

City Heights Environmental Impact Statement Required Mitigating Measures

The City Heights Development Agreement Appendix B, Development Standards states:

In addition to the Development Standards set forth in this Agreement, all development within City Heights shall implement and be subject to those mitigation measures identified in the DEIS as "Mitigation Measures Included In Development Proposal.

The following is a list of the mitigation measures included in the development proposal identified in the City Heights DEIS April 23, 2010. Please note that Alternative 1 corresponds with the approved Master Site Plan.

Chapter 3.1 Earth

3.1.1 Topography

Mitigation Measures Included in the Development Proposal. Development would be clustered on existing prominent terraces to the maximum extent practicable in order to minimize development in steeper areas that would require more grading. Under Alternative 1, 2, or 3A, a substantial portion of the Red Rock waste rock pile area would be preserved in a park, rather than grading its slopes to make it suitable for development. Potentially unstable slopes in the waste rock pile would be graded as necessary to improve public safety.

Additional geotechnical investigations will be performed in proposed Development Area A to determine best construction practices as they relate to the coal waste pile. Engineering solutions could involve measures to either strengthen the soil or to transmit structural loads to the underlying native soil. Driven piles are a typical solution for supporting residential structures located on weak soil. Ground improvement options could include a preload surcharge, where excess fill would be placed on proposed building areas to compress and densify the soil over time, producing a stronger, less compressible subgrade. Ground improvement, over-excavation or a combination of these methods would likely be required to provide a stable subgrade for the construction of roads and utilities through the area where the coal waste pile is located. Specific geotechnical recommendations for pavements and utilities will be developed in the design phase if development is proposed within Area A.

The applicant proposes to maximize use of on-site sources of fill material to minimize the number of haul trips to/from the site. The proposal also includes using excess excavated material and stockpiled soils to reclaim on-site borrow areas. Under Alternative 1 or 2, construction haul routes and plans will be submitted to the City of Cle Elum Public Works Director for approval prior to the start of construction activity.

As development proceeds, if it is determined that blasting will be needed in localized areas, a detailed blast specification would be prepared by a Project Engineer to integrate the findings and recommendations of the *Geotechnical Evaluation* (Aspect Consulting, October 2009) and the *Coal Mine Hazards Risk Assessment* (Subterra, Inc., October 2009), and to outline blasting objectives and activities for the project. The blasting contractor would then prepare a site-specific blast plan that identifies all details and procedures for blasting on-site.

Soil and rock slopes created by blasting (if any) shall be maintained according to the recommendations of the Geotechnical Engineer. Slope inclinations may have to be modified by the blasting contractor if localized sloughing or rockfalls occur. In order to minimize the potential for erosion from areas where

blasting is performed, erosion control measures would be installed as soon as practicable, surface water would be diverted away from blast areas, and slopes would be inspected daily until stabilized.

Consistent with conditions of the property owner's easement to Puget Sound Energy (Kittitas County Auditor, April 14, 1986), no blasting shall be done within 300 feet of the electrical transmission line corridors through the site without PSE's written consent, and PSE shall not unreasonably withhold this consent.

3.1.2 Geology and Soils

Mitigation Measures Included in the Development Proposal. Design of structures to be built within the project would comply with applicable seismic design codes.

3.1.3 Erosion

Mitigation Measures Included in the Development Proposal. Elements of the proposed City Heights development would eliminate or minimize erosion from existing unstable soil areas of the site. The proposal includes re-grading the Stream C gully concurrent with site improvements in proposed Development Area D1, constructing a coordinated stormwater management system, and eliminating, regrading and/or paving unimproved dirt roads. Proposed stormwater management measures to avoid or minimize erosion and sedimentation (described in Draft EIS Section 3.18.3) would also minimize potential adverse effects to topography and soils.

3.1.4 Coal Mine Hazard Areas

Mitigation Measures Included in the Development Proposal. The applicant proposes to implement mitigation measures for the six different categories of Coal Mine Hazard Areas (CMHAs) identified in the *Coal Mine Hazards Risk Assessment* (SubTerra, Inc., October 2009), as follows:

Coal Mine Hazard Areas (CMHAs) 1 and 2: Drill and grout remnant voids beneath the site and seal air shafts and adit/decline/incline portals. If grouting or some similar method of fill is applied in conjunction with additional proof-drilling and stability analyses, Area K2 at the east end of the site would be developable under the criteria for CMHA 2.

Coal Mine Hazard Areas (CMHAs) 3, 4 and 5: Clean up abandoned mine structures.

Additional development criteria and mitigation for construction in CMHAs 1 through 4 include:

- Building designs shall accommodate standard requirements for construction in abandoned mine areas including, at a minimum, the use of rigid foundations (conventional reinforced concrete spread footings) supporting a flexible superstructure (metal or wood frame).
- Concrete slab-on-grade construction should use rebar rather than wire mesh for added strength.
- There would be no brick or rock construction in CMHAs 1 through 4 other than for fireplaces, nonstructural facades, or landscape features.
- Any additional abandoned mine lands work and/or studies shall meet, at a minimum, the requirements and King County guidance outlined in Attachment A to the *Coal Mine Hazards Risk Assessment* (SubTerra, Inc., October 2009).

Coal Mine Hazard Area (CMHA) 6: Completely or partially remove coal waste (spoil) material from the proposed development area to the satisfaction of the qualified Geotechnical/Civil Engineer. Guidance on coal mine spoil pile hazard mitigation is provided in King County guidelines attached to the *Coal Mine Hazards Risk Assessment* (SubTerra, Inc., October 2009).

3.1.5 Hazardous Substances Investigation

Mitigation Measures Included in the Development Proposal. The applicant proposes to comply with the recommendations of the Geotechnical consultant with regard to handling, disposal, compaction, and/or capping (as necessary) coal waste deposits on the site. A common approach for addressing soils that present only a direct-contact risk is to cap these areas with clean soils to prevent contact. This would be consistent with both the Washington State Model Toxics Control Act (MTCA) (Chapter 70.105D Revised Code of Washington (RCW), and Chapter 173.340 Washington Administrative Code) remediation requirements and coal mine waste reclamation practices. Alternatively, this material may be excavated and disposed off-site as a non-hazardous waste at a Subtitle D landfill (Aspect Consulting, November 2009).

Measures to address potential future settlement in areas where coal waste rock would remain on the site will be addressed by additional geotechnical evaluation and engineering design at the time of actual site development applications for proposed Development Areas A and D2.

Chapter 3.2 Air Quality

Mitigation Measures Included in the Development Proposal. The project proponent (Northland Resources) has committed to prohibit residential wood-burning devices for space heating or aesthetics, and outdoor burning through Covenants, Conditions & Restrictions (CC&Rs) to be enforced by the Homeowners Association. The City will further enforce these restrictions through plat conditions and/or building permit conditions. These commitments will preclude the discharge of potentially significant sources of fine particulates and other pollutants to the air with Alternative 1, 2 or 3A. It is not known at the time of this writing whether there will be any additional features incorporated into the proposed development to minimize potential greenhouse gas emissions. The analysis identifies no need to mitigate traffic-related emissions for purposes of maintaining good air quality, based on acceptable Level of Service operating conditions at signalized intersections within the study area.

Chapter 3.3 Water Resources

The Mitigation Measures: Applicable Regulations subsection below describes the process by which new water rights or authorization to use permit-exempt wells would be obtained. The process for achieving water-budget-neutral use of groundwater wells is also described in the same subsection.

Water Supply Effects

Mitigation Measures Included in the Development Proposal. The City Heights proposal includes two options for a “water budget neutral” approach to the provision of water supply to Alternative 1, 2, or 3A of the development. These are described below under Applicable Regulations. Proposed development under Alternatives 1 or 2 would incorporate low-flow faucets, toilets and similar fixtures to minimize domestic water supply requirements.

Sewage Disposal Effects

Mitigation Measures Included in the Development Proposal. No mitigation measures for groundwater quantity or quality would be required for a wastewater collection and treatment option to serve Alternative 1, 2, or 3A (i.e., a Public System Option, or MBR System Option). If Alternative 3A or 3B were selected for implementation, and if on-site sewage disposal systems were selected as the means for wastewater treatment, these systems would be sited, designed, constructed, and maintained in accordance with all applicable State and local regulations to assure proper function. Due to the residential density of Alternative 3A, community on-site sewage disposal systems to serve this alternative would be maintained by a management entity approved by Kittitas County.

Stormwater Effects

Mitigation Measures Included in the Development Proposal. Construction contractors would be required to comply with applicable State and local regulations and permit requirements (described below) to mitigate potential construction-related impacts to groundwater quantity or quality.

Potential impacts to groundwater quantity due to reduced recharge in the developed condition of the site would be offset in part or in whole by the following features of the Planned Mixed-Use development:

- The open space proposal under Alternative 1, 2 or 3A would retain approximately 43 to 45 percent in a condition where the natural process of groundwater recharge would continue to occur.
- To the extent that parks and residential landscaping are irrigated, this would locally increase groundwater recharge.
- The on-site stormwater infiltration proposal would increase groundwater recharge due to the increased volume of runoff from the developed condition of the site.

Chapter 3.4 Wetland and Streams

3.4.1 Wetlands

Mitigation Measures Included in the Development Proposal. Construction contractors will be required to comply with all applicable permit conditions to avoid inadvertent clearing or compaction within wetlands and their associated buffers. Prior to the start of construction in areas where delineated wetlands occur, wetland boundaries will be flagged and silt fencing will be installed to alert contractors to the “no disturbance” requirement for these areas.

Best Management Practices to be implemented during construction, and water quality treatment facilities in the developed-condition stormwater management system, would minimize or avoid water quality impacts to wetlands. These measures would potentially improve water quality discharges over existing conditions, as removal of the off-road vehicle use would reduce the amount of untreated sediment-laden runoff that currently flows into creeks and enters wetlands.

Direct impacts to wetlands (i.e., fill at road crossings) will be mitigated at required ratios per City or County Code (depending on the alternative selected for implementation) through wetland creation, likely by expanding the edge of impacted wetlands outside the area of fill. Potential impacts to wetland buffers will be mitigated through buffer averaging as allowed by Code. Buffer averaging allows reduction of a buffer in one area as long as an equal area is added to (or preserved in) the buffer in another location. Under buffer averaging, the actual area of the buffer remains the same as the standard full width buffer.

In compliance with Ecology's *Stormwater Management Manual for Eastern Washington* (SWMMEW), potential impacts to wetland hydrology would be minimized or avoided by the proposed stormwater management system that would re-direct treated water back toward wetlands that received stream hydrology prior to development.

3.4.2 Streams

Mitigation Measures Included in the Development Proposal. Potential impacts to streams will be avoided or mitigated through the installation and operation of a stormwater management system on the site – both during construction and in the developed-condition of the project – in accordance with the Washington Department of Ecology 2004 *Stormwater Manual for Eastern Washington*. The proposed system is described in Draft EIS Section 3.18.3.

Construction contractors will be required to comply with all applicable permit conditions for the protection of stream beds, stream banks, and stream water quality.

Chapter 3.5 Wildlife and Habitat

3.5.1 Habitat Conditions on the Site

Mitigation Measures Included in the Development Proposal. Landscaping to be introduced on the site and restoration plantings would be specified to include native vegetation to the extent practicable. This would partially compensate for the loss of existing wildlife habitat with implementation of any conceptual land use alternative. Target species should include plants particularly beneficial as food sources for wildlife such as chokecherry, serviceberry, and native roses (*Rosa pisocarpa*; *R. nutka*; and *R. gymnocarpa*). Potentially invasive, exotic vegetation would not be allowed in site landscaping (to be enforced through the Covenants, Conditions, and Restrictions of the development), including but not limited to English ivy (*Hedera helix*), Scott's broom (*Cytisus scoparius*), Japanese knotweed (*Polygonum cuspidatum*), baby's breath (*Gypsophila paniculata*), or any other species on the Kittitas County Noxious Weed List.3.5.2 Wildlife Species Use of the Site

Mitigation Measures Included in the Development Proposal. It will not be possible to fully mitigate wildlife impacts under any build alternative. Species that use the site will either use the remaining linked habitat areas (wetlands, streams, buffers, and open space corridors), or they will relocate to the north into the large forested area that includes more than 1,000,000 acres of commercial forest and wilderness area. The proposal to retain open space corridors on the site and connection through the development to off-site habitat areas would partially off-set habitat fragmentation that would result from site development. This would retain shelter and sources of food for small mammals and birds, but could have the undesirable effect of also maintaining corridors for large mammals and predators to move through the site.

Covenants, Conditions and Restrictions (CC&Rs) to be enforced by the Homeowner's Association with Alternative 1, 2 or 3A would be used to inform residents of wildlife in the area and how to minimize sources of conflict. For example, garbage storage areas can be required to include animal-exclusion features, and a pet leash law could help minimize predation by domestic pets on small mammals and birds on the property, as well as to control these pets to minimize their availability as prey for large native predators. Certain types of landscaping could be discouraged to prevent conflicts with wildlife, such as grassed lawns, fruit trees, and berry bushes.

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Chapter 3.6 Energy and Natural Resources

Mitigation Measures Included in the Development Proposal. Homes and commercial buildings to be constructed within the City Heights development will comply with the most current energy conservation measures specified in applicable codes. The City of Cle Elum Building Code would apply to Alternative 1 or 2; the Kittitas County Building Code would apply to Alternative 3A or 3B. The applicant will also encourage builders to include provisions for the use of solar energy as this technology advances, such as roofing materials with solar power generation capabilities.

Chapter 3.7 Relationship of the Proposal to Plans, Policies, and Regulations

No "Mitigation Measures Included in the Development Proposal" identified.

Chapter 3.8 Land Use

Mitigation Measures Inherent in the Development Proposal. While no adverse impacts requiring mitigation were identified in this section, several of the purpose and objective statements for the City Heights project (listed below) indicate an intent to integrate the project with the existing community consistent with the City's Comprehensive Plan land use goals, and with the purpose and objectives of the City's Planned Mixed-Use district (discussed in Draft EIS Section 3.7.2):

- Provide an interconnecting trail system to enhance the ability of the public to travel east and west through the Cle Elum area on trails through open space rather than on roads shared with vehicles.
- Provide connections to existing developed areas within the City for residents to enjoy the public amenities provided within the development, and to facilitate access to the services provided in the commercial core.
- Invigorate the downtown commercial area by increasing the population within the service area.
- Provide neighborhood commercial uses that would not compete with downtown core businesses.

Chapter 3.9 Noise

Mitigation Measures Included in the Development Proposal. The proposal includes maintaining an existing natural buffer in an area 20 to 80 feet wide along most of the south boundary of the site. In addition to visual screening, this buffer may help dampen noise generated within the project.

A detailed blast specification would be prepared, as needed, by a Project Engineer to integrate the findings and recommendations of the *Geotechnical Report* (Aspect Consulting 2009) and the *Coal Mine Hazards Risk Assessment* (Subterra 2009), and to outline blasting objectives and activities. A Blasting Contractor would prepare a site-specific blast plan, as needed, that identifies all details and procedures for blasting on-site.

Chapter 3.10 Population

No “Mitigation Measures Included in the Development Proposal” identified.

Chapter 3.11 Housing

No “Mitigation Measures Included in the Development Proposal” identified.

Chapter 3.12 Light and Glare

Mitigation Measures Included in the Development Proposal. The City Heights conceptual land use plans do not yet describe a lighting proposal. These would be evaluated during review of site-specific development proposals. The applicant proposes to minimize the amount of glare, light trespass and sky glow generated by lighting from residential neighborhoods, commercial areas, vehicular and pedestrian corridors through a combination of measures. Representative measures may include:

- State-of-the-art lighting system components and controls used for maximum efficiency and effect.
- Light fixture shielding systems to emit light down to areas intended to be illuminated, and not into surrounding areas of the community.
- Use of lighting design principles that focus on appropriate selection of fixtures, levels of lighting, and mounting heights to limit “light spillage” off-site.
- Appropriate selection of painted or treated surfaces for standards and fixtures to minimize the amount of reflected light glare generated.
- Preserving a perimeter buffer of existing vegetation to the extent practicable and restoring cleared areas with landscape plantings to provide visual screening where needed.

Chapter 3.13 Aesthetics

Mitigation Measures Included in the Development Proposal. The proposal under conceptual land use Alternatives 1, 2, or 3A includes preserving an existing natural buffer 20 to 80 feet wide along much of the south boundary of the site. Only single-family detached homes are proposed along this boundary, for the most compatibility in use and scale with established neighborhoods at the base of the slope.

Covenants, Conditions, and Restrictions (CC&Rs) and development standards for the project will include requirements to assure that the proposed development will blend with the natural environment to the extent practicable. These measures will include such things as architectural standards for building character, exterior materials and colors; lighting, restoration plantings and screening requirements; and road standards that include provisions for landscaping and pedestrians.

Project CC&Rs would impose measures for the maintenance and upkeep of parks (To the extent that some parks and public amenities within the development are accepted by the City as public areas, the City would maintain these areas.) and common areas, as well as measures that would minimize the visual impacts of construction, upgrades or repairs within the development. The CC&Rs, to be implemented and enforced by the Homeowner's Association, would therefore help to preserve aesthetically pleasing conditions within the development.

Chapter 3.14 Parks, Recreation and Open Space

Mitigation Measures Included in the Development Proposal. The objectives of the City Heights proposal include several priorities for retaining a significant amount of open space on the site, both to preserve unique features of the property, and to provide recreational opportunities for residents of the project and the community as a whole. Trail corridors to be identified in an early phase of site planning are envisioned to connect parks, open spaces and public amenities both on-site and off-site so that people can flow through the development and have different experiences in different locations. The degree of improvements and amenities in these spaces will be a function of the resources available from the conceptual land use alternative selected for implementation, as described above. Improvements to be made will be specified in the Development Agreement to be negotiated between the City and the project proponent. Some parks and trails within the development may be dedicated to the City also to be negotiated through the Development Agreement.

In the event that temporary disruptions to use of the Coal Mines Trail would occur during construction of a west access to serve the City Heights development under Alternative 1, 2, or 3A, the developer would work with the City to publish and post advance notice to trail users.

Chapter 3.15 Historic and Cultural Resources

Mitigation Measures Included in the Development Proposal. If at any time during project development human or unknown bones are uncovered, or deeply buried cultural deposits are encountered, work would be stopped in this area of the site and a professional archaeologist would be contacted to evaluate these findings.

Chapter 3.16 Transportation

Mitigation Measures Included in the Development Proposal. Haul routes for construction traffic will be addressed with the Public Works Director prior to the initiation of any construction activity. Provisions will be made in the Development Agreement to be negotiated between the City and the project proponent for restoration of road surfaces damaged by construction traffic (if any).

Alternative 1 – Preferred. New internal roadways and intersections at access points would be constructed to City of Cle Elum standards, or standards negotiated as part of the Development Agreement with the City (see Draft EIS Section 2.9.4.3). Internal roadways would be designed to meet Fire Marshal requirements, emergency access requirements and access for school buses. Snow storage would also be designed into

Alternative 1. Proportionate-share mitigation for project impacts to the transportation system would be negotiated as an element of the Development Agreement between the City and the project proponent. (The City Heights proportionate share would be calculated by dividing project traffic volumes by the sum of project traffic plus background traffic volumes.) The proposal includes reconstructing the substandard curve east of the Summit View/W 6th Street intersection to improve sight distance and roadway width.

Alternative 2 – Reduced Residential Density. Similar to Alternative 1, new internal roadways and intersections at access points to serve Alternative 2 would be constructed to City of Cle Elum standards or as negotiated in a Development Agreement with the City. Transportation system mitigation would also be a negotiated element of the Development Agreement.

Alternative 3A – No Annexation, Development within the County under Single Ownership. New internal roadways and intersections at access points to serve Alternative 3A would be constructed to Kittitas County standards, or as negotiated with the County. Proportionate-share mitigation for project impacts to the transportation system would also be negotiated between the project proponent and the County.

Alternative 3B – No Annexation, Development within the County under Multiple Ownerships. Road improvements to serve the 17 parcels within Alternative 3B would be constructed to Kittitas County standards. There would be no coordinated internal road system plan, and it is unlikely that a coordinated approach to transportation system mitigation could be achieved.

Alternative 4 – No Action. Because there would be no development on the site at this time with the No Action Alternative, there would be no need for transportation system mitigation measures with Alternative 4.

Chapter 3.17 Public Services

3.17.1 Cost of Public Works and Public Services in General

Mitigation Measures Inherent in the Development Proposal. The City Heights site is within the City of Cle Elum Urban Growth Area, adjacent to the north boundary of the existing incorporated area (see Figure 3.8-1 in Draft EIS Section 3.8). The proposal under Alternative 1 or 2 would implement the basic tenets of the Washington State Growth Management Act, the goals of which are to implement “smart growth.” Among these principles are to minimize the cost and optimize the efficiency of providing public services by constructing urban development within or adjacent to areas where urban services are currently available or could logically be extended.

The *Fiscal Analysis* prepared for the City Heights proposal (Property Counselors 2010) estimates that annual tax revenues generated by the project would generate a net surplus in revenue to the City or County compared to the operational requirements of Alternative 1 or 2 (see Tables 3.19-11 and 3.19-13 in Draft EIS Section 3.19 and the preceding discussion). Estimated annual tax revenues generated for the Transportation element of the City’s operating budget are projected to be sufficient to fund two additional Public Works staff positions.

The Development Agreement to be negotiated between the City and the project proponent if Alternative 1 or 2 is selected for implementation will address project costs for these and other general government services to assure that the development would pay for the cost of services it requires.

3.17.2 Fire Protection Services

Mitigation Measures Included in the Development Proposal. The *Fiscal Analysis* of the proposed development (Property Counselors 2010) shows that tax revenues generated by the development would generate a net surplus in revenue compared to the operational requirements of Alternative 1 or 2 (see Table 3.19-11 in Draft EIS Section 3.19 and the preceding discussion). Estimated annual revenues that would be allocated to Fire and Emergency Services would fund the cost of 20 additional volunteer members of the Cle Elum Fire Department and a portion of the cost of the salary of a full-time Fire Chief.

The Development Agreement to be negotiated between the City and the project proponent will establish the terms of the project's proportionate-share cost of capital and operating expenditures for Fire and Emergency Services.

If Alternative 3A or 3B is selected for implementation, conditions of approval to be imposed by the County would consider the project's proportionate-share cost responsibilities for fire and emergency aid services provided by KCFPD #7. The *Fiscal Analysis* prepared for the project (Property Counselors 2010) shows that tax revenues generated by the development are estimated to slightly exceed the operating expenses of KCFPD #7 to serve Alternative 3A or 3B of the City Heights development (see Table 3.19-15 in Draft EIS Section 3.19 and the preceding discussion).

Roads within the development will be designed to support the weight, turning radius, and slope requirements of heavy fire suppression apparatus and tenders. Responsibility for maintaining clear roadways for emergency vehicle access will be determined during the development approval process when it is determined whether roads within the project will become public rights-of-way (City or County, depending on the alternative selected), or whether they will remain private and therefore the responsibility of the Homeowners Association. See the Public Service and Emergency Vehicle Access proposal described in Draft EIS Section 3.16.

Under Alternative 2 or 3A, Montgomery Avenue would be used for emergency vehicle access only. The east/west Collector Road across the City Heights site (described in Draft EIS Section 2.9.4.3) would be gated at Montgomery Avenue with keyed access for emergency vehicles only.

The developer (and subsequently the Homeowners Association) will be responsible for installing signage, identifying the location of fire department connections, and providing current, up-to-date maps to emergency service providers to indicate access routes and various locations within the development to facilitate error-free access to requested locations.

3.17.3 Emergency Medical Aid Services

Mitigation Measures Included in the Development Proposal. The Development Agreement to be negotiated between the City and the project proponent if Alternative 1 or 2 is selected, or conditions of approval to be imposed by Kittitas County if Alternative 3A or 3B is selected, would address the project's proportionate-share cost responsibilities for emergency medical aid services provided by Upper Kittitas County Medic One and Hospital District 2.

The proposed internal road system, road standards that would support the weight and turning radius of emergency vehicles, road maintenance including snow removal during winter months, signage and maps to be provided to public service agencies to facilitate error-free access to the development would be beneficial to emergency medical response teams. See the description of *Mitigating Features Included in the Development Proposal* in Section 3.17.2 above.

3.17.4 Police Protection and Law Enforcement Services

Mitigation Measures Included in the Development Proposal. The *Fiscal Analysis* of the proposed development (Property Counselors 2010) shows that tax revenues generated by City Heights would result in a net surplus in revenue compared to the operational requirements of Alternative 1 or 2 (see Table 3.19-11 in Draft EIS Section 3.19 and the preceding discussion). Estimated annual revenues that would be allocated to the City's Law and Justice budget would fund the cost of four full-time-equivalent officers (salary, benefits and equipment) and approximately \$105,000 per year for jail and dispatch costs. These revenues would also approximately double the City's budget for Municipal Court services, and would enable increasing the Municipal Judge staffing level to 0.6 FTE.

The *Fiscal Analysis* shows that annual tax revenues generated by Alternative 3A would be sufficient to fund 3.4 additional fully-equipped officers with the Kittitas County Sheriff's Department (see Table 3.19-13 in Draft EIS Section 3.19 and the discussion that follows).

The proposed internal road system; road standards that would support the weight, turning radius and slope requirements of emergency vehicles; road maintenance including snow removal during winter months; maps and signage that would facilitate error-free access would be beneficial to the provision of law enforcement services as well as fire protection and emergency medical aid. See the description of *Mitigating Features Included in the Development Proposal* in Section 3.17.2 above.

3.17.5 Schools

Mitigation Measures Included in the Development Proposal. Internal roadways, particularly the Main Access Roads and Collector Roads described in Draft EIS Section 2.9.4.3, would be designed to accommodate Cle Elum School District buses with student bus stops at appropriate locations. Because of low forecast traffic volumes on roadways internal to the City Heights development, it is expected that bus pullouts would not be needed since it would be safer to have the buses stop in-lane and hold all approaching and following traffic while students embark or disembark the bus. (Concurrence received from the Cle Elum-Roslyn School District in the form of personal communication with Brian Twardoski, Director of Finance, Operations, and Athletics, March 3, 2010.) Cul-de-sac turn-arounds designed for fire equipment would also accommodate the turn-around needs of school buses. Accommodations for school bus access would be the same with any action alternative, since the Cle Elum-Roslyn School District would serve the City Heights site regardless of the City or County jurisdiction in which the site is developed.

If areas under construction have the potential to temporarily affect school bus routes within the project, the developer would be responsible for implementing measures to assure safe and reliable passage for school buses.

Chapter 3.18 Utilities

3.18.1 Water Service

Mitigation Measures Included in the Development Proposal. It is typical that as development occurs within local communities, developers are responsible for the initial capital investment costs of infrastructure improvements to mitigate their impacts as part of project approval conditions. It is anticipated that an agreement will be created between the City of Cle Elum and the project proponent to indicate that the costs of improvements required within the City's water system to serve Alternative 1 or 2 of City Heights and all on-site improvements required to supply water to City Heights will be paid by the project proponent and not directly by the City of Cle Elum. Payment could take the form of direct payment by the project proponent, through some form of City-sponsored financing such as a Local Improvement District sponsored

by Cle Elum (completely paid for by the project proponent, not with City funds), or through grant money secured by the City of Cle Elum (with the costs of application and procurement funded by the project proponent and not the City).

The proposed development under Alternative 1 or 2 would incorporate low-flow faucets, toilets, and other similar fixtures to minimize domestic water supply requirements. Water meters would be installed at each building, or at another connection point using water and pipe/meter sizes to be determined on the basis of domestic flow volumes and fire flow needs. Increased operating and maintenance costs accrued by the City would be recovered through utility rates paid by the actual users of the water system.

Under Alternative 3A or 3B (to be developed in the County), either a Satellite Management Agency would operate the on-site water system(s), or a Homeowners' Association would become a certified operator. In the latter case, three trained employees would be required to manage the system.

All reasonable efforts will be made to locate new water reservoirs with minimal visual impacts.

Best management practices would be implemented during the construction of utilities to minimize noise, dust, and erosion potential (see Section 3.18.3, below).

3.18.2 Sewer Service

Mitigation Measures Included in the Development Proposal.

Public System. Mitigation measures for the wastewater collection and treatment requirements of Alternative 1, 2 or 3A would be approximately the same. The Upper Kittitas County Regional Wastewater Treatment Facilities Project Agreement, Development Agreement and Service Agreement, as amended (the Service Agreement), guides the construction, use and operation of the Cle Elum wastewater collection and treatment system. In accordance with the Service Agreement, a Capital Recovery Charge is currently charged by the City of Cle Elum to all new ERUs utilizing the existing system. These funds are remitted to Suncadia. As noted above, the City of Cle Elum does not have any existing wastewater system capacity to allocate to the needs of the City Heights project; therefore, it is presently unclear how the project could be served by the City's wastewater collection system. Any costs associated with allocating existing capacity in the wastewater collection and treatment system to the City Heights project would be imposed through the Development Agreement, requiring the project proponent to reimburse costs as lots were developed and connected to the City's infrastructure.

If the *Borrow Option*, *Purchase Option*, or *Infiltration/Inflow Option* for the collection system were selected, existing capacity would be rented or purchased and the compensation would be negotiated between the parties.

In the event that collection and treatment system capacity could not be secured on a permanent basis under the *Purchase Option* or the *Infiltration/Inflow Option*, then the developer would be responsible for the initial capital investment costs of infrastructure improvements required to serve City Heights as an element of project approval conditions. It is anticipated that an agreement will be created between the City of Cle Elum and the City Heights Planned Mixed-Use development providing that the costs of improvements required within the City of Cle Elum sewer system to serve City Heights and all on-site improvements required to supply service to the project would be paid for by the project proponent and not directly by the City of Cle Elum. Payment could take the form of direct payment by the project proponent, through some form of City-sponsored financing such as a Local Improvement District (completely paid for by the project proponent, not with City funds), or through grant money secured by the City of Cle Elum (with the costs of application

and procurement funded by the project proponent, not the City). Under no circumstance would costs to provide sewer service to the City Heights development be borne directly by the City of Cle Elum or existing sewer service customers.

Increased operating and maintenance costs accrued by the City would be recovered by utility rates paid by the actual City Heights users of the wastewater collection and treatment system.

MBR System. A MBR system could be implemented to serve Alternative 1, 2 or 3A. Proper design and operation of a MBR plant would produce reclaimed water that would meet Class A water quality standards for possible seasonal reuse on-site for landscape irrigation, and for discharge to the Yakima River (subject to obtaining all required permits and approvals for a new outfall to the river).

On-Site Sewage Disposal Systems. On-site sewage disposal systems could be used to serve Alternative 3A or Alternative 3B. When these systems are properly designed, installed, and maintained in accordance with applicable regulations, they would not be a source of impact to the environment until they no longer functioned properly and required upgrade or replacement.

3.18.3 Stormwater Management

Mitigation Measures Included in the Development Proposal. The City Heights proposal would comply with the requirements of Ecology's 2004 *Stormwater Management Manual for Eastern Washington* (SWMMEW) to mitigate the potential impacts of surface water runoff described above. Temporary erosion/sedimentation control (ESC) facilities would be installed during construction. ESC measures would minimize soil erosion once the natural vegetative cover has been removed, and would minimize the occurrence of sediment from those same areas migrating into water bodies such as streams. Permanent stormwater management facilities would be created concurrent with residential and commercial development on the site, and technologies associated with sustainable designs would be implemented. Possible treatment methods to accomplish this goal are described below.

Based on the proposed design criteria and mitigation measures for stormwater management, it is anticipated that the City Heights project would not adversely affect the existing water quality of Crystal Creek during construction or in the completed condition of the development.

Flow control and channel stabilization measures will be implemented throughout the project site in compliance with Ecology's 2004 SWMMEW standards, especially near existing critical areas such as wetlands and streams (such as Stream D), to minimize both existing conditions of erosion and sediment transport and conditions that have the potential to be made worse as a result of site development. Representative Best Management Practices are listed below:

- BMP C102: Buffer Zones
- BMP C120: Temporary and Permanent Seeding
- BMP C122: Nets and Blankets
- BMP C124: Sodding
- BMP C200: Interceptor Dike and Swales

- BMP C202: Channel Lining
- BMP C207: Check Dams
- BMP C209: Outlet Protection
- BMP C234: Vegetated Strip
- BMP C235: Straw Wattles
- BMP F6.10: Detention Ponds
- BMP F6.21: Infiltration Ponds
- BMP F6.42: Full Dispersion
- BMP T5.10: Infiltration Ponds
- BMP T5.40: Biofiltration Swales
- BMP T5.50: Vegetated Filter Strip

Given that seasonal flooding occurs in the Crystal Creek basin and in seasonal streams that flow through the City Heights site under existing conditions, mitigation measures may be selected from the following strategies to address the increased volume of stormwater and increased peak flows that would occur as a result of the City Heights Planned Mixed-Use development:

- Reduce the quantity of stormwater to be discharged.
- Implement full or basic dispersion for each phase of development based on the King County 2009 *Surface Water Design Manual* in order to reduce, treat and/or slow down post-development runoff.
- Where possible, infiltrate stormwater in an area where recharge does not report directly to basins that have flooding problems.
- Store stormwater during the wet season for use during the dry season and/or until the timing of recharge will have a minimal impact on these basins.
- Improve and/or maintain the capacity of the City's stormwater conveyance infrastructure so that it can handle increased flows without an increase in flooding.
- Develop on-site snow removal policies that will allow snow runoff to be properly detained and not by-pass the stormwater management system.

It is anticipated that some form of low impact development approach to stormwater management may be used depending on the conceptual land use alternative selected for implementation. Low impact development methods differ from traditional development in that they are applied at a smaller scale and are designed to more closely mimic pre-development hydrology by managing stormwater closer to its source

in small drainage areas, rather than creating large stormwater facilities for entire drainage basins. Stormwater management facilities within the City Heights development would be owned and maintained by the Homeowners' Association (HOA) after construction is complete and lots are legally platted. Prior to that time, the property owner/developer would be responsible for maintenance of these facilities. Each stormwater management facility would need to be periodically observed and maintained to ensure design performance. The HOA would need to create a procedure for this observation and maintenance.

3.18.4 Electrical Service

Mitigation Measures Included in the Development Proposal. The City Heights developer will coordinate with PSE and BPA concerning the construction, operation, and maintenance of roads, utilities, and/or trail improvements within the easements granted to PSE and BPA for the overhead electrical transmission lines that pass through the property.

It is the preference of the project proponent to have natural gas service installed throughout the development to serve all homes and neighborhood commercial uses, provided that it is cost-effective to do so.

The developer will encourage builders to incorporate “built green” features and additional energy conservation measures to the extent practicable.

3.18.5 Natural Gas Service

Mitigation Measures Included in the Development Proposal. PSE would construct the natural gas system within dedicated rights-of-way using one of its authorized contractors to perform this work. The contractor would be required to work with the City of Cle Elum and/or Kittitas County (depending on the alternative selected for implementation) to provide traffic control measures during work within road rights-of-way adjacent to operational roadways.

3.18.6 Telecommunications Service

Mitigation Measures Included in the Development Proposal. In order to minimize potential construction conflicts, the developer will contact the selected telecommunications service provider as early as possible following development approvals to initiate engineering design of the system and establish the construction schedule. If Qwest is selected, they usually require a minimum of 60 days to complete a design and release the necessary work orders to their construction department once they have received the plat drawings and power company designs, and enter into a Provisioning Agreement for Housing Developments.

3.18.7 Solid Waste Collection Service

Mitigation Measures Included in the Development Proposal. The project developer and/or City would notify Waste Management of Ellensburg at the time each new phase of development is proposed within City Heights, in order to coordinate the provision of services that may be required during construction, and to give the company advance notice of the forthcoming increase in the number of customers to be served.

As an alternative to burning land-clearing debris (biomass), the proposal includes grinding wood waste and stumps on-site to create woodchips for use in temporary site stabilization and permanent landscaping. Excess material may also be hauled off-site.

3.19 Fiscal Analysis

No “Mitigation Measures Included in the Development Proposal” identified.