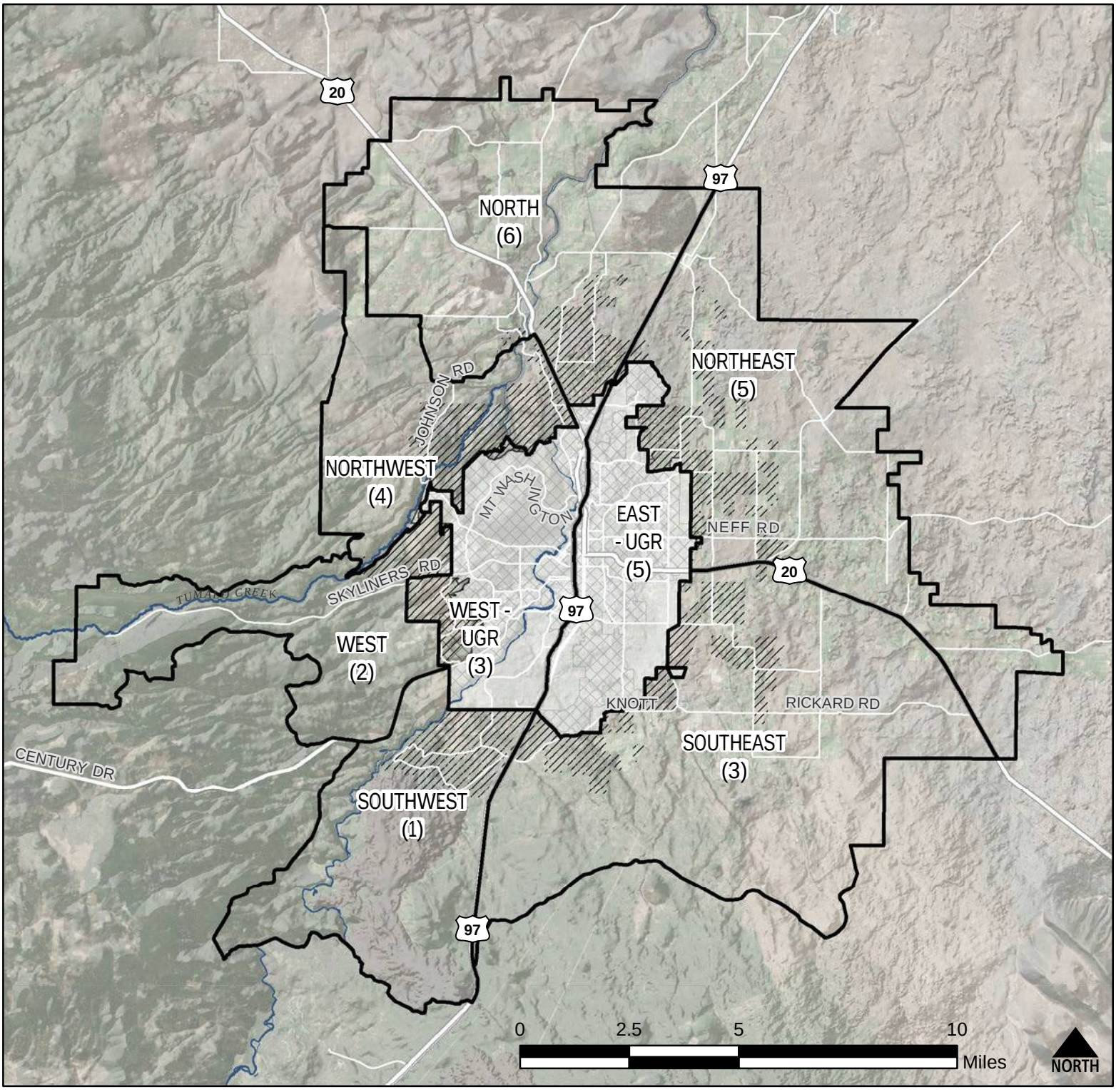
URBAN GROWTH BOUNDARY REMAND

Prepared 8/12/2014

0 1 2 4 Miles

NORTH

Greater Bend CWPP Boundary Subareas



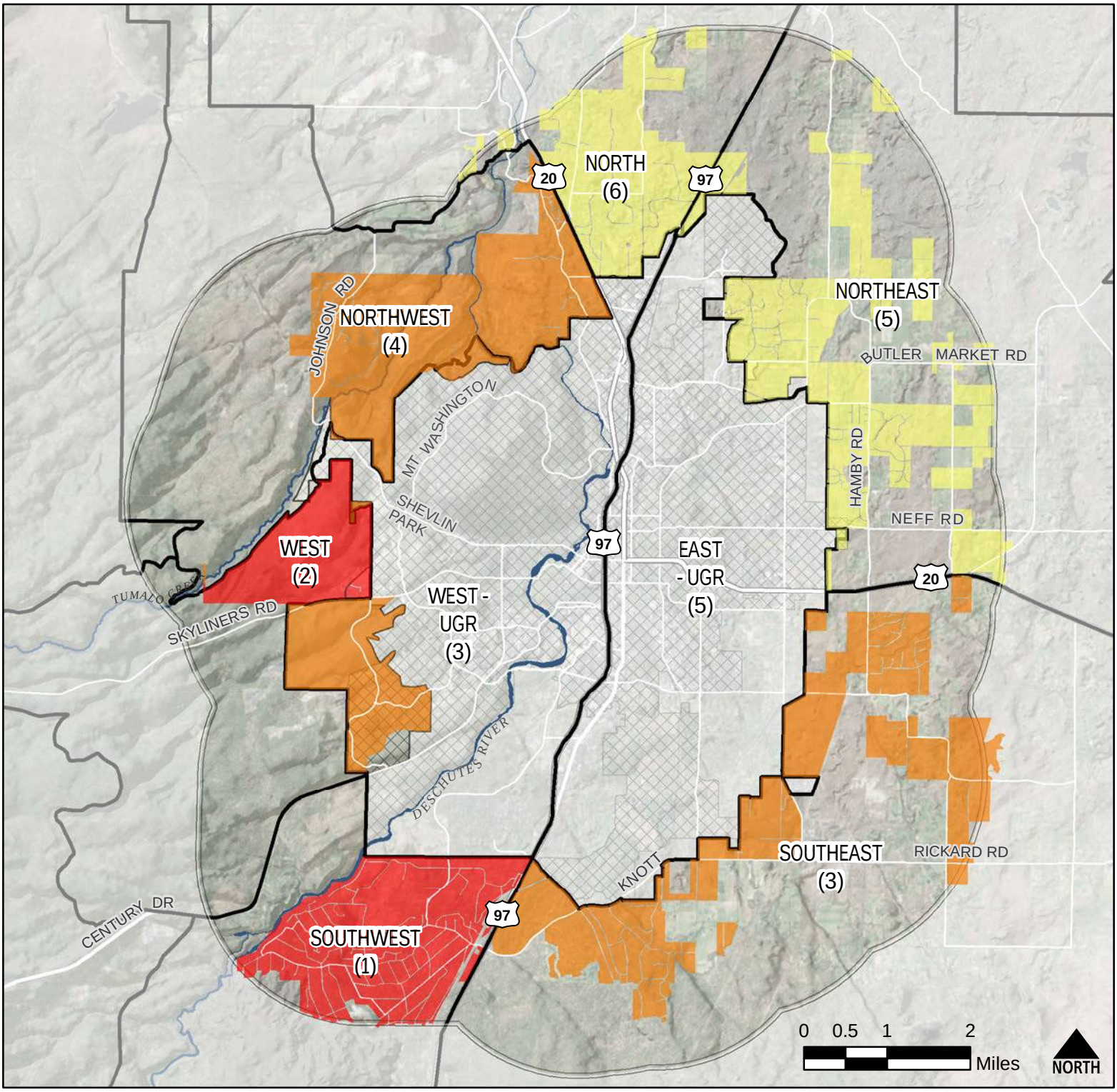
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY

Service Layer Credits: Project Wildfire (2011), Deschutes County GIS (2014)
Rating Source: CWPP Table 8 - Composite Ratings

Prepared 3/6/2015

Composite Wildfire Risk Ratings



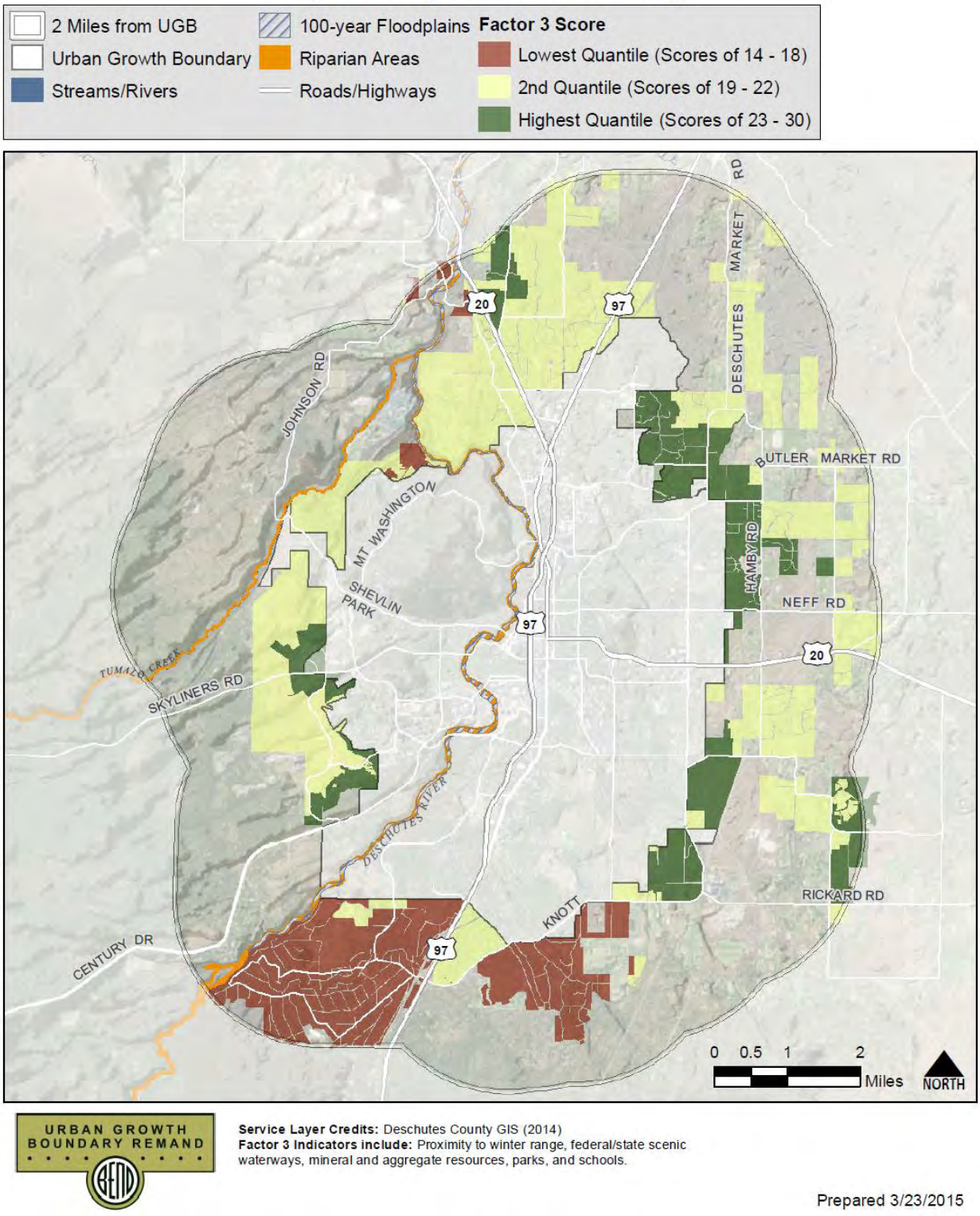
URBAN GROWTH BOUNDARY REMAND

FOR INFORMATION USE ONLY; NOT TO BE USED IN STAGE 2

Service Layer Credits: Project Wildfire (2011), Deschutes County GIS (2014)
Rating Source: CWPP Table 8 - Composite Ratings

Prepared 3/6/2015

Factor 3: ESEE Consequences
(Including Fire Risk Ranking)



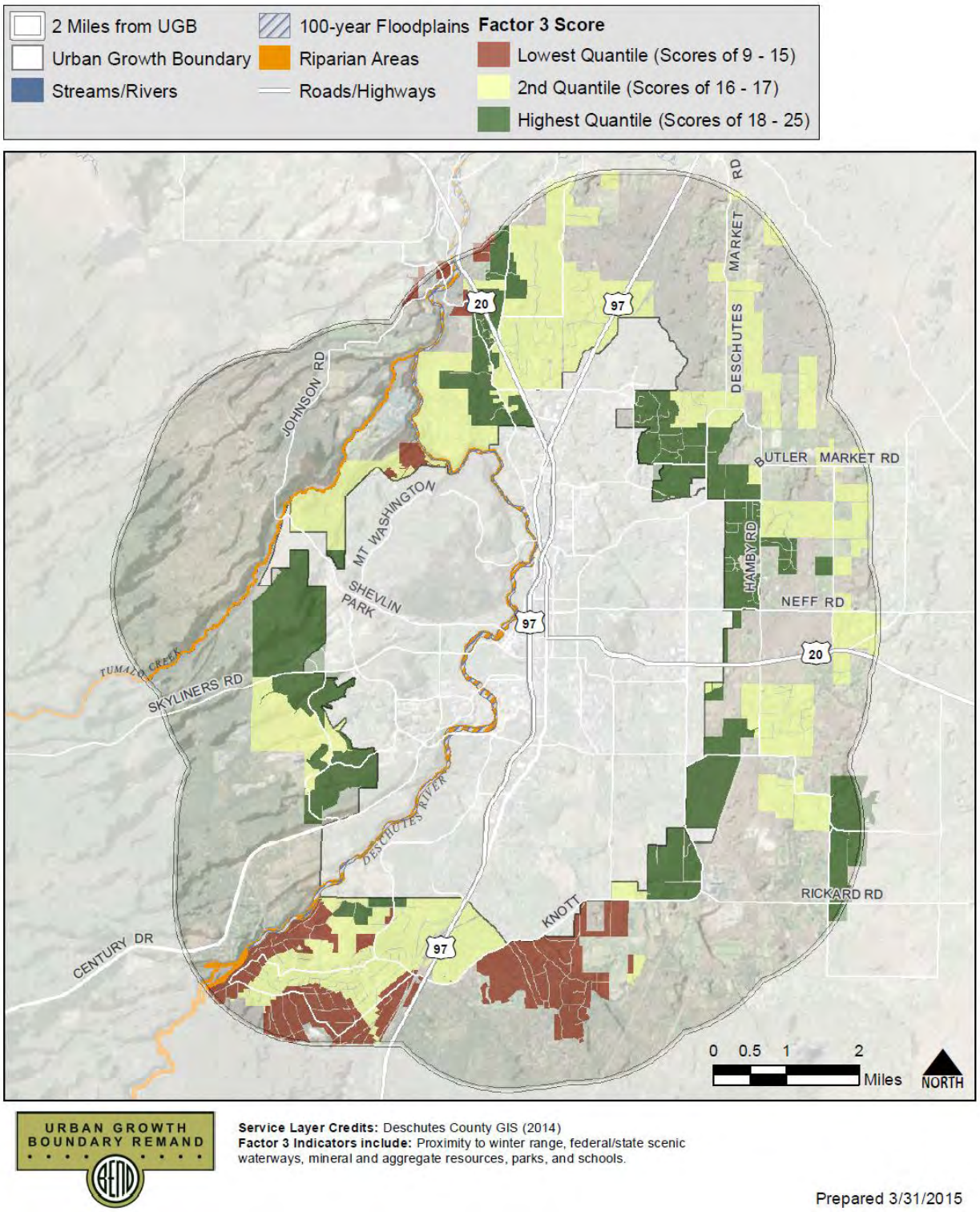
URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/23/2015

APPENDIX A: ALTERNATIVE FACTOR 3 MAPS

Factor 3: ESEE Consequences



Fire Threat Index

Likelihood of an acre burning. Combines probability of ignition with expected fire size based on rate of spread.

Legend

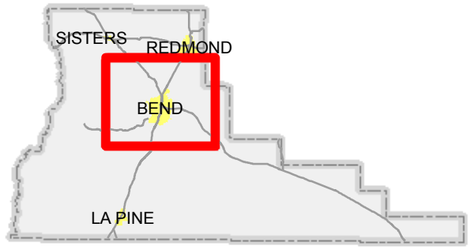
- ODF Protection Boundary
- Rural Fire District
- Lake
- River
- Urban_Growth_Boundary
- Roads

Fire Threat Index

<VALUE>

- <= 0.000509
- 0.000510 to 0.001619
- 0.001620 to 0.001985
- 0.001986 to 0.002588
- 0.002589 to 0.004272
- 0.004273 to 0.008316
- 0.008317 to 0.017466
- 0.017467 to 0.037701
- 0.037702 to 1.000000

Vicinity Map



0 1 2 4 Miles

NORTH

Map Prepared by Deschutes County
Forestry
Ed Keith
61150 SE 27th St., Bend, OR
541-322-7117

Date: 4/14/2015

Document Path: F:\OR-WA_WWA_USB\GIS\OR_10_BENDUGB.mxd

03803

Fire Risk Index

Expected loss based on likelihood of an acre burning and potential effect on values and suppression costs.

Legend

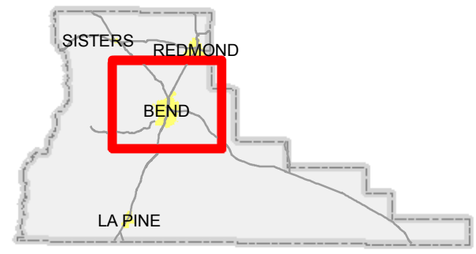
- ODF Protection Boundary
- Rural Fire District
- Lake
- River
- Urban_Growth_Boundary
- Roads

Fire Risk Index

<VALUE>

- >= -1.54
- -1.541 to -4.73
- -4.731 to -6.64
- -6.641 to -10.6
- -10.601 to -21.03
- -21.031 to -51.46
- -51.461 to -122.52
- -122.521 to -284.77
- < -284.77

Vicinity Map



0 1 2 4 Miles

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Map Prepared by Deschutes County
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Ed Keith
61150 SE 27th St., Bend, OR
541-322-7117

Date: 4/14/2015

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03804

Fire Effects Index

Areas with important values affected by wildland fire or are costly to suppress. Combines values impacted with supression difficulty.

Legend

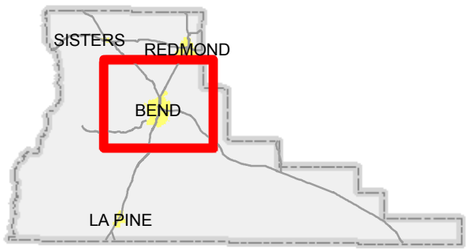
- ODF Protection Boundary
- Rural Fire District
- Lake
- River
- Urban_Growth_Boundary
- Roads

Fire Effects Index

<VALUE>

- -0.001000 to -0.174768
- -0.174769 to -0.53104
- -0.531041 to -0.604844
- -0.604845 to -0.728161
- -0.728162 to -0.883355
- -0.883356 to -1.035111
- -1.035112 to -1.376781
- -1.376782 to -2.584787
- -2.584788 to -9.000000

Vicinity Map



0 1 2 4 Miles

NORTH

Map Prepared by Deschutes County Forestry
Ed Keith
61150 SE 27th St., Bend, OR
541-322-7117

Date: 4/14/2015

Document Path: F:\OR-WA_WWA_USB\GIS\OR_10_BENDUGB.mxd

03805

URBAN GROWTH BOUNDARY REMAND

Sign in Sheet

Meeting: WILDFIRE FOCUS GROUP

Date: 4-20-2015

Location: COUNCIL CHAMBERS

Name	Organization	Email Address
PAUL DEWEY		pdewey@bendcable.com
Gary Marshall	Sisters Fire Dept	gmarshall@sistersfire.com
John Jackson		johnf@singletreecommunity.com
Ken Katzaroff	Hurley Re	JKKatzaroff@hurleyre.com
RONDO		ron.boozell@gmail.com
ROD TAMCHINA		
Dale N. Van	Bend City TAC	

WILDFIRE RISK FOCUS GROUP DISCUSSION SUMMARY

Monday, April 20, 2015 City Hall Council Chambers

Focus Group:

- Stu Otto, Department of Forestry
- Ed Keith, Deschutes County Forester
- Alex Robertson, US Forest Service
- Robert Madden, Bend Fire Department
- Craig Letz, Wildfire Consultant

Boundary TAC members in attendance:

- Paul Dewey
- Gary Timm
- Charley Miller
- Dale Van Valkenburg
- Brian Meece
- Rod Tomcho
- Robin Vora
- Mike Riley
- Tom Kemper

Project Background

The original UGB proposal did not assess fire risk. In the Remand, DLCD told the City that it was not specifically required to examine wildfire risk but strongly suggested that a look at wildfire risk through the balancing lens of Goal 14. To that end, the City gathering the best available information on risk and mitigation approaches and is using that information to make the best decisions for the UGB expansion.

The City started by using the Deschutes County Community Wildfire Protection Plan (CWPP). The Boundary TAC struggled with the CWPP as a tool, mainly due to outdated data and artificial boundaries for risk. This focus group was pulled together to discuss the appropriateness of the CWPP and to get ideas for analyzing wildfire for specific UGB expansion scenarios; ideas for mitigation strategies and policy development; and direction on how best to move forward with multi-agency involvement and coordination.

Panel Discussion

Is the CWPP an appropriate tool to use for assessing relative wildfire risk? Are there other tools?

Ed Keith offered the West Wide Risk Assessment (2013), a mapping effort coordinated through council of Western States Foresters. He provided three maps (attached). These maps provide a finer grained analysis of risk that is not constrained by artificial geographic boundaries (one of the TAC concerns) but that essentially supports the conclusions of the CWPP: wildfire risk is high all around the City. The only places that there isn't high risk is where there are irrigated fields or rock. The West Wide Risk Assessment has the same constraints as the CWPP in that the data is several years old and does not include some recent fires and fire treatments. This is a challenge with all models because the fire landscape is dynamic.

Alex Robertson said that there are many models for wildfire out there, all of them suffer from the dynamic nature of the resource. Most federal models are focused on how to manage lands within the boundaries of the management agency.

All panelists agreed that the CWPP is a decent tool to use, particularly because it is possible to dig into the assumptions and see what conclusions were used to assess the risk. In other words, risk is high all around the City but might be high in one area because of threats to structures and in another because of topography.

Does the panel have ideas for analyzing wildfire risk for specific UGB expansion scenarios?

The panel generally agreed that some level of site specific analysis would be appropriate. GIS will reveal topographical issues (i.e., steep slopes, saddles), aerial photography will provide some information on vegetation, but boots on the ground at eye level may be the most useful.

Susie Maniscalco from the City of Bend offered that there are existing assessment tools, such as NFPA and Firewise, which would be useful for property specific assessments.

Does the panel have ideas for mitigation strategies and policy development?

The panel generally agreed that there's always risk and that some kind of codification of mitigation to minimize risk will most likely be appropriate. Firewise appears to be an excellent starting point for mitigation tools. Defensible space around individual homes or clusters of home is critical. The concept of larger managed buffers at the urban/wildland interface was discussed. The panel emphasized the need for constant management of any kind of defensible space or urban buffer. Access (i.e. maintained and ungated roadways) is also important. It may be necessary to require structural standards (i.e., sprinklering buildings) in some areas.

The panel suggested that the City look at what other communities, such as Flagstaff, Arizona, are doing to manage wildfire risk.

The panel cautioned that, to the extent we can, we also need to make sure that adjacent property owners outside the urban area – private or public – can continue to use appropriate tools to manage their lands, including prescribed burning.

Multi-agency involvement and coordination – is this the right group, are we missing anyone?

The panel agreed that they represented the appropriate agencies. Craig Letz suggested that the Bend Police Department and Deschutes County Sheriff be invited to the table to discuss mitigation, since they are the agencies that handle evacuations during a fire emergency.

Boundary TAC Discussion and Questions

In what parts of the UGB expansion study area is wildfire risk the highest? Which parts the lowest?

Risk is high everywhere except for irrigated land or rock.

What major fires in recorded history have threatened the north, northeast or east parts of Bend (Rickard Road north to Hwy 97 around the northeast perimeter)?

There have been no fires larger than 20 to 40 acres north of Rickard road.

Please address spotting in major fires such as occurred during the B&B Complex and how that affects fire risk within potential UGB expansion areas?

Spotting is an issue with all wildfires, is not specific to any geographic area. Protection is provided by good vegetation management.

What are the most common wind directions during extreme fire conditions, especially stronger winds?

Wildfires create their own wind conditions. Catastrophic fires have a tendency to move north and south, which has been demonstrated to be the result upper level winds.

If development is built as fire-resistant (i.e. with defensible zones and fire resistant materials), can it actually help provide fire breaks in the case of a wildland fire?

Yes.

The Westside Fire Management Plan that is being executed along Skyliners Road and on forest lands is part of a larger National Strategy and National Plan to reduce fire fuels and provide a healthier forest that is more resilient in the case of wildfire. Would you agree with this work being performed that Bend is in a better position now and more of a fire resilient community that it has been in the past 15-20 years?

Yes.

When we are doing mitigation along the urban edge, are there things we need to do differently for transportation and water infrastructure?

We definitely need to build in smart transportation infrastructure and consider emergency response and evacuation need. Water supply is critical, but urban levels will be sufficient.

Does Bend Fire have maps and information on response times for different parts of the City?

Our fire stations are basically located towards the outer edges of time – in fact, the Fire Department is currently focusing on improving response times to the central part of Bend.

If a property urbanizes, what mitigation would you recommend? What should we do everywhere?

Project Wildfire (Firewise) is the best approach. It includes the mitigation measures discussed today: building materials, roofing materials, decking, vegetation management, and appropriate buffer zones.

In your fire planning, do you take into account climate change factors?

Yes. Longer summers, hotter and dryer summers; it is an unrealistic expectation to rely on the past and assume it won't change.

Considering climate change, worst case scenario – fire coming into a residential area -- is there an area where you'd be least likely want to see new homes?

There are no geographic regions (i.e. west vs. east) that are necessarily worse or better – but proper attention is needed for specific areas. Terrain features should be taken into consideration; for example, it would be preferable to not locate houses in a saddle or at the top of a draw.

What are the most sources of ignition for fires outside the existing UGB?

There is about a 50/50 split between human-caused and lightning fire starts.

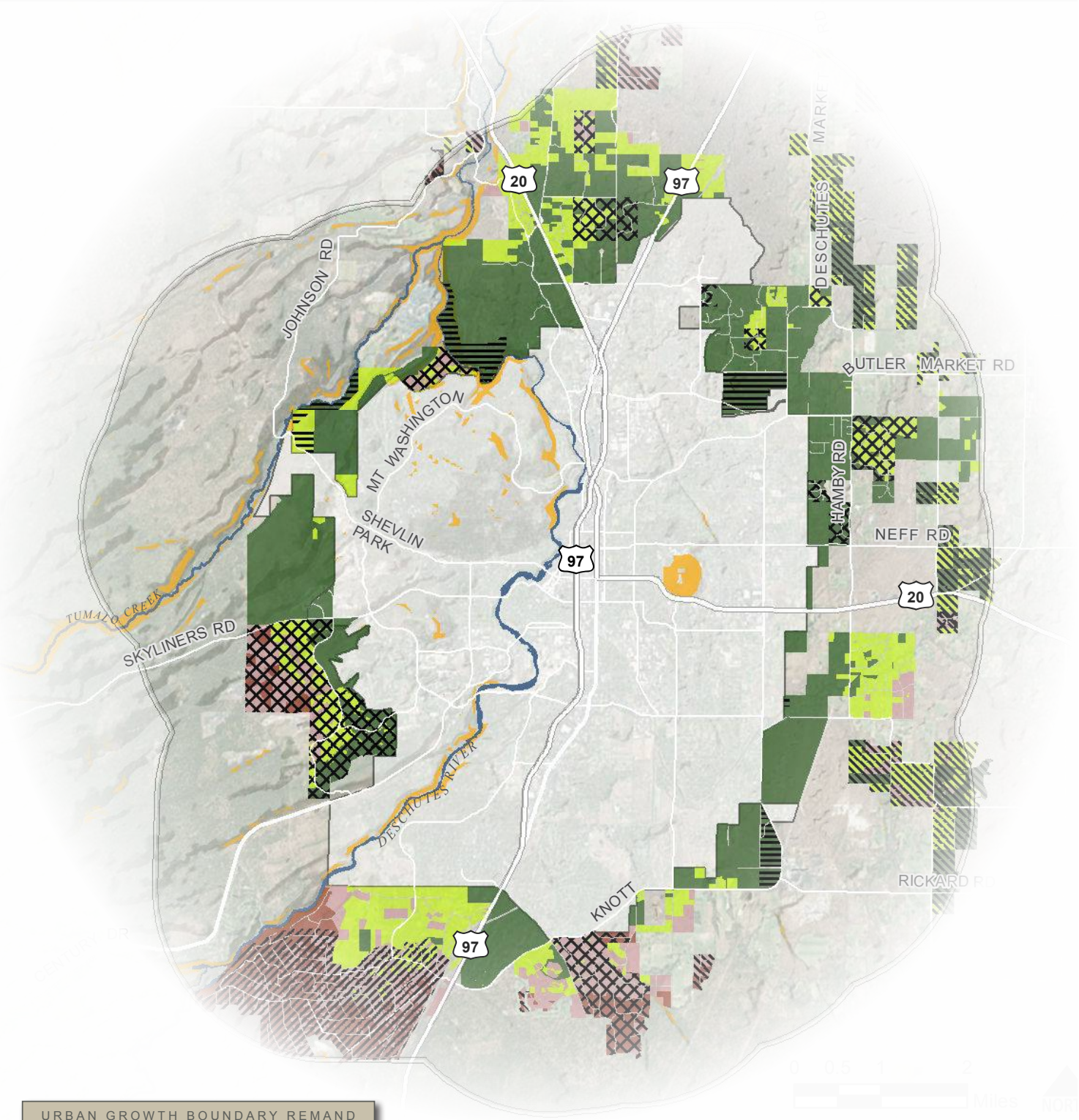
Public Comments

1. John Jackson – retired from wildland fire business. Instead of avoiding development; target those areas of areas to mitigate; make it a condition of approval to require fuels mitigation and fire buffering. Tie these areas together so there's consistent treatment, similar to what Flagstaff and other communities have done. Go west and attack the problem to the west. Think about putting the onus on developers to mitigate.

2. Gary Marshall – retired Bend fire marshal, currently working for Sisters Camp Sherman and NFPA and Fire Wise advisor. The root of the fire risk problem is development standards – work with developers before they purchase the property. Develop mitigation standards – SB 360 development standards are working.

BRIEFING PACKET 1

Key Phase 1 Outcomes



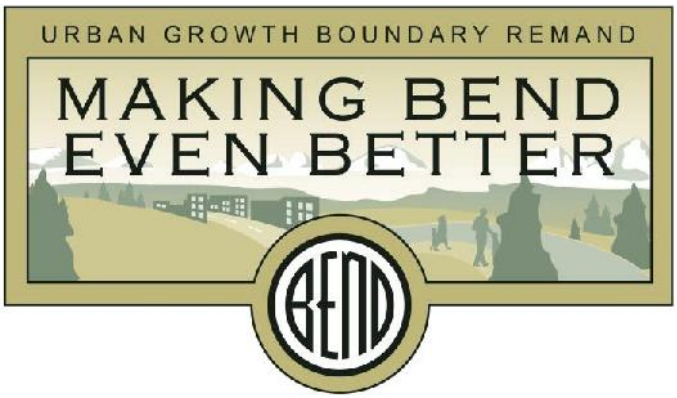
URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

BEND

UGB SCENARIOS WORKSHOP

April 22, 2015



Bend UGB Scenarios Workshop

Briefing Packet No. 1*: Key Phase 1 Outcomes*

April 22, 2015

CONTENTS

INTRODUCTION

The purpose of this memorandum is to summarize key outcomes from all three Technical Advisory Committees (TACs) – Residential, Employment, and Boundary and Growth Scenarios – from Phase 1 work and meetings. The Phase 1 work sets the stage for the Urban Growth Boundary (UGB) scenarios workshop on April 30th. Since the three TACs largely worked independently, this memorandum aims to provide a common level of understanding for all workshop participants of some of the key outcomes from Phase 1.

Phase 1 recommendations were discussed and approved by the UGB Steering Committee (USC) at their meeting on March 19, 2015 that concluded Phase 1 work.

OVERVIEW

Guidance and rules related to establishment and change of a UGB are provided in Statewide Planning Goal 14, in Oregon Revised Statutes (ORS 197.298), and in Oregon Administrative Rules (OAR Chapter 660, Division 24). These rules and other state regulations have guided, and continue to guide, the work of identifying where, how much, and for what uses Bend needs to expand its current UGB.

In the process of addressing the issues and directives identified by the Land Conservation and Development Commission (LCDC) in the Remand of Bend's 2009 UGB proposal, the TACs have been working since August 2014 to answer the following questions:

- How much land is needed for housing and related uses through 2028?
- Which "efficiency measures" should be used to accommodate more residential growth within the existing UGB?
- How much land is needed for employment and special site uses (i.e. large lot industrial) through 2028?
- Consistent with the requirements of the Remand, how do we frame the study area(s) for the packaging and analysis of the boundary and growth scenarios?
- How do we evaluate land for suitability for UGB expansion, consistent with the requirements of Goal 14?

The work was demanding, engaging, sometimes divisive and emotional, yet resulted in recommendations which were mainly consensus decisions and represent a strong base of agreement for the project. In addition to the TAC process, work during Phase 1 included community input in the form of on-line surveys, workshops, and many interactive presentations to local groups.

While the Residential and Employment TACs focused on planning for the existing city and UGB, the Boundary TAC had an external focus.

Residential and Employment TAC Recommendations

From a policy standpoint, the practical question about the work and recommendations created by the Residential and Employment TACs is: "What does this mean for Bend's future in terms of land use?"

At the risk of oversimplifying, the answer is that the sum of these many decisions creates a plan that identifies new opportunity areas for slightly more intensive and different mixes of employment and housing, while respecting the nature of Bend's existing developed neighborhoods throughout the city.

Generally, residential land that is already developed is not planned to experience a high degree of change or redevelopment. Assumptions about the redevelopment of residential and employment areas are on track with rates observed since 1998. The Central Area of Bend is planned to experience the greatest change in mix and intensity of uses as it moves from a pure employment area to a mixed employment and residential area with a greater density of employees and residents.

Higher densities of residential development are generally assumed for remaining vacant land throughout the City, while avoiding radically different redevelopment patterns in developed areas. The recommendations include measures that would be implemented through the City's Development Code to make it easier to develop a greater variety of housing types and use residential and employment land more efficiently. In addition, the work assumes a movement away from the observed trend of building approximately 75% of residential land for single-family detached units (between 1998 and 2014) to a rate of 55% single-family detached units going forward from 2014 to 2028. Even with this shift in new development, the overall mix of housing stock inside the current UGB would remain between about 65% and 75% single family detached (compared to almost 80% today).

For the current UGB, the TACs are recommending that a range (aka "bookends") of growth capacity and growth strategies be carried into Phase 2 of the project. The growth capacity range accommodates about 73% to 85% of the City's housing need (units) and 70 to 85% of the City's employment need (jobs) to the year 2028. About two-thirds of this growth is on vacant buildable lands, with the other third on infill lands. Key opportunity areas, each with their own potential and limitations, include the Central Area, SE area Ward properties, Century West Area, and Juniper Ridge.

Testing of the efficiency measures revealed: (1) that they have strong potential for increasing the efficiency of land use (up to approximately 60% increase for housing in the current recommendations); and (2) that they need further analysis and discussion to confirm where and when to apply them. The TACs created a list of issues recommended for continued study for land within the current UGB in Phase 2 in order to further hone the recommendations and integrate them with the upcoming work for the expansion areas.

One other key take-away should be mentioned – the vision underlying the Phase 1 recommendations. The project goals, which have been adopted by the USC and are included as an attachment to this packet, are an expression of Bend's aspirations and priorities for the long term. The Phase 1 recommendations move the City toward this vision, within the legal constraints required for projecting realistic growth capacity to the shorter term horizon of 2028. The goal of updating the City's UGB in this project an important step, but just one step, toward the larger vision embodied in the project goals and in the General Plan.

These recommendations were the result of many long meetings in which participants sought to balance legal requirements, research on demographic and permitting data, market realities, and the concerns and values of residents.

Boundary TAC Recommendations

While the Residential and Employment TACs focused on planning within the existing UGB, the Boundary TAC had an external focus. Their task was to evaluate lands surrounding Bend for their relative strengths and weaknesses according to State laws pertaining to UGB expansions. Why is this important? Ideally, the UGB expansion should take place on the "best" land available after considering and balancing multiple factors.

The Boundary TAC's primary focus in Phase 1 was to agree upon the analytical and legal framework to ultimately conduct a comparison between lands to include in the UGB expansion. The State's process (codified in Statewide Planning Goal 14) allows local jurisdictions to use a legal framework to implement local values in deciding how state-established factors are considered in a UGB expansion analysis. The legal requirements and values are represented in the many evaluation maps the Boundary TAC created. The Boundary TAC's work is the foundation upon which Phase 2 will be built. Their work addresses community values, efficient accommodation of land needs, orderly and economic provision of public facilities and services, and the compatibility of urban uses with nearly agricultural and forest activities. Ultimately, this work will allow an objective comparison of the environmental, social, economic, and energy consequences of developing different UGB expansion scenarios to meet identified land needs. Additional modeling of land use, transportation, and utilities (e.g. water and sewer), as well as site evaluations regarding wildfire risk, in Phase 2 will provide more detailed analysis to arrive at a preferred UGB expansion scenario.

There were difficult discussions as the TAC sought to balance the values of different community members. In the end, the Boundary TAC recommendations represent either consensus or majority vote decisions on these subjects. Their work will enable Phase 2 to consider which lands to include in scenarios for more detailed analysis. Phase 2 will focus on a balanced consideration of potential expansion areas, comparing measures such as the ability to:

- Build efficient and least costly road and infrastructure systems
- Create urbanization patterns that will result in more complete neighborhoods
- Minimize impacts on natural resources and wildlife
- Reduce the risk of wildfire as Bend urbanizes

ABOUT THE "PAINT"—GROWTH PROJECTIONS & LAND NEEDS

Summary of Housing & Employment Growth Projections

Population and employment forecasts provide the foundation for determining how much land is needed for housing and employment. This section summarizes housing and employment need in terms of housing units and jobs in light of direction provided by the Residential and Employment TACs. Need is presented for the 2014-2028 period to account for growth that occurred between 2008 and 2014.

Housing Growth

The Remand acknowledged a 2028 population forecast of 115,063 for Bend; or 38,512 new persons for the 20-year period between 2008 and 2028. Related to the population forecast, the Remand acknowledged a need for 16,681 new dwelling units between July 1, 2008 and June 30, 2028. City of Bend building permit data show that 2,912 permits were issued for new residential dwellings between July 2008 and June 2014. That leaves a residual need of 13,770 new dwelling units between July 1, 2014 and June 30, 2028.

As requested by the Residential TAC, the need estimates must also consider group quarters units and second homes. With respect to group quarters, the City assumes that the percentage of persons in group quarters in Bend would remain the same as reported in the 2000 Census (2.3%). This results in a need of 461 group quarters units. Because group quarters are multifamily housing by definition, these units get allocated to the overall multifamily housing need.

The 2008 Housing Needs Analysis identified, and LCDC approved, a need to provide additional land for second homes. In a 2011 memorandum to the Remand Task Force, staff summarized the issue as follows:

> "…the City estimated that new second homes, equivalent to 18% of needed housing units, could be expected to be built in Bend during 2008-28."

Table 1 summarizes forecasted new housing units by type and category for the 2014-2028 period. The need breaks down as follows: 13,770 "needed" new housing units, 461 group quarter units, and 3,003 second homes. Note that the second home units assume the same housing mix as needed units consistent with direction from the Residential TAC at the January 2015 meeting.

Table 1. Summary of New Housing Units by Type and Category, Bend UGB, 2014-2028

Needed Housing Types	2014-2028 Needed Housing Units		2014-2028 Needed Group Quarters Units	2014-2028 Second Homes	2014-2028 Total New Housing Units	
	Units	Mix	Units	Units	Units	% of Total Units
Single-family detached (including mobile homes)	7,574	55%		1,652	9,225	54%
Single-family attached	1,377	10%		300	1,677	10%
Multifamily	4,819	35%	461	1,051	6,331	37%
Total	**13,770**	**100%**	**461**	**3,003**	**17,234**	**100%**

Employment Growth

The need for employment land is based on the forecast of employment growth. In the Remand, Bend was found to have met the requirements of Goal 9, with the forecast of 22,981 new employees from 2008 to 2028.

Since 2008, Bend's economy has changed, in large part as a result of the recent recession. Employment in Bend between 2008 and 2013 grew by 948 employees, at an average annual growth rate of 0.5%. Table 11 shows that using the 2013 total non-shift employment figure of 38,664 and the 2028 acknowledged forecast of 60,607 yields an increase of 21,943 new employees between 2013 and 2028.

Table 2. Employment Forecast by Employment Category, non-shift workers, Bend 2013 to 2028

Employment Categories	2013 Employment	2028 Employment Forecast	2013 to 2028 Growth
Industrial			
Industrial Heavy	2,889	5,180	2,291
Industrial General	3,771	8,002	4,231
Retail			
Large Retail	3,057	5,849	2,792
General Retail	3,096	5,293	2,197
Office/Srv/Medical	16,435	23,593	7,158
Leisure and Hospitality	4,017	5,532	1,515
Other / Misc	1,505	1,547	42
Government	3,894	5,611	1,717
Total	38,664	60,607	21,943

The base case assumes that 6% of new employment will locate on redeveloped land, as determined through a residual land value analysis of redevelopment potential and approved by the Employment TAC. That equates to 1,317 employees that would locate on land that is inventoried as developed (e.g., the 1,317 employees would not create any land need). After the

redevelopment deduction, the employment forecast is for 20,626 new employees to be allocated a land need. [1]

Table 3. Employment Forecast and Redevelopment Assumption, non-shift workers, Bend 2013 to 2028

Employment Assumption	Employees
Total New Employment, 2013-2028	21,943
Employment that locates on redeveloped land (6% base case assumption)	1,317
New Employment, 2013-2028 that Needs Employment Land	**20,626**

Comparison of Capacity to Need – Phase 1 Bookend Conclusions

Two Phase 1 Growth Scenarios were created based on the work that was completed by the TACs, USC and project team between June, 2014 and February, 2015. These scenarios represent the "bookends" of capacity estimates for the current UGB, as discussed previously. The land base for the scenarios is an updated 2014 Buildable Lands Inventory (BLI) that corrects deficiencies identified in the Remand and brings the information up to current conditions. The scenarios apply assumptions about the type and intensity of future development (calibrated by the project team with the best available information) to this land base to estimate capacity for various types of development.

The two scenarios differ only in their assumptions for Juniper Ridge and which package of code-based efficiency measures is applied. In Scenario 4B, Juniper Ridge is planned for Mixed Employment, and the code-based efficiency measures focus on changes that make it easier for property owners and developers to build at the higher end of the allowed density range in each zone by creating greater flexibility in development standards. In Scenario 5C, Juniper Ridge is planned as a new neighborhood with over 1,200 housing units added, and the code-based measures include a mix of incentives and regulatory constraints to both allow and require development to utilize land more efficiently.

Tables 4 and 5 compare the forecasted residential need by housing type and forecasted job need to the capacity of Scenario 4B and Scenario 5C.

[1] Note: the project team is verifying how employment on redevelopment land is accounted for within the model. This may require an adjustment to the employment residual; however, the magnitude of the change would not be large enough to affect the "chip game" for the workshop. Any updates will be brought to the TAC at the next meeting in June.

Table 4. Housing Capacity Comparison to Need

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Single Family Detached	9,225	6,839	-2,386	8,311	-914
Single Family Attached	1,677	1,316	-361	1,566	-111
Multifamily Attached	6,331	4,487	-1,844	4,871	-1,460
Total Housing Units	17,234	12,642	-4,592	14,748	-2,486

Table 5. Employment Capacity Comparison to Need

	Need	Scenario 4B		Scenario 5C	
		Capacity	Residual	Capacity	Residual
Total Jobs	20,626	15,887	-4,739	14,413	-6,213

Residual Land Needs

Converting housing units and jobs to an acreage figure requires assumptions about the density of development. Table 6 provides a summary of the team's initial estimates of needed acres for housing, jobs and other lands that have informed "chip game" for the April 30th workshop.

Table 6 implies, but it is worth noting explicitly, the planning designations for Juniper Ridge have a significant impact on what gets planned and eventually built in the expansion area. Placing a mixed-use residential community in the eastern portion of Juniper Ridge (outside of the Special Planned Area for light industrial and corporate offices, which occupies the western portion of Juniper Ridge) reduces the need for residential uses by approximately 381 acres, while increasing the amount of mixed-use employment land by approximately 129 acres. Using Scenario 5C therefore creates a UGB expansion tilted towards more employment land than residential land in the new expanded UGB boundary. For more information see the white paper regarding Juniper Ridge in the second briefing packet.

Important note: The estimates cited in Table 6 are for acreage that is efficient to access and develop. Additional land will be needed for constrained sites, rural "infill" sites (parcels smaller than 5 acres with existing dwellings), and similar areas which would likely be less efficient to develop due to existing development patterns. Final land need will be determined through the creation and refinement of the UGB scenarios.

Table 6. Residential and Employment – Residual Need and Acreage Conversion Estimate

Residential Land Need	Density (net units/acre)	Residual (4B)	Residual (5C)	Acres (4B)	Acres (5C)
Housing (Net)	-	4,591	2,485	562	247
Single Family Detached	5.28	2,386	914	452	173
Single Family Attached	12.98	361	111	28	9
Multifamily Attached	22.4	1,844	1,460	82	65
Employment Uses on Residential Land				51	51
Net to Gross Conversions					
Vacancy Factor	*Non-Industrial Vacancy Factor for Employment Uses on Residential Land– 9.8%*			5	5
Right of Way	*21% of Net Housing and Employment Uses*			130	64
Residential (Gross)				**748**	**367**

Employment Land Need	Density (net units/jobs acre)	Residual (4B)	Residual (5C)	Acres (4B)	Acres (5C)
Employment (Net)	15	4,739	6,213	316	414
Large Industrial Sites		2 sites at 56 acres each		112	112
Net to Gross Conversions					
Employment Vacancy Factor – Industrial	*6.5% vacancy factor – industrial need Is 30% of total jobs. (Not applied to large industrial sites.)*			6	8
Employment Vacancy Factor – Non-Industrial	*9.8% vacancy factor – non-industrial need Is 70% of total jobs. (Not applied to large industrial sites.)*			22	28
Right of Way	*21% of Net Employment. (Not applied to large industrial sites.)*			72	95
Employment (Gross)				**528**	**657**

Other Lands	Additional Need	Acres (4B)	Acres (5C)
Parks (Net)	Identified park need in 2008 materials (likely needs to be updated to reflect any neighborhood and community parks and trails that have been built)	362	362
Parks – ROW	21% of Parks Need for ROW	76	76
Schools (Net)	Identified schools need in 2008 materials (likely needs to be updated to reflect schools that have been built and sites being held by BLPS for future schools)	192	192

Schools – ROW	21% of Schools Need for ROW	40	40
Parks and Schools (Gross)		**670**	**670**
Subtotal – Gross Housing, Employment, and Parks and Schools		**1,946**	**1,694**
Additional institutional and open space	Institutional – e.g. utilities, benevolent organizations, Open Space – golf courses, non-BMPRD public open space. Calculated at 12.8% of total land	249	217
TOTAL ACRES*		**2,195**	**1,911**

* Note the total land need estimates will likely be revised slightly downward to account for slightly less school and park land needs based on what has been constructed since 2008.

ABOUT THE "CANVAS"—SUITABILITY MAPS

What lands can we consider?

State law and the Remand require that Bend first consider land adjacent to the UGB that is identified in an acknowledged comprehensive plan as an exception area or non-resource land. Resource land (designated farm and forest land) may only be included in the UGB if the identified land needs cannot be met on "exception land". There are 16,163 acres of exception land within 2 miles of the Bend UGB. Given the amount of exception lands surrounding Bend and their suitability for urbanization, it is likely that including resource lands in the UGB expansion will expose the proposal to more legal risk due to the State's guidelines on adding land to a UGB.

How do we choose the best land?

Statewide Planning Goal 14 requires consideration of four factors in evaluating potential UGB expansion areas:

- Factor 1: Efficient accommodation of identified land needs
- Factor 2: Orderly and economic provision of public facilities and services
- Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)
- Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

In Phase 1, the Boundary TAC discussed and confirmed how to consider and apply the four factors of Goal 14 in the process of determining where and how to expand the UGB (see the Phase 2 Milestones diagram on page 12):

- **Base Mapping ("Stage 2"):** Prior to creating scenarios, the Stage 2 evaluation is intended to determine which lands are best suited for eventual consideration in a specific UGB expansion scenario to meet anticipated land needs by analyzing the study area

based on principles and key indicators for the Goal 14 factors. The team used a geographic information system (GIS) to prepare maps to illustrate the relative ranking of parcels based on key indicators associated with each of the four factors of Goal 14. This stage of analysis will help to narrow the scope of the study area to focus on the areas that rank higher and inform the development of better scenarios. This base mapping has taken place and is represented in maps attached to this briefing packet.

- **Scenario Development ("Stage 3"):** Geographically specific UGB expansion scenarios to meet anticipated land needs will be created in the workshop, refined, and approved for further study by the Boundary and Growth Scenarios TAC and UGB Steering Committee. Three scenarios will be approved for further evaluation in "Stage 4" (see below).
- **Scenario Evaluation ("Stage 4"):** In the Scenario Evaluation stage in Phase 2, we will use more robust and comprehensive models to evaluate alternative scenarios. This will include the Envision Tomorrow tool, sewer and water optimization models, site or area specific wildfire risk analysis, and transportation modeling. The scope of the analysis and evaluation at this stage will consider land inside the existing UGB in addition to expansion areas. The reason for the different methodologies at Stage 2 and Stage 4 is because some analytical tools like the optimization models and travel demand model cannot be applied until specific land use and expansion proposals are determined. Also, running these models is very expensive and time consuming, so creating three possible UGB expansion scenarios helps save time and money. The results of these analyses will be used to consider and balance the four factors of Goal 14 based on principles and key measures and identify a preferred scenario.

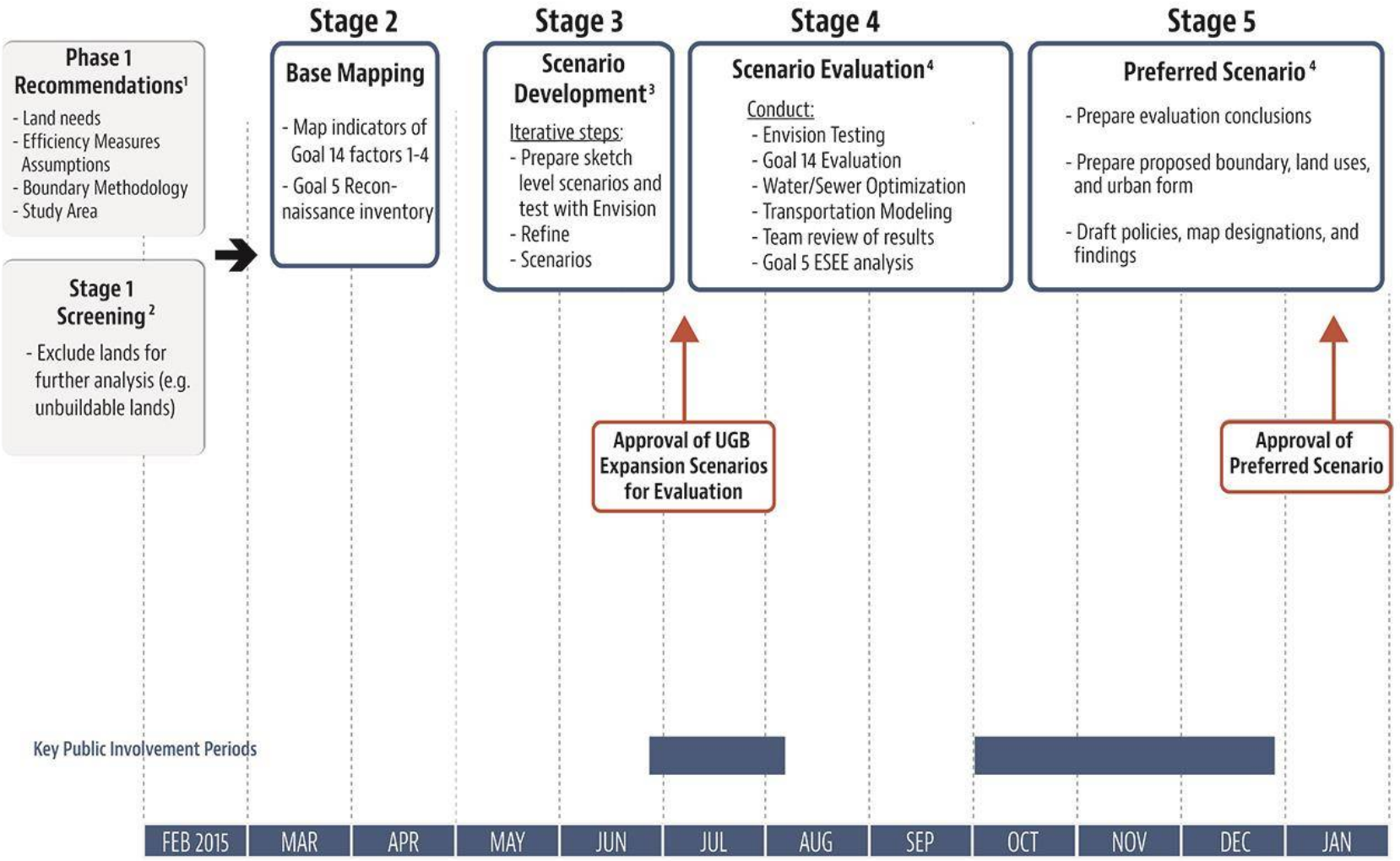
Ultimately, we are trying to achieve the same objectives in both "Stage 2" and "Stage 4": an efficient urban form that is cost-effective to serve, avoids hazard areas, protects natural resources and is compatible with activities on forest and high-value agricultural lands outside the UGB. The common thread through all of Phase 2 is creating an approvable UGB that meets community goals.

Phase 2 Milestones

rev. 3/9/2015

Preliminary and Subject to Change

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER



Notes:

1-4: Steps per City Attorney Memorandum, Aug 19 2014: 1 = Step 1; 2 = Step 2; 3 = Step 3A Preparation; 4 = Step 3A (3B if necessary)

Additional work during Phase 2 includes: Housing Needs Analysis (HNA), Economic Opportunities Analysis (EOA), Buildable Lands Inventory (BLI)

What have we learned so far?

Goal 14 Factor Composites

The Boundary TAC reviewed and approved roughly 25 Stage 2 maps related to different indicators of the Goal 14 factors. The project team then prepared one composite map for each of the four Goal 14 factors and a composite map combining indicators for all four factors. The approach was to prepare "un-weighted" composite maps, so the information was displayed without value judgments about what factors are more important than others. In addition, areas within the 2-mile study area that have low suitability for urbanization and have been "annotated" or highlighted on the maps, including: (a) rural subdivisions with CC&Rs; (b) "islands" that are either completely or mostly surrounded by resource lands; and (c) edge parcels that are relatively small and very irregularly shaped, making them difficult to serve with infrastructure and develop as complete communities.

Workshop participants should use the Annotated Land Suitability Composite (attached) as the basis for narrowing the pool of lands to be considered for UGB expansion. A packet of the composite maps will be provided at the workshop. These maps utilize a red-yellow-green "simple" ranking system that the Boundary TAC has used to date. Additional information on irrigation districts and wildfire risk is being developed by city staff and relevant stakeholders and will be provided at the workshop.

Available acreage

Based on the analysis presented to and decisions made by the Boundary TAC to date, the pool of land for potential UGB expansion is as follows:

- **Total Exception Land in 2 mile study area**: 16,163 acres in 4,782 Taxlots
- **Land Annotated as Not Suitable for Urbanization[2]:** 6,432 Acres in 2,739 Taxlots
- **Remaining Land to be Considered for Scenarios:** 9,731 Acres in 2,043 Taxlots
- **Highest Suitability Land, Excluding Annotations:** 6,407 Acres in 813 Taxlots

The roughly 6,400 acres that ranked as most suitable across all Goal 14 factor indicators, after excluding the land unsuitable for urbanization, represents a reasonable starting point for identifying the approximately 2,000 acres needed to complete Bend's land supply for 2028.

APPENDIX

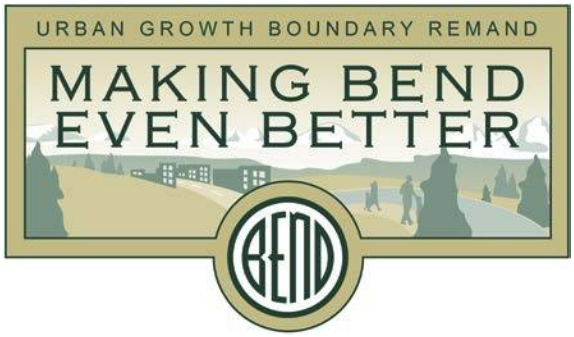
1. Project Goals
2. Phase 1 Urban Form Map
3. Stage 2 Annotated Suitability Map and Individual Goal 14 Factor Composite Maps[3]

[2] "Not Suitable for Urbanization" includes heavily parcelized areas, Bend Parks & Recreation District Ownership, land separated from the UGB by resource lands, and subdivisions with restrictive CC&R's.

[3] See Boundary and Growth Scenarios TAC Meeting #7 packet (http://www.bendoregon.gov/Modules/ShowDocument.aspx?documentid=20831) for individual indicator maps.

PROJECT GOALS

The City of Bend has entered the next phase of its Urban Growth Boundary (UGB) expansion to chart a path for Bend's future growth. The UGB is a line drawn on the City's General Plan map that identifies Bend's urban land. This land represents an estimated 20-year supply of land for employment, housing, and other urban uses. As the city continues to grow, we have an opportunity to develop a plan for future growth that reflects the community's goals and meets state planning requirements.



The UGB Steering Committee approved the following Project Goals on September 4, 2014.

A Quality Natural *Environment*

As Bend grows, it preserves and enhances natural areas and wildlife habitat. Wildfire risk management is a key consideration. Bend takes a balanced approach to environmental protection and building a great city.

Balanced Transportation System

Bend's balanced transportation system incorporates an improved, well-connected system of facilities for walking, bicycling, and public transit, while also providing a reliable system for drivers. Bend's transportation system emphasizes safety and convenience for users of all types and ages.

Great Neighborhoods

Bend has a variety of great neighborhoods that promote a sense of community and are well-designed, safe, walkable, and include local schools and parks. Small neighborhood centers provide local shops, a mix of housing types, and community gathering places. The character of historic neighborhoods is protected and infill development is compatible.

Strong Active Downtown

Bend's downtown continues to be an active focal point for residents and visitors with strong businesses, urban housing, civic services, arts and cultural opportunities, and gathering places. Parking downtown is adequate and strategically located. Planning in other areas continues to support a healthy downtown.

Strong Diverse Economy

Bend has a good supply of serviced land planned for employment growth that supports the City's economic development goals, provides a range of diverse jobs and industries, and supports innovation. Employment areas, large and small, have excellent transportation access.

Connections to Recreation and Nature

Bend continues to enhance its network of parks, trails, greenbelts, recreational facilities, and scenic views inside and outside the city.

Housing Options and Affordability

Bend residents have access to a variety of high quality housing options, including housing affordable to people with a range of incomes and housing suitable to seniors, families, people with special needs, and others. Housing design is innovative and energy efficient.

Cost Effective Infrastructure

Bend plans and builds water, wastewater, storm water, transportation, and green infrastructure in a cost-effective way that supports other project goals. Efficient use of existing infrastructure is a top priority.

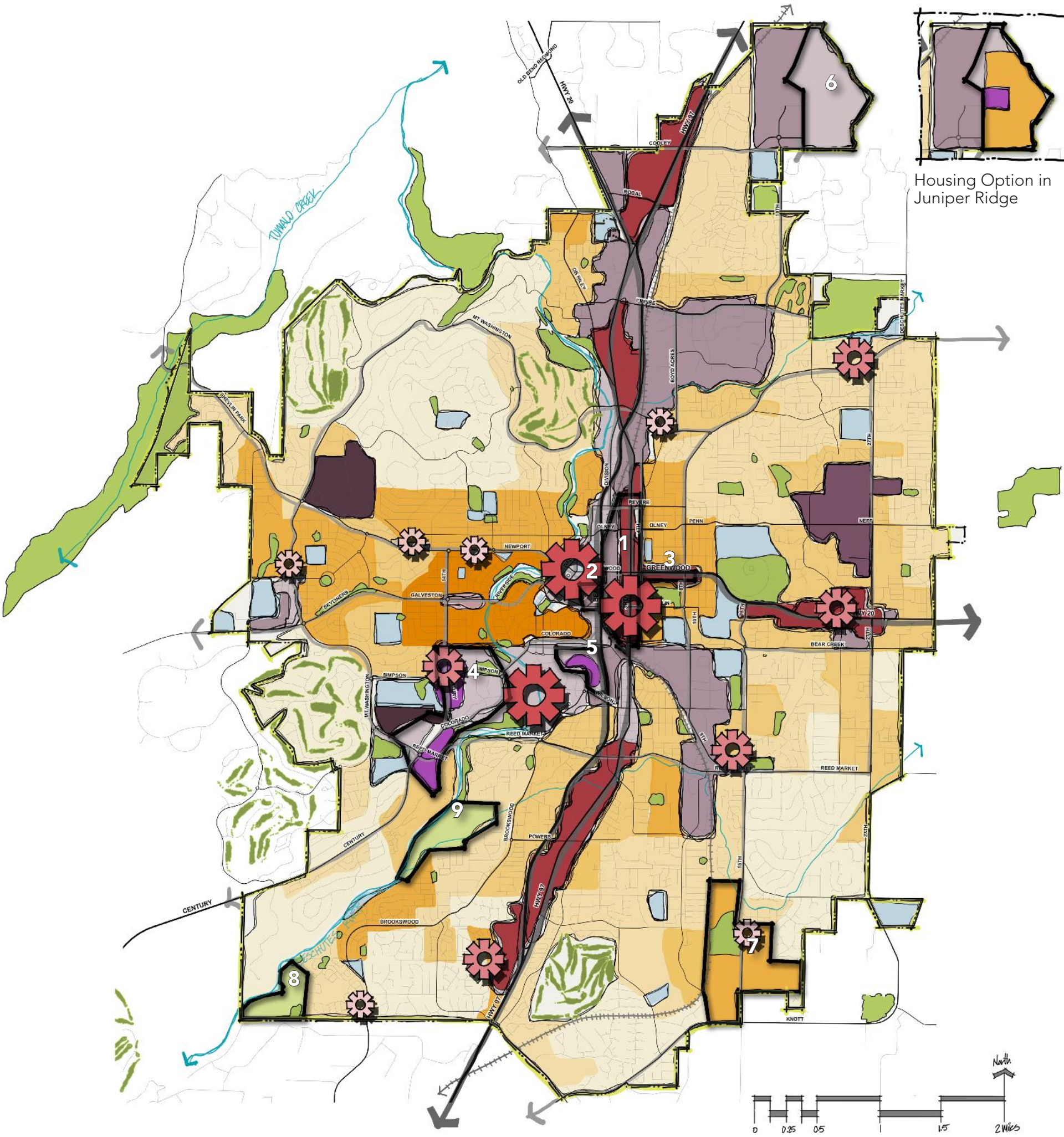
BEND URBAN FORM DIAGRAM

PHASE 1 HYBRID SCENARIO (WITH OPPORTUNITY SITES)

March 10, 2015

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER

Housing Option in Juniper Ridge



LEGEND

- City Limits
- Urban Growth Boundary
- River/Stream
- Rail Road
- Major Arterial/Highway
- Minor Arterial
- Park/Open Space

Opportunity Site

Neighborhoods

- Historic
- Traditional
- Mixed Suburban
- Single Family Suburban
- Large Lot
- Open Space Neighborhood
- Neighborhood Mixed Use

Centers and Corridors

- Urban Mixed Use Center
- Major Commercial Corridor
- Community Commercial Center/Corridor
- Local Commercial Center/Corridor

Employment Districts

- Institutional
- Medical Center
- Industrial/Professional Office
- Mixed Employment

Public Facilities

- Public Facilities

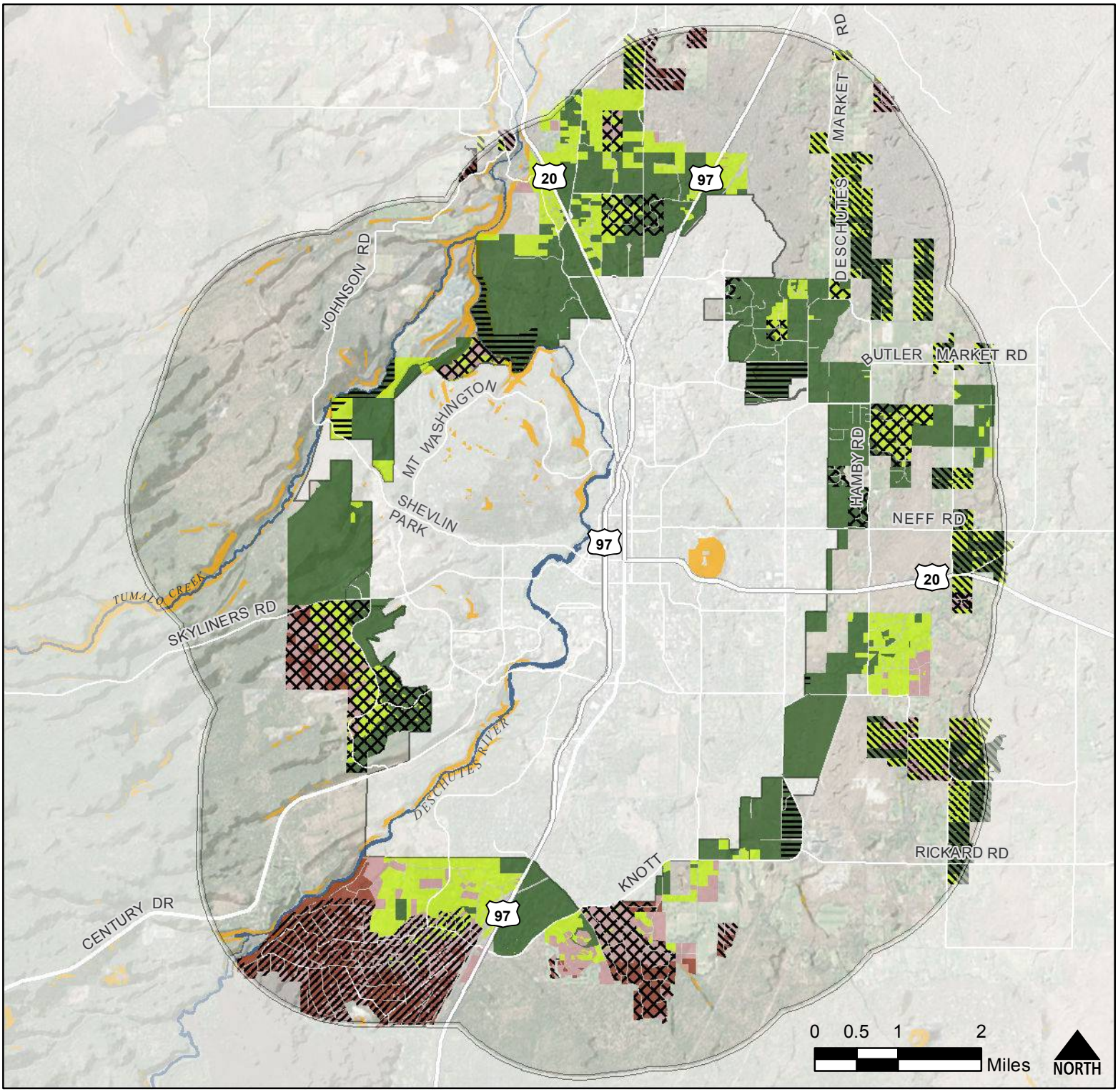
Bend UGB Land Suitability Composite (Annotated) APPENDIX

- 2 Miles from UGB
- Urban Growth Boundary
- Streams/Rivers
- Steep slopes (over 25%)
- Roads/Highways

Combined Factor Score

- Lowest Quartile
- 2nd Quartile
- 3rd Quartile
- Highest Quartile

- Heavily Parcelized (Deschutes River Woods)
- Land Separated from UGB by Resource Lands
- Restrictive CCR's
- Parks & Rec / School District Ownership



URBAN GROWTH BOUNDARY REMAND

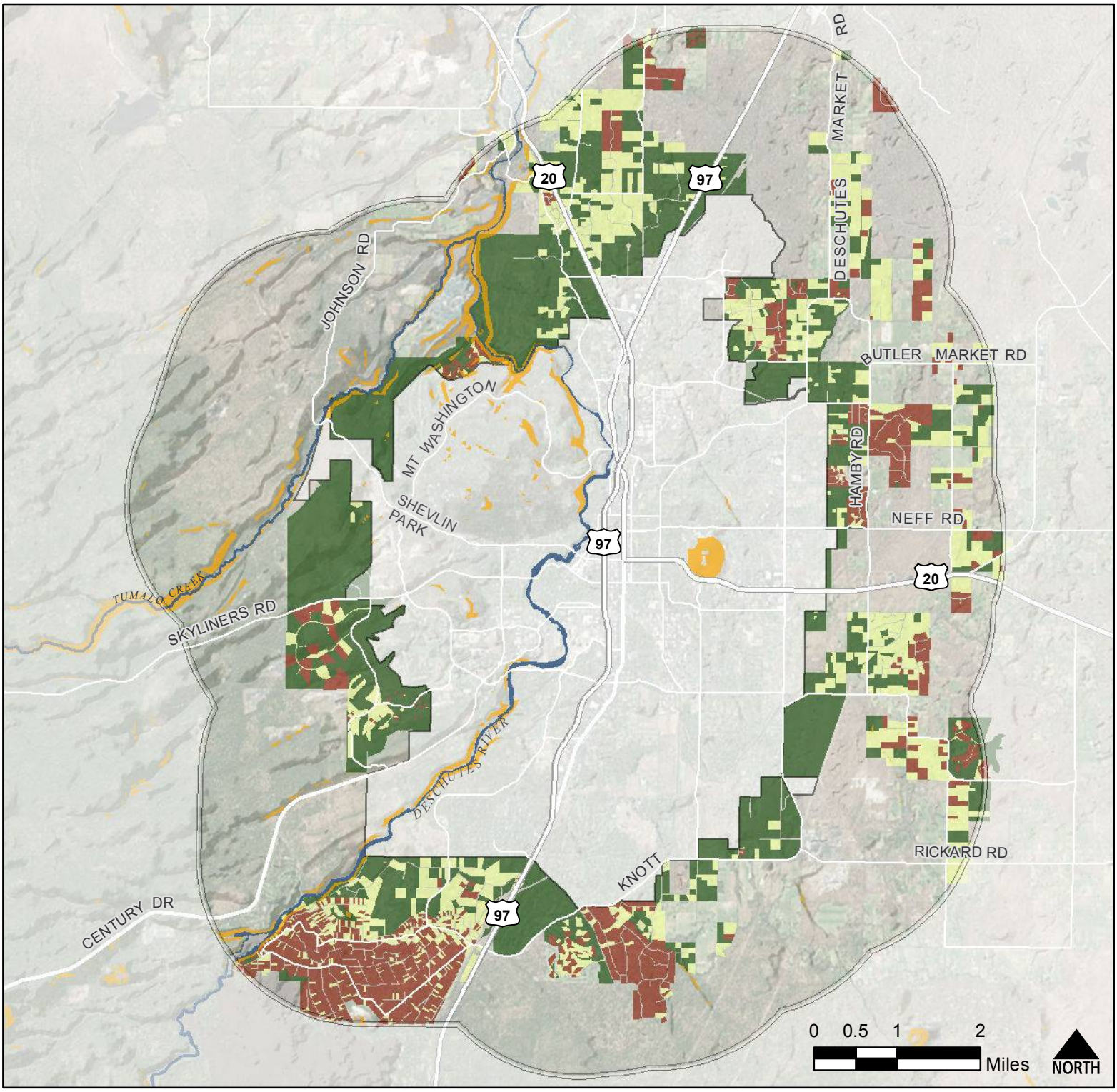
Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 Factors. For informational purposes only.

Prepared 4/10/2015

03828

Factor 1: Efficient Accomodation of Land Needs

APPENDIX

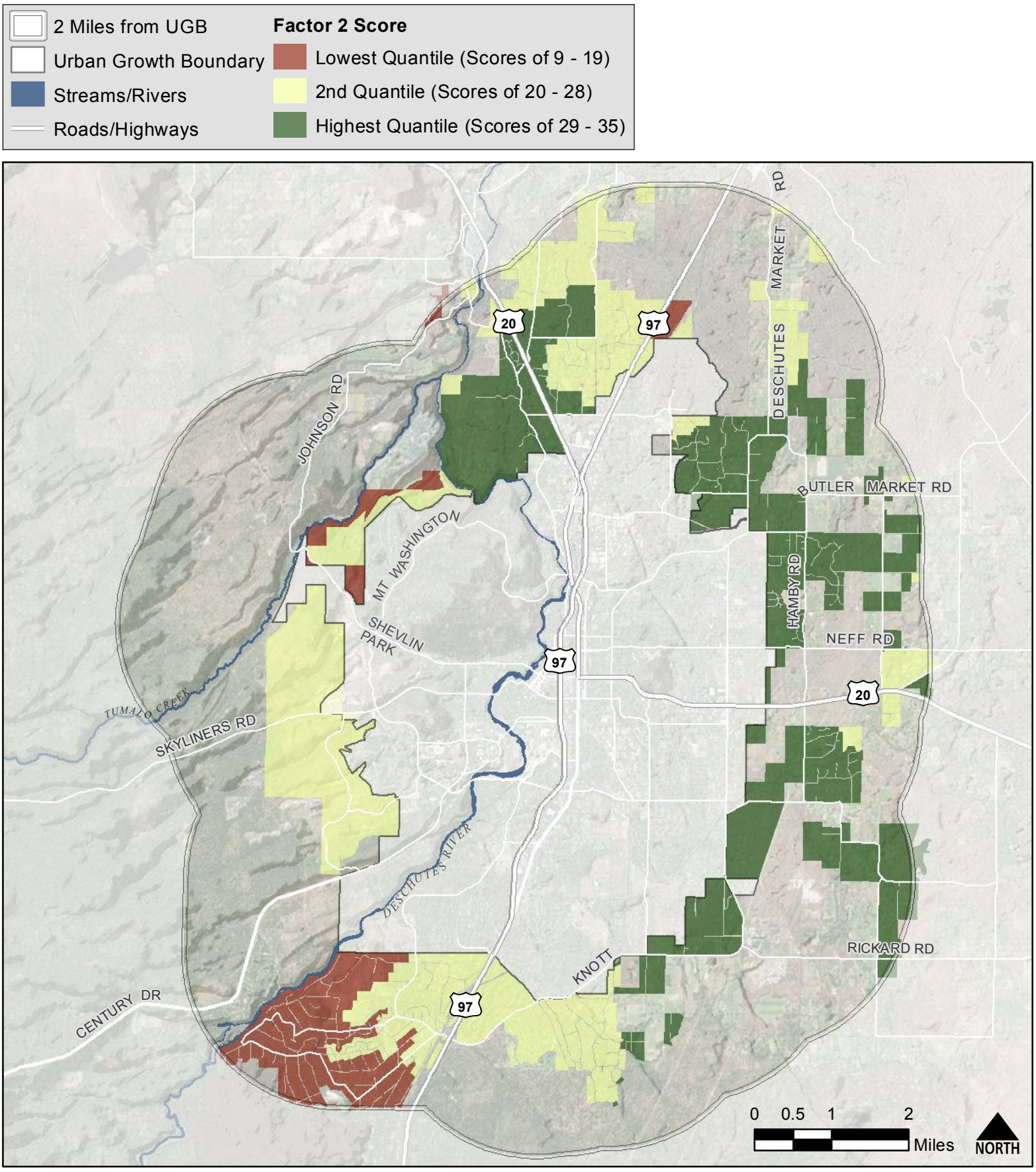


URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 1 Indicators include: Parcel size, improvement to land value ratio, distance from UGB, presence of CC&R's

Prepared 3/16/2015

Factor 2 Provision of Public Facilities and Services APPENDIX



URBAN GROWTH BOUNDARY REMAND

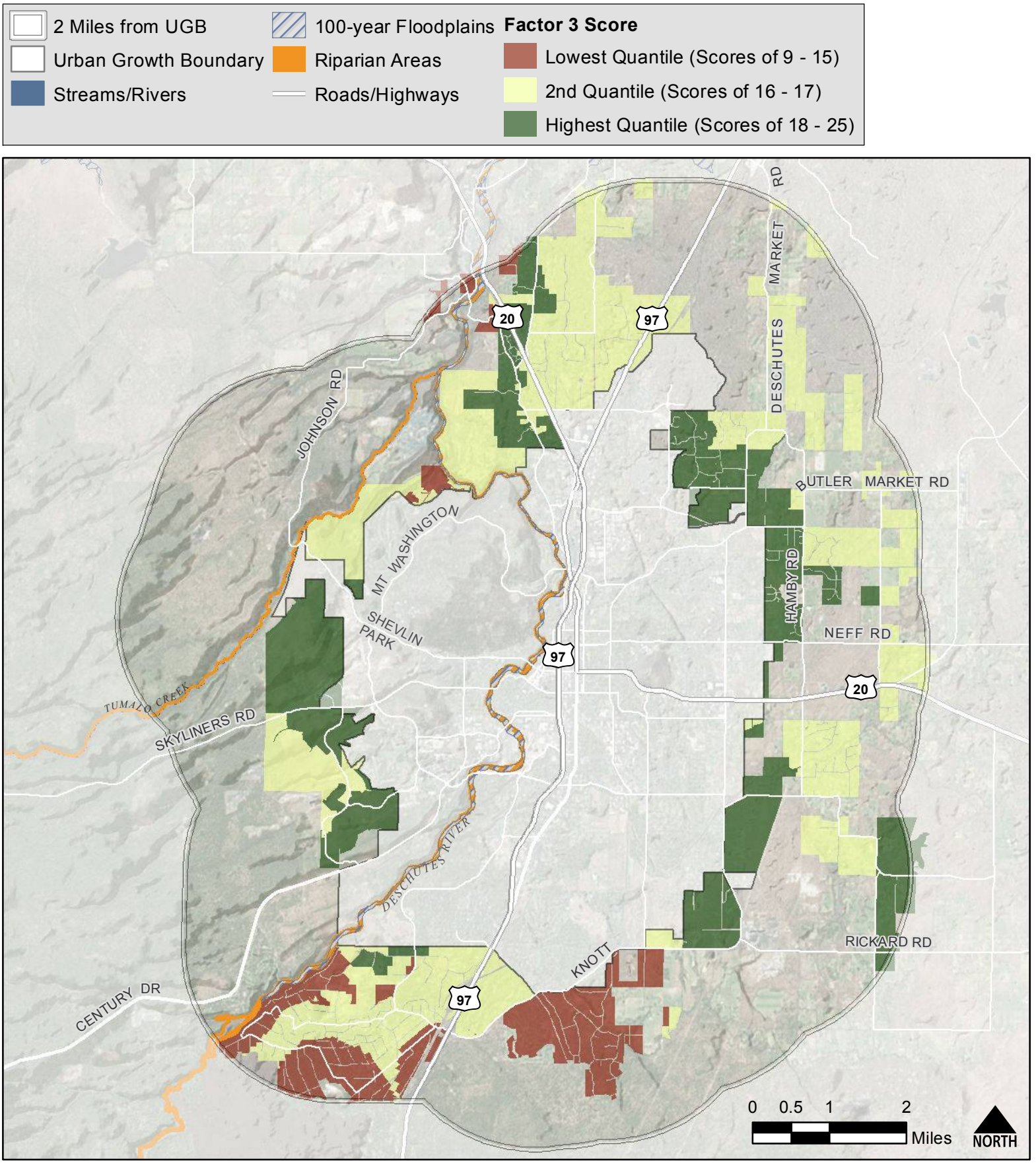
Service Layer Credits: Deschutes County GIS (2014)
Factor 2 Indicators include: Physical barriers to connectivity, 2040 reliance on congested corridors, connectivity to complete roadway grid, water analysis, sanitary sewer analysis, surficial geology, and proximity to drinking water protection areas.

Prepared 4/1/2015

03830

Factor 3: ESEE Consequences

APPENDIX



URBAN GROWTH BOUNDARY REMAND

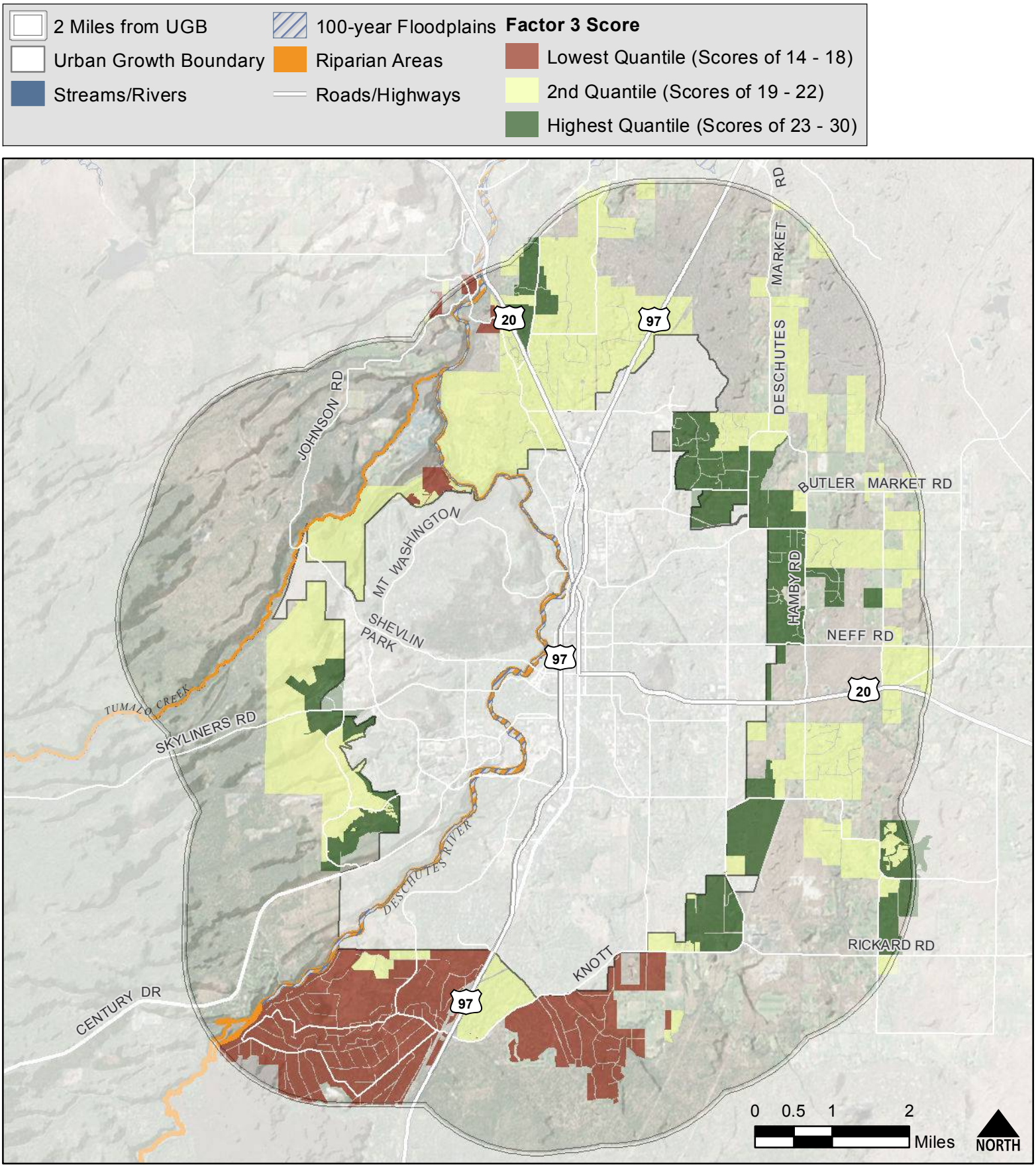
Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/31/2015

03831

Factor 3: ESEE Consequences
(Including Fire Risk Ranking)

APPENDIX



URBAN GROWTH BOUNDARY REMAND

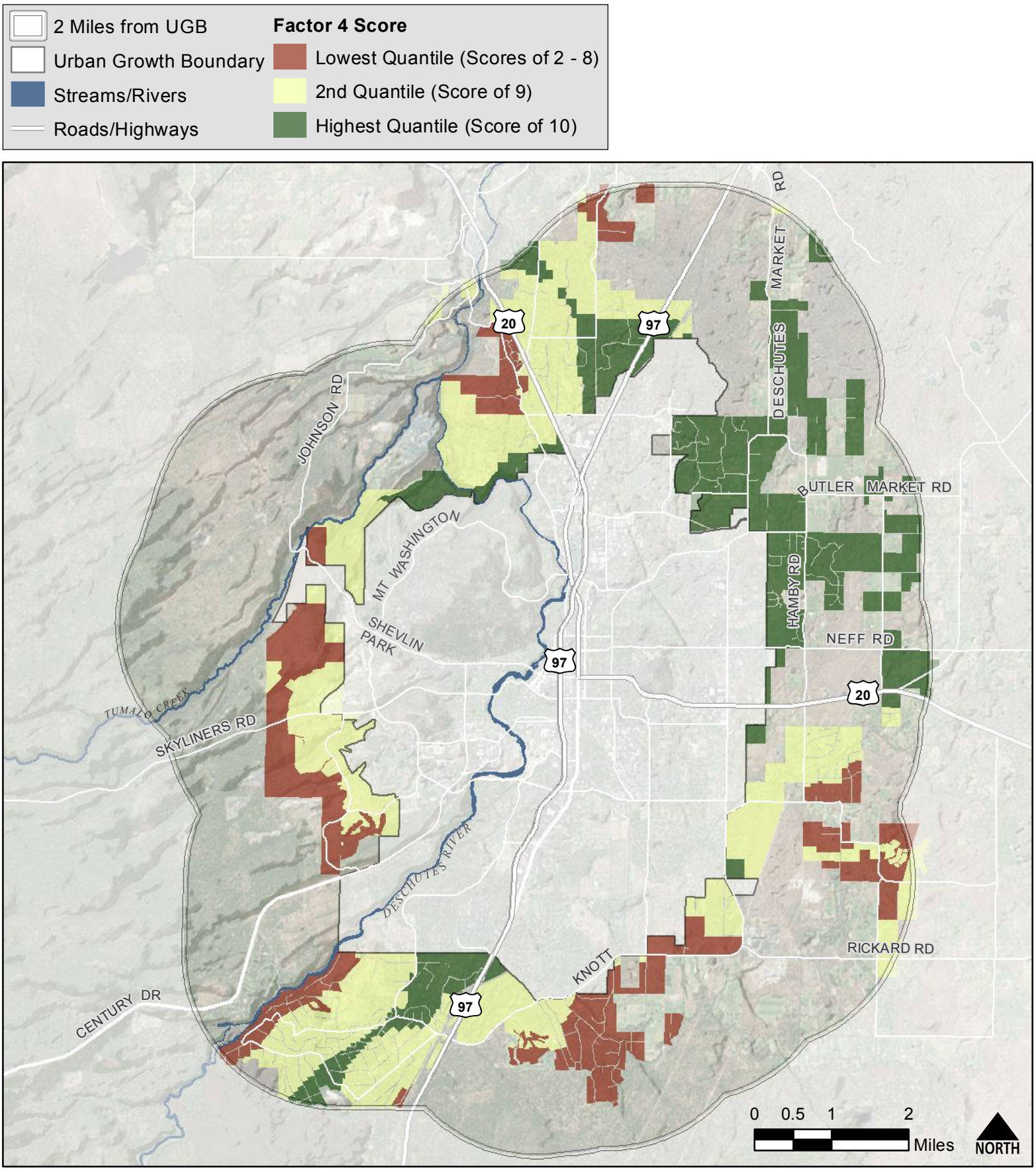
Service Layer Credits: Deschutes County GIS (2014)
Factor 3 Indicators include: Proximity to winter range, federal/state scenic waterways, mineral and aggregate resources, parks, and schools.

Prepared 3/23/2015

03832

Factor 4: Farm/Forest Compatibility

APPENDIX



URBAN GROWTH BOUNDARY REMAND

Service Layer Credits: Deschutes County GIS (2014)
Factor 4 Indicators include: Proximity to forest land and high value EFU zoned lands.

Prepared 4/1/2015

03833

Memorandum

April 23, 2015

To: Brian Rankin, Principal Planner, City of Bend

From: Suzanne Butterfield, Manager, Swalley Irrigation District

Re: Position of Swalley Irrigation District on Proposed Maps and Process

INTRODUCTION

On April 14, 2015 the Swalley Irrigation District ("SID") Board of Directors met and discussed the March 31, 2015 Memorandum from the Angelo Planning Group Team to the Phase 2 Boundary TAC (the "APG Memo"). Specifically the Board reviewed the lands shown in Figure 6--*Bend UGB Land Suitability Composite (Annotated)* that are within SID boundaries. Virtually all these lands are rated by the City as Highest Quartile and 3rd Quartile. Were all these parcels to come in to the UGB, the operational and financial impacts to SID would be so severe as to bring about the end of a 116 year history of SID service to irrigated lands, greatly diminishing rural lifestyles and small scale agriculture outside the City.

SID is a quasi-municipal local government with a statutory and fiduciary obligation to provide irrigation and livestock water to lands within SID's boundaries. The SID Board of Directors is concerned with the heavy emphasis on the proposed urbanization of so much land within the oldest irrigation district in Central Oregon. At the same time, SID is keenly aware that the location of the lands it serves is inevitably in the path of some urbanization. SID wants to assist the City UGB participants in understanding what is of paramount importance to SID and what impacts SID can absorb and still continue on a sustainable path.

It is SID's hope that by submitting the enclosed information, we can begin a more engaged and substantive discussion about the effects the proposed UGB expansion could have on SID, its patrons, rural lands surrounding the City, and the agricultural character of the lands surrounding Bend that help make the City a special place to live. We are committed to dedicating the time to such a focused discussion with you.

We do ask that, even at this late date, this information be given a fair and appropriate amount of weight in the analytical process. Much of the information we are presenting is relevant to the Goal 14 boundary location factors discussed in the APG Memo. The current analytical framework set forth in the APG Memo for the Goal 14 factors omits or minimizes important inputs that are relevant to a number of the factors. In addition, we believe the SID information is relevant to other statewide planning goals, including Goal 9.

We regret that we felt we had not been given an opportunity to bring these issues to the Boundary TAC six months ago so it could absorb our concerns along with all the other issues

they have been addressing. In retrospect SID should have been on the Boundary TAC. I bear the responsibility for not having volunteered to become a member.

SID BACKGROUND

SID serves 664 water users on 4,323 acres of land, from its south boundary inside the current Bend City limits to Eagle Crest on the north and from the Deschutes River on the west to Highway 97 on the east, as well as Bend Park and Recreation District and U.S. Forest Service lands to the east. SID has 28 miles of irrigation distribution facilities (some piped and some open channel), all with easements that allow SID to operate and maintain the system. SID has the oldest water right on the Deschutes River dating back to 1899 yet has been one of the most progressive irrigation districts in the state, piping about half of its irrigation system and returning to the Deschutes River about 39 cubic feet per second of water. This is equivalent to 25 million gallons a day. SID has also made a substantial and pioneering effort toward sustainable power development by installing a hydroelectric plant at the end of its main pipeline, producing clean energy for 300 homes using only the water that passes through the pipeline to farms beyond. All SID water is delivered by gravity, no pumps required.

SUMMARY OF INFORMATION PRESENTED

To assist the City with the evaluation of SID's concerns, we have prepared additional factor maps (attached as Appendix A) that we wish to have considered by the Phase 2 Boundary TAC as well as other parties engaged in the UGB process. These proposed factor maps are titled: 1) Water Rights and Distribution, and 2) Proximity to Water Infrastructure. As explained in detail below, these maps tell a much different story than the existing Stage 2 maps with respect to land performance under the Goal 14 analysis. The SID maps demonstrate the importance of SID water rights and infrastructure and the manner in which SID's water users rely on that infrastructure to maintain their rural lifestyle. A detailed breakdown of how the factor variables were scored (and displayed) is listed in Appendix B to this memo. For consistency purposes, SID adhered to the same simple ranking system used by the existing factor maps in the APG Memo.

EFFECTS ON SID NEEDS & INTERESTS (Goal 2 Coordination)

The Land Suitability Composite map included as Figure 6 in the APG Memo ranks virtually all of the SID lands within the Study Area in the top two quartiles for development suitability. If these lands or even a significant portion of these lands are brought into the UGB, we anticipate significant detrimental operational and financial effects to SID.

Operational Impacts

As depicted on the attached maps, the SID delivery system is essentially a hub and spoke model. The primary point of diversion is located on the Deschutes River in north Bend. That diversion feeds the main canal, which in turn feeds many smaller canals. While many of the parcels on the south end of SID are smaller in size, SID supplies water to a number of water

users at the north end of our system, who farm larger agricultural parcels. Because of this arrangement, actions on the south end of SID that impact water diversions and deliveries will ripple through our system to harm all our irrigators and their rural way of life.

By way of example, significant portions of the SID delivery systems are open conveyances. Those delivery systems will not function properly over the entire length of the canal if developers, parcel by parcel, decide whether to keep SID water or not, and whether to pipe a canal or leave it open channel. Moreover, urbanization introduces the risk of surface water contamination and other operational and safety hazards.

SID has easements along all of its 28 miles of irrigation conveyance varying in width from 15 feet to 100 feet. These easements exist so that SID can traverse along the 28 miles of irrigation system to operate and maintain it. These easements cannot be encroached upon without the written permission of the District.

SID has established development requirements in its Development Handbook and it has requirements for the disposition of SID water on urbanized lands in its Water Transfer Policy. However, the Development Handbook is oriented towards individual development proposals, not the UGB process where many parcels are slated for urbanization. In the event significant portions of SID territory and facilities are pulled into the UGB, the SID Board of Directors will require that SID's delivery system be completely engineered from top to bottom for conversion to a closed, piped system as configured through a master planning process. The costs of this planning effort and implementation of these master planned facilities would need to be paid for by the developers and landowners seeking to convert their properties from a rural to urban use.

Financial Impacts

SID's revenue is comprised entirely of its assessment base and hydroelectric revenue. The assessment base of 664 water users represents 70% of SID's total revenue, but all of its operating revenue. Hydroelectric revenue is dedicated in the mid-term to paying off construction loans that allowed the 39 cfs of water to be placed in to the river.

The loss of even a small number of water users from the assessment base could be extremely detrimental to SID. SID assesses a base fee for all users regardless of size, meaning that every parcel that leaves SID, no matter how small, has a significant financial impact. Moreover, SID's financial needs do not diminish when its assessment base shrinks. With this limited revenue model, the loss of customers means that SID would have no choice but to raise rates, which is an unappealing economic proposition for rural landowners and small-scale agricultural operators.

CONSIDERATION OF SID INFORMATON

Goal 14, Factor 1 (Efficient Accommodation of Land Needs)

The City has considered the presence of CC&Rs as a limiting indicator in the Factor 1 analysis due to an assumption that they prohibit or limit additional development. However, the Factor 1

map fails to consider the fact that SID is mandated by law (ORS 545.221) to establish rules and regulations that govern, among other things, the subdivision of land. SID patrons are also subject to statutory restrictions in ORS Chapter 545 that provide for loss of district water rights if landowners divide their properties without district approval. This indicator would apply to all lands within the SID boundary, and should be included in the City's Factor 1 map.

Goal 14, Factor3 (ESEE); Goal 9 (Economic Development)

The Factor 3 analysis contains an indicator for proximity to schools. However, it does not include any other social or economic factors, such as impacts to agricultural and rural lifestyles. The 2011 Deschutes County Comprehensive Plan update contains a number of relevant findings on this front. As a result of the Comprehensive Plan update process, the County found that people believe the high quality of life in Deschutes County stems from, among other things, the rural character of the region (*Comprehensive Plan Preamble* at page iii). The document recognizes that "farming in Deschutes County is generally not commercially profitable," and that "for a majority of farmers, farming is not a sustaining economic activity, but rather a lifestyle choice." (*Comprehensive Plan, Chapter 2* at page 7). On the other hand, the document cites to emerging farm trends, including buying local from small farms at local markets, and niche markets for small quantities or specialized products (*Comprehensive Plan, Chapter 2* at page 8). In a discussion of the future of county farm designation and uses, the documents states as follows:

> *"Farm lands contribute to the County in a number of ways. Agriculture is part of the ongoing local economy. Wide-open farm lands offer a secondary benefit by providing scenic open spaces that help attract tourist dollars. Farm lands also contribute to the rural character that is often mentioned as important to residents. Finally, it should be noted that agricultural lands are preserved through State policy and land use law because it is difficult to predict what agricultural opportunities might arise, and once fragmented the opportunity to farm may be lost." (Comprehensive Plan, Chapter 2 at page 9).*

The Factor 3 map needs to be modified to recognize and incorporate the social and economic values of irrigated and irrigable rural lands. We propose this be done through the use of SID's Water Rights and Distribution map, which shows the parcels that are currently irrigated and those that could be irrigated in the future.

Though not relevant to the preparation of the Goal 14 factor maps, these same issues are certainly relevant to a Goal 9 analysis of how the proposed UGB expansion may impact the Central Oregon small-scale agricultural industry. The Goal 9 guidelines provide that comprehensive "plans should strongly emphasize the expansion of and increased productivity from existing industries and firms as a means to strengthen local and regional economic development." As noted above, the proposed UGB expansion has the potential to significantly impair SID's ability to deliver irrigation water to its patrons who depend on that water for their agricultural way of life. Significantly, as aluded to in the County's Comprehensive Plan, once irrigated lands are urbanized, their capacity to support agricultural uses is lost forever.

Goal 14, Factor4 (Farm/Forest Compatibility)

Factor 4 requires that the City evaluate the compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB. The Factor 4 map attached as Figure 4 to the APG Memo fails to adequately account for the negative impacts on SID discussed above. The map refers only to high value EFU zoned lands. There is no qualifier in Goal 14 or any of the case law interpreting it that restricts the analysis only to high value lands. SID suggests that a far more appropriate methodology is to consider the compatibility with all agricultural activity in SID—including the small-scale agricultural operations that Deschutes County has indicated it wishes to preserve in its Comprehensive Plan. SID proposes to accomplish this analysis through the use of its proposed factor maps, which analyze 1) the proximity of SID lands to irrigation infrastructure, and 2) the lands that are currently irrigated or that could potentially be irrigated from the SID system. These maps highlight the lands that, if urbanized, will erode the agricultural land base through cessation of agricultural operations on those parcels and through operational impacts to the facilities that serve other SID lands, or through other urbanization effects.

RECOMMENDED APPROACH

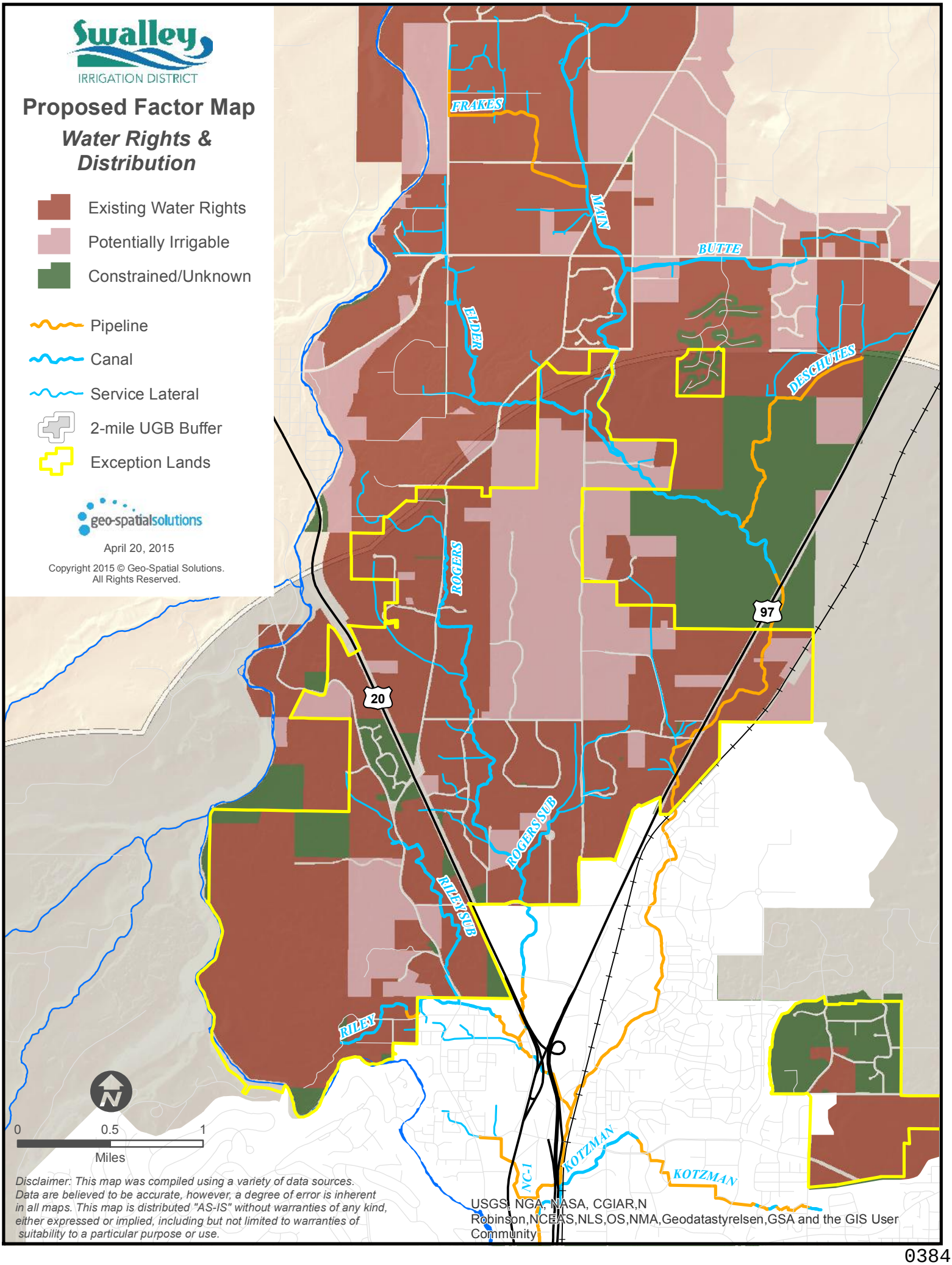
SID realizes that the UGB will include some SID lands. SID will look to the City to help mitigate the impact of development on formerly rural/agricultural lands. On those lands, SID will hold firm to its development requirements for those parcels and will have to have an agreement with the City about the future delivery of irrigation water to those urbanized parcels. In addition, SID will not pay for a conversion of its currently functioning delivery systems due to development. That cost will need to be paid by the City or developers, and conversion to a piped system will need to be comprehensive (the entire length of the open channel) and performed according to a master plan approved by SID.

As depicted on the SID water infrastructure proximity factor map, there is one large area in the southwest portion of the Study Area where urbanization would have the least detrimental impact. That is the Gopher Gulch Ranch property. This parcel is 412 acres of land and has 129 acres of SID water rights. While it is the largest single water user/parcel in SID, it is at the end of a lateral, which means it poses relatively minimal operational risk to the other SID water users. With advance planning, SID believes it could withstand the operational and financial impact of losing this acreage.

SID has been in discussions with City water resources staff over issues of non-potable water provision for over 6 years. SID signed the Irrigation Districts/City of Bend MOU which contains language stating that the entities will work together on issues of urbanization in irrigation districts. SID wishes to continue the dialogue over approaches that could be crafted to ensure coordinated, thoughtful, cost-effective provision of non-potable water to parcels within the UGB. This dialogue needs to become more focused.

We are ready to roll up our sleeves and work closely with the City to address both of our concerns and needs. Please view this document as a desire to collaborate in earnest with the City on the UGB process, going forward.

APPENDIX A: SWALLEY FACTOR MAPS (CONTINUED NEXT PAGE)


Swalley
IRRIGATION DISTRICT
Proposed Factor Map
Water Rights & Distribution
Existing Water Rights
Potentially Irrigable
Constrained/Unknown
Pipeline
Canal
Service Lateral
2-mile UGB Buffer
Exception Lands
geo-spatialsolutions
April 20, 2015
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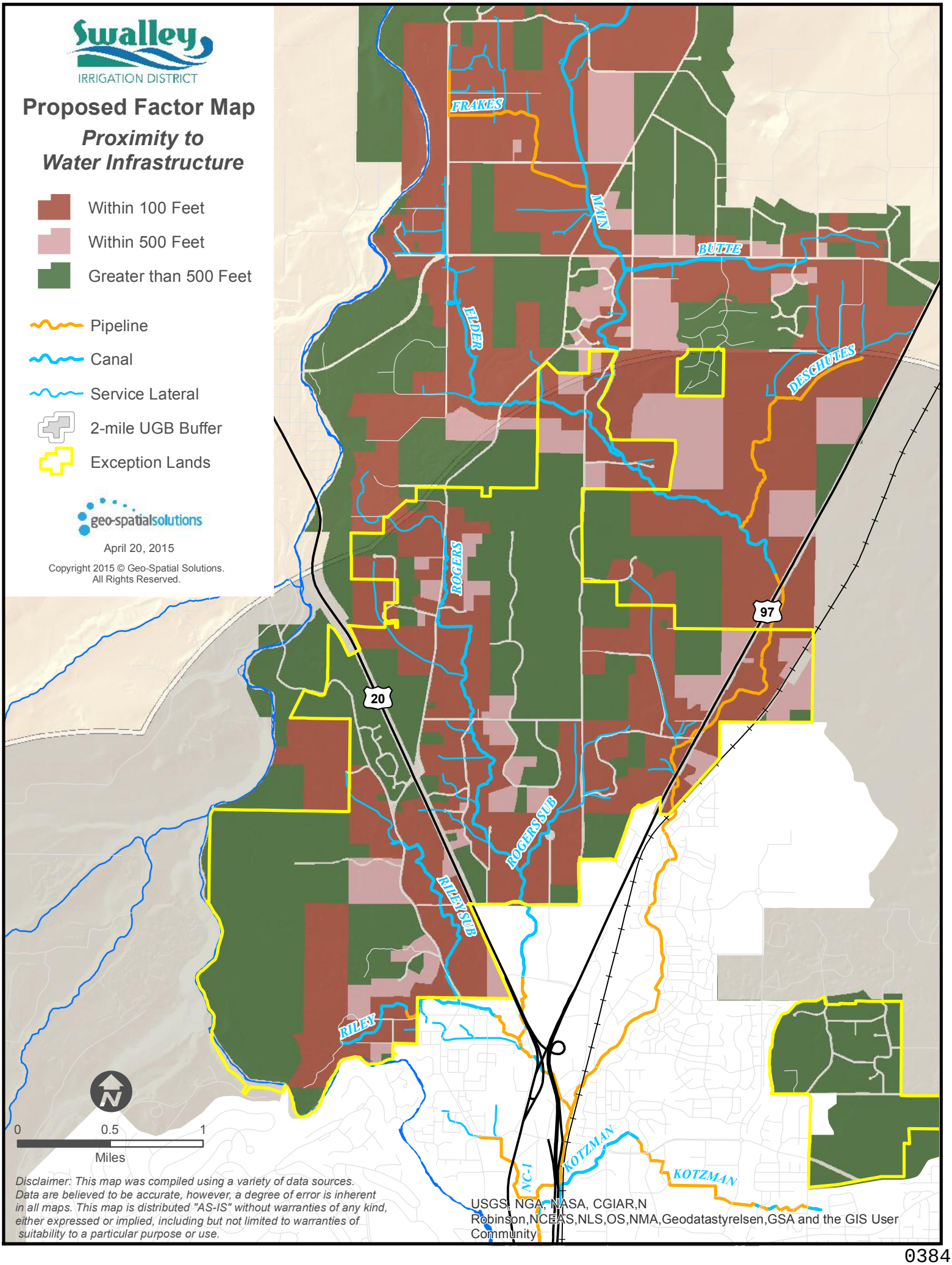
Disclaimer: This map was compiled using a variety of data sources. Data are believed to be accurate, however, a degree of error is inherent in all maps. This map is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use.
USGS, NGA, NASA, CGIAR,N Robinson,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA and the GIS User Community


Swalley
IRRIGATION DISTRICT
Proposed Factor Map
Proximity to
Water Infrastructure
Within 100 Feet
Within 500 Feet
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Disclaimer: This map was compiled using a variety of data sources.
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Community

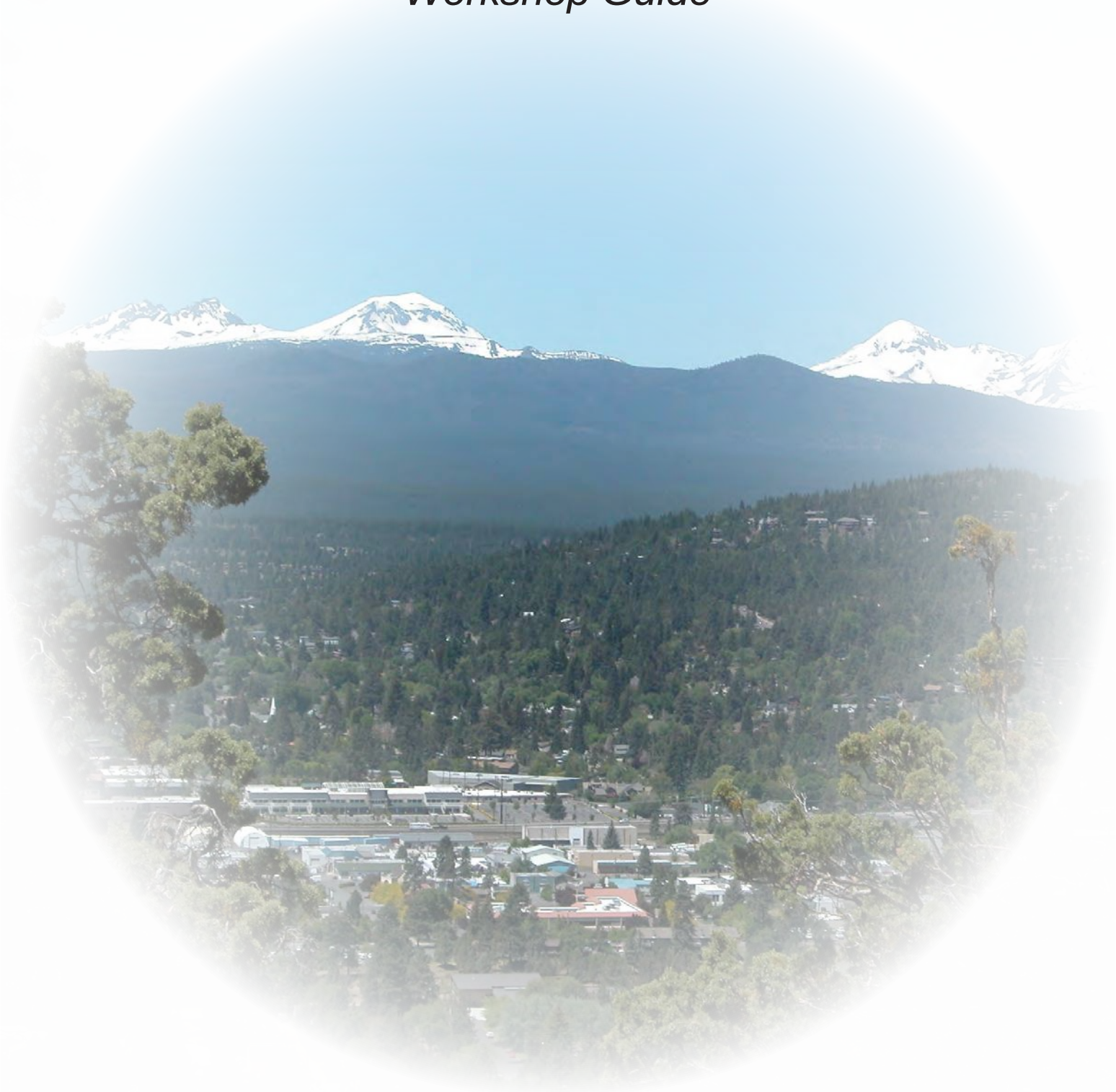
APPENDIX B: EXPLANATION OF FACTORS

Factor Map Name	Description	Legend	Scale
Distance from Water Infrastructure	Proximity of taxlot to existing canals/pipelines/service lateral and potential effects on existing irrigation infrastructure	• Within 100 Feet • Within 500 Feet • Greater than 500 Feet	• 1 • 3 • 5
Water Rights & Distribution	Presence of existing water rights or land that could be irrigated with availability of irrigation water/district expansion	• Existing Water Right • Potentially Irrigable • Constrained/Unknown	• 1 • 3 • 5

*"Scale" refers to the value that SID associated with each legend item and corresponds to the "simple" ranking system that the TAC used to score and combine factors into composite maps. In SID's case, a 3-value scale was used to attribute and symbolize the maps accordingly. This approach is similar to that used by the APG Team to develop the individual factor maps, derive roll-up composite scores, and prepare final presentation maps. In the above table, the Legend explanation corresponds to the Scale value to the right. A value of 1 will have the greatest impact on SID where a value of 5 is indicative of a lesser or unknown impact (relative to each factor).

BRIEFING PACKET 2

Workshop Guide



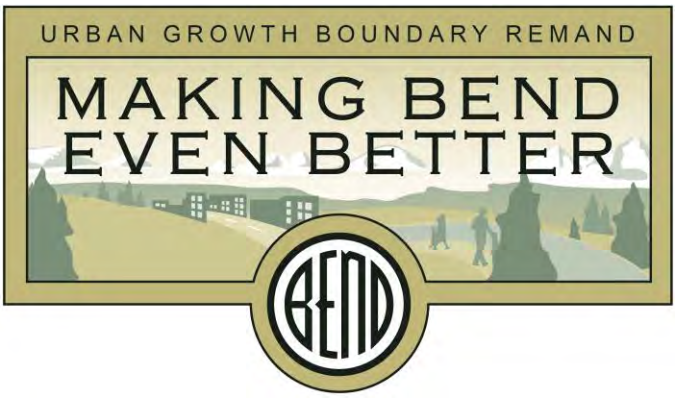
URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

BEND

UGB SCENARIOS WORKSHOP

April 24, 2015



Bend UGB Scenarios Workshop

Briefing Packet No. 2: *Workshop Guide*

April 24, 2015

CONTENTS

Attachments:

- Chip Menu

The following background documents are attached for reference. For additional information, please see Workshop Briefing Packet 1.

- Case study information for rural infill neighborhoods
- Juniper Ridge white paper
- Wildfire Focus Group summary
- Irrigation District white paper and maps

ABOUT THE WORKSHOP

Overview and Purpose

The purpose of the workshop is to:

a. **Identify a range of alternative scenarios for Bend's UGB expansion.** Workshop participants will use maps to discuss and identify "where, why, and how" the City of Bend should grow, that is, where the UGB should be expanded.

b. **Work together.** The workshop will engage all three TACs (Residential, Employment, and Boundary) and the UGB Steering Committee in creating expansion scenarios.

c. **Direct the project team.** Participants will provide policy-level direction to the project team. The team will follow up on that direction by creating and describing up to three scenarios using the Envision Tomorrow modelling tool. Results will be brought back for Boundary TAC discussion in June.

What is a Scenario?

Scenarios are land use and transportation plans that express a range of possible futures for Bend. Each scenario is composed of a map (which includes information about environmental constraints and existing development) and a set of assumptions about the type and intensity of development planned for each area. These combine to provide a spatial estimate of housing and job growth for each scenario, though it should not be interpreted as a site-specific prediction of how development will occur over the planning period. The scenarios can be analyzed using Envision Tomorrow and other modelling tools to compare the infrastructure, transportation, economic, environmental, and other consequences of different policy choices and different UGB expansion options.

The Big Questions for the Workshop

The big questions for the workshop are straightforward and practical:

- Which direction should Bend grow?
- What types are land uses are appropriate in various areas?
- What are the reasons for those ideas?

In the workshop, the discussion groups will explore the above questions using land use "chips" that are placed on maps showing the City and potential expansion areas. The "chip game" is about identifying general concepts and the policy-level rationale for them, not creating detailed land use plans.

Workshop Process Overview

Agenda

The basic agenda for the workshop will be:

1. Welcome
2. Briefings on key background topics
3. Small group work – the chip game
4. Break
5. Viewing of maps and discussion of ideas
6. Summary and next steps

Roles for the TAC/USC and the Team

The TAC and USC have two roles they bring to the workshop.

- The "brain trust" role that the TACs have developed during this process.
- Express the values that are necessary to identify and address options and trade-offs, and ultimately serve as the justification for Bend's UGB proposal.

A lot of great technical work has gone into analyzing Bend's UGB. The preparation of scenarios necessarily involves the application of values to drive the initial slate of choices (the scenarios) and then select the preferred UGB scenario in the Fall of this year.

The Chip Game

As noted above, the chip game is a brainstorming exercise, intended to generate:

- Maps showing generally where future growth could occur (the **where**)
- Chip placements that show what land uses could be placed in various locations, and about amount of land is used (the **what** and **how much**)
- Group notes on the general rationale for the ideas (the **why**) – table recorders plus comments on the maps will help document the table's reasoning behind the scenario

The above will not be free-form brainstorming. It will be structured with prompt questions about each major land use category: employment, residential, parks and schools. Guidance will stem from each of the items listed below, which are included in this packet or linked on the web site.

- Use of the project goals (please see Briefing Packet 1)
- Location criteria – from the project team – that help direct locational choices for various land uses (please see attached Chip Menu)
- Goal 14 and Remand requirements (please see Briefing Packet 1)
- The mapped "most suitable lands" shown on the workshop map (please see Briefing Packet 1)
- The map atlas on each table (a link will be provided for pre-workshop viewing; hard copies will be available at each table)

Each group will have a packet of land use chips that approximates the amount of land needed for Bend's growth to the year 2028. When all the chips have been placed, the land need has been met. The exercise will also provide the opportunity to make notes about ideas that are not necessarily tied to land needs, such as valued green spaces, street and trail opportunities, and wildfire risk reduction through buffers at the urban edge.

Following the workshop, the team will organize the ideas into a set of scenarios for discussion by the Boundary TAC in June. The project team will use the workshop ideas to perform a more detailed analysis.

URBAN FORM AND THE SHAPING OF BEND

What is Urban Form?

"Urban form" refers to the pattern and organization of development in the city. Urban form diagrams and typologies are a helpful short-hand way to plan and "see" the shape of the city as we examine various growth strategies and Remand requirements. Urban form also helps recognize the rich variety of places within Bend, much better than is captured in zoning designations. The following are the three basic urban form categories and the working types within each category.

> *Neighborhoods* – historic, traditional, open space neighborhood, mixed suburban, single family suburban, large lot, rural infill
>
> *Centers and Corridors* – major commercial corridors, urban mixed use centers, local centers and corridors
>
> *Employment Districts* – institutional, medical center, industrial/professional office, mixed employment, large lot industrial (50-acre sites)

Phase 1 of the UGB project determined a range of growth capacity within the existing UGB, and the associated range of residual land needs for UGB expansion. This was not purely a numerical analysis. Based on TAC and USC input at the December workshop, an urban form map was made which illustrates the Phase 1 recommendations. That map is the starting point for urban form consideration outside the UGB.

The Chip Menu

The attached "Chip Menu" shows the urban form types (aka chips) that will be used in the workshop. These are a subset of the full urban form typology that has been prepared to date. The full urban form typology (from the December workshop materials) is available at the following link: http://www.bendoregon.gov/Modules/ShowDocument.aspx?documentid=19676.

Urban Form Considerations for UGB Expansion

Additional guidance on urban form considerations for UGB expansion comes from the project goals, including the following statements:

- "Bend has a variety of great neighborhoods that promote a sense of community and are well-designed, safe, walkable, and include local schools and parks."

- "Small neighborhood centers provide local shops, a mix of housing types, and community gathering places."

- "Bend's balanced transportation system incorporates an improved, well-connected system of facilities for walking, bicycling, and public transit, while also providing a reliable system for drivers."

In addition to the project goals, the following urban form principles, which come from previous visioning work in Bend as well as nationally recognized best practices, can help inform "chip" placement and growth scenarios:

Neighborhoods and Local Commercial Centers

- "Our growth management practices and incentives have retained Bend's small-town character while supporting… the provision of more diverse and affordable housing, and the formation of complete communities – including mixed-use development and accessible neighborhood centers."[1]

- "Bend has developed a number of small neighborhood centers in the community, where local residents can walk or bike to cafes, shops, gathering places, pocket parks, recreational facilities, and other services." [2]

- Neighborhoods should be compact, pedestrian friendly, and mixed-use. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young.[3]

- Many small businesses – including restaurants, bars and retail stores – rely heavily on foot traffic. Communities with homes, shops and jobs close by provide the steady stream of potential customers to make these businesses viable.[4]

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[1] *Bend 2030: A Visioning Project by and for the People of Bend, OR | Community Vision Statement and Executive Summary,* http://bend2030.org/wordpress/wp-content/uploads/2013/12/Bend-2030-Final-Community-Vision.pdf (Published June 2006).

[2] *Bend 2030: A Visioning Project by and for the People of Bend, OR | Community Vision Statement and Executive Summary,* http://bend2030.org/wordpress/wp-content/uploads/2013/12/Bend-2030-Final-Community-Vision.pdf (Published June 2006).

[3] *Charter of the New Urbanism* by Congress for the New Urbanism, originally published in 1999 – http://www.cnu.org/charter.

[4] Smart Growth America's Smart Growth Principles: http://www.smartgrowthamerica.org/

- Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. [5]

- Multifamily housing can support local commercial centers and transit if located within a convenient walking distance. Easy access to local commercial centers, transit, parks, and schools, also makes the higher density housing more attractive. It should generally be integrated into neighborhoods with appropriate transitions to other types of housing for large multifamily developments.

Employment and Mixed Use Centers and Corridors

- "Bend has established mixed-use development along key corridors and in designated centers. Development codes address building design, heights, densities and levels of affordability where residential, employment and retail uses mix." [6]

- Location is the primary component of a successful office park development. ... Convenient highway access is typically a critical factor in locating a campus-style office park. ... Access to local and regional transit systems is also an increasingly important aspect of office park development. Visibility is one of the key factors that business space users rely on when choosing a site location for their company. An office park needs to stand out both physically and visually as a readily identifiable feature of the local business landscape and a recognizable component of the community. [7]

- Industrial parks should be located in close proximity to major transportation systems, including regional and interstate highway systems, with an efficient system of local roadways between the industrial park and the highway system. Access to other types of transportation systems, such as rail, ... should be available if they are characteristic of the region and in demand by the industry. [8]

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[5] *Charter of the New Urbanism* by Congress for the New Urbanism, originally published in 1999 – http://www.cnu.org/charter.

[6] *Bend 2030: A Visioning Project by and for the People of Bend, OR | Community Vision Statement and Executive Summary,* http://bend2030.org/wordpress/wp-content/uploads/2013/12/Bend-2030-Final-Community-Vision.pdf (Published June 2006).

[7] *Planning and Urban Design Standards*, by American Planning Association, edited by Frederick R. Steiner and Kent Butler. p. 246-247.

[8] *Planning and Urban Design Standards*, by American Planning Association, edited by Frederick R. Steiner and Kent Butler. p. 244.

Schools, Parks and Open Space

- "Bend has helped maintain the community's distinct identity by locating strategically integrated, permanent conservation 'greenbelt' areas to provide connectivity and open space." [9]

- A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts. [10]

- Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them. [11]

NEXT STEPS - HOW WORKSHOP INPUT WILL BE USED

The direction provided in the workshop will be an initial step toward developing scenarios. After the workshop, the project team is tasked with packaging the maps and ideas into scenarios, for discussion by the Boundary TAC and USC in June. Depending on the results of the workshop, the team may be required to combine or modify the various scenarios to create three distinct scenarios for further testing. The next steps are:

- May – the project team prepares scenarios based on workshop direction.
- June 9 – Boundary TAC Meeting 9: review of scenarios and recommendation to USC
- June 25 (tentative) – USC review of scenarios
- Summer – Team evaluation of scenarios

[9] *Bend 2030: A Visioning Project by and for the People of Bend, OR | Community Vision Statement and Executive Summary,* http://bend2030.org/wordpress/wp-content/uploads/2013/12/Bend-2030-Final-Community-Vision.pdf (Published June 2006).

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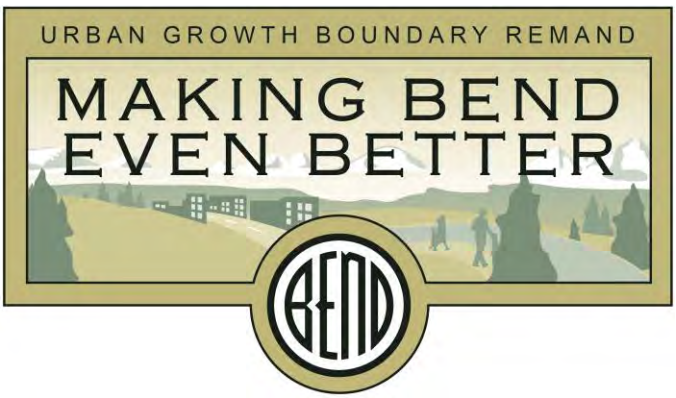

Bend UGB Scenarios Workshop

Briefing Packet No. 2: *Workshop Guide*

April 24, 2015

ATTACHMENT A:

Chip Menu

CHIP MENU

Bend Urban Growth Boundary Remand April 30, 2015 Workshop

INDUSTRIAL AND COMMERCIAL

Large Lot Industrial

≈ 40 Acres

Typical Uses

- Major industrial users such as manufacturing, shipping, freight
- Data Centers

Transportation Characteristics

- Requires good highway access.
- Generally truck and freight oriented with large parking areas
- Streets oriented for freight and truck traffic
- Limited transit; transit access not usually a priority

Location Criteria

- Relatively flat, less than 5% slope
- Fewer parcels, very large ownerships
- Good access to state highway and/or arterials
- Compatible with adjacent uses

Industrial / Professional Office

≈ 40 Acres

Typical Uses

- Employment: manufacturing, industrial, and office
- Residential: limited, some live/work space

Density & Scale

- Generally 1-3 story buildings
- Generally low job density with some pockets of higher density

Location Criteria

- Relatively flat, less than 5% slope
- Fewer parcels, larger ownerships
- Good access to state highway and/or arterials
- Compatible with adjacent uses

Community Commercial Center

≈ 20 Acres

Typical Uses

- Employment: retail, services, office, anchor use such as grocery store
- Residential: limited, but generally multi-family

Density & Scale

- Generally 1-2 story buildings
- Moderate job density

Location Criteria

- Minimum 10 acres, typically 15+ acres
- Signalized access along a major street
- Highly visible location

Neighborhood Commercial Center

≈ 10 Acres

Typical Uses

- Employment: small-scale retail, services, office
- Residential: some single family residential or second story residential

Density & Scale

- Generally 1-2 story buildings
- Moderate job densities

Location Criteria

- Focal point for adjacent neighborhood
- Visible and accessible
- Typically along collector or similar street
- Pedestrian and bike friendly location

CHIP MENU

Bend Urban Growth Boundary Remand April 30, 2015 Workshop

RESIDENTIAL NEIGHBORHOODS

Suburban Single Family Neighborhood

≈ 40 Acres

Typical Uses

- Employment: limited; generally small-scale service or office
- Residential: detached single family homes with medium to large lot sizes, some townhomes

Density & Scale

- Generally 1-2 story homes
- Low to moderate residential densities

Location Criteria

- Lots up to about 5 acres
- Limited potential for improving connectivity in infill areas (new development can have good connectivity)
- Limited capacity for infill
- May be between UGB and vacant land to be urbanized

Open Space Neighborhood

≈ 40 Acres

Typical Uses

- Employment: mostly recreation-based (golf courses and recreational amenities)
- Residential: small- to large-lot single family homes and/or cottage housing with large areas of preserved open space

Density & Scale

- Generally 1-2 story homes
- Low gross residential densities, but may have high net residential densities due to clustering

Location Criteria

- Natural resources within or adjacent to site
- Large enough to support cluster design

Traditional Neighborhood

≈ 40 Acres

Typical Uses

- Employment: limited small-scale service or office within the neighborhood;
- Residential: largely small-lot single family homes, some small apartments and townhomes

Density & Scale

- Generally 1-2 story homes
- Moderate residential density

Location Criteria

- Generally larger, vacant ownerships
- Generally flatter sites
- Opportunity for excellent connectivity
- Potential for transit
- Access to amenities to support higher density housing

CHIP MENU

Bend Urban Growth Boundary Remand April 30, 2015 Workshop

RESIDENTIAL NEIGHBORHOODS
Parks & Schools

Large Lot Neighborhood

≈ 40 Acres

Typical Uses

- Employment: None
- Residential: large-lot single family homes, acreages or ranchettes

Density & Scale

- Generally 1-2 story homes
- Very low residential densities

Location Criteria

- Lots up to about 5 acres (e.g. Ddeveloped originally as rural subdivision or resort)
- Limited potential for improving connectivity
- Limited capacity for infill
- May be between UGB and vacant land to be urbanized

Multi-Family Housing

MF

≈ 10 Acres

Typical Uses

- Employment: None
- Residential: Apartments, condos, attached single family

Density & Scale

- Generally 1-3 story buildings
- Moderate to high residential densities

Location Criteria

- Best located near amenities such as transit, schools, and parks
- Can be concentrated in one area or spread among other housing types to create a diverse neighborhood

Community Parks

Park Park

≈ 20 Acres

Location Criteria

- Parks may be centrally located within a neighborhood to help define that neighborhood's character.
- Good bicycle/pedestrian accessibility reduces the need for large parking lots.
- Standard is 2 acres per 1,000 population for neighborhood parks; 5 acres per 1,000 population for community parks; 2.4 acres per 1,000 population for trails.

Community parks serve several neighborhoods, allowing for group activities and other active uses. Examples include large play structures, ballfields, individual and group picnic areas, amphitheater facilities, and disc golf areas.

Schools

School School

≈ 20 Acres

Location Criteria

- Can serve populations in existing and new neighborhoods
- Site sizes average 15 acres for elementary schools, 25 acres for middle schools, and 50 acres for high schools.

Bend UGB Scenarios Workshop

Briefing Packet No. 2: *Workshop Guide*

April 24, 2015

ATTACHMENT B:

Case Study Information for Rural Infill Neighborhoods

Memorandum

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER

April 24, 2015

To:	Scenarios Workshops Participants
Cc:	Project Team
From:	Angelo Planning Group Team
Re:	Case Studies – Partially Developed Areas Adjacent to Bend's UGB

OVERVIEW

Two case studies have been prepared to inform the discussions of potential residential expansion areas in the Scenarios Workshop. The purpose of the studies is to explore the issues associated with potential expansion into exception lands that have some degree of existing rural residential development. This memorandum is intended as a brief overview to the attached graphics.

Two areas were selected for review. Both are rated in the "best" quartile of land suitability (dark green color coding) on the UGB Land Suitability Composite (Annotated) that was reviewed by the Boundary TAC. They were selected solely for study purposes – no proposal is intended or implied by choosing these sites for review. Both sites were toured prior to drawing the case studies.

- The Northeast Case Study area is located east of Pine Nursery Park roughly from Neff Road to north of Butler Market Road.
- The Northwest Case Study area is located northeast of the Archie Briggs Canyon Open Space on the east and west sides of OB Riley Road.

Both case studies depict different opportunities and constraints, and identify hypothetical future development patterns that might be possible in each area. For each area, we have drawn:

- Existing Conditions - existing buildings, comprehensive plan districts, existing parks, etc.
- Neighborhood Framework – potential connecting roads (conceptual) and locations for centers
- Case Study Concept Map – potential types of residential use, local commercial centers, trails, and connectivity

The maps are conceptual and for illustrative purposes only.

OBSERVATIONS

Rural Infill/Redevelopment Generally

Whether or not an existing rural home on a large lot is likely to redevelop (or not) is a complex determination. It will be driven by owner preferences, physical terrain, the market, the value of improvements in relation to the land, and many other factors. For the purposes of these studies, the team looked briefly at improvement values in relation to land values. Where improvement values are low and on larger acreage, it is more likely the property could redevelop. In the opposite case – a high value improvement on less land – the opposite is generally the case. Where a high improvement to land value ratio was observed, those properties are annotated as "No Potential for Additional Lots" and/or the Large Lot Neighborhood type.

Northeast Case Study – Concept Map

a. Overall, the area has a "checkerboard" pattern of land with some infill potential and land without infill potential.
b. If Local Commercial Centers were to locate in the area, they would potentially be along Butler Market Road or Neff Road.
c. The larger properties north of Butler Market Road are generally less constrained by existing development, as compared to the pattern of properties to the south.
d. North-south connectivity is challenging because of the "checkboard" nature of existing development and intervening resource land.
e. The southern properties have multiple local streets stubbed to them from neighborhoods inside the UGB.
f. Pine Nursery Park and Big Sky Park provide unique amenities for the area.
g. The adjacent areas appear to be well served by existing parks and schools.
h. The adjacent land north of Pine Nursery Park is subdivided into two to five acre lots with existing homes and offers little development potential.

Northwest Case Study – Concept Map

a. Unlike the Northeast area, existing development is more of a "transect" than a checkerboard: properties with low potential for infill are focused in the south and center, with larger properties toward the edges, particularly in the north.
b. The lands north and west of Cooley Road are the least constrained by existing development and provide relatively large blocks of vacant land.
c. The adjacent land to the west (Gopher Gulch area) has large relatively buildable lots. This area could provide a connection and transition to that area.
d. The intersection of Cooley Road and OB Riley is a potential location for a Local Neighborhood Center, with Traditional Neighborhood residential uses adjacent.
e. The potential for both north-south and east-west connectivity is relatively good.
f. Potential east-west streets could provide four to five through-streets connecting OB Riley Road to the Gopher Gulch area to the west.
g. Archie Briggs Canyon Open Space is a signature park in the area.

NORTHEAST CASE STUDY

EXISTING CONDITIONS

UGB Workshop
April 30, 2015

URBAN GROWTH BOUNDARY REMAND
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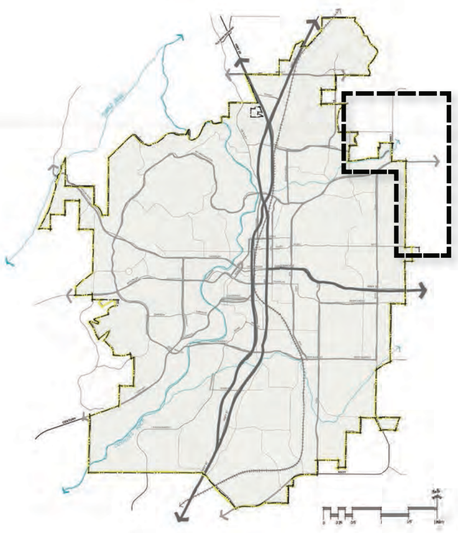

LOCATION MAP

Resource Land

Ponderosa Elementary School

Pine Nursery Park

Mountain View High School

Ensworth Elementary School

Buckingham Elementary School

Big Sky Park

Resource Land

DESCHUTES MARKET
HAMEHOOK
NE BUTLER MARKET
COLE
EAGLE
NEFF

Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream/Canal
- Existing Streets
- Parks/Open Space
- Existing Buildings
- Schools
- CCR Restricted Properties

Comprehensive Plan Designations

- Urban Reserve Area
- Rural Residential Exception Area

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NORTHEAST CASE STUDY
NEIGHBORHOOD FRAMEWORK
UGB Workshop
April 30, 2015

URBAN GROWTH BOUNDARY REMAND
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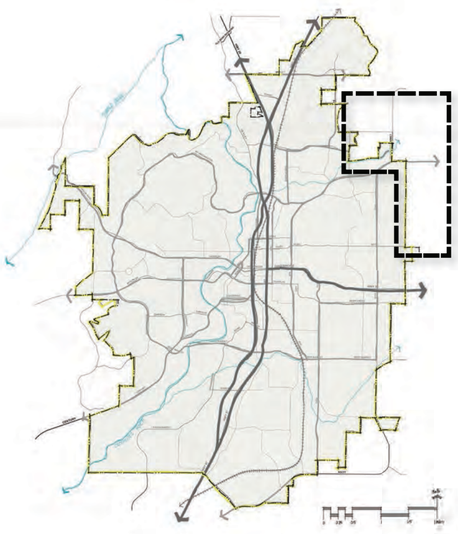

LOCATION MAP

Resource Land

Pine Nursery Park

Resource Land

Big Sky Park

DESCHUTES MARKET
HAMEHOOK
NE BUTLER MARKET
COLE
NE BUTLER MARKET
EAGLE
HAMBY
JEFF

Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream
- Existing Streets
- Parks/Open Space

Potential Future Neighborhood Framework

- 1/2 Mile Service Area
- Trails/Greenways
- Conceptual Streets

- CCR Restricted Properties

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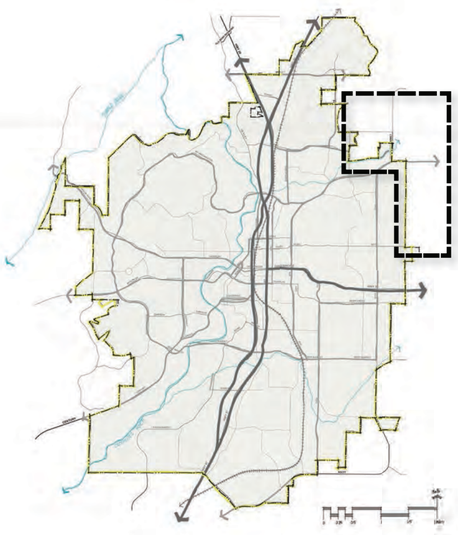
NORTHEAST CASE STUDY

CASE STUDY CONCEPT MAP

UGB Workshop
April 30, 2015

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER
BEND

Greenway Conneciton along the Canale



LOCATION MAP

DESCHUTES MARKET

Resource Land

HAMEHOOK

Pine Nursery Park

Greenway Connection

Adjacent Smaller Lot Sizes

Neighborhood Park

Local Commercial Center

NEWBERRY MARKET

COLE

NEWBERRY MARKET

No Potential for Additional Lots

Connection to Park

EAGLE

Low Potential for Additional Lots

Greenway

HAMEHOOK

Larger Lots with the potential for subdividing

Resource Land

No Potential for Additional Lots

Neighborhood Park

Connection to Park

Big Sky Park

Greenway Connection to Open Space

Larger Lots with the potential for subdividing

Local Commercial Center

JEFF

No Potential for Additional Lots

Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream
- Existing Streets
- Parks/Open Space

Potential Future Neighborhood Framework

- 1/2 Mile Service Area
- Trails/Greenways
- Conceptual Streets
- Conceptual Street Network

Potential Future Neighborhood Typology

- Local Commercial Center
- Large Lot
- Single Family Suburban
- Traditional

- CCR Restricted Properties

03860

NORTHWEST CASE STUDY
EXISTING CONDITIONS
UGB Workshop
April 30, 2015

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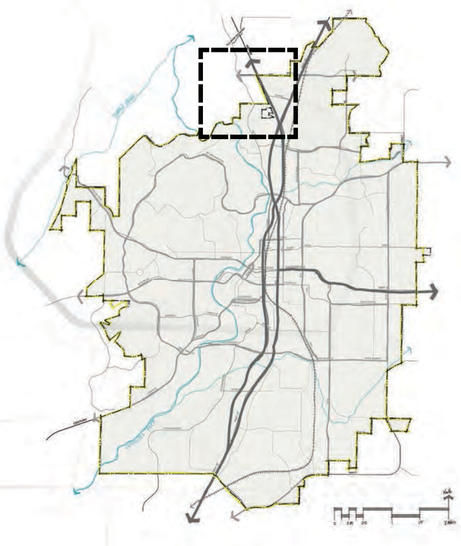

LOCATION MAP

DESCHUTES RIVER

Archie Briggs Canyon Open Space

O.B. RILEY

COOLEY

HIGHWAY 20

MOUNTAIN VIEW

MEADOW

CROOKED ROCKS

SCENIC

MATHERS

COX

GLENMISTA

CHANEY

SOUTH

ROPER

WRANGLER

QUARTER HORSE

CLEARSTONE

HARDY

JAMISON

HWY 20 OVERPASS 1954

BRUMBY

MISTRAL

NEWHALL

SIROCCO

ROSSBY

LAVACREST

MORGAN

HEITLAND

SUNDOWNER

CHEROKEE

FIREROCK

SERVICE

HUNNELL

ROBAL

BROKEN ARROW

NORTHCLIFF

GLENBROOKE

SUMMERFIELD

SILVER BUCKLE

SOFT BREEZE

FOXWOOD

STONERIDGE

FIRERIDGE

CHELSEA

FALCON

Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream/Canal
- Existing Streets
- Parks/Open Space
- Existing Buildings
- Schools

Comprehensive Plan Designations

- Urban Reserve Area

03861

NORTHWEST CASE STUDY
NEIGHBORHOOD FRAMEWORK
UGB Workshop
April 30, 2015

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER
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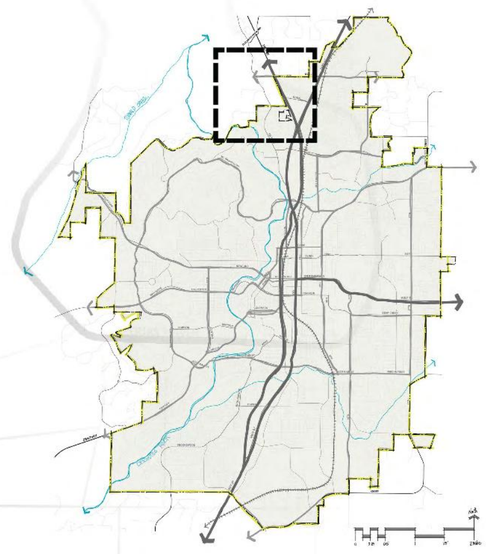

LOCATION MAP

DESCHUTES RIVER

Archie Briggs Canyon Open Space

O.B. RILEY

COOLEY

HIGHWAY 20

Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream
- Existing Streets
- Parks/Open Space

Potential Future Neighborhood Framework

- 1/2 Mile Service Area
- Trails/Greenways
- Conceptual Streets

NORTHWEST CASE STUDY

CASE STUDY CONCEPT MAP

UGB Workshop
April 30, 2015

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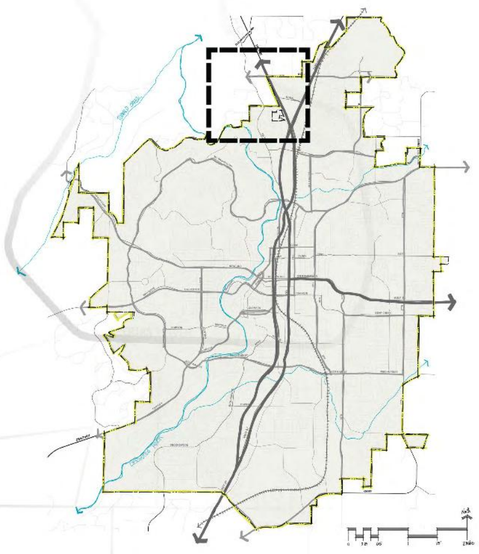


LOCATION MAP

Large Parcels for potential subdividing

Neighborhood Park

Local Commerical Center

Greenway Trails following Streets and Water

Curved Streets following Natural Features

Low Potential for Redevelopment

Connection to Gopher Gulch

Connection to Open Space

Existing Large Lots

Trail Conneciton across River

Archie Briggs Canyon Open Space

DESCHUTES RIVER

Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream
- Existing Streets
- Parks/Open Space

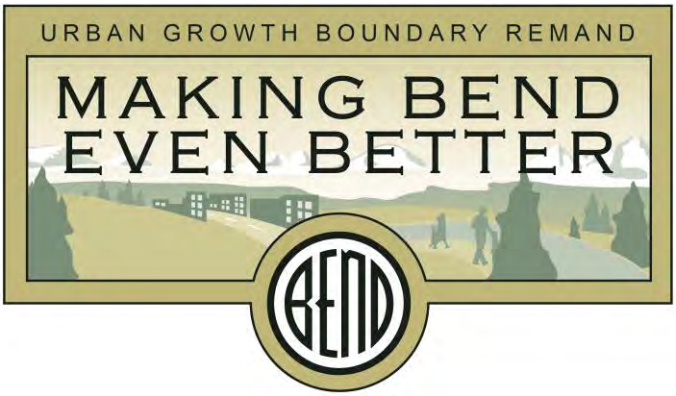
Potential Future Neighborhood Framework

- 1/2 Mile Service Area
- Trails/Greenways
- Conceptual Streets
- Conceptual Street Network

Potential Future Neighborhood Typology

- Local Commercial Center
- Large Lot
- Single Family Suburban
- Traditional

03863



Bend UGB Scenarios Workshop

Briefing Packet No. 2: *Workshop Guide*

April 24, 2015

ATTACHMENT C:

Juniper Ridge White Paper

Memorandum

April 24, 2015

To: UGB Steering Committee, Residential, Employment, and Boundary and Growth Scenarios TACs

From: Brian T. Rankin, City of Bend and Metropolitan Planning Organization staff

Re: Juniper Ridge: background, location, zoning, infrastructure, and related issues

JUNIPER RIDGE – ISSUE OVERVIEW AND OPTIONS

The April 30, 2015 UGB workshop will require participants to make recommendations related to the uses on approximately 194-acres of land at Juniper Ridge that are inside the current UGB, and to the east of an area zoned for employment uses. The recommendation for specific uses on Juniper Ridge will impact land needs, and affect the acreages of residential and employment uses needed in the UGB expansion area. Given that the 194-acre area is inside the UGB, the City is obligated to assume a land use and growth capacity for Juniper Ridge (as with all other lands in the City) for the period 2014 to 2028. The land use options and policy directions discussed to date and offered as a starting point for the workshop are:

Land Use	Policy Basis and Direction
A. **Large Lot Industrial (112 acres) and** Industrial/Professional Office (balance of site)	• Fulfills Bend's large lot industrial special site need • Remainder of site is similar to land currently within the adjacent Light Industrial designation
B. **Industrial/Professional Office (entire site)**	• Employment focus that is similar to land currently within the adjacent Light Industrial designation
C. **Mixed Employment** (entire site)	• An employment "efficiency measure" approach, using the land more intensely than Options A and B • Uses: office, retail/services, light

	industrial
D. **Traditional Neighborhood and Mixed Employment**	• A residential and employment "efficiency measure" approach – the most intense use of the land of the range of options above • Approximately 2/3 of the site would be a traditional neighborhood with a mix of housings, mixed use center, parks, and potentially a school. • Approximately 1/3 of the site would be Mixed Employment

This memorandum provides some additional background on Juniper Ridge, including the respective portions inside and outside the Bend UGB. Most importantly, the memo outlines the infrastructure planning that's been completed and highlights the costs and other implications related to possible new land use designations being proposed on the easterly portion of the area inside the current UGB. This memo builds on previous memos on the subject.

BACKGROUND INFORMATION

Location and Zoning

The City owns a tract of land approximately 1,500 acres in size commonly known as Juniper Ridge. Approximately 500 acres of this land is inside the UGB, and the remainder stretches north from the UGB generally parallel with Highway 97. The property is located east of Highway 97 and abuts Cooley Road along its southern boundary. It extends north toward the intersection of Deschutes Market Road and Highway 97.

In 2004, the City and Deschutes County each approved the necessary plan amendments to expand the Bend Urban Growth Boundary to include roughly 500 acres of Juniper Ridge in the UGB to be used for employment uses. The City subsequently annexed this land in 2005. The City's General Plan designation for the 500 acres inside the UGB is Light Industrial. This portion of Juniper Ridge is west of the Central Oregon Irrigation District canal (See Figure 1). The remaining 1,000 acres of Juniper Ridge outside the Bend UGB is under the jurisdiction of Deschutes County, designated Agriculture on the County's Comprehensive Plan, and zoned Exclusive Farm Use-Tumalo/Redmond/Bend subzone. None of the portions of Juniper Ridge outside the City's UGB have been evaluated for inclusion in the UGB at this time.

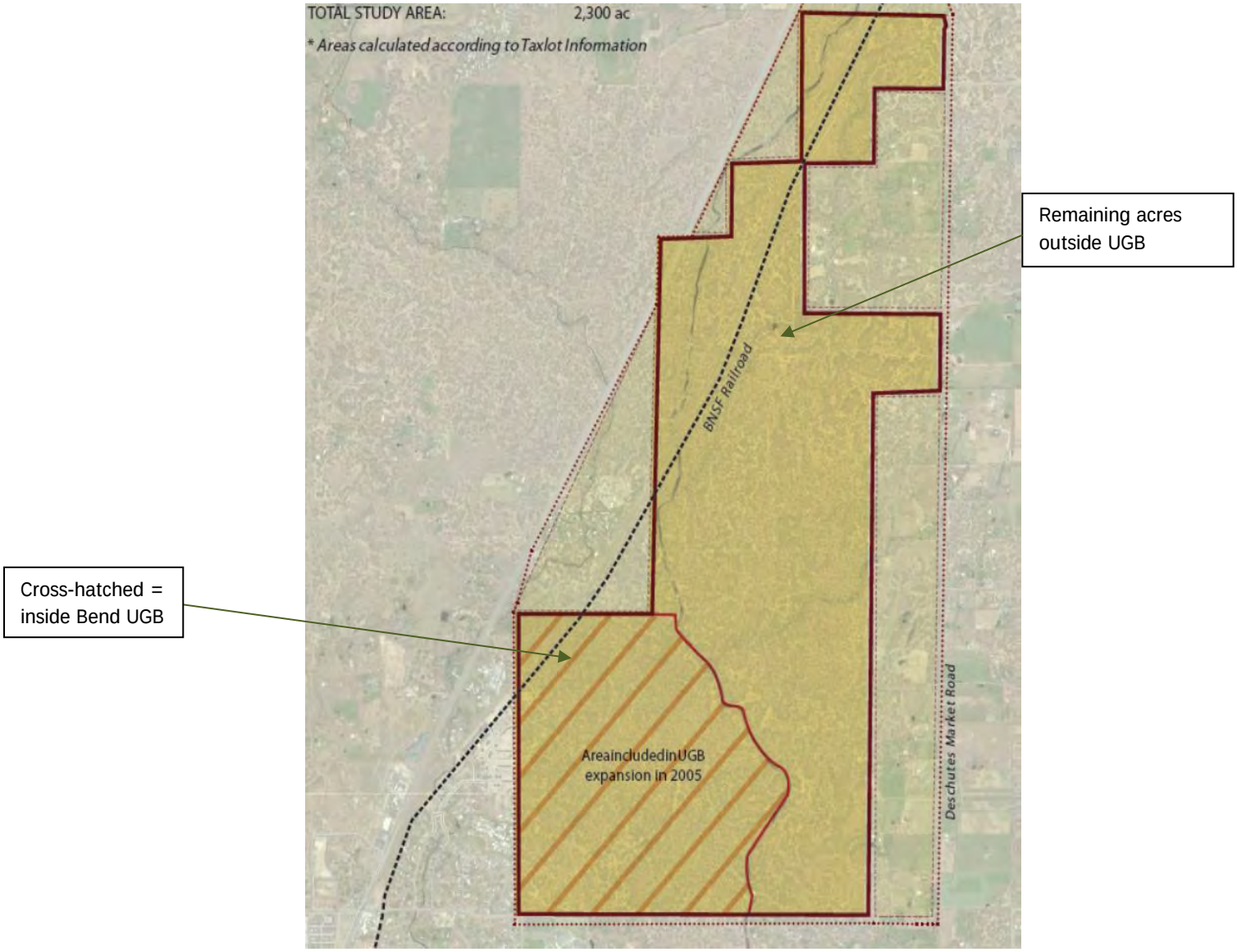


Figure 1: Juniper Ridge

A Juniper Ridge Master Plan dated July, 2008 by Cooper, Robertson and Partners was created for the entire 1,500-acre site shown in Figure 1. This master plan was not formally adopted, and does not regulate the land uses at Juniper Ridge. Rather, the current allowed uses are governed by specific zoning requirements by the City of Bend (for areas inside the Bend UGB), and Deschutes County (for portions of Juniper Ridge outside the Bend UGB). The conceptual master plan envisioned the entire area containing a mix of employment, residential, commercial, public parks and open spaces, and a university on the 1,500 acres.

In 2009, the City created and adopted the Juniper Ridge Overlay zone which is a unique light industrial zoning district specific to a portion of Juniper Ridge (See BDC 2.7, Article XI, Juniper Ridge Overlay Zone Employment Sub-District). The Juniper Ridge Employment Sub-District is a 306-acre area that is intended to promote economical, sustainable, and reasonable growth by

allowing a mix of light industrial uses, offices for research and development, corporate and regional headquarters and accessory uses to serve the needs of these primary uses. The types and placement of the employment uses allowed in the Employment Sub-District are generally consistent with the conceptual master plan. At this time there are two businesses located in Juniper Ridge: Les Schwab corporate office, and Suterra. Figure 2 identifies the Juniper Ridge Employment Sub-District.

Figure 2: Employment Sub-District of Juniper Ridge

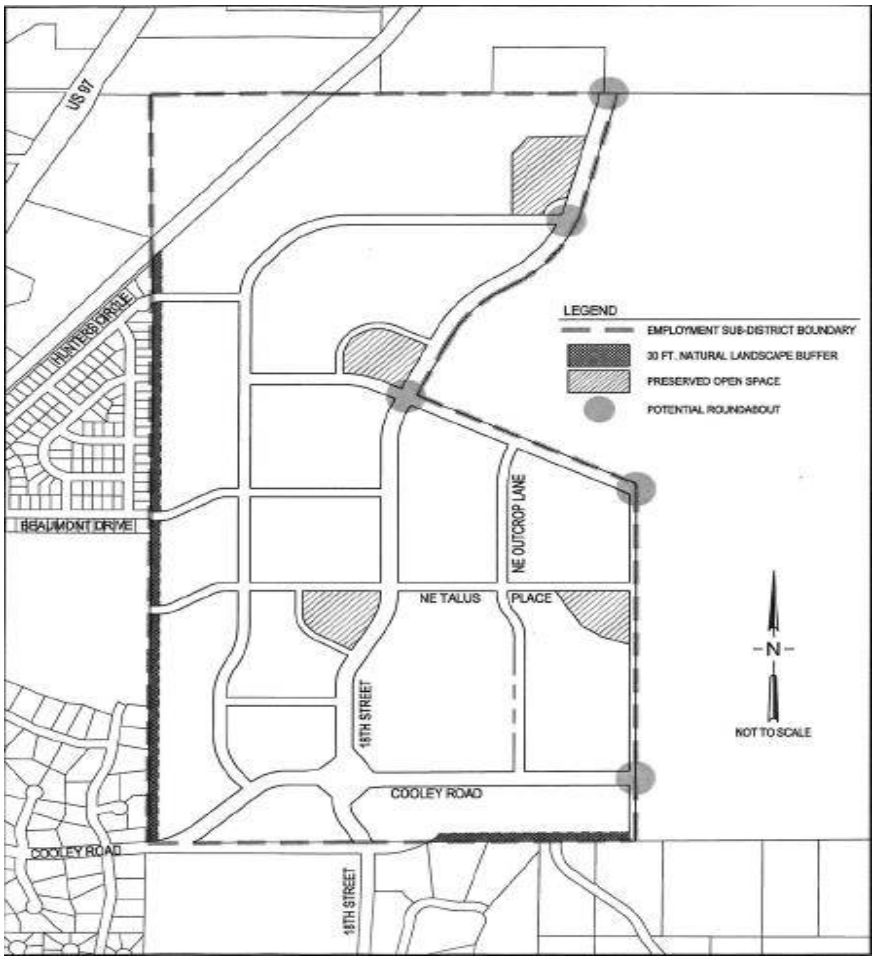
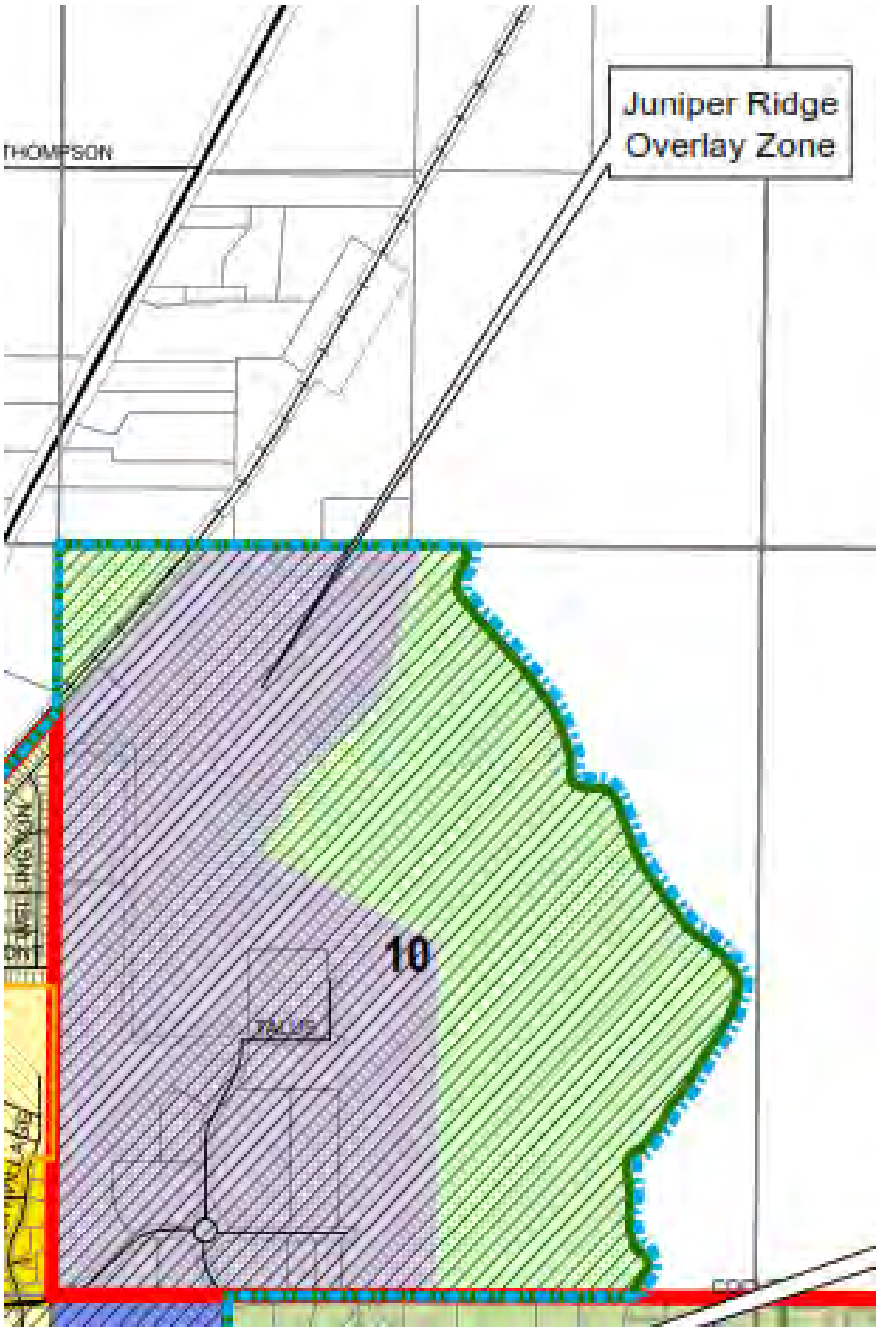


Figure 3, below, identifies the approximately 306-acre territory within the Juniper Ridge Employment Sub-District (shown in the grey color) and the remaining approximately 194 acres outside the overlay zone but inside the current UGB (in a green color). The portion of Juniper Ridge that is not inside the overlay zone has a General Plan designation of Light Industrial, and is zoned Urban Area Reserve (UAR10). The UAR10 zoning designation allows mostly low intensity residential and public uses like parks and schools (i.e. maximum of 1 residential unit per 10 acres), but not intensive employment or residential uses. This area is not zoned for its end use, rather the UAR 10 zone serves as a holding zone. The discussions that the Boundary and Growth Scenarios TAC has held regarding the different land use alternatives and scenarios for Juniper Ridge associated with the UGB pertain to the 194-acre area not contained within the

Juniper Ridge Employment Sub-District. The work related to the UGB has not suggested different uses within the 306 acre Juniper Ridge Employment Sub-District other than those allowed by the current zoning designation.

Figure 3: Juniper Ridge District Map



INFRASTRUCTURE AND URBAN RENEWAL DISTRICT

The 500 acres of Juniper Ridge included in the UGB has received different degrees of infrastructure planning based on the land use designations inside the Bend UGB described

above. Long-term infrastructure planning requires assumptions to be made about future land uses which then drives assumptions about the systems necessary to serve those uses. Infrastructure planning to date reflects that the portion of the site zoned for employment uses in the Employment Sub-district is intended for employment uses, and that the remaining 194-acre portion inside the UGB would be eventually developed as light industrial uses despite the fact its current zoning designation would not allow such intensive development. Since the General Plan designation for the 194 acres of land zoned UAR is Light Industrial, infrastructure planning assumed a light industrial end use consistent with state law, rather than residential and commercial uses. Each of the infrastructure system plans to date, and general costs to the extent they are estimated to serve Juniper Ridge, are discussed below to the extent they are known. In addition, a discussion of the Urban Renewal District is presented.

Transportation

Areas Inside the Employment Sub-District

The City and ODOT have entered into Intergovernmental Agreement (IGA) No. 27115 to link the need for transportation improvements throughout the north end of Bend to the amount of trips that could result from development at Juniper Ridge over time. The following table from the Development Code (Table 2.7.2030B) contained in the IGA outlines the mitigation improvements tied to P.M. Peak Hour Trips for each phase of development. In the table below, the PM Peak Hour Trips shown require the improvements listed in the Mitigation Improvement column to be constructed before additional trips are allowed to be generated from development in the Employment Sub-District. The Empire and 18th roundabout was constructed in 2012 as a Transportation General Obligation Bond project. Further, the Employment Sub-District includes mandatory participation in a Transportation Management Association. An example of a mitigation improvement for the Transportation Demand Management program would be staggered start and ending times for businesses to avoid generating trips within the PM Peak period.

Table 2.7.2030.B Mitigation Improvements

PHASE	P.M. PEAK HOUR TRIPS	MITIGATION IMPROVEMENT
1	700	Empire Avenue/18th Street Roundabout
		Empire Avenue/US-97 Northbound Ramp Terminal
		Empire Avenue/US-97 Southbound Ramp Terminal Third Street to US-97
2	600	US-97 Improvements between Nels Anderson and Bowery Lane
3	580	18th Street Corridor Improvements Cooley Road to Empire Avenue
4	340	US-97 Southbound Improvements Empire Avenue to Butler Market Road
		Purcell Street Extension Cooley Road to Yeoman Road

The IGA with ODOT estimates the costs for the improvements listed in the table above. The costs are approximate engineering costs that are subject to change once further design of the improvements is complete. Approximately $49,360,000 of improvements shown in the table above would need to be constructed just to serve the area inside the Employment Sub-District for an estimated 2,200 PM Peak Hour Trips. These improvements may or may not be sufficient to serve some or all of the 194-acres of land to the east at Juniper Ridge that is currently inside the UGB. The Les Schwab and Suterra developments occurred before the IGA was signed and there have been no new developments in Juniper Ridge since the agreement. Therefore, there remain 700 peak hour trips for development in the Employment Sub-District area before additional transportation improvements are required above what exists today.

Areas Outside the Employment Sub-District

Because of Juniper Ridge's location in the northeast area of the city, and the lack of transportation system connectivity to the south into Bend and north towards Redmond, the site is currently served predominately by access provided from US 97, Cooley Road, Empire Avenue, and other local roadways. ODOT has an approved plan for long-term improvements to Highway 97 and some City of Bend roadways that are embodied in the US 97 Environmental Impact Statement and as reflected in the City of Bend Transportation Systems Plan. Generally speaking, the estimated costs to construct the highway realignment, on-ramps, off-ramps, and other necessary intersection and road improvements associated with this plan cost upwards of $200,000,000. Some of these costs would likely be lower (by approximately $49,000,000) if improvements required by the IGA with ODOT and the City of Bend are constructed primarily for the Cooley Road intersection. Other studies (the Northeast Transportation Study) suggest that local road connectivity improvement, intensive demand management program for the area, and a northern interchange (north of Cooley Road) could improve the transportation system's performance and reduce local trips from Juniper Ridge and the commercial area onto Highway

97. Also, since the formation of the IGA between ODOT and the City of Bend, ODOT has made changes to the Oregon Highway Plan that changed mobility standards (which drive the need for improvements) to targets rather than hard and fast standards. This is not to suggest the improvements discussed above would not be constructed, rather, it illustrates that it is difficult to specify exactly what transportation improvements may be required to serve the easterly 194-acre portion of Juniper Ridge that is outside the Employment Sub-District. Other developments in the northern vicinity of the Bend UGB would also likely be required to mitigate trips related to their particular development, which could partially fund some of the needed long-term improvements associated with Highway 97 and the surrounding road systems.

Funding and Implications on Planned Land Uses

Existing funding sources available to the City of Bend and State of Oregon will likely not be sufficient to construct the planned transportation facilities in the north area of the city within the planning period (2028). Tens of millions of dollars must be spent on some set of transportation improvements to serve the Employment Sub-District per the IGA. Long-term improvements along US 97 to serve Juniper Ridge and the surrounding areas are very expensive, in the range of $200,000,000. Transportation funding from the State of Oregon (through the Statewide Transportation Improvement Program, or STIP) anticipated in the next STIP cycle (2018-2021) is approximately $20,000,000 for the entire region (between Klamath Falls and The Dalles) for what are called modernization improvements such as the projects listed in the IGA and the EIS. The previous STIP cycle (2015-2018) had about $30,000,000 region-wide for modernization projects. In that STIP cycle the City received about $3 million for sidewalk improvements on 3rd Street. The City's Transportation System Development Charges (SDC) bring in approximately $4-$5 million per year to spend on transportation improvements city-wide of which approximately $1.2 million goes to bond debt for the Healy Bridge and the Olney connection improvements. An Urban Renewal District at Juniper Ridge may provide some funding, but the tax increment to generate revenues has not manifested due to the low levels of development occurring in the Employment Sub-District. Additional funding sources not yet explored include a General Obligation Bond similar to the recent GO Bond used to fund transportation improvements in Bend.

There are a few takeaways from the preceding discussion as it relates to the TACs and USC considering new planning designations for the 194-acre portion of Juniper Ridge inside the current UGB. Namely, the conversion of the 194-acre portion of Juniper Ridge into a mixed-use, or residential and commercial land use may make it more difficult to avert funding and building some or all of the transportation improvements discussed above. It is important to understand that different land uses generate different traffic impacts. The need for transportation improvements discussed above is based on the amount of transportation impacts created by new uses which are typically measured during the weekday PM "Peak" between 4:00 and 6:00 pm. To the degree impacts can be reduced from land uses, the need for improvements may also be reduced. For example, Transportation Demand Management (TDM), altering and managing shifts away from peak times, vanpool programs, and bike and walk and transit incentives, and parking policies, can be applied to large businesses (like Les

Schwab and Suterra) to direct the timing of shifts and therefore reduce trips on the system during peak times. Some uses like a data center absorb large amounts of land, but generate very few trips. If Juniper Ridge develops with uses that generate low levels of PM Peak Hour Trips and effective Transportation Demand Management strategies are employed, there will be less traffic impacts from Juniper Ridge.

Compared to residential and commercial uses, industrial uses tend to generate less PM Peak Hour Trips. Residential and commercial uses typically generate more trips and are much more difficult to manage through a Transportation Demand Management agreement because it is difficult for an agreement to modify the travel behavior of residents and customers compared to employees of a large firm. At the same time, mixed land uses and a variety of neighborhood enhancements such as schools, parks and commercial uses tend to reduce non-commute, off peak, trips in predominant residential land uses. However, some have suggested that more valuable uses such as residential and commercial uses, could help fund the expensive transportation improvements discussed. The IGA allows up to 2,200 PM peak trips if the transportation improvements in the IGA are constructed. If the Employment Sub-District is fully built out with fewer than 2,200 trips generated, it may be possible to create another IGA with ODOT for the easterly portion of the site with a similar managed trip-cap approach, and to consider ODOT's recent policy of using targets rather than standards, to lessen the overall need to build additional transportation improvements. Improvements related to US 97 may not need to be funded by development solely at Juniper Ridge depending on the uses, trip generation, and other factors that would be considered in a new IGA for the easterly portion of the site.

Water

The 500 acres of JR included in the UGB, and under the Juniper Ridge Overlay Zone, is within the City's water service area. The 2013 Water Public Facility Plan (PFP) includes a capital improvement project to construct a 16" diameter pipe in 18th Street to provide water to Juniper Ridge. However, when staff looked at this closer, they found that this line is only needed as a backup line for fire flow (the City's existing system can meet fire flow demands through a single line, and a second line would be backup to the existing line). The City has worked with Avion Water who has a large diameter line in the area and is looking at an emergency fire flow connection to their line, which can be done at a lower cost. This is a short term improvement which is scheduled to be completed in this next biannual budget. The Water PFP does not include any proposed improvements specific to Juniper Ridge; the projects outlined includes those aimed at improving water storage and delivery throughout the City's water service area. The water PFP assumed the land use for the entire Juniper Ridge site (500 acres) was light industrial. From a practical consideration, water infrastructure needs are not a major factor compared to the costs of transportation and sewer infrastructure.

Sewer

The City recently completed a Public Facilities Plan (PFP) for the sewer conveyance system for the entire area in the Bend UGB. This plan also assumed that Juniper Ridge would have light industrial uses. This plan identifies the type and timing of facilities to serve the current UGB. A

small area of Juniper Ridge in the Employment Sub-District is currently served with city sewer. There is a lift station located near the Les Schwab headquarters at Cooley and 18th. The PFP shows the area will ultimately be served by the NE interceptor (NEI). The NEI is recommended to provide conveyance capacity at the far north end of the UGB and serve development in the Juniper Ridge area. The NEI will ultimately divert flow from upstream of the Fred Meyers Road Gravity pipe and plant interceptor, where hydraulic deficiencies would otherwise occur in the future. The NEI also enables seven lift stations to be decommissioned, reducing the long term life cycle costs of operating and maintaining the system.

The cost of the NEI is approximately $15,000,000, and is scheduled to be constructed in the out years of the PFP, between 2028 and 2033. It is likely this improvement will need to be constructed sooner based on development pressures in the north of the UGB, but moving the construction of the NEI up sooner would have impacts on the Capital Improvement Plan and potentially sewer rates. The need for the NEI could be triggered by increasing loading from within the existing UGB, but once completed could serve Juniper Ridge. Currently the City is seeing a great deal of development interests within the current UGB that has a high probability of triggering the need to make the investment in the NEI sooner than what was planned.

Juniper Ridge Urban Renewal Area

An Urban Renewal District of approximately 700 acres is in place which includes all areas of Juniper Ridge inside the current UGB and some areas outside the UGB to the west (shown in Figure 4: Juniper Ridge Urban Renewal Area). The purpose of the Juniper Ridge Urban Renewal Plan is to use the tools provided by urban renewal to overcome obstacles to the development and ensure the highest and best use of properties within the Area. The adopted goals of the plan are as follows:

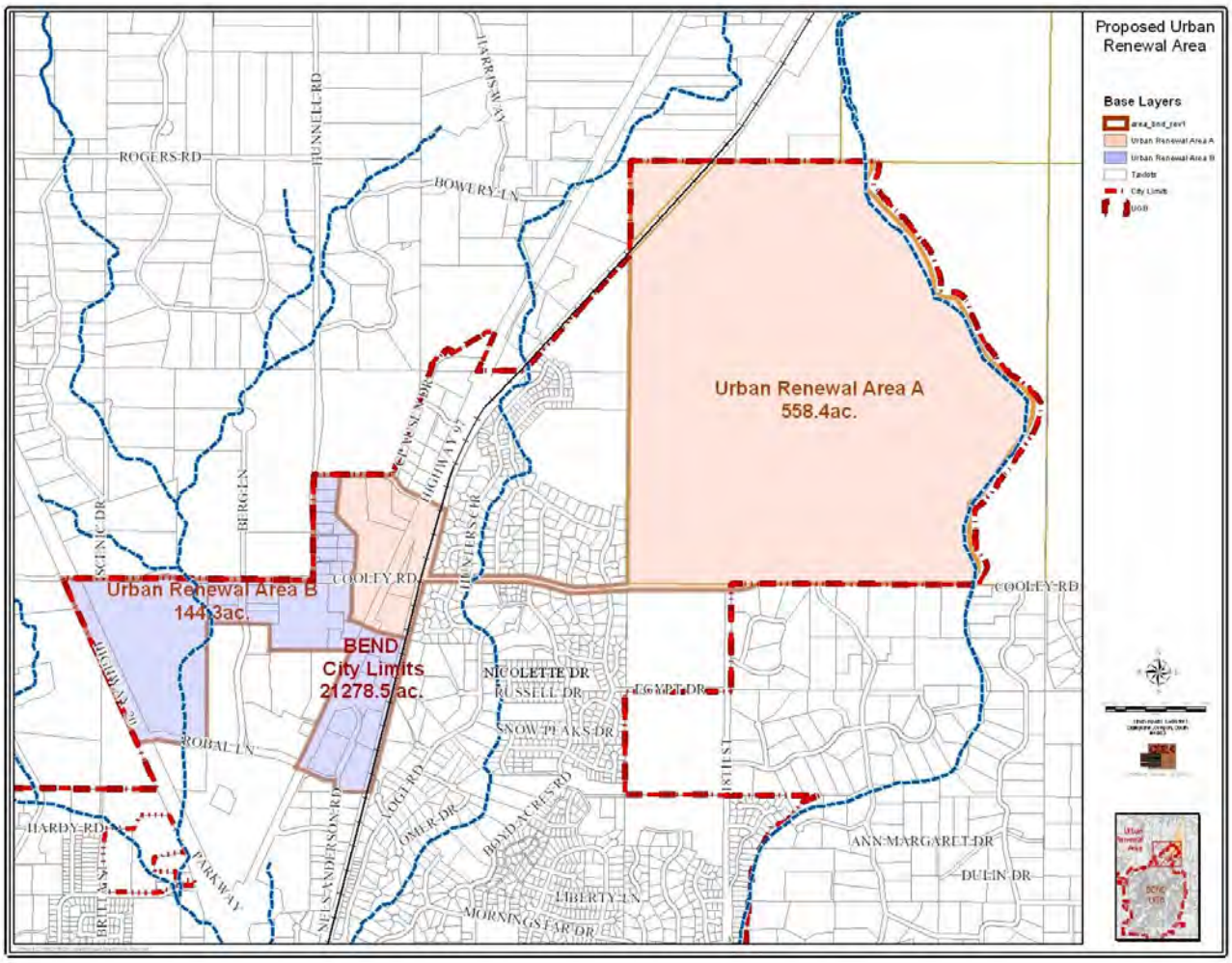
- Goal 1: Support the Development of High Quality Employment Uses Within the Area
- Goal 2: Preserve and Enhance the Area's Natural
- Goal 3: Improve Traffic and Transportation
- Goal 4: Provide Public Utilities

The proposed land uses in the Urban Renewal Area include light industrial, commercial highway, and mixed employment, but do not include residential uses. Changing the zoning to uses other than those cited in the Urban Renewal Plan would likely require changing the goals and objectives of the plan. If the decision were to change the allowed land uses, the goals and objectives, and possibly list of projects would need to be updated. It may also be worthwhile to revisit the plan for other reasons such as updating estimated costs of transportation infrastructure and URA contributions towards transportation projects. Those amendments can be changed by City Council and Bend Urban Renewal Agency.

The change in allowed land uses and projects may also require recalculating the maximum indebtedness. If the updated allowed land uses allow for more intense development additional transportation or utility infrastructure may be needed. Increasing the maximum indebtedness

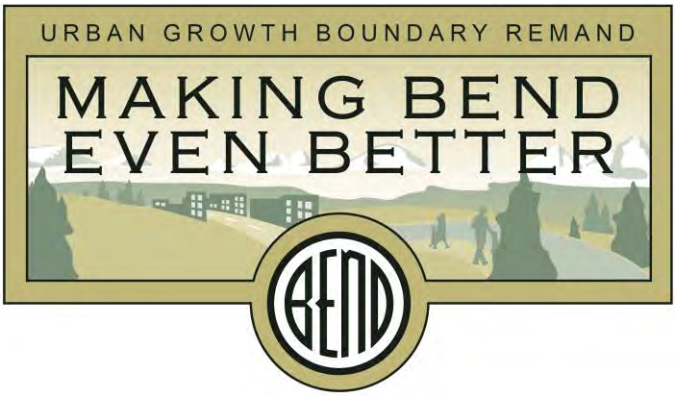
constitutes a substantial amendment to the plan. Substantial amendments require the same notice, hearing and approval procedure required of the original plan.

Figure 4: Juniper Ridge Urban Renewal Area



CLOSING

This memorandum has explored the history and planning work to date so the TACs and USC can take this information into consideration to provide guidance regarding the easterly portion of Juniper Ridge at the April 30 workshop. Based on direction from the workshop, the project team will refine the results and develop three preferred UGB scenarios to evaluate with more sophisticated infrastructure models. The project team suggests using the above information to inform decisions at the workshop, while recognizing additional analysis during scenario evaluation may further assist the TACs and USC to move towards a decision on planned land uses at Juniper Ridge in the coming months.



Bend UGB Scenarios Workshop

Briefing Packet No. 2: *Workshop Guide*

April 24, 2015

ATTACHMENT D:

Wildfire Focus Group Summary

WILDFIRE RISK FOCUS GROUP DISCUSSION SUMMARY

Monday, April 20, 2015 City Hall Council Chambers

Focus Group:

- Stu Otto, Oregon Department of Forestry
- Ed Keith, Deschutes County Forester
- Alex Robertson, US Forest Service/BLM
- Robert Madden, Bend Fire Department
- Craig Letz, Wildfire Consultant

Boundary TAC members in attendance:

- Paul Dewey
- Gary Timm
- Charley Miller
- Dale Van Valkenburg
- Brian Meece
- Rod Tomcho
- Robin Vora
- Mike Riley
- Tom Kemper

Project Background

The original UGB proposal did not assess fire risk. In the Remand, DLCD told the City that it was not specifically required to examine wildfire risk but suggested that a look at wildfire risk through the balancing lens of Goal 14. To that end, the City is gathering the best available information on risk and mitigation approaches and using that information to make the best decisions for the UGB expansion.

The City started by using the Community Wildfire Protection Plan (CWPP) for Bend. The Boundary TAC struggled with the CWPP as a tool, mainly due to outdated data and boundaries for risk which are larger than the study area and use boundaries which may not reflect conditions on the ground. This focus group was pulled together to discuss the appropriateness of the CWPP and to get ideas for analyzing wildfire for specific UGB expansion scenarios; mitigation strategies and policy development; and direction on how best to move forward with multi-agency involvement and coordination.

Panel Discussion

Is the CWPP an appropriate tool to use for assessing relative wildfire risk? Are there other tools?

Ed Keith offered the West Wide Risk Assessment (2013), a mapping effort coordinated through council of Western States Foresters. He provided three maps (attached). These maps provide a finer grained analysis of risk (one of the TAC concerns) but that essentially supports the conclusions of the CWPP: wildfire risk is high all around the City. The only places that there isn't high risk is where there are irrigated fields or rock which tend to be in the northeast. The West Wide Risk Assessment has the same constraints as the CWPP in that the data is several years old and does not include some recent fires and fire treatments. This is a challenge with all models because the fire landscape is dynamic.

Alex Robertson said that there are many models for wildfire out there, all of them suffer from the dynamic nature of the resource. Most federal models are focused on how to manage lands within the boundaries of the management agency.

All panelists agreed that the CWPP is a decent tool to use, particularly because it is possible to dig into the assumptions and see what conclusions were used to assess the risk. In other words, risk is high all around the City but might be high in one area because of threats to structures and in another because of topography.

Does the panel have ideas for analyzing wildfire risk for specific UGB expansion scenarios?

The panel generally agreed that some level of site specific analysis would be appropriate. GIS will reveal topographical issues (i.e., steep slopes, saddles), aerial photography will provide some information on vegetation, but boots on the ground at eye level may be the most useful.

Susie Maniscalco from the City of Bend offered that there are existing assessment tools, such as the National Fire Protection Association (NFPA) and Firewise, which would be useful for property specific assessments.

Does the panel have ideas for mitigation strategies and policy development?

The panel generally agreed that there's always risk and that some kind of codification of mitigation to minimize risk will most likely be appropriate. Firewise appears to be an excellent starting point for mitigation tools. However, these standards include setbacks for structures (30-100' mentioned) which may not be compatible for more urbanized areas. Defensible space around individual homes or clusters of home is critical. The concept of larger managed buffers at the urban/wildland interface was discussed and recommended. The exact width of the buffer was not identified, but the buffer could include elements like water supply and emergency access to support a response to a wildfire. The panel emphasized the need for constant management of any kind of defensible space or urban buffer. Access (i.e. maintained and un-gated roadways) is also important. It may be necessary to require structural standards (i.e., sprinkling buildings) in some areas.

The panel suggested that the City look at what other communities, such as Flagstaff, Arizona, are doing to manage wildfire risk.

The panel cautioned that, to the extent we can, we also need to make sure that adjacent property owners outside the urban area – private or public – can continue to use appropriate tools to manage their lands, including prescribed burning. Buffers providing defensible space inside the UGB and maintained by property owners included in an expanded UGB could mitigate some of the concerns related to the management of properties adjoining urbanization.

Multi-agency involvement and coordination – is this the right group, are we missing anyone?

The panel agreed that they represented the appropriate agencies. Craig Letz suggested that the Bend Police Department and Deschutes County Sheriff be invited to the table to discuss mitigation, since they are the agencies that handle evacuations during a fire emergency.

Boundary TAC Discussion and Questions

In what parts of the UGB expansion study area is wildfire risk the highest? Which parts the lowest?

Risk is high everywhere except for irrigated land or lava rock.

What major fires in recorded history have threatened the north, northeast or east parts of Bend (Rickard Road north to Hwy 97 around the northeast perimeter)?

A map of fire incidence was provided, but focused only on fires which engaged Federal agencies, not the Bend Fire Department. The Bend Fire Department mentioned that many fires have been started in the northeast, but were successfully suppressed. There have been no fires larger than 20 to 40 acres north of Rickard road, with the exception of a large fire near Alfalfa which, according to memory, was very large and happened in the 70s or 80s.

Please address spotting in major fires such as occurred during the B&B Complex and how that affects fire risk within potential UGB expansion areas?

Spotting is an issue with all wildfires, is not specific to any geographic area. Protection is provided by good vegetation management. Some large fires can spot more than a mile away.

What are the most common wind directions during extreme fire conditions, especially stronger winds?

Wildfires create their own wind conditions. Historic local large fires have had a tendency to move from north to south, which has been demonstrated to be the result of upper level winds. The panel cautioned against considering prevailing or historic wind patterns in wildfire risk analysis as fires can occur in any wind conditions.

If development is built as fire-resistant (i.e. with defensible zones and fire resistant materials), can it actually help provide fire breaks in the case of a wildland fire?

Yes. Using a combination of these approaches could reduce the risk to areas in the expansion and areas that are already urbanized as well by providing a defensible space or more fire resistant area which currently does not exist.

The Westside Fire Management Plan that is being executed along Skyliners Road and on forest lands is part of a larger National Strategy and National Plan to reduce fire fuels and provide a healthier forest that is more resilient in the case of wildfire. Would you agree with this work being performed that Bend is in a better position now and more of a fire resilient community that it has been in the past 15-20 years?

Yes.

When we are doing mitigation along the urban edge, are there things we need to do differently for transportation and water infrastructure?

We definitely need to build in smart transportation infrastructure and consider emergency response and evacuation need. Water supply is critical, but urban levels (fire flow and hydrant spacing) will be sufficient.

Does Bend Fire have maps and information on response times for different parts of the City?

Our fire stations are basically located towards the outer perimeter of the city and are positioned for growth. The Fire Department is currently focusing on improving response times to the central part of Bend where it is more difficult to travel due to congestion.

If a property urbanizes, what mitigation would you recommend? What should we do everywhere?

Project Wildfire (Firewise) is the best approach. It includes the mitigation measures discussed today: building materials, roofing materials, decking, vegetation management, and appropriate buffer zones. However, Firewise standards include structural setbacks may not support urban levels of density, unless applied to clusters of structures, and may need to be modified to support Bend's needs.

In your fire planning, do you take into account climate change factors?

Yes. We are experiencing onger summers, hotter and dryer summers; it is an unrealistic expectation to rely on the past and assume it won't change.

Considering climate change, worst case scenario – fire coming into a residential area -- is there an area where you'd be least likely want to see new homes?

There are no geographic regions (i.e. west vs. east) that are necessarily worse or better – but proper attention is needed for specific areas. Terrain features should be taken into consideration; for example, it would be preferable to not locate houses in a saddle or at the top of a draw. Fire travels quickly up a slope.

What are the most sources of ignition for fires outside the existing UGB?

There is about a 50/50 split between human-caused and lightning fire starts.

Public Comments

1. John Jackson – retired from wildland fire business. Instead of avoiding development; target those areas needing mitigation; make it a condition of approval to require fuels mitigation and fire buffering. Tie these areas together so there's consistent treatment, similar to what Flagstaff and other communities have done. Go west and attack the problem to the west. Think about putting the onus on developers to mitigate.

2. Gary Marshall – retired Bend Fire Marshal, currently working for Sisters Camp Sherman and NFPA and Fire Wise advisor. The root of the fire risk problem is development standards – work with developers before they purchase the property. Develop mitigation standards – SB 360 development standards are working.

Fire Risk Index

Expected loss based on likelihood of an acre burning and potential effect on values and suppression costs.

Legend

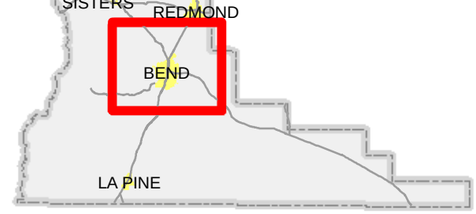
- ODF Protection Boundary
- Rural Fire District
- Lake
- River
- Urban_Growth_Boundary
- Roads

Fire Risk Index

<VALUE>

- >= -1.54
- -1.541 to -4.73
- -4.731 to -6.64
- -6.641 to -10.6
- -10.601 to -21.03
- -21.031 to -51.46
- -51.461 to -122.52
- -122.521 to -284.77
- < -284.77

Vicinity Map



0 1 2 4 Miles

NORTH

Map Prepared by Deschutes County
Forestry
Ed Keith
61150 SE 27th St., Bend, OR
541-322-7117

Date: 4/14/2015

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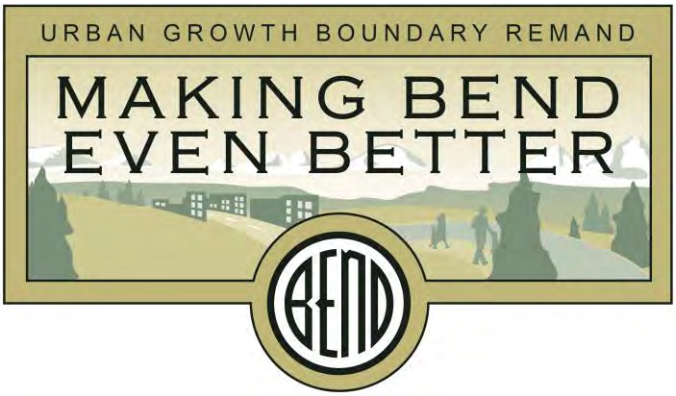


Bend UGB Scenarios Workshop

Briefing Packet No. 2: *Workshop Guide*

April 24, 2015

ATTACHMENT E:

Irrigation District White Paper and Maps

To: Brian Rankin, Principal Planner, City of Bend

From: Suzanne Butterfield, Manager, Swalley Irrigation District

Date: April 23, 2015

Subject: Brief Background paper on Irrigation Districts and Urbanization

I have prepared this brief background paper to help people in the City of Bend UGB process understand what Irrigation Districts do and how urbanization is a challenge for these organizations originally created to serve agricultural water to large farms. This paper is written from my perspective of managing two Irrigation Districts over the last twenty years- in California and Oregon.

Irrigation Districts are public agencies, units of local government

Irrigation Districts in the Western United States were created under state and federal laws, some as far back as the late 1800's, most in the early 1900's and some as recently as 1950. Irrigation Districts were created to help settle the west and bring water from rivers and other water bodies to lands so that agriculture could be started. Irrigation District laws are strong as it was necessary to ensure the success of the Districts on behalf of all the landowners who depended on it as they started up their agricultural endeavors. In Oregon, Irrigation District law can be found in ORS Chapters 190, 540 and 545.

Irrigation Districts are public agencies, not private companies. As such Districts have elected boards of directors, and have taxing authority and police powers. Districts have elections for their boards of directors, are governed by state law, district policies, and district rules and regulations, have regular public meetings, own assets, conduct annual audits. Districts have legal and fiduciary duties to deliver irrigation water to all water users who have a water right mapped on their property.

Irrigation Districts hold water rights in trust for the water users who apply it to the land

Irrigation Districts hold water right certificates issued by the State. The District holds the water rights in trust for use by water users who pay the annual assessment and apply the water to the land. The Oregon Water Resources Department has oversight and approval authority over many Irrigation District functions involving the beneficial use and transfer of water rights. Irrigation Districts can only divert from their water source (in our local case, the Deschutes River) the amount of water that their water right certificate allows. Irrigation water is delivered in Central Oregon by eight Irrigation Districts (Deschutes River, Crooked River and Whychus Creek) from April- October and livestock water is supplied by most Districts in the winter months. Irrigation Districts in Central Oregon have water users as small as 0.25 acres and as large as several hundred acres. The water is used for large landscapes, parks, school grounds, golf courses and agricultural operations, small and large. Irrigation Districts have the right to own and operate hydroelectric plants. In Central Oregon the Irrigation Districts have as few as 660 water users (accounts) to as many as 1900. The number of tax lots involved exceeds these numbers.

Irrigation District conveyances and easements

Irrigation Districts in Central Oregon each have conveyance systems spanning dozens of miles to hundreds of miles through private property and public property, to get the irrigation water from the source to the hundreds or thousands of water users. These conveyances consist of open canals as well as pipes. These canals and pipes have easements along them, often times granted by the federal government through The Carey Act, late 1890's law. The purpose of the easements is to allow the District personnel to traverse along them to observe the water flow, look for and repair problems such as sink holes or damage, remove vegetation that is obstructing water flow, and to make repairs or replacements to pipelines or conduct major construction projects such as replacing open channels with pipes. These easements s are very important to the Districts and with urbanization it is a constant challenge to work with the landowners to keep the easements free from obstructions.

The challenges of urbanization to Irrigation Districts

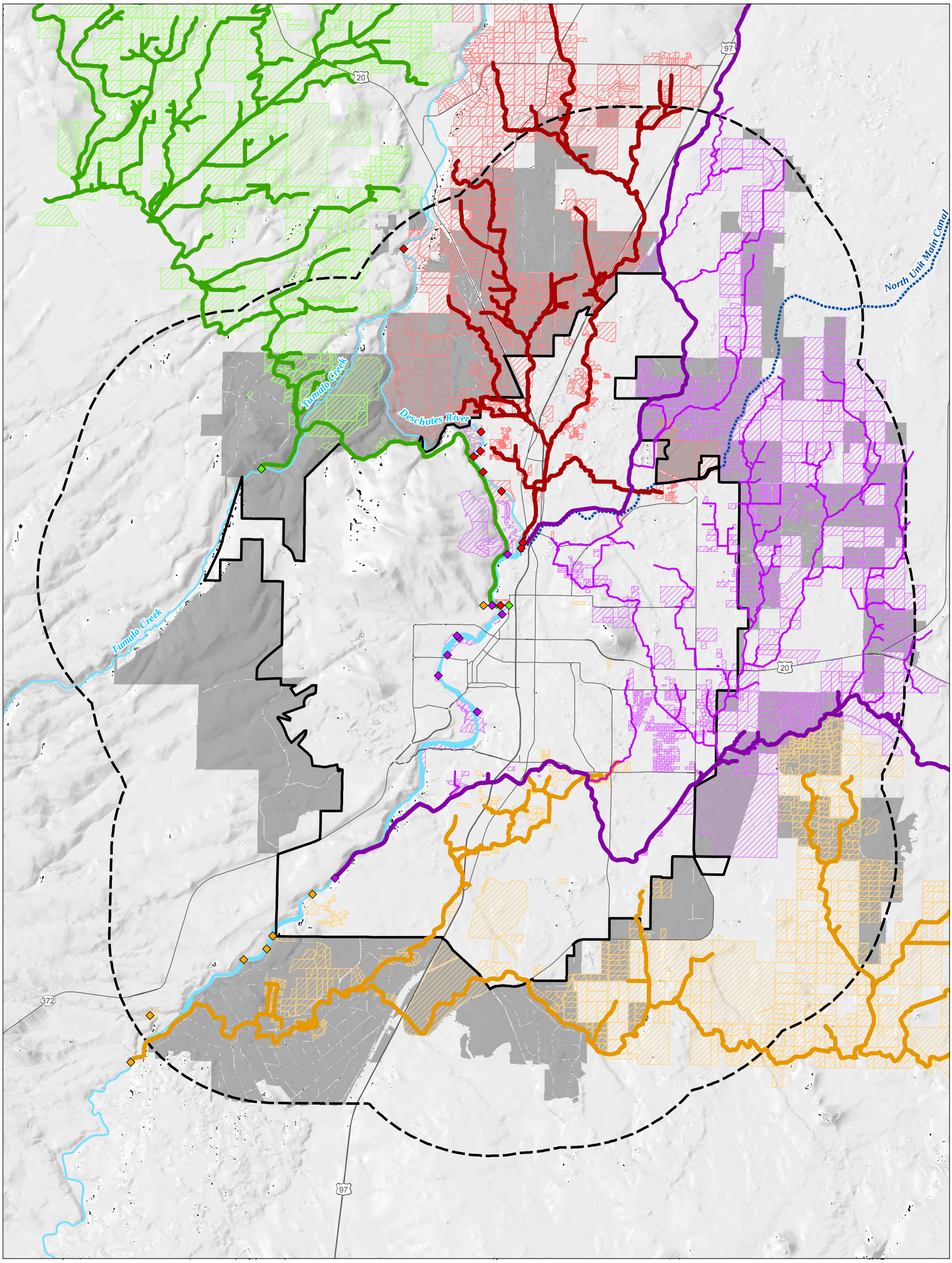
Irrigation Districts each have boundaries within which they have the right to deliver water. There are four Irrigation Districts each of whom have boundaries that encompass parts of the City of Bend: Arnold Irrigation District, Central Oregon Irrigation District, Tumalo Irrigation District and Swalley Irrigation District. These Districts have water users in the City and County and have irrigation conveyances (pipes and open canals) and accompanying easements in the City and County. North Unit Irrigation District does not have water users in the City but does have conveyances and infrastructure and easements in the City all the way to Madras.

Over the decades many of the large farms that Irrigation Districts provided water to have been subdivided. Irrigation water that used to only go to farms now also is delivered to parks, schools, golf courses, trailer parks, common green areas for shopping malls and HOAs, individual large landscapes, and small agricultural acreages.

Every time the land use changes in an irrigation district either a conveyance, an easement, a water right, or a water right assessment (revenue to the district) or all of the above, could be affected, potentially causing change or harm to the functioning of the District. A developer may want to pipe an open channel, a developer may want to cross an easement with a pipe or a bridge or shrink the width of the easement for more buildable space, or remove the irrigation water rights and replace it with City water. It is critical to the Irrigation Districts that they be notified of these pending land use changes and have an opportunity to meet with the landowner to explain District polices and rules and regulations, and be able to enforce their requirements. It is the City's responsibility to notify the irrigation districts of these pending land use changes and it is the District's responsibility to lay out its requirements in a timely way. The City of Bend's "E-Plans " system has been working quite well in notifying Districts of pending land use changes.

If an irrigation district loses water user accounts to urbanization (i.e. the City now becomes the water purveyor and the irrigation water rights revert back to the District) the District needs to review its legal options for what to do with the water right so it is not permanently lost off its water right certificate. It is not easy to just apply the water to new lands not previously irrigated in the District.

Probably the most important thing for an Irrigation District in the path of urbanization, is to have a good working relationship with the City expanding onto Irrigation District lands, as well as an intergovernmental agreement. This agreement should include a master plan as to how the two public agencies will work together to provide efficient irrigation water service to urbanized lands , if such service is still desired, and protect the ability of the Irrigation District to continue to provide irrigation water to its remaining non urbanized water users.



LEGEND

Exception Lands

Irrigation District Infrastructure

- Points of Diversion
- Canals/Laterals/Pipelines
- Tax Lots Served by Irrigation District

Irrigation District Color

- Arnold
- COID
- Swalley
- Tumalo

All Other Features

- City of Bend Urban Growth Boundary (UGB)
- 2 Miles from UGB
- Major Roads
- Natural Watercourses
- North Unit Main Canal Only - No Water Deliveries Until North of Crooked River

NOTE

All canals, laterals, and piping have a corresponding easement on both sides of the structure.

Date: April 21, 2015
Data Sources: City of Bend, USGS, ESRI

FIGURE X

UGB Analysis: All Irrigation Districts

City of Bend

DRAFT

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Feet

GSI Water Solutions, Inc.

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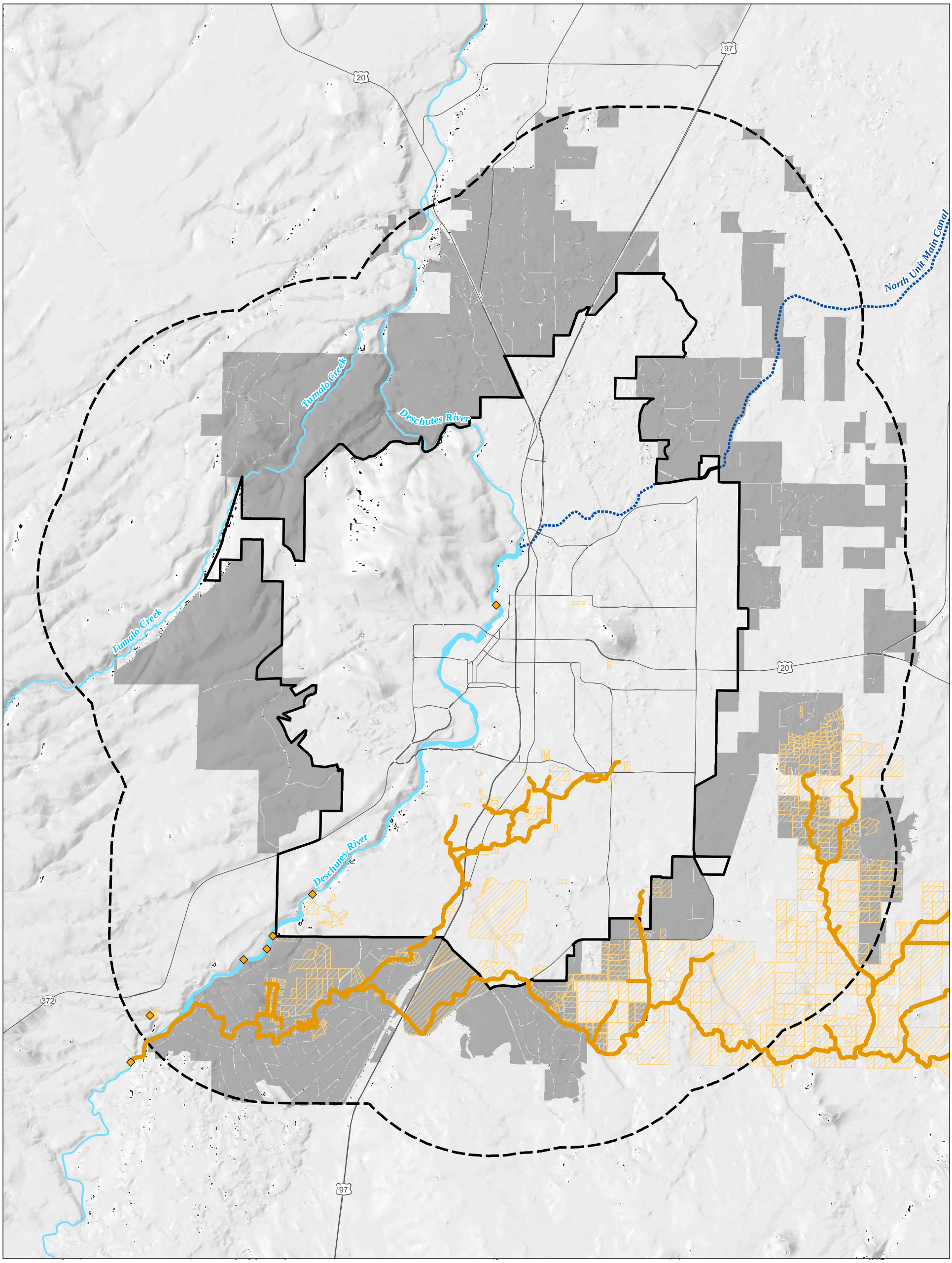

LEGEND

Exception Lands

Arnold Irrigation District Infrastructure

- Points of Diversion
- Canals/Laterals/Pipelines
- Tax Lots Served by

All Other Features

- City of Bend Urban Growth Boundary (UGB)
- 2 Miles from UGB
- Major Roads
- Natural Watercourses
- North Unit Main Canal Only - No Water Deliveries Until North of Crooked River

NOTE

All canals, laterals, and piping have a corresponding easement on both sides of the structure.

Date: April 13, 2015
Data Sources: City of Bend, USGS, ESRI

FIGURE X

UGB Analysis: Arnold Irrigation District

City of Bend

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Feet

GSI Water Solutions, Inc.

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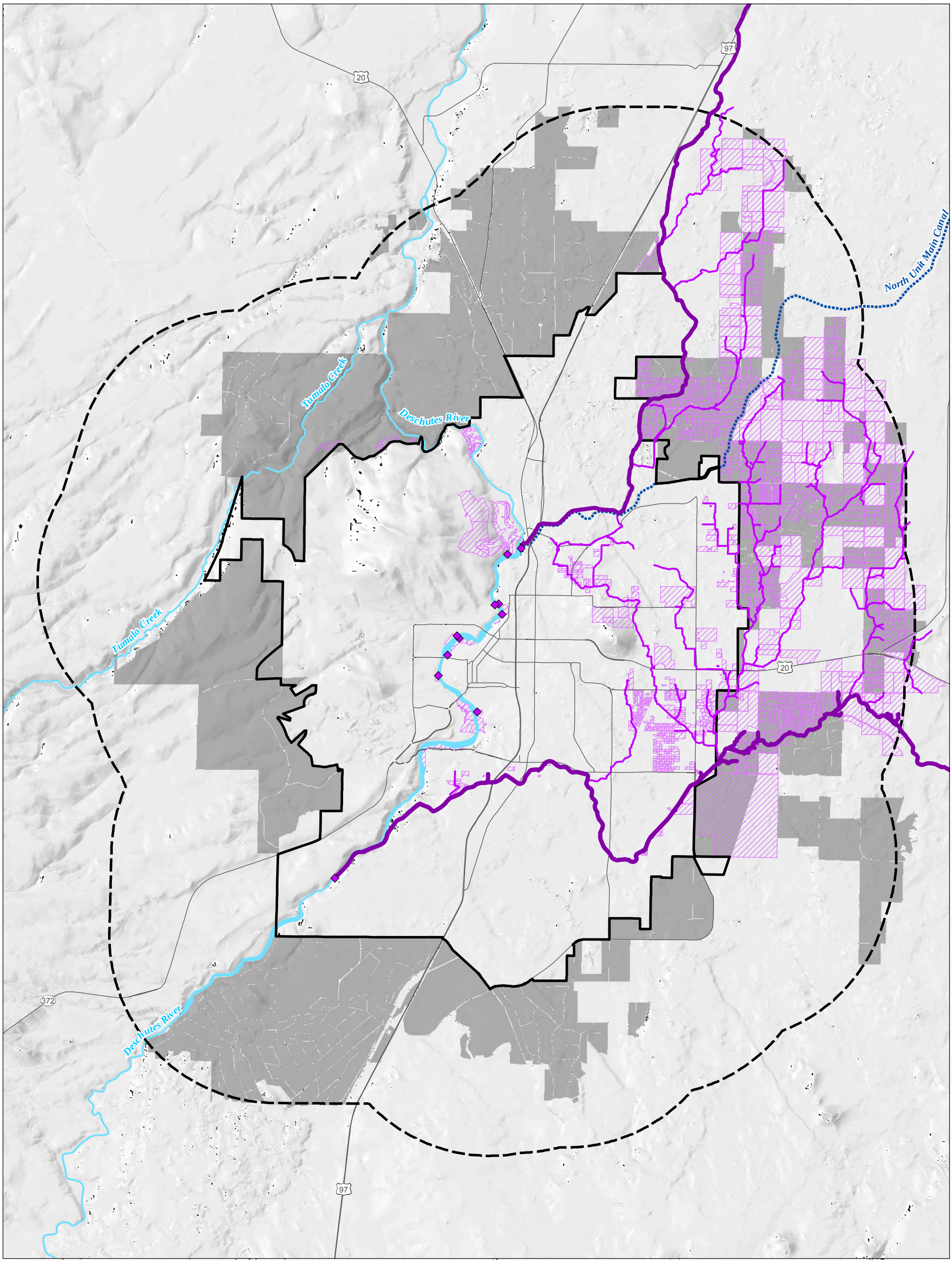

LEGEND

- Exception Lands

COID Infrastructure

- Points of Diversion
- Canals
- Laterals/Pipelines
- Tax Lots Served by COID

All Other Features

- City of Bend Urban Growth Boundary (UGB)
- 2 Miles from UGB
- Major Roads
- Natural Watercourses
- North Unit Main Canal Only - No Water Deliveries Until North of Crooked River

NOTE

All canals, laterals, and piping have a corresponding easement on both sides of the structure.

Date: April 13, 2015
Data Sources: City of Bend, USGS, ESRI

FIGURE X

UGB Analysis: Central Oregon Irrigation District (COID)

City of Bend

DRAFT

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0 3,000 6,000 9,000

Feet

GSI Water Solutions, Inc.

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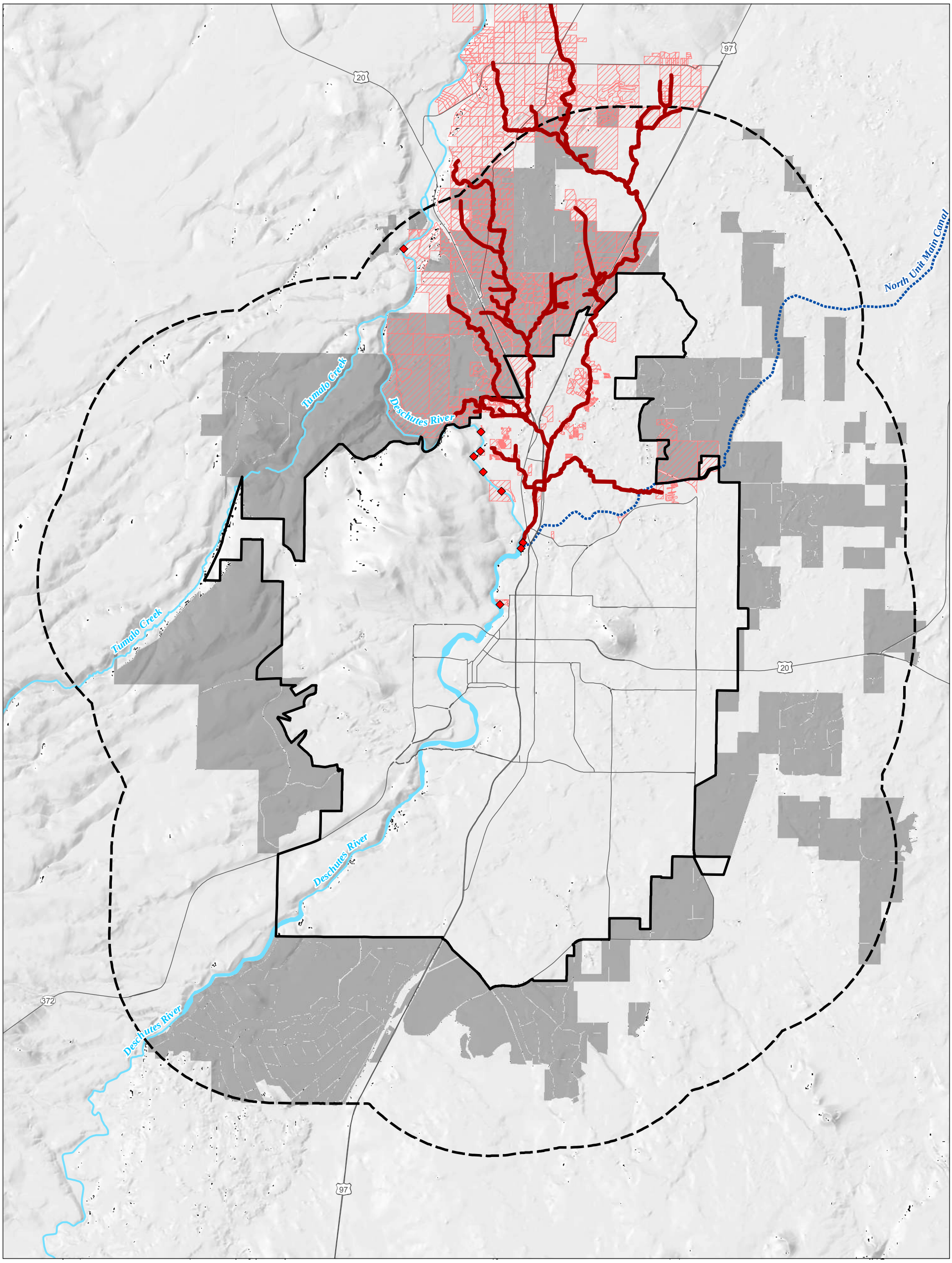

LEGEND

Exception Lands

Swalley Irrigation District Infrastructure

- Points of Diversion
- Canals/Laterals/Pipelines
- Tax Lots Served by Swalley

All Other Features

- City of Bend Urban Growth Boundary (UGB)
- 2 Miles from UGB
- Major Roads
- Natural Watercourses
- North Unit Main Canal Only - No Water Deliveries Until North of Crooked River

NOTE

All canals, laterals, and piping have a corresponding easement on both sides of the structure.

Date: April 21, 2015
Data Sources: City of Bend, USGS, ESRI

FIGURE X

UGB Analysis: Swalley Irrigation District

City of Bend

DRAFT

N

0 3,000 6,000 9,000

Feet

GSI Water Solutions, Inc.

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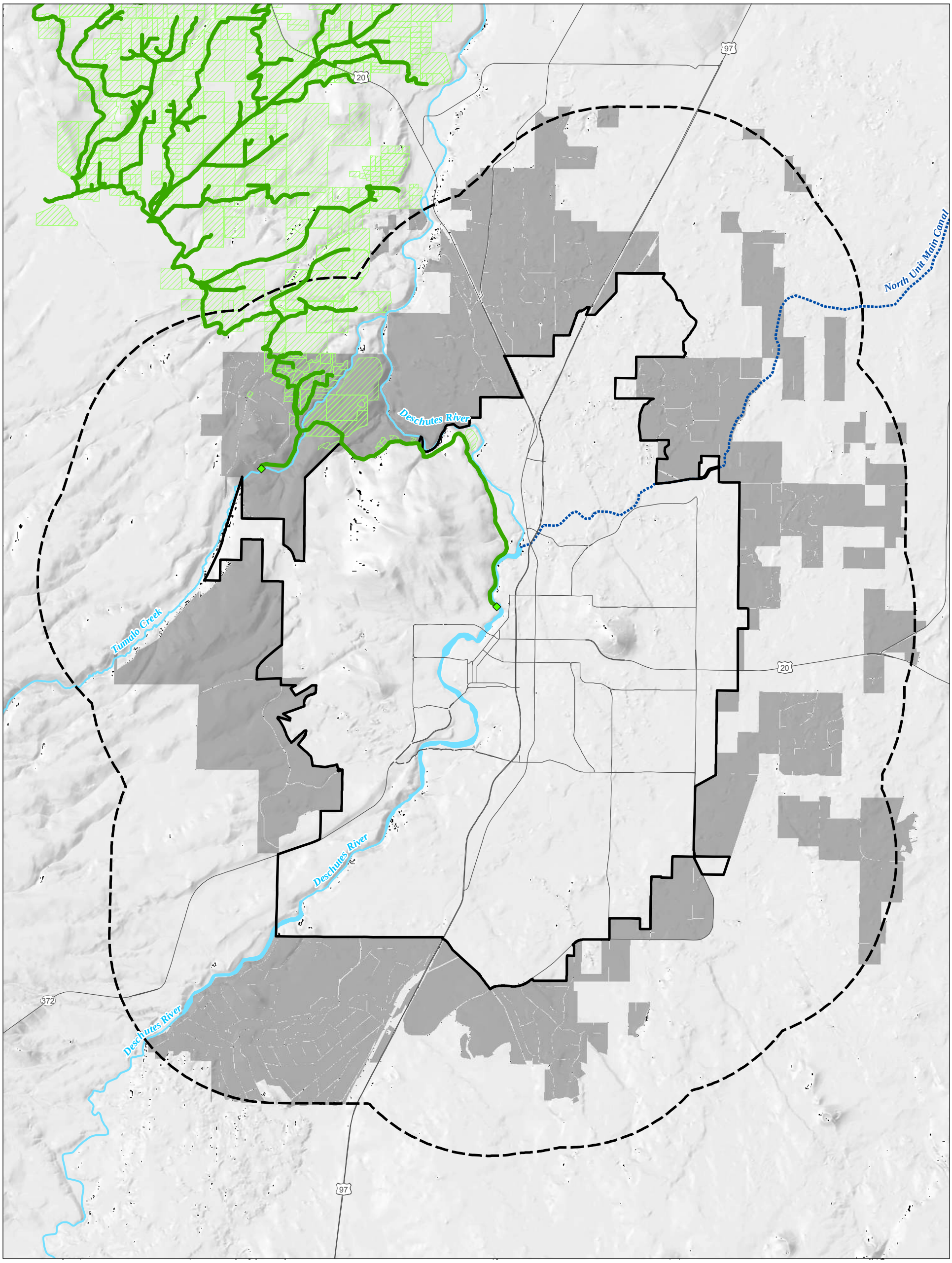

LEGEND

Exception Lands

Tumalo Irrigation District Infrastructure

- Points of Diversion
- Canals/Laterals/Pipelines
- Tax Lots Served by Tumalo

All Other Features

- City of Bend Urban Growth Boundary (UGB)
- 2 Miles from UGB
- Major Roads
- Natural Watercourses
- North Unit Main Canal Only - No Water Deliveries Until North of Crooked River

NOTE

All canals, laterals, and piping have a corresponding easement on both sides of the structure.

Date: April 14, 2015
Data Sources: City of Bend, USGS, ESRI

FIGURE X

UGB Analysis: Tumalo Irrigation District

City of Bend

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Feet

GSI Water Solutions, Inc.

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ALLTAC (13)

URBAN GROWTH BOUNDARY REMAND

BEND

Sign in Sheet

Meeting: UGB Scenarios Workshop

Date: 4-30-2015

Location: BARNES/SAWYER

Name	Organization	Email Address
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Bill Wagner		
Sid Snyder	RL TAC	sepposid@gmail.com
Robin Vora		robinvora1@gmail.com
Dave Burt		old1david776@yahoo.com
ROD TOMCHO		
John Russell	DSL	
Dave Reinke		
Suzanne Butterfield	Swalley Irrigation	suzanne@swalley.com
Al Johnson	Res TAC	alj250@gmail.com
Susan Brody	Boundary TAC	
Dale Van Valkenburg	Boundary TAC	ddvv@ brooksresources.com
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Mark Smuland	Summit Accomodators Liquidating Trust	msmuland@obsidianfinance.com
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REX WOLF	Bend Planning Commission	rexwolf@hotmail.com
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Carolyn EAGAN	City of Bend	

03891

URBAN GROWTH BOUNDARY REMAND

BEND

Sign in Sheet

Meeting: _____

Date: _____

Location: _____

Name	Organization	Email Address
Gary Vodden		randul.va!6gmail.com
Laura Fritz	TAC	
Wes Price	TAC	
Ellen Grover	TAC	
Kendall Brannigg		
Barb Campbell	City Council	
Dean Wise		

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April 30, 2015

Bend UGB Technical Advisory Committee
710 NW Wall Street
Bend, OR 97701

Re: UGB Boundary Expansion Work Session

To Whom It May Concern:

The Trustee of the Summit Accommodators Liquidating Trust, Kevin Padrick ("Trustee") submits these comments with respect to issues affecting the potential expansion of the Urban Growth Boundary (UGB) for the City of Bend. The Trust owns about 33.8 acres of land located at 63210 Cole Road, northeast of Bend.

Wildfire Risk

This committee's decision (over a strong minority objection) to exclude wildfire risk assessment from Phase 2 of the expansion process is misguided. This committee and the UGB steering committee will best serve the public by giving full consideration to all factors that bear on where best to expand the UGB. There can be no real doubt that wildfires pose a significant risk to an urbanized area, especially in Bend, and decisions about growth in high fire-risk areas should not be made lightly or without full knowledge of the risks. Wildfire risk also drives other important planning decisions, such as water supply and transportation infrastructure. Accordingly, committee members Mr. Dewey and Mr. Vora are right to recommend that wildfire risk continue to be taken into account.

The public record of this committee's proceedings reveals allegations that wildfire risk is a red herring for a different agenda seeking to prevent growth on the west side of Bend. However, it is undisputed that there is a decidedly different degree of fire risk for the areas surrounding Bend, with the highest risk being in the west and southwest, as shown in the Wildfire Risk Management report provided by Mr. Dewey and other materials previously provided to this committee. Also, the motives of those making these allegations can be equally questioned, especially given the clear conflict of interest for Mr. Van Valkenburg between his role on this committee and his role as Director of Planning & Development for Brooks Resources, a prominent west side landowner and developer.

This committee has no doubt been constituted to represent diverse interests, all with a genuine desire to see that Bend's growth is planned in a way that best benefits the public interest. However, excluding a relevant fact from the decision making process works contrary to the public interest in achieving the best possible outcome. The decision of the Steering Committee to apply an "on-and-off" approach to seeing how wildfire risk affects the analysis is a step in the right direction, but this should not preclude additional data gathering and measurement on wildfire risk. Ultimately, this committee and the Steering Committee should use the "wildfire risk on" data in making its decisions. Wildfire risk should be measured and evaluated on par with the myriad other factors that will ultimately go into the decision as to where to expand the UGB.

Infrastructure and Housing Costs

An additional issue meriting attention when considering expansion to the west of Bend is the proportionally higher cost of extending urban infrastructure to the west vs. to the east, which in turn increases the cost of housing in Bend. As noted in the attached Bend Bulletin article from today, the cost of housing in Bend is outpacing the average worker's ability to afford that housing. Entry level homebuyers in Bend today require annual earnings about 36% higher than the median income in Bend ($76,000 vs. $56,000). Focusing future growth on the west side will exacerbate this problem, while focusing growth to the east will result in lower infrastructure costs and therefore more affordable housing.

Resource Lands

Certain priorities for evaluation of potential UGB expansion land are established by Statewide Planning Goal 14 and ORS 197.298. However, those priorities are not set in stone -- statutory, administrative and case law all provide for flexibility in the application of those priorities in certain circumstances. In this manner, land otherwise lower down the priority list can be shown to be more appropriate for, and included in, a UGB expansion.

The Trust's Cole Road property provides an illustrative example. The land is well-situated for UGB expansion, being close to other high-priority lands that have been highly ranked by this committee, and is easily accessible by urban infrastructure. It is also much closer to the existing UGB and Urban Reserves boundary than other land presently under consideration. However, the Cole Road property and similar land has not yet been considered for the expansion due to County EFU zoning. Planning experts at both the City of Bend and Deschutes County recognize that the EFU zoning of the Cole Road property, and others, is largely the result of relatively arbitrary soil classification ratings adopted by the County long ago. The enclosed, more recent and more precise soils analysis of the Cole Road property reveals that about 64% of the site is comprised of nonagricultural soils. This illustrates that not all "resource" land is the same, and in fact there can be wide variety in the suitability of EFU-zoned land for agricultural uses.

Accordingly, this committee and the Steering Committee should keep an open mind about the potential suitability of resource-zoned land for the UGB expansion, and consider relevant evidence such as the recent soils report for the Cole Road site. Much like the wildfire risk issue, the public interest in the best possible UGB expansion is not served by early dismissal of important issues and options based on certain assumptions that may not in fact prove true upon further investigation. Well-located properties such as the Trust's Cole Road property should be given proper consideration and analysis, notwithstanding their present resource zoning.

Thank you for your consideration of these comments.

Best regards,

David J. Petersen

DJP/rkb
Enclosures
cc: Bend UGB Steering Committee

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UGB: Growth pain relief years away in Bend

By Joseph Ditzler The Bulletin Published Apr 30, 2015 at 12:01AM / Updated Apr 30, 2015 at 06:41AM
The last time Bend expanded its urban growth boundary, Phil Donahue was still a popular talk-show host, AIDS was a new term and Brian Fratzke was a freshman in high school.

The year was 1981, Fratzke said Wednesday during the Bend Chamber Real Estate Forecast Breakfast, which drew about 400 attendees to the Riverhouse Convention Center. Now a commercial real estate broker and principal at Fratzke Commercial Real Estate Advisors, Fratzke and four other panelists explained why the long process to bring more territory into the city of Bend is driving up the cost of residential and commercial real estate.

"Here's why you should care," he said. "How many of you have a business where you pay rent, you pay a lease, you own a building?" Lease rates for industrial space, for example, have nearly doubled in Bend in three years as the available space has shrunk from 1.9 million square feet to 288,000 square feet, a decline in vacancy rates from 38 percent to 5.76 percent, Fratzke said.

"Back in 2012, if you wanted to lease some industrial space you'd pay 35 cents per (square) foot per month. That's your base rent. It's almost doubled," he said. "And we have some buildings that are listed as high as 80 and 90 cents a foot in town right now."

The city in 2009 proposed bringing another 8,400 acres within its limits, a plan the state Land Conservation and Development Commission returned with a remand order, "like a teacher grading your very, very complex paper," said panelist Brian Rankin, Bend city planning manager. Bend City Council is on track to address the state critiques in a new plan by June 2016, with possible state adoption by June 2017, he said. City elected officials, City Hall staffers and citizen volunteers have worked together, some on technical advisory committees, to revise the plan.

"This is not a complete do-over," Rankin said. "We're keeping elements the state approved and then we're working on the things they told us to improve."

With land in short supply and demand for homes in Bend increasing, the cost of housing is also increasing beyond the average worker's ability to pay, said panelist Bill Duffey, vice president of land development for Hayden Homes. System development charges, the fees imposed on developers by the city and the Bend Park & Recreation District, add another 2 percent to 10 percent to costs, depending on the type of construction, said panelist Ron Ross, a broker with Compass Commercial Real Estate Services.

Duffey calculated that entry-level homebuyers in Bend are earning about $76,000 annually, or about $20,000 more than the median income in Bend, which he pegged at about $56,000.

"That space (between the two incomes) is a market that we're really having a hard time trying to serve right now," Duffey said.

Even if the state approves the revised city plan for expansion, three to five years will pass before it affords any relief to builders, employers and homebuyers who must shoulder the cost of a tight real-estate market, the panelists said. Fratzke suggested several moves they all could make in the meantime.

Commercial tenants may want to talk with their landlords about renewing their leases at affordable rates; tenants who can afford to do so might consider purchasing their own property, he said.

Developers should look for opportunities to redevelop existing properties while keeping an eye on lease rates to know when they warrant new construction, Fratzke said.

Citizens should get involved by making their opinions known to the City Council and state Land Conservation and Development Commission and Land Use Board of Appeals, he said.

"Bend's gonna continue to grow. This is the greatest city in America," Fratzke said. "People are going to keep moving and demand's going to outstrip supply. So let's keep on top of it."

— Reporter: 541-617-7815,

jditzler@bendbulletin.com (mailto:jditzler@bendbulletin.com)

Sage West, LLC
Soils, Wetlands, Wildlife Habitat

Roger Borine, *CPSS, CPSC, PWS*
(541) 610-2457

November 20, 2014

Mark Smuland
Obsidian Finance Group
5 Centerpointe Drive Suite 590
Lake Oswego, OR 97035

Mark,

I have completed Phase I of the soils study for Rezone of the property located at 63210 Cole Road, Bend, OR; Tax Lot 1712140000700 and 33.80 acres.

Phase I of the study was conducted to determine the predominance of agricultural lands on this parcel. The results concluded that the property is predominantly nonagricultural soils. Agricultural soils (LCC 3-6) are approximately 36% and 12.17 acres, and nonagricultural soils (LCC 7/8) are approximately 64% and 21.63 acres. These percentages are approximate and will likely change, although minor, following a final field verification and boundary line adjustments in Phase II.

Based on the predominance of nonagricultural soils the potential for a rezone is possible. If the decision is to move forward and pursue a rezone, Phase II of the PSA will focus on accurately determining soil boundaries, data collection, and completion of a "sound and scientifically based" soils report.

Please see the attached map showing areas of Land Capability Class (LCC) 3-6 soils (Ag soils), and LCC 7/8 (non-ag soils).

If you have any questions regarding this report I will be happy to help.

I want to thank you for the business and wish you the very best.

Regards,

Roger Borine, CPSS, CPSC, PWS

64770 Melinda Court
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