

Cedar Creek Planning Area Key Observations

Draft, February 2, 2006

The following are the key observations that have been drawn from the preliminary draft of the *Metro Waterways Study Without-Project Condition Report* (February 2006) and are meant to be a summary of the most important points from this report. This list will be updated as additional information becomes available and the *Without-Project Condition Report* is updated. The key observations are sorted by the following topic areas: physical conditions; land use and population; biological resources; water resources; and parks, open space, and recreation.

Physical Conditions

- The waterways of the Cedar Creek Planning Area can be divided into three major categories based on similar physical characteristics. These include:
 - Cedar Creek Main Channel (including the North and South branches);
 - Headwater streams; and
 - Channels associated with the City's stormwater drainage system (69th Street Channel, 72nd Street Channel, and lower Gray and Gay Creeks).
- The soil permeability in the upper reaches of Cedar Creek is generally slow to moderately slow and the soil permeability in the lower reaches (valley floor) is moderately rapid.
- The City's storm system will continue to outfall into South Cedar Creek.
- The current character of lower Cedar Creek is highly dependent on supplemental flows from the McKenzie River, particularly in the summer. These flow augmentations are dependent upon authorized water rights.
- Springfield will continue to maintain the City storm system within the City limits, but cannot legally perform work on waterways that lie outside of the City limits.
- Existing floodplain mapping shows that most of the area between McKenzie River and Cedar Creek lies within the 100-year floodplain.
- The largest flood threat to Cedar Creek is associated with the McKenzie River. During the 1996 flood event, the Cedar Creek channel became a floodway of the McKenzie River.
- The McKenzie River has experienced significant channel relocations in the past thirty years and since the 1996 flood event, the McKenzie River near Cedar Creek has shown channel migration that resulted in significant channel relocation.
- Between 1947 and 1970, a number of bank protection structures (levees and revetments) were constructed along the McKenzie River in the reach that parallels Cedar Creek. Erosion has destroyed or damaged several of these structures in recent years.

Land Use and Population

- The Cedar Creek planning area can be separated into three generally distinctive areas of similar size based on predominant land uses:
 - The largely undeveloped headwaters of Cedar Creek and its tributaries. This area lies primarily outside of the current UGB, contains relatively steep slopes, and is predominantly used for timber production on a mix of BLM and privately owned lands, with some widely scattered residential uses present.

- The highly urbanized portion of the basin contained within the UGB. This area is dominated by low density residential uses with smaller quantities of commercial, school, and park uses, but also contains a significant quantity of undeveloped land along the southern edge of the UGB at the higher elevations.
- The expanse of relatively flat agricultural lands to the north and east of the UGB through which the main channel of Cedar Creek flows.
- 75 percent (7,123 acres) of the total Cedar Creek planning area is outside of the existing UGB.
- Under the land use projection, approximately 1,400 acres (15 percent of total planning area) will convert from undeveloped land to a developed use at the projected build-out.
- The bulk of the projected new development in the Cedar Creek planning area will be in the area south of Main Street (Highway 126) and in the higher elevations along the east and south edge of the UGB. The new development in these areas will be primarily residential.
- Approximately 26 percent of the land cover within the UGB is impervious surface, while impervious surface covers only about six percent of the area outside of the UGB.
- At projected build-out, the total impervious surface area within the UGB is expected to increase by approximately 336 acres, bringing the total area in impervious surface to about 40 percent (up from 26 percent). Actual impervious area may be slightly lower than projected due to the steep slopes along the southern edge of the UGB.
- The most notable increases in impervious surface cover will occur in the undeveloped areas along the eastern and southern edge of the UGB as residential uses replace the current farm and forest uses.
- Only a small increase (approximately 11 acres) of impervious surface area is projected for the lands outside of the UGB. This could change however with future UGB expansions.
- The Cedar Creek planning area has a significantly higher level of owner occupied households (76.6 percent) than either Lane County or the State.
- Of the 13 census block groups contained within the Cedar Creek planning area, eight had a median household income that exceeded both the Lane County and State median incomes.
- More households were occupied by families (75 percent) in the Cedar Creek planning area than either Lane County or the State.

Biological Resources

- *Ownership:* Lack of contiguous ownership (public or private) or easements along waterways throughout the planning area is a significant constraint for implementing effective management or enhancement efforts.
- *Connectivity/Fragmentation:* Even though there has been some impact to the overall landscape in the form of habitat conversion to urban and agricultural uses, the drainage system remains in relatively good condition with little fragmentation. This provides good habitat for plant and wildlife migration from the upper headwaters area to the Cedar Creek/McKenzie River floodplain below.
- *Connectivity/Fragmentation:* Although reduced in total area from historic conditions, existing riparian-forest habitats are present, and in relatively healthy condition, along both Cedar Creek and the McKenzie River.
- *Connectivity/Fragmentation:* Riparian habitat has been significantly impacted in headwater streams due to timber harvest, and along the “Street Channels” (i.e. 69th, 72nd, 75th Streets)

due to past urban stormwater practices. Capacity for improving riparian condition in these areas is very high.

- *Aquatic Species:* McKenzie River is a rich resource of aquatic life and in particular Chinook salmon, bull trout, and Western pond turtle. Historically, Cedar Creek was thought to have spawning populations of salmon; currently, there are no salmon populations present but efforts are underway to reintroduce them into the Cedar Creek system.
- *Invertebrates:* Populations in the planning area include both terrestrial and aquatic species, which require various types of habitat to thrive.
- *Natural Resources Assessment Results – Overall Condition:* Nine of the planning area's 12 major waterway segments were evaluated for existing natural resources condition. These results indicate there is significant capacity for enhancing and improving natural resources conditions in all waterway segments.
- *Soils and Bed Material:* Bed material throughout the priority planning area is dominated by clay based soil types which remains suspended in the water column longer when disturbed. Thus, water quality is more easily degraded in clay dominated systems resulting in degraded habitat conditions for aquatic organisms.
- *Projected Condition:* Existing acres related to open water, riparian, and wetland habitats are projected to decrease from 2,269 acres to 2,038 acres at time of build-out for the planning area.

Water Resources

Existing Surface and Groundwater Resource Issues

- Only four miles (10 percent) of the total 39.5 miles in this priority planning area are within Springfield's UGB which presents management challenges for coordinating and implementing effective water resource management strategies.
- Of the 39.5 miles of total waterways, only 13.5 miles (35 percent) have locally adopted measures designed to protect the physical, chemical, and biological resources of these waterways.
- *Impaired Waterways:* Six of the 12 major waterway corridors in the planning area are on the State's 303(d) list as not meeting water quality standards, representing approximately 18.5 miles of waterways length in the planning area. The remaining six waterways, represent about 21 miles of the total length within the priority planning area, have yet to be evaluated, but many may have similar issues to the six that did not meet the standards.
- *Water Quality – Beneficial Uses:* The degraded water quality conditions affect the following beneficial uses: *Drinking Water, Fish & Aquatic Life, Water Contact Recreation, Fishing, and Salmonid rearing and spawning.*
- *Water Quality:* "Pollutants of Concern" within the priority planning area include: *bacteria/fecal coliform/e-coli, dissolved oxygen, and temperature.* Each of these pollutants can be reduced through a variety of measures including on-ground projects. In addition, other pollutants of concern include dissolved organics (pesticides) and mercury. Specific water quality problem areas include the 69th Street stormwater channel for bacteria, nutrients, and pesticides.
- Cedar Creek provides a number of critical functions in this area, including: fish habitat; mitigating stormwater runoff; providing irrigation to agricultural fields; and providing drinking water via groundwater-surface water interconnection with SUB's Thurston Well Field.
- Water is currently diverted from the McKenzie River to supplement flows in Cedar Creek and allow the creek to meet the many demands on its water. However, the current water right to

divert this water is not sufficient to meet the needs. A limited permit from Oregon Water Resources Department was issued in June 2004 to maintain current diversion rates in hopes that a permanent solution can be found before the limited permit expires in May 2009.

- One known groundwater impact area involves the pentachlorophenol (PCP) plume emanating from the Weyerhaeuser Container Board Plant moving downgradient toward the SUB/RWD well field. PCP has not been detected in these municipal wells to date. However, low levels of PCP have been found in water samples collected from adjoining stormwater ditches during storm runoff events (i.e., 52nd Street and 42nd Street stormwater channels).
- East Springfield's urban stormwater drains into the South Fork of Cedar Creek, which provides groundwater for the SUB's municipal wells, and many private wells.
- The McKenzie River is the primary water supply source for all of Eugene's drinking water; all of the waterways within this planning area discharge into the McKenzie River prior to EWEB's water intake and treatment plant at Hayden Bridge.
- In general, headwater streams were rated consistently higher than the waterways in the valley bottom in the channel assessment conducted in 2005. The poorest rated waterways were the *street channels* that serve a primary function of collecting and distributing urban runoff.

Projected Surface and Groundwater Resource Issues

- Where protection measures have been adopted for specific water resources, the risk of major impact (such as piping of open waterways) is relatively low.
- With new development, water quality function is likely to remain *fair* given the current and potential water quality programming of the City, SUB, and EWEB.
- Based on current and projected trends, water quality function for the major waterway corridors will likely remain in their current condition: *poor-to-fair*.

Parks, Open Space, and Recreation

- The Cedar Creek planning area contains a total of approximately 575 acres of land in public or land trust ownership (6.1 percent of the total planning area) .
- Both the *Rivers to Ridges – Metropolitan Parks and Open Space Study* (June 2003) and the *Willamalane Park and Recreation Comprehensive Plan* (2004) provide general guidance for the development of the future park and open space system.
- The *Willamalane Park and Recreation Comprehensive Plan* recommends exploring the feasibility of trail connections along the Thurston Hills ridge in conjunction with the planned natural area park.
- The *Rivers to Ridges* vision map identifies the bottomland portion of Cedar Creek and the McKenzie River both as *blueways*. By the *Rivers to Ridges* definition, a *blueway* is a key water based connection where targeted enhancement may occur. The vision map also defines a *greenway* along the Thurston hills ridge top between Potato Hill and the McKenzie River.
- Based on the Central Lane Metropolitan Planning Organization's *Regional Transportation Plan* (2004), no multi-use paths are currently planned within the Cedar Creek planning area.
- Four schools are currently located in the planning area including Thurston High School, Thurston Middle School, Ridgeview Elementary School, and Thurston Elementary School.