

WASATCH PEAKS RANCH

MORGAN COUNTY, UTAH

LEVEL II ANTIDEGRADATION REVIEW (ADR)



PREPARED: NOVEMBER 2020

FOR

WASATCH PEAKS RANCH RESORT SPECIAL DISTRICT

Prepared by:

Kimley»»Horn

111 East Broadway, Suite 600
Salt Lake City, UT 84111
385.212.3179

Prepared for:



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November 3, 2020

RE: Wasatch Peaks Ranch Level II Antidegradation Review Report

Dear Wasatch Peaks Ranch Project Team and Project Stakeholders,

Utah Department of Environmental Quality (DEQ) in letter dated June 12, 2020 requested Level II Antidegradation Review (ADR) as part of the 401 Certification Application. Kimley-Horn is pleased to submit the enclosed Draft Level II Antidegradation Review (ADR) Report for the proposed Wasatch Peak Ranch (WPR) development project. The WPR project includes developing a low-density residential community with recreational features, such as alpine skiing, golfing, horseback riding, hiking, and mountain biking on a 12,830-acre site in Morgan County, UT.

This Level II ADR Report addresses Utah's antidegradation policy (UAC R317-2-3) and supports the application to the Utah Department of Environmental Quality, Division of Water Quality (UDWQ) requesting a Section 401 Water Quality Certification (WQC).

This report documents:

- Water quality parameters of concern
- Activities that may impact water quality
- Alternatives analysis
- Appropriate Best Management Practices (BMPs) proposed to maintain beneficial uses
- Economic and social importance of the project

Based on the analysis completed above, the proposed site alternative, including the avoidance, minimization, wetland, and creek on-site mitigation, combined with construction and post-construction water quality BMPs, will maintain the beneficial uses of the on-site creeks and the Weber River downstream.

The information contained within this report provides UDWQ the information requested to complete their ADR in conjunction with the Section 401 application review. In addition, the WPR project is applying for a series of federal and state water quality permits and approvals, both separated and apart from the 401 WQC application.

We appreciate the opportunity to provide this Level II ADR Report. Please review the draft report and provide comments, which we will incorporate into the final study.

Sincerely,

Kimley-Horn & Associates, Inc.



Zach Johnson, P.E.
Project Manager



Will Wilhelm, P.E (CO, NC, TN), CFM, CPESC
Vice President

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USACE Impact Plan, Revised October 22, 2020
Wetland and Creek Mitigation Plan Document, Revised October 23, 2020
Wetland Mitigation Plan
Creek Relocation/Reestablishment Plans, October 22, 2020

REPORT PURPOSE AND SCOPE

The proposed WPR project is a 12,831-acre development near Salt Lake City within Morgan County, UT. This development plan includes a proposed residential community with recreational amenities, such as alpine skiing, golfing, hiking, mountain biking, and horseback riding. The plan also includes over 75% of open space preservation.

The purpose and scope of this Level II ADR Report is to address Utah’s antidegradation policy (UAC R317-2-3) and support the Section 401 WQC application to the UDWQ.

Table 1 lists the surface water and UDEQ classification.

Table 1: UDEQ Surface Waters and Water Quality Designation

Surface Water	Location	Assessment Category
Weber River (Section 3)	Downstream	Category 3 – water quality degradation may be allowed outside the National Forests land pursuant to antidegradation review
Weber River (Section 4)	Downstream	Category 3 – water quality degradation may be allowed outside the National Forests land pursuant to antidegradation review
Jacobs Creek	On-Site	Category 1 – no point discharges within the National Forests land or to other specified waters of R317-2-12
Peterson Creek	On-Site	Category 1 – no point discharges within the National Forests land or to other specified waters of R317-2-12 Category 3 – degradation may be allowed for Non-Category 1 waters pursuant to antidegradation review
Dalton Creek	On-Site	Category 1 – no point discharges within the National Forests land or to other specified waters of R317-2-12 Category 3 – degradation may be allowed for Non-Category 1 waters pursuant to antidegradation review
Smith Creek	On-Site	Category 1 – no point discharges within the National Forests land or to other specified waters of R317-2-12 Category 3 – degradation may be allowed for Non-Category 1 waters pursuant to antidegradation review
Line Creek	On-Site	Category 1 – no point discharges within the National Forests land or to other specified waters of R317-2-12 Category 3 – degradation may be allowed for Non-Category 1 waters pursuant to antidegradation review

For the on-site and downstream water resources in Table 1, this report documents:

- Activities that may impact water quality
- Alternatives considered to minimize degradation and maintain beneficial uses
- Proposed BMPs to minimize degradation and maintain beneficial uses
- Analysis showing the impacts are limited or temporary
- Economic and social importance of the project

PROJECT LOCATION AND ENVIRONMENTAL SETTING

PROJECT SITE AND REGIONAL SETTING

The WPR project site is located on an approximately 12,831-acre property in northeastern Utah, primarily in Morgan County with a small portion of the property in Davis County near Francis Peak, Section 2 Township 4N, Range 1E (Figure 1). Morgan County is in northern Utah on the eastern side of the Wasatch mountain range. Ogden is located approximately 15 miles northwest of the site and Salt Lake City is located approximately 40 miles southwest of the site. Wasatch National Forest, which is under the jurisdiction of the United States Forest Service (USFS), borders a portion of the property on its western side. WPR is private property and not part of the National Forest System lands.

The property extends south from the Weber River, about 15 miles toward the Morgan/Davis County line, to Deep Creek. The latitude and longitude of the middle of the property is 41.122390, -111.830662. Elevations on the property range from approximately 4,800 feet above sea level at the Weber River to nearly 9,500 feet along the upper western mountain peaks. Interstate 84 (I-84) traverses the area near the northern and eastern boundaries of the property. The Morgan County unincorporated communities of Peterson and Morgan are located near the property.

WPR has a range of environmental characteristics, including lowland scrub oak meadows; creeks running from the mountains to the Weber River, Deep Creek, and Line Creek gorges; and several named mountain peaks that top out near 9,500 feet. The project will provide opportunities for fishing, hunting, hiking, mountain biking, horseback riding, and alpine skiing.

The Wasatch Range was originally inhabited by Native American tribes; fur trappers arrived in the early 1800s, followed by Mormon pioneers arriving in 1855. Morgan County has the highest percentage of privately-owned land of any Utah County, at 96 percent. Known for its agricultural and ranching activities, Morgan County is also renowned for its outdoor recreation activities.

The WPR property is currently used – and has been used for decades – for agricultural and hunting purposes (*Pioneer 2019a*). Over 400 head of cattle graze the property on an annual basis. The property is also part of the Utah’s Cooperative Wildlife Management hunting program for deer and moose and is designated as the Jacob’s Creek Cooperative Wildlife Management Unit (CWMU). The property contains several water diversions and irrigation ponds to support off-site agriculture.

There are few roads, and they are in unimproved condition, so the Project Site is not easily accessible, other than with all-terrain vehicles (ATV) and four-wheel drive vehicles using existing trails/unimproved roads. Several of these roads were specifically created by clearing vegetation to access the area for recreational and livestock management purposes using ATVs during the summer months and snowmobiles during the winter months.

WATERS OF THE UNITED STATES

An Aquatic Resource Delineation Report was prepared by Pioneer Environmental Services, Inc. in February 2019 to document the aquatic resource inventory (ARI) of the Project Site. This report was submitted to the United States Army Corps of Engineers (USACE) Bountiful Office in February 2019 as part of a Preliminary Jurisdictional Determination (JD) request. The Aquatic Resource Delineation Report documents the work Pioneer performed in 2018 to identify and delineate wetland and other regulatory water features on the property. An update to the report was prepared in August 2019 (see Attachment D in the April 8, 2020 permit application) based on a field visit with USACE representatives, and subsequently updated in September 3, 2020 in coordination with the USACE. This updated report was submitted to the USACE Bountiful Office.

The USACE issued a Preliminary Jurisdictional Determination (JD) for the Project Site by letter dated September 21, 2020.

Langan performed a wetlands delineation of the WPR Project Site north of the Weber River in June of 2019 (*Langan 2019*). A map of the property showing the delineated wetlands and other waters is provided in is summarized in Figures 2 and 3.

The project study area also includes two off-site areas where roads are proposed for construction to access the main WPR property. The alignment of these access roads is shown on in Figure 4.

A total of 388 non-tidal, palustrine wetland features covering 89 acres were identified and delineated within the WPR property. The wetland features include palustrine emergent (PEM), palustrine scrub/shrub (PSS), and palustrine forested (PFO) wetlands.

A series of non-tidal waterways, including creeks, the Weber River, and man-made diversions, were identified on the property and are considered regulated features. The creeks include approximately 114,963 linear feet of perennial waters, approximately 62,265 linear feet of intermittent waters, and approximately 110,576 linear feet of ephemeral waters. Named creeks on the property include Jacobs Creek, Peterson Creek, and Dalton Creek. There were 65 different segments of creeks identified on the project site with a total length of approximately 287,804 linear feet (Figure 3 and 5). The Weber River is to the north of the property where the site ultimately drains.

The waterways also include approximately 29,065 linear feet of man-made conveyance and diversions. Seven man-made diversions were identified and built in the past for irrigation purposes. These man-made diversions include Three Toes Pond diversion, Joes Pond conveyance, and Sessions Canal. Two irrigation ponds are located on-site: Joes Pond and Three Toes Pond.

The primary water source of the major creeks is precipitation and snow melt in the spring, with flows highest in the spring and diminishing through the summer and fall. Most wetlands in the mountainous part of the property are found within the narrow riparian corridor along the creeks. A few emergent wetlands are found in groundwater seeps forming at lower elevations near Three Toes Pond. Primary drainage channels at the property include Jacob's Creek, Peterson Creek, Dalton Creek, Deep Creek, Line Creek, Smith Creek, and associated tributaries.

PROJECT INFORMATION

PROJECT DESCRIPTION

The WPR Development Project (project) is a private residential community with up to 750 residential units that will include a combination of large ranch lots; single-family residences; cabins; and attached products, such as duplexes, townhomes, and condominiums. The proposed recreational amenities include an 18-hole championship golf course, a 9-hole family golf course, alpine skiing, lake camp, equestrian facilities, and other recreational offerings. The project will have a base lodge and several retail and entertainment spaces for WPR residents.

The purpose of this project is to construct and operate a high-quality, master-planned residential community with multi-seasonal resort facilities that will integrate with the surrounding landscape to attract families drawn to the recreational and natural beauty of the property. This will also contribute positively to Morgan County's long-term economic stability through generating new employment opportunities for the public and significantly increasing Morgan County's tax base.

The land use rezoning application for resort use for an 11,500-acre portion of the property was approved by Morgan County in October of 2019 (See *Appendix A*). Figure 4 is a conceptual land use map that includes the potential locations of the various development lots and recreation activities that are part of the project. The project design clustered the proposed residential units into seven distinct "parcels" in the northern part of the property with recreational amenities (i.e., alpine ski and golf courses) integrated into the land use design. With this clustered development approach in the northern portion of the property, the project will maintain over 75% of the property as open space.

The USACE Impacts Plans (October 2020) depict the project development overlaid on topography and wetland/creek features. The plans identify the impacts to the wetlands and creeks from specific project activities such as road crossing, utility crossing, and grading for the 18-hole golf course and alpine ski area.

The project is anticipated to build-out over a period of 20 years. Kimley-Horn prepared phasing plans and are attached to this permit application.

The project also includes designing and implementing several environmental improvement and management approaches for stewardship of the property. To compensate for anticipated impacts to wetlands and creeks from the construction of certain project components, a Wetland and Creek Mitigation Plan (revised October 23, 2020) has been developed and submitted through the 404 and 401 permitting process. In addition, a 100-foot wide riparian buffer (50 feet on both sides of the creek) has been incorporated into the project design to provide a long-term approach to protecting the creeks and their adjacent riparian zone. A Natural Resources Management Plan has been prepared that provides for a future management approach to the open space on the property.

The project will fulfill the recreational needs of members of the residential community and provide important employment and economic development opportunities for Morgan County and the surrounding Counties. Members of the WPR community will have a range of recreational amenities, including alpine skiing, cross-country skiing, golfing, mountain biking, fishing, horseback riding, and hiking. The project will provide an increase in recreational opportunities in the region and new regional employment opportunities and economic benefits during the construction and operation phases of the project.

Employment for residents of Morgan County and adjacent counties is needed. This project will generate approximately 699 new jobs after full buildout (*RRC Associates, LLC 2019*). Of the 699 new jobs, approximately 566 jobs will be from direct employment from the project and an additional 133 jobs will be from indirect employment attributable to the project.

Tax revenue is needed at the county level to facilitate funding and expansion of various governmental services (*RRC Associates, LLC 2019*). The project will significantly contribute to the county tax base. The residential units will generate sizable property taxes as they are completed. The tax base contribution from the development will outweigh the cost of Morgan County providing services to the development. As a community-based project with many of its own services, including potable water and sanitary sewer, the project will require minor governmental support from the County. Therefore, most of the property taxes paid to the County can be used by the County for services beyond the project.

For discussion purposes and for analysis of potential impacts to waters of the United States, the overall project is separated into the following components in this permit application:

- Roads
- Utilities

- Alpine Ski Area
- Golf Course
- Buildings (residential, multi-family, commercial) and Parking Areas

These components are detailed in the On-Site Alternative Analysis section.

PARAMETERS OF CONCERN

The project site where the buildings and active recreational components are proposed contains several creeks and their forks/tributaries, including Jacobs, Peterson, and Dalton Creeks (Figure 3). These creeks are considered cold-water waterways and are classified by the State as Category 1 waters (*UDEQ 2020a and UDEQ 2020b*). None of these waters are classified as Category 1 for drinking water under beneficial uses.

State water quality classification designates the reach of the Weber River located in the northern part of the WPR project site as Category 3 (*UDEQ 2020b*). Water quality degradation may be allowed outside of the national forest boundary pursuant to an antidegradation review by the State. Treated sewer effluent from the project is planned to be used for on-site irrigation and, when irrigation demands are absent (e.g., winter), excess effluent will be discharged at a new outfall along the Weber River. The applicant is working with the UDEQ to obtain the necessary approvals for this discharge location separate from this application and is not included in the application other than for context.

The on-site surface waters also include a series of man-made diversions from the natural creeks and storage ponds for agricultural purposes. Surface diversions include Three Toes conveyance (from the Middle Fork Peterson Creek), Joes Pond conveyance (from Right Hand Fork Peterson Creek), and Sessions Canal (from Right Hand Fork Peterson Creek and Jacobs Creek) (Figure 3). Two agricultural irrigation ponds are on-site: Three Toes Pond and Joes Pond. There are also two additional diversions on the property through underground pipelines: Warner Spring Pipeline and Bohman Pipeline.

This project will not divert any surface water flow from the existing creeks on the project site. All water demand will be obtained from groundwater sources.

Table 2: Utah Division of Water Quality Assessment Unit Features and Beneficial Uses

Feature	Weber Lower Tributaries -2	Weber Lower Tributaries -3	Weber Lower Tributaries -5
Unit Description	Weber River southside tributaries from mouth of Weber Canyon to Cottonwood Creek	Weber River west side tributaries from Cottonwood Creek to Stoddard Diversion	Weber River west side tributaries from Stoddard Diversion to East Canyon Creek
Unit ID	UT16020102-016_00	UT16020102-021_00	UT16020102-055_00
Category	Insufficient data	Insufficient data	2: Supports all assessed uses
2016 Impairment	--	--	--
Beneficial Uses¹	2B, 3A, 4	2B, 3A, 4	1C, 2B, 3A, 4
Protected Uses	Secondary Contact Recreation, Cold Water Aquatic Life, Agricultural Uses	Secondary Contact Recreation, Cold Water Aquatic Life, Agricultural Uses	Drinking Water, Secondary Contact Recreation, Cold Water Aquatic Life, Agricultural Uses
Anti-Degradation Category²	1	3	3

1. 1C: Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water

2B: Protected for infrequent primary contact recreation where there is a high likelihood of ingestion of water or a high degree of bodily contact with the water

3A: Protected for cold-water species of game fish and other cold-water aquatic life, including the necessary aquatic organisms in their food chain

4: Protected for agricultural uses including irrigating of crops and stock watering

2. Category 1: Waters determined to be of exceptional recreational or ecological significance or have been determined to be a state or national resource requiring protection

Category 2: Waters designated surface water segments which are treated as Category 1 waters, except that a point source discharge may be permitted

Category 3: For all other waters of the state, point source discharges are allowed, and degradation may occur, pursuant to the conditions and review procedures outlined in Section 3.5 of Utah Administrative Code Rule R37-2 Standards of Quality for Waters of the State.

Based on the proposed development described above, the following are pollutants of concern to the beneficial and protected uses in Table 2.

Table 3: Pollutants of Concern and Proposed Mitigation and BMPs

Pollutant of Concern	Potential Cause	Ways to Mitigate through Construction and Post Construction BMPs
Sediment from Fill	Point Source Discharge – Impacts (i.e., fill) to on-site creeks being permitted through USACE Section 404 IP and Section 401 WQC	<p>Creek impacts will be constructed in a way preventing soil or sediment being placed in a “live” (i.e., flowing) creek. This will be done through construction BMPs and sequencing.</p> <p>Relocated sections will be constructed offline to a stable form prior to introducing flow and backfilling the abandoned channel. This will keep fill from being placed in a live creek. See Figure 7.</p> <p>Losses will be mitigated per the 2006 Mitigation Rule outlined in the Revised Wetland and Creek Mitigation Plan (October 2020)</p>
Sediment	Nonpoint Source Pollution from Stormwater and Construction runoff	Construction BMPs and SWPPP Permanent stormwater BMPs, GI, and LID Riparian buffer preservation
Nitrogen	Nonpoint Source Pollution from Stormwater	Construction BMPs Permanent stormwater BMPs, GI, and LID Disconnected impervious Riparian buffer preservation Maintenance of golf and open space (BMPs) Land management BMPs for fertilizers
Phosphorous	Nonpoint Source Pollution from Stormwater	Construction BMPs Permanent stormwater BMPs, GI, and LID Disconnected impervious Riparian buffer preservation Land management BMPs for fertilizer
Fecal Coliform	Nonpoint Source Pollution from Land Use Changes	Cattle are being removed (400 head) Permanent stormwater BMPs, GI, and LID Riparian buffer preservation Sanitary sewer collection and treatment
Temperature	Nonpoint Source Pollution from Land Use Changes	Permanent stormwater BMPs, GI, and LID Permanent riparian buffers Snow making and snow compaction in ski areas should expand snowpack and extend snow melt duration

The point source pollutant above (sediment) are being minimized and mitigated through the alternative analysis detailed in the next section. The chosen alternative avoids, minimizes, and/or mitigates the amount of creek impact through the planning, permitting, design, and construction process.

The secondary impacts (nonpoint source stormwater) are addressed with additional mitigation through post construction SCMs and BMPs around construction, operation, and maintenance of the site. A detailed nonpoint source water quality impact assessment is provided later in this report.

ALTERNATIVE ANALYSIS

This alternatives analysis was prepared to summarize and demonstrate that the WPR Development Project, as presented in this report, has been designed to avoid, minimize, and mitigate potential impacts to USACE regulated wetlands and other waters of the United States to the extent practicable and to maintain the beneficial uses of these waters. These alternatives were also designed to minimize and mitigate secondary impacts that may occur to high-quality creeks and wetlands through construction and post construction BMPs. The project design process performed by the project’s design team considered alternatives that might avoid and/or minimize impacts to waters of the United States. The resulting final design, as presented in this report, achieves the least environmentally damaging practicable alternative (LEDPA) that meets the project purpose.

This alternatives analysis addresses the applicant’s conformance with the USACE regulatory requirements including the public interest review, the proposed placement of fill in wetlands and waters of the United States as required under the United States Environmental Protection Agency’s (USEPA’s) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230) and the State of Utah Section 401 WQC requirements. A discussion of reasonable alternatives to the design of the project components that potentially affect the beneficial uses of the on-site creeks and downstream Weber River, as presented in this ADR, is provided below.

NO-ACTION ALTERNATIVE

The No-Action Alternative is not constructing and operating the project as set forth in this USACE permit application, which is not feasible since this alternative would not achieve the project purpose, fail to provide an expansion of recreational opportunities for members of the community, and fail to provide Morgan County and the public with growth in employment opportunities and increased County tax revenue. While the No-Action Alternative would avoid wetland impacts and permanent creek impacts, it would not fulfill the purpose of the project. Therefore, the No-Action Alternative is not a feasible alternative.

OFF-SITE ALTERNATIVES

As a new recreational resort that includes alpine skiing, this project does not have any feasible alternative sites that were available and for sale during the time the applicant looked for a project site that could offer alpine skiing. Private properties that offer the potential development of the type and scale of this project with alpine skiing are very rare. The Wasatch Peaks Ranch, LLC, owner of the WPR property, determined that the property offered the necessary landscape features and transportation location (i.e., near a regional highway and major airport) to construct and operate the recreational resort they desired. No other off-site alternative locations were examined as part of the site selection process due to the unique nature of the WPR property and desired resort alpine skiing amenity.

If a development site of comparable size and conditions were available at another location, it is anticipated that potential impacts to wetlands and waters of the United States would be required to construct and operate a resort similar in size and type as this project. Roads and utilities would have to be constructed to connect the property to the existing regional transportation network and utility infrastructure. Internal roads connecting residential areas with recreational areas, including a ski lodge and retail/commercial village area, would be required. Resort amenities would also need to be constructed. These development components would undoubtedly lead to potential impacts to

wetlands and other waters of the United States typically found on large development sites. Therefore, any other offsite alternative location for a similar size resort would likely lead to a similar level of impacts to wetlands and waters of the United States compared to the proposed project.

ON-SITE ALTERNATIVES

Formerly known as Gailey Ranch, the WPR property has been private land for many decades. Over the past several decades, potential buyers for this property advanced concept development plans ranging from a public ski resort on the scale of Snowbasin, which is located just to the north of the WPR property, with nearly 5,000 residential dwelling units (RDUs) to a residential subdivision of up to 10,000 RDUs. These other on-site concept development plans would likely have had substantially greater impacts to wetlands and creeks on the property due to their higher density and land requirements. This project has only 750 RDUs clustered in the northern part of the property, avoiding potential creek and wetland impacts in the southern portion of the property. This project also allows for 75% of the property to remain as open space. No development is proposed on the southern portion of the property. The limited number of RDUs compared to previous development plans also facilitates fewer road access requirements that would likely have required more creek crossings, potentially more wetland impacts, and many more secondary impacts to water quality from stormwater and sewer collection and treatment.

The proposed final design alternative of this project was driven by the existing attributes of the land, dictating where development is and is not being planned on the property. These land attributes include, but are not limited to, land elevation, steep slopes, geologic hazards, creeks, and wetlands (see Figure 2 and 3). Clustering of the project in the northern portion of the property allowed avoidance of potential impacts to wetlands and creeks in the southern portion of the property. In addition, all buildings, including the residential units, lodges, maintenance buildings, and associated parking areas, are located outside of the creeks and wetlands, thereby avoiding potential impacts. In addition, planned stormwater BMPs discussed later in this report will help mitigate these changes in land-use and run-off characteristics (peaks and water quality).

During the project design process, several components were identified that would likely have impacts to wetlands and waters of the United States due to the linear nature of the project component (e.g., roads, utilities, golf course, alpine skiing, etc.) and the need to discharge stormwater to waterways. For these components that likely required impacts to wetlands and creeks, the design of that specific project component was examined for potential alternative designs that might minimize the potential impacts.

The intent of the overall project design was to locate all development buildings and parking areas within the upland areas on the project site, thereby avoiding potential impacts to creeks and wetlands on the project site for these project components. The crossing of certain segments of the creeks on the project site and wetlands adjacent to these creeks for the required access roads and utility infrastructure lead to certain unavoidable impacts to creeks and wetlands. Significant engineering and structural (bridge) solutions were considered for the road crossings of perennial creeks to avoid direct impacts to these creeks. Potential impacts to some ephemeral creeks for road crossings are proposed due to the lack of trout habitat. In addition, some impacts to wetlands and creeks on the property were unavoidable as part of the design for the alpine skiing area and 18-hole the golf course.

A discussion of the technology, logistics, costs, and environmental consequences of the project under each of these project components is presented below. It is believed that through careful planning, design around avoidance, minimization, and mitigation that the beneficial uses of the on-site creeks and downstream Weber River will be maintained.

ROADS

A network of roads (Figure 4) will be constructed to connect the various residential lots to the base lodge and associated retail spaces and to connect the two proposed access roads (North Access Road and East Access Road) to the existing regional transportation network. Various roads will cross existing creeks and wetland areas. Minor roadway improvements at the existing I-84 interchanges (Exits 92 and 96) are part of the project, but these specific roadway improvements will not impact any wetlands or other Waters of the United States.

Presently, the project site is only accessible through a series of dirt trails/roads. A network of interior roads is proposed to connect to these access roads and the planned residential units and small retail/commercial buildings.

North Access Road – Portions of the WPR property are located adjacent to I-84 located along the northern boundary of the property (Figure 4). One road access point for the project, called the North Access Road, is proposed from I-84 (Exit 92) to the development area from the north part of the project site. The North Access Road design requires a new bridge crossing over the Weber River. The current bridge crossing the river is narrow and is not suitable for two-way traffic. There are no other feasible road alignments that would avoid the crossing of the Weber River for the connection of the development area to Interstate 84 at Exit 92. The existing highway interchange and proposed access road alignment makes the crossing of the river unavoidable. The proposed access road crossing of the Weber River will be spanned with an elevated bridge, thereby avoiding potential direct impacts to the river with the use of a bridge structure (*USACE Impacts Plan, Sheet C2.10.A*). Some wetlands on either side of the river will be impacted for the construction of the bridge abutments and proposed access road leading to the bridge. Property ownership and land use constraints in the project area also influenced the access road alignment selection, including adjacent property owners (i.e., Weber River Basin Water Conservancy District and the U.S. Government), various utility rights-of-way, and the Gateway Canal. After crossing the Weber River and going south, the selected access road alignment was designed to parallel Jacobs Creek and then cross Jacobs Creek at an existing road crossing, thereby minimizing potential impacts to this section of Jacobs Creek.

East Access Road – A second proposed access road for the WPR project, called the East Access Road, will start at Morgan Valley Drive and proceed west to the development area. The WPR property owners have obtained right-of-way for construction of this access road from the property owner. Morgan Valley Road has access to I-84 (Exit 96). The East Access Road alignment follows an existing unimproved access road over the Gateway Canal and westward to the property. The selected road alignment crosses an ephemeral tributary to Peterson Creek in one location before continuing to the WPR property along an upland selected route. Early designs of this access road had the road crossing the tributary in three locations with a more direct route to the project site. However, due to the increased impacts to the tributary from this alternative design, the longer alignment in uplands with only one crossing of the creek was selected as the final road alignment design.

The access road design provides two main access roads from the regional road network to the central development core of the project, where internal circulation roads to the village areas and the residential development lots are provided. Road alignments were selected to minimize the number of creek crossings while still providing required and safe access to various sections of the development. The alignment and dimensions of the access roads follow the County road engineering requirements and the American Association of Highway and Transportation Officials (AASHTO) road design guidelines for residential projects. These requirements determined road widths and alignments based on maximum grade requirements and minimum curve radius of the road for the selected speeds. The narrowest roads were selected while still meeting regulatory design criteria to minimize potential impacts to wetlands and creeks.

For each crossing, the selected design took into consideration the flow characteristic of the creek (i.e., perennial, intermittent, ephemeral), the flood capacity of the crossing (i.e., 100-year storm), the location of the creek in the landscape, and the depth of the creek to the adjacent upland areas. A bridge design or three-sided culvert (culvert with no bottom thereby maintaining the creek bed and flow intact) design was selected for the crossing of all perennial creeks. For the major creeks with snowmelt flow from the higher elevations of the project site, high water passage also dictated a bridge design to provide for high water flows under the road. The design of road crossings with bridges or bottomless culverts are more costly compared to a regular pipe and fill approach (pipe culvert), but the environmental consequences to the creek from a bridge or bottomless culvert are avoided compared to the pipe culvert design. For those creeks that are classified as ephemeral, a standard pipe culvert buried to create a natural bottom was selected since this would be more appropriate for these small waterway crossings. In some cases, however, the ephemeral creeks to be crossed are in deep ravines. Therefore, a bridge design over these ephemeral creeks was considered the most cost-effective and avoided direct impacts to the creek.

UTILITIES

The project includes the construction and operation of the necessary support infrastructure including electric, natural gas, telecommunications, sanitary sewer, storm drainage system, and potable water. Electric, natural gas, and telecommunications will be connected to the regional networks that are present in or near to the northern portion of the property. Electric will be hung on poles or bored underground to avoid potential impacts to waters of the United States. Natural gas and telecommunications will be bored under any creeks required to be crossed, thereby avoiding potential impacts to waters of the United States.

A sanitary sewerage collection, treatment, and discharge system will be constructed on the project site to service the project. A potable water system, including groundwater extraction, storage, and treatment facilities, will be constructed on the project site to service the project. Snowmaking, irrigation, and fire water will be serviced from this water system. Stormwater control measures (SCMs) will also be constructed on-site to address water quality and quantity of runoff from new impervious surfaces.

Presently, the project site does not have any utility service such as electric, natural gas, or telecommunications. As part of the project design, certain utilities must be brought into the project site from the existing regional utility networks. An existing regional electric power line (Rocky Mountain Power), natural gas pipeline (Dominion), and telecommunications (CenturyLink) are located just to the north of the property near I-84 and the Weber River.

For this project, a new utility corridor will be constructed on the property to connect the development areas with the existing electric and natural gas regional networks. This new utility corridor will also provide the right-of-way required for the proposed well water pipeline that will carry water pumped from wells located along the Weber River floodplain to the project site. The crossing of several creeks will be required along this new utility corridor located in the northern portion of the project site (*USACE Impacts Plan, Sheet C2.03*). By sharing one corridor for these utilities (electric, natural gas, water, and telecommunications), the potential for additional creek crossings are avoided if separate corridors are used for each utility. At each creek crossing, directional boring techniques will be used to bore under the creek, thereby avoiding direct impacts to the creeks. A road crossing will be required at the creek location for inspection and maintenance access to the utility corridor.

The project will develop its own private water and sewer infrastructure on-site and manage them as service districts. The water system will provide water for potable water, irrigation, fire protection, and snowmaking. The applicant has water rights to 2,500 acre-feet of water based on an existing agreement with Weber Basin Water Conservation District. On-site groundwater wells will be developed along the Weber River to extract and pump water to the property, where it will be used and treated, as appropriate. Sanitary waste from the development will be collected on-site and

treated. Based on the Level I ADR, this Level II ADR does not include an analysis of wastewater discharges, as that will be permitted separately with the State.

A series of stormwater outfalls will be constructed as part of the project's stormwater management system that will not require any impacts to existing creeks on the property. All stormwater management basins for water quality or for stormwater peak flow attenuation will be in uplands. Stormwater outfalls will dissipate energy and promote flow across existing landscape and across buffer. Stormwater outfalls will outlet near existing creeks without filling into the channel.

ALPINE SKI AREA

Presently, the project site does not have any ski lifts or ski trails that allow for alpine skiing on the higher portions of the property. As part of the project design, an alpine ski area will be developed over approximately 3,100 acres on the western portion of the property (Figure 4). Formal trails are planned over 532 acres to create an appropriate mix of terrain for novice, low-intermediate, intermediate, advanced, and expert ability level skiers. Backcountry skiing will also be allowed in the ski area when conditions allow it. Snowmaking will be provided on 36 of the 72 trails and cover approximately 265 acres. Ten ski lifts will be constructed and operated to bring patrons to the top of various trail systems. The groomed trails will allow skiers to ski down the mountain back to the lodge, village, and residential areas.

The alpine ski design reflects the existing topographic conditions of the eastern face of the mountains on the project site and the typical alpine ski resort requirements (i.e., lifts, groomed trails, snowmaking, ski area access road, etc.). The ski lifts were located to minimize potential impacts to creeks and their adjacent wetlands, while recognizing that portions of ski trails follow the same valleys within the landscape as the creeks. Several stretches of alpine skiing trails will require relocation/reestablishment of creeks and permanent impacts to small wetland features along these creeks. The attached Wetland and Creek Mitigation Plan Document and the Creek Relocation/Reestablishment Plan discuss this and show this in detail. An access road will be constructed along the ski lifts to provide access for construction, maintenance, and emergency responders to the ski towers and associated lift equipment. Support buildings for equipment related to operation of the ski area will be built in upland areas.

Alpine Ski Area Design Criteria

The design of the ski resort is efficient, with a comparatively small number of ski lifts used to access the ski terrain. For example, other ski resorts in the region have 20 or more lifts to access the same acreage of skiable terrain. The base lodge is in a topographically natural collection point, at the natural snowline elevation of 6,200 feet. This is the elevation where natural snow accumulates and builds reliable snowpack throughout the season. Below this elevation, the snowfall is less consistent and reliable. The main village location of WPR is being built about 400 feet lower in elevation, at around 5,800 feet, and was part of the master planning process of the development. There will be a gondola that will connect the village with the ski lodge, where skiers will begin their ski day.

At the lodge site, there then are two lifts for teaching beginners and kids. From the lodge site, there is one single, long, primary lift that accesses much of the developed ski terrain. From this elevation, there is then a lift that goes up to the ridgeline, so that advanced skiers can access the open bowls and chutes. There are two additional lifts that access the northern and southern portions of the skiable terrain. The remainder of the lifts are for access to housing clusters.

This is an optimal design, using the fewest number of lifts to access the terrain. Similarly, the ski run design is efficient, having the correct amount of skiable acreage to balance with the uphill capacity of the lifts. The overall ski

area is designed to accommodate the number of skiers projected from the project (approximately 2,500/day). The carrying capacity of a ski resort is based on the aggregate total of the daily capacities of each individual lift and associated ski runs. The longer the vertical elevation difference the lifts have, the higher the daily capacities. The daily capacity of each lift is a supply/demand calculation, based on vertical feet desired and supplied. Therefore, the lift network is designed to match the projected number of skiers – meaning that any reduction in the number of lifts would result in a situation where there would not be enough on-mountain capacity to match the number of potential skiers. Conversely, if there were more ski lifts, there would be surplus capacity, which would lead to operational inefficiencies and higher costs.

The hourly capacity of each lift can then be used to determine the density of skiers on each ski run (number of people coming off the lift divided by the acreage of ski terrain). There are industry standards and averages for skier densities on ski runs, so using those, it is possible to calculate the acreage of ski runs needed to balance with the uphill capacity of the lifts. Having higher densities would create undesirable situations from the skier viewpoint and having too low densities creates undesirable situation for the operation standpoint, as surplus terrain then needs to be managed and maintained. As such, the amount of ski run acreage at WPR is designed to balance with the lift capacity.

Further, the ski-run network must have the appropriate ability level distribution. There needs to be ski runs that cater to all ability levels. The ability level of any individual run is largely dictated by the maximum sustained gradient of the run. As such, the ski area design must work with the available natural terrain – and when gradients that correspond with certain ability levels are in short supply, then those areas need to be focused on for creation of the ski runs. The ability level distribution of WPR matches the target market and accounts for all ability levels and provides a variety of terrain types and styles.

The topographical terrain at WPR, like most northern Utah ski areas, is characterized by ridges and valleys, rather than consistent, wide, unvaried slopes. This means that skiers eventually need to flow (ski) down the valleys to collection points that are at the topographic ends of the valleys. Many of the ski runs are designed on the ridges and the sides of the ridges, but there also needs to be ski runs in the valleys to collect the runs from the ridges and sides. Also, it is almost universally true in this area that the valleys are lower gradient than the sides, which tend to be very steep.

Ski-run design standards also look at the width of the ski run. There is a minimum recommended width of ski runs, based on the gradient of the ski run. Many resorts will make the ski runs wider than the minimum, so they can handle higher numbers of skiers without increasing densities (when using higher-capacity lifts, for example). However, in the case of WPR, the ski runs are designed at the minimum width for the given gradients. The maximum widths of runs at WPR is approximately 150 feet, with many being around 120 feet; this is compared to many runs at surrounding resorts that are 300 or more feet in width. Another factor in ski-run width is snowmaking. Most snowguns can throw snow about 150 feet, so if the run is wider than that, then snowguns need to be placed on both sides of the run. By keeping the runs to 150 feet or less, it is only necessary to have snowmaking guns on one side of the run, reducing impact area and water/energy use.

The ski lift locations minimize potential impacts to creeks and their adjacent wetlands, while recognizing that portions of ski trails follow the same valleys within the landscape as the creeks, as described above. In some cases, the valleys are very narrow, creating a “V” shape. In other locations, the valley has more of a flat bottom with rounded sides, like a “U” shape. For those “V”-shape valleys, grading is required to make a “U”-shape valley to accommodate ski runs. Due to steep slopes, excavating into the existing mountain side to avoid grading is not possible. The “U” shape valley grading requires the existing creek at the bottom of the “V” shape valley to be relocated both vertically and horizontally to one side or the other side of the new “U”-shape valley.

In places where the valleys are naturally more “U” shaped, no grading is required, and no creek impacts are expected. Additionally, in the higher elevations of the mountain, natural snow will be enough and will be allowed to accumulate to a depth where skiing can occur over snow-filled valleys.

In “V”-shape locations, grading and filling are proposed in locations where it would not be possible to functionally maintain a ski trail without filling the valley (and a segment of existing creek) and relocating/reestablishing the creek to the side of the proposed ski trail. A diagram showing the channel relocation is shown in the following Ski Run Construction Sequencing in Figure 7.

In some situations, the ski trail will cross perpendicular to the creek. In those locations, an arch span culvert will be used to avoid potential impacts to the creek.

In addition to the ski trails, an access road will be constructed along with the ski lifts to provide access for construction, maintenance, and emergency responders to the ski towers and associated lift equipment. Support buildings for equipment related to operation of the ski area will be built in upland areas. Additionally, on-mountain skier support facilities (ski patrol, restaurants, and restrooms) will be placed in upland areas. Plans depicting the design of the alpine ski area are provided in the revised USACE Impact Plan (October 2020).

The applicant examined potential design revisions from the April 2020 alpine ski design submitted to the USACE and UDEQ in the original permit application. Potential ski impact reductions were identified, and the ski trails redesigned. Figure 8 (SE Group) depicts the proposed ski impact reductions. The percent reduction of creek impacts between the two designs was estimated at 27%. Plans showing the reduced alpine ski area impacts to creeks and wetlands are provided in the revised USACE Impact Plans. Detailed discussion and detailed designs of each individual creek and wetland impact, avoidance, and creek relocations and re-establishments is discuss in the USACE re-submittal, USACE Impact Plans, and Wetland and Creek Mitigation Plan Document (October 23 2020), and Creek Relocation/ Reestablishment Plans – See attached.

Detailed construction sequencing is shown in Figure 7 with additional details in the Creek Relocations and Reestablishment Plans. Based on this, no fill will be placed in a live creek and the introduction of sediment from this “point discharge” of fill is mitigated. The sediment that will be released to downstream waters will be minimal as water is turned into new re-established creeks and begins to flow reaching dynamic equilibrium of sediment capacity and competence found in natural systems. The use of instream natural channel design structure like rock cascades, boulders and log step-pools structures, and constructed rock riffles, will minimize any degradation in the re-established channel. The fill going into the abandoned channel will be after flow has been diverted. The combination of these measures will limit degradation and maintain beneficial uses.

GOLF COURSE

The proposed 18-hole championship golf course was designed to minimize potential impacts to creeks and wetlands to the extent practicable for the selected course alignment, including placement of tee boxes, fairways, and greens. The location of the 18-hole golf course on the property was determined by the need to have the course start and end at the lower village area where the clubhouse and support facilities will be located. The golf hole position alignments were selected on a relatively flat portion of the property where the course can be designed to allow for patrons to walk the course. The design of the course required a total Par 70 layout. The objective of the 18-hole golf course design is to provide a “championship” style course for different ability levels of golfers.

Based on the selected location of the lower village area as part of the master planning of the resort on the property, alternative locations on the property for the 18-hole golf course were limited to lands that extend north, east, and

south from the village area. The village area would provide the location for the clubhouse, restaurants, sporting goods store, and surface parking for patron, with access to hole 1 and hole 18. The lands in and around Three Toes Pond, which had already been modified in the past for agricultural purposes, and lands to the south that were partially cleared for agricultural pastures in the past, were selected.

Golf Course Design Criteria

The goal is to design the golf course within the given land parcel and use the existing topography as best as possible. The clubhouse location defines the starting and stopping point of the golf course routing, which in this case is the lower village area (see Figure 4). The golf holes are located to minimize the vertical elevation change from tee to green and to locate fairways on the land with the least amount of cross slope. On a golf course with steep terrain like the project site, this means tacking the golf holes parallel with the existing contours and not perpendicular to them. The course routing is like a hiking trail that traverses the land and uses existing topography as best as possible.

A design goal of a quality golf course is to make the experience enjoyable for all level of players, including men, women, and children. This means that the locations of the tees, fairways, and greens are located in attempt to minimize golf shots that require carry over of any unplayable natural feature, like streams, lakes, wetlands, rocky areas, or ravines – areas where you do not have the ability to place maintained turf grass. The key to using the natural features is to recognize they are unplayable hazards and to use these features strategically. The following criteria and design objectives were utilized for the design of the 18-hole golf course.

Course Design Requirements:

A world-class championship golf course must have a Par 70 minimum and ideally, a Par 72 scorecard. The objective of the WPR 18-hole golf course is a Par 72 golf course, with a practice green area and a driving range that has a minimum of 300 yards of length to allow professional players to practice.

The variety and sequencing of different lengths/par of golf holes from Par 3, Par 4, and Par 5 golf holes is important to a quality design. Golf hole directional variety is important because the impact of the wind needs to balance different golf shots within the golf hole sequencing. The design of the combination of golf holes is as follows:

- **Yardage Range** for Par 3 is 100 to 260 yards (yds), Par 4 is 270 to 520 yds, and Par 5 is 530 to 680 yds. The course is set up with four to five tee boxes for each hole, with each tee box for a different skill level of players. The tee boxes are staggered 30 to 50 yards apart from the back tee to the front tee.
- **Scorecard Yardage** of 18 holes ranges from 7,000 to 8,000 yds for back tee yardage, depending on the location. Because of the altitude, the target yardage is 500 to 600 yds longer than a course at sea level. Middle tee yardage is 5,800 to 6,800 yds, and front tee yardage is 4,800 to 5,600 yds.

Cart Paths and Bridges:

Cart paths and bridges are essential for golfer and the course maintenance staff. A cart path is needed to access each hole tee box, fairway, and green, as well as connect the golfer to the next consecutive hole. Locating the paths and bridges correctly is very demanding, but space must be allowed for them in the planning phase.

Landscape and Environmental Features:

The natural features of the property consisting of the creeks, wetlands, a pond, rocky outcrops, and ravines are assets to the design and layout of the golf course. The design of the golf course works to traverse the land in order to create a great experience and show views of the surrounding mountains and valleys. This ultimately creates an exceptional

experience for the golfer as they proceed from hole to hole. The designer also needs to take into consideration avoidance and minimization of impacts or modifications to environmentally sensitive areas to the extent practicable. Enhancements to certain environmental features along the golf holes may also be appropriate.

Topography and Slope:

When reviewing the topography for the golf course routing, the design team evaluated the design within the existing topography parameters. Areas of the property with cross slopes greater than 15% are typically considered unusable to locate golf hole fairways on. The WPR property allocated for the golf course has limited area with cross slopes less than 15% what is total area with less than 15% cross slope.

Additionally, fitting the golf course to the topography is the goal for the golf course to minimize the amount of earthwork and grading necessary to build each golf hole and reduce impact to the land. The course routing becomes a trail that flows with land and the golfer experiences the property's natural features.

Golf holes are routed/located on the topographic map to not to exceed 5% in elevation changes uphill from the tee to the fairway landing area and less than 3% uphill from the landing area to a green, where possible. When an uphill hole exceeds these parameters, this results in a larger grading impact on the land. Therefore, the golf designer works on each hole to relocate/shift to fit with these guidelines.

The fairway landing areas need to have less than 5% cross slope so a golf ball will not roll off the fairway. When these slopes are exceeded, grading is required to make the golf hole playable. This is done by cutting on the high side and filling on the low side, or a combination of the two so the grading impact is minimized.

Course Walkability:

Creating a golf course that is walkable is very important. This requires minimizing the length of connection from green to the next tee. Additionally, the design attempts to minimize the vertical elevation between greens and tees. The elevation difference between connections from one golf hole to the next is challenging on mountainous sites versus flat sites.

Golf Hazards:

Where these "hazards" are located on the golf hole is very important to the design and how much impact it creates for the players. Having too many hazards makes a golf course unplayable for most players. The design team works to minimize the numbers of hazards between the tee boxes and the green that need to be hit over.

Golf Course Routing Alternatives:

During the course design process, a series of golf hole routing options are typically examined, considering various course criteria, the natural landscape including slope and landscape features, and the typical golf hole configurations including a range of Par 3s, 4s, and 5s. For several golf course holes, the positioning of the tee boxes to the fairway and alignment of the holes requires the crossing of existing creeks. Due to the need to avoid hazards along the designated fairways, certain segments of creeks have been designed to be rerouted around the fairways or arch-span culverts utilized. A series of golf cart bridges will be constructed over the creeks to allow golfers to move along the golf course in an orderly fashion from hole to hole, but not require the placement of fill below the ordinary high-water mark of the creeks for the golf cart bridges.

Table 4: Summary of Wetland and Creek Impacts for Golf Course Layout Options

Layout Alternative	Wetland Impacts (Acreage)	Creek Impacts (Linear Feet)
Option A	2.44	3,620
Option B	2.42	3,674
Option C	2.40	3,472
Option D	1.86	2,640

Option A – This layout had the highest acreage of wetlands impacts (2.44 acres) and over 3,600 linear feet of impacts to creeks compared to the other alternative golf course layouts. The golf course design required several holes and the practice range to cross/impact three creeks (Figure 9).

Option B – This layout had wetlands impacts (2.42 acres) and over 3,600 linear feet of impacts to creeks compared to the other alternative golf course layouts. The golf course design required several holes and the practice range to cross/impact three creeks. Impacts were reduced along one creek in this layout option compared to Option A (Figure 10).

Option C (April 8, 2020 Design) – This layout had slightly lower wetlands impacts (2.40) and slightly lower creek impacts (over 3,400 linear feet) compared to Options A and B. The golf course design required several holes and the practice range to cross/impact three creeks. One segment of creek impact was avoided through using a long arch-span culvert (Figure 11).

Option D (Selected Alternative) – This layout had the lowest wetlands impacts (1.86 acres) and lowest creek impacts (2,600 linear feet) compared to Options A, B, and C. Grading work around Three Toes Pond was limited to avoid impacts to wetland 98 and wetland 205. The golf course design required several holes and the practice range to cross/impact three creeks. Modifications to the layout allowed the shortening of potential impacts to Peterson Creek. Two creek relocations are proposed instead of an arch-span in Option C to provide a better long-term environmental solution for the creek ecosystem (Figure 12).

Selected Golf Course Design on Beneficial Use(s)

Option D was selected by the applicant as the preferred alternative, both in terms of reducing wetland and creek impacts compared to other options, but also in providing a better long-term solution to creek impacts as opposed to using long arch span culverts. To avoid and minimize potential impacts to wetlands and creeks, the design criteria for continuous tee box and green fairway was compromised on several holes. The selected golf design requires a “force carry” over the hazards (e.g., creeks), avoiding impacts to certain creek segments.

Detailed construction sequencing of the creek relocations will be like that discussed above for the alpine ski areas and as shown in Creek Relocations and Reestablishment Plans for the golf areas. Based on this, no fill will be placed in a live creek and the introduction of sediment from this “point discharge” of fill is mitigated. The sediment that will be

released to downstream waters will be minimal as water is turned into new re-established creeks and begins to flow reaching dynamic equilibrium of sediment capacity and competence found in natural systems. The use of instream natural channel design structure like rock cascades, boulder and log step-pools structures, and constructed rock riffles, will minimize any degradation in the re-established channel. The fill going into the abandoned channel will be after flow has been diverted. The combination of these measures will limit degradation and maintain beneficial uses.

BUILDINGS AND PARKING AREAS

Buildings and associated parking areas will be constructed on the project site, including residential units (multi-family, condominiums, and single-family homes), a ski lodge, club house, restaurants, lake camp, and maintenance buildings. The buildings and parking areas will be constructed in upland areas, thereby avoiding any potential impacts to the creeks and wetlands on the project site. All buildings and their private driveways will be constructed on uplands. Any riparian buffer located on a residential building lot will be restricted from development. Parking garages will be constructed in the village areas to minimize lands required for parking.

Temporary construction sediment and erosion control (S&EC) measures and permanent SCMs, BMPs, green Infrastructure (GI), and low impact development (LID) will be incorporated into the built environment as detailed in this report and the Master Drainage Study (MDS) to mitigate temporary and permanent impacts from added impervious surfaces.

SUMMARY MEASURES TAKEN TO AVOID AND MINIMIZE IMPACTS TO WATERS

This alternatives analysis was prepared to summarize and demonstrate that the project considered feasible alternatives during the design process, resulting in a project final design that avoids and minimizes potential impacts to USACE regulated wetlands and waters to the extent practicable.

- The No-Action Alternative of not constructing and operating the project was determined not to be a feasible alternative since this alternative would not realize the recreational community needs and the economic benefits to Morgan County and its residents. The No-Action alternative would not meet the project purpose.

The analysis also examined potential off-site alternative locations. Other properties of similar size and alpine skiing terrain were not available to the applicant when they were searching for property. The WPR property offered the necessary landscape features and transportation location to construct the recreational resort project they desired. Even if off-site alternative locations were considered, those sites and related development plans would also likely have the same level of impacts to waters of the United States as this project.

The analysis of on-site alternatives examined five project components (Roads, Utilities, Alpine Skiing Area, Golf Course, and Buildings with Parking Areas) during the design process to evaluate potential designs that would result in either avoidance or minimization of potential impacts on wetlands and/or waters. Designs were selected that had the least environmentally damaging impact based on logistics, cost, and environmental consequences.

For those proposed impacts to wetlands and waters that are unavoidable, the applicant is proposing a Creek Relocation/Re-establishment Plan to fully compensate for the impacts to wetlands and waters. See attached - Wetland and Creek Mitigation Plan Document, Wetland Mitigation Plan, Creek Relocation/Relocation Plans. The goal of the mitigation plan is to provide an appropriate level and type of compensation to offset the unavoidable impacts to wetlands and waters from the project.

This alternatives analysis demonstrates that the WPR Development Project, as presented in this permit application, has been designed to avoid, minimize, and mitigate potential impacts to USACE-regulated wetlands and other waters of the United States to the extent practicable. The resulting final design and mitigation plans, as presented in this permit application, achieves the LEDPA that meets the project purpose and maintains beneficial uses of on-site and downstream waters.

ANTICIPATED IMPACTS TO WATERS OF THE U.S. – BASED ON FINAL ALTERNATIVE

The WRP Development Project is anticipated to impact a total of approximately 3.21 acres of wetlands out of a total of 89 acres of wetlands delineated on the property. These 3.21 acres of impacted wetlands include approximately 1.37 acres of PEM wetlands, 0.75 acres of PSS wetlands, and 1.09 acres of PFO wetlands. The development activities impacting wetlands include golf course (1.88 acres), roads (1.17 acres), and alpine ski area (0.16 acres).

A total of approximately 18,524 linear feet (LF) of creeks are anticipated to be impacted out of the 287,804 LF of existing creeks on the property. These 18,524 LF of impacted creeks include approximately 8,296 LF of perennial creeks, 2,937 LF of intermittent creeks, and 7,393 LF of ephemeral creeks. The development activities impacting creeks include the alpine ski area (14,985 LF), golf course (2,853 LF), roads (746 LF), and utilities (40 LF).

A large portion of these creek impacts (17,830 LF) are proposed to be filled after the creek segment is relocated and reestablished in a new location in the valley based on the design of the alpine ski trails and the 18-hole golf course. Details of these creek relocations are provided in the revised USACE Impact Plans and Creek Relocation/Mitigation Plans (October 2020). Roads and utilities will require typical culverting of approximately 786 LF of creeks.

A total of approximately 4,296 LF of man-made diversions are anticipated to be impacted. The development activities impacting these man-made diversions include the alpine ski area (2,389 LF), golf course (1,101 LF), roads (724 LF), and utilities (82 LF).

The project design used 37 arch-span culverts and 11 bridge structures to avoid direct impacts to creeks and wetlands on the property, avoiding and minimizing potential impacts to additional wetland and water resources and beneficial uses on the property. Two utility lines are proposed to be jack and bored under a wetland and a creek, avoiding these potential impacts.

Plans prepared by Kimley-Horn and SE Group (*USACE Impacts Plan – October 2020*) are provided with this ADR. These plans show the proposed development activities and resulting impacts to certain wetland and water resources.

As discussed in the Alternative Analysis and detailed in the next section, these impact fills will be done in a way that minimizes sediment into “live” creeks or to downstream waters so beneficial uses can be maintained.

Per the detailed construction BMPs discussed in the report and construction sequence detailed in the creek relocation/reestablishment plans, no fill dirt will be placed in a live creek. No dredging is proposed as part of the project.

Any excess temporary fill generated during construction operations and phasing will be stored in designated stockpile areas outside of regulated wetland and waters.

WATER QUALITY IMPACT ASSESSMENT

Based on the sections above and the MDS, this section summarizes:

- Potential point source and nonpoint source pollution from the development
- Potential direct and indirect impacts to water quality from the proposed development
 - Including temporary and limited impacts
- Proposed construction and post construction BMPs, GI, and LID to mitigate water quality degradation from point and nonpoint sources
- Discussion of how beneficial uses will be maintained

POINT SOURCE DISCHARGES

Point Discharge – Wastewater Effluent: The WPR Development Company will own and operate a 0.33 million gallon per day (MGD) wastewater treatment facility (WWTF).

- **Proposed BMP:** No point discharges into Category 1 waters. There are no point WWTF discharges into Jacobs, Peterson, Smith, or Dalton Creeks that are Category 1 waters.
- **Proposed BMP:** The WWTF will use a Membrane Bioreactor (MBR) treatment with chlorine disinfection to meet Type 1 permit limitations. The WWTF effluent is planned for tree farm irrigation (reuse) during irrigation season (May-October) and discharge into the Weber River during non-irrigation season. The proposed receiving water for the WPR treated effluent discharge is the Weber River from Ogden River confluence to Cottonwood Creek confluence. This segment of the Weber River is classified 2A, 3A, and 4, meaning it has infrequent recreation use, supports cold-water fishery/aquatic life, and has agricultural uses. It is in area designated Category 3 that means a point discharge is allowed and following a Level I review, a Level II ADR review for the WWTF point discharge was not required. The WWTF including discharges and waste load allegations will be regulated and permitted under a separate UPDES permit (i.e., not included in this Level II ADR as part of 401 WQC) providing effluent data and waste load analysis.

Point discharge – Channel Fill. Fill from proposed wetland and creek impacts include relocating and filling creeks as part of the proposed site development. These impacts are being permitted and mitigated under a USACE IP and 401 Water Quality Certification.

- **Proposed BMPs:** Construction BMPs that include detailed sequencing, stable diversion, bypass, or pump around operations to ensure **no** fill is placed into a “live” creek. Construction stormwater pollution prevention plans (SWPPP or SWAMP) will reflect the following:
 - Construction sequence requiring the “new/relocated” creeks are constructed offline to stable completion (e.g., erosion control matting, vegetation, habitat structures, etc.) prior to turning flow into it. After the existing channel is fully abandoned (i.e., no longer contains base flow) it will be backfilled. This sequencing will minimize sediment being transported to downstream waters. See Figure 7.
 - Golf course areas will utilize BMPs (construction and post construction) adopted by Golf Course Superintendent Association of America (GCSAA)
 - Alpine ski areas will utilize BMPs from National Ski Areas Association (NSAA)
 - For creek crossings (e.g., pipes, culverts, etc.), the creek flow will be diverted or pumped around the active construction work area. This will allow the crossing to be constructed in the dry and fully stabilized creek prior to reintroducing flow through it.

- Many creeks are being spanned with bridges or bottomless culverts. These structures are designed so that the footers are set back so they can be constructed outside ordinary high waters (i.e., no impact). The structure will maintain creek geomorphology, landscape connectivity, habitat, and convey flood flows.
- Additional details as provided in the Wetland and Creek Mitigation Plans (October 2020), Figure 7, and as discussed in previous sections.

Nonpoint Source Pollution – Construction. For the construction phase of the project, a pollution prevention program will be implemented to protect water sources and on-site creeks, minimize fugitive dust, control potential invasive species, control erosion, and manage wastes produced during construction. Erosion and sediment control measures will be put into place prior to soil disturbance. These measures are intended to minimize sedimentation of nearby creeks and wetlands. Temporarily disturbed areas will be stabilized immediately after grading work is completed. Construction equipment will be cleaned of dirt prior to entry onto the project site to remove potential noxious weed seed sources, and fueling of all construction equipment will be performed in designated refueling areas. When working near creeks and wetlands, the work will occur in the summer and fall during low-flow periods. This also helps to potentially avoid potential impacts on early season breeding and nesting periods for avian species.

Nonpoint Source Pollution – Post Construction. Due to changes in land use, there will be a change to run-off. Overall, the site is a low-density residential development with only 750 RDUs spread over 12,831-acre property. There will recreational amenities such as alpine skiing, golfing, fishing, hiking, and horseback riding. The project will include over 75% open space.

NONPOINT SOURCE POLLUTION ANALYSIS

Due to the change in land use, a secondary impact of concern from this project is nonpoint source (NPS) pollution. NPS is caused when rainfall or snowmelt moving over and through the ground picks up and carries natural and human-made pollutants, depositing them into creeks, wetlands, and ground water. NPS is mostly driven by land uses, such as from agriculture, forestry, roads, and urban and sub-urban development areas.

NPS pollution from development can be directly related to percent increase in impervious area on a site or in a watershed. Table 5 shows new impervious area in the WPR site and watershed and sub-watersheds.

Table 5: Proposed Projected Percent (%) Impervious Cover – Based on Land Plan

Basin or Sub-Basin	Total Watershed Area (acres)	Watershed Area on Property (acres)	Projected Proposed Impervious Area (acres)	Impervious Area % of Watershed (% Impervious of site in that watershed)
Dalton Creek	4,050	1,898	137	3.4 (7.0)
Jacobs Creek	5,262	3,153	168	3.2 (5.2)
Peterson Creek	4,910	3,622	212	4.3 (5.8)
Smith Creek	3,117	815	2	0.0 (0.0)
Line Creek	5,440	3,342	22	0.4 (0.0)
Total Site	N/A	12,830	541	2.8 (5.3)
Weber River (@ d/s end of property)	1,620 sq. miles	12,830	4,666	0.45

Based on Table 5, the impact on the site is minimal with less than 3% of the entire site as impervious, adding only less than 0.5% of new impervious into the Weber Watershed. No sub-watershed has more than 7% impervious cover. Based on the USACE's *Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division*, Section 3.2.4 "Role of Landscape Considerations on Cumulative Impacts", watershed impervious cover exceeding 10% has shown to be the threshold that leads to decline of most stream quality indicators. This low-density site is below that threshold, so the overall secondary impact concerns to beneficial uses are minimal. However, a more detailed model was used to better understand how the change in land use and its effect on sediment and nutrient loads in each sub-basin and to also help guide BMP type and location to mitigate NPS stormwater pollution on a sub-basin scale so that beneficial uses in these Category 1 streams can be maintained.

The USEPA Spreadsheet Tool for Estimating Pollutant Loads (STEPL) was used for this NPS pollution analysis and BMP selection (www.epa.gov/nps/spreadsheet-tool-estimating-pollutant-loads-step1). From EPA website, the EPA STEPL model calculates:

- Nutrient and sediment load from different land uses
- Load reductions that would result from the implementation of various BMPs

For each watershed, the annual nutrient loading is calculated based on runoff volume and the pollutant concentrations in the runoff water, as influenced by factors such as land use distributions and management practices.

The annual sediment load (sheet flow and rill erosion) is calculated based on Universal Soil Loss Equation (USLE) and the sediment delivery ratio. The sediment and pollutant load reductions that result from implementation of BMPs are computed using the known BMP efficiencies.

Site-specific rainfall data and land use data was gathered that was consistent with the Hydrology (HEC-HMS) model presented in the MDS. The existing land use was based on soil maps and most current aerial photography.

The proposed land use was based on the current master plan (Figure 4) and the following model inputs and assumptions:

- Transportation includes all roads
- The single-family developments will consist of roughly:
 - 10,000 square feet (SF) of Impervious Surface for buildings (e.g., house, garage, etc.)
 - 10,000 SF of landscaping outside of buildings
 - 3,000 SF of asphalt driveway
- Assumed that all runoff from roads will be directed to vegetated swales for treatment
- Assumed surrounding vegetation will act as vegetated filter for single family and multi-family lots

The STEPL model was used to predict the existing versus proposed NPS annual nutrient and sediment loads. Models simulations were generated for existing and proposed land use scenario in each major sub-basins with development (Dalton, Jacobs, and Peterson). Then they were combined for the entire site, and each major basin was broken down into sub-basins to allow for a comprehensive understanding and for targeting proposed BMPs. These basins and sub-watersheds are consistent with the MDS.

- Dalton = 10 sub-watersheds
- Jacobs = 10 sub-watersheds
- Peterson = 10 sub-watersheds
- Smith = 4 sub-watersheds
- Line Creek = 1 watershed

A detailed basin/sub-watershed map is shown in Figure 6.

Three land use conditions were modeled using STEPL:

- Existing Condition (i.e. as the site exists undeveloped under agricultural uses and natural open space)
- Proposed Development Plan with no or minimal BMPs
- Proposed Development Plan with added BMPs to mitigate NPS pollution of concern.

The proposed development plan is based on the selected alternative discussed earlier in the Alternative Analysis Section. The added BMPs are discussed below:

BMPS AND GI PROPOSED TO MITIGATE NPS POLLUTANTS

Construction and post-construction BMPs will include sediment and erosion control measures; LID; GI; and traditional SCMs like infiltration, filtration, vegetated conveyance, and retention to reduce stormwater peaks and pollutant loads, including sediment, nitrogen, and phosphorous commonly associated with impervious surfaces and residential development. The following are some of the planning and design BMPs:

- The site was planned with a LID approach that clusters higher density/impervious development to maintain valuable open space and buffers.
 - This results in most of the denser development in two sub-basins (Jacobs and Peterson), with less in Dalton and none in Smith or Line.
 - Based on nonpoint EPA STEPL modeling, strategic stormwater BMPs and GI measure can be added into final design plans to offset these clustered areas (e.g., hot spots).
- Agricultural land-use(s) (cattle grazing) will be removed from the site. This will result in less NPS pollution (sediment, nitrogen, phosphorous, and E coli) from cattle and their waste. This land use change in the watershed will help mitigate changes in land use from added impervious in developed areas. These changes are quantified per the NPS STEPL model discussed below.
- The low-density development, terrain, vegetation, soils, and resort-style setting will lend itself to specific GI approaches including disconnected impervious, disconnected roof drains, vegetation conveyance instead of curb and gutter, large single-family lots that will maintain natural area (e.g., minimal maintained yard), natural buffers, etc.
- 100 feet of preserved natural buffers on creeks and wetlands except as noted in the USACE IP and impact plans.
- Areas of high impervious (e.g., lodge, multi-family, village area, etc.) will have BMPs and GI to treat stormwater runoff from impervious areas as close to the source as feasible.
- Each development phase will obtain an appropriate construction permit based on a site-specific construction SWPPP with measures appropriate for linear and site construction including silt fence, check dams, sediment/stilling basins, erosion control matting, temporary and permanent vegetation, stabilized outfalls, etc.

For the run of the STEPL model, the following assumptions were plugged in for the scenario of proposed land use with BMPs added:

- Single-family land use will use disconnected roof gutters and encourage sheet flow off impervious surfaces like driveways. A portion of these areas as shown below was treated by vegetated filter strips.
- Roadway (transportation land use) will be treated by vegetated conveyance
- A portion of multi-family lots will be treated with bioretention facilities

The above assumptions are conservative. It is anticipated based on the MDS that additional GI and BMP will be implemented as detailed development plans are finalized. Water Quality BMPs will be added into locations where they fit into the proposed development and natural landscape. Additional peak flow attenuation (i.e., detention) will also be added to reduce peak flows. Those basins will be designed to maximize water quality benefits. However, Table 5-7 are the minimum BMPs required to mitigate NPS pollutants of concern to the level shown and maintain beneficial uses.

Table 6: Proposed Required BMPs to Mitigate NPS Pollutants in Dalton Creek Basin

Sub-Watershed ID from MDS / STEPL	Transportation BMPs	% of Sub-Watershed Treated by BMP	Single-Family BMPs	% of Sub-Watershed Treated by BMP
DOFF160 / W3	-	-	Vegetated Filter Strips	4.7%
DOFF165 / W4	LID/Vegetated Swale	5%	-	-
DON10 / W6	LID/Vegetated Swale	0.3%	Vegetated Filter Strips	27.9%
DON15 / W7	LID/Vegetated Swale	0.1%	Vegetated Filter Strips	12.4%
DON20 / W8	LID/Vegetated Swale	0.3%	Vegetated Filter Strips	27.9%
DON25 / W9	LID/Vegetated Swale	1.7%	Vegetated Filter Strips	78.0%
DON30 / W10	LID/Vegetated Swale	1.3%	Vegetated Filter Strips	39.7%

Table 7: Proposed Minimum BMPs Required to Mitigate NPS Pollutants in Jacobs Creek Basin

Sub-Watershed ID from MDS / STEPL	Transportation BMPs	% of Sub-Watershed Treated by BMP	Single-Family BMPs	% of Sub-Watershed Treated by BMP	Multi-Family	% of Sub-Watershed Treated by BMP
NON105 / W5	LID/Vegetated Swale	1.9%	Vegetated Filter Strips	5.1%	-	-
NON75 / W6	LID/Vegetated Swale	1.4%	0 No BMP	-	-	-
NON80 / W7	LID/Vegetated Swale	1.8%	Vegetated Filter Strips	66.6%	Bioretention Facility	3.2%
NON85 / W8	LID/Vegetated Swale	0.5%	Vegetated Filter Strips	7.2%	Bioretention Facility	2.3%
NON90 / W9	-	-	Vegetated Filter Strips	1.0%	Bioretention Facility	0.6%
NON95 / W10	LID/Vegetated Swale	0.6%	Vegetated Filter Strips	12.4%	-	-

Table 8: Proposed Required BMPs in Above Assumptions to Mitigate Loading in Peterson Creek Basin

Sub-Watershed ID from MDS / STEPL	Transportation	% of Sub-Watershed Treated by BMP	Single-Family	% of Sub-Watershed Treated by BMP	Multi-Family	% of Sub-Watershed Treated by BMP
POFF / W1	LID/Vegetated Swale	4.4%	-	-	-	-
PON35 / W3	LID/Vegetated Swale	0.8%	Vegetated Filter Strips	32.1%	-	-
PON40 / W4	LID/Vegetated Swale	0.3%	Vegetated Filter Strips	12.6%	Bioretention Facility	0.9%
PON45 / W5	LID/Vegetated Swale	0.7%	Vegetated Filter Strips	28.9%	Bioretention Facility	1.9%
PON50 / W6	LID/Vegetated Swale	0.4%	Vegetated Filter Strips	12.4%	Bioretention Facility	2.6%
PON55 / W7	LID/Vegetated Swale	0.2%	Vegetated Filter Strips	55.8%	-	-
PON60 / W8	-	-	Vegetated Filter Strips	55.8%	-	-
PON70 / W10	LID/Vegetated Swale	3.4%	Vegetated Filter Strips	44.0%	-	-

The following is a summary of the STEPL model results from the following three scenario runs:

- Existing Condition (i.e., as the site exists undeveloped under agricultural uses and natural open space)
- Proposed Development Plan with no or minimal BMPs
- Proposed Development Plan with added BMPs listed in Tables 6-8 to mitigate NPS pollution of concern

Table 9: STEPL Model Results for Major Basin – Sediment (Sed)

Basin	Existing Condition Sed (ton/yr)	Proposed Condition No BMPs Sed (ton/yr)	% Sed Increase No BMP	Proposed Condition w/BMPs Sed (ton/yr)	% Sed Increase w/ BMP
Dalton Creek	384	359	-7%	346	-10%
Jacobs Creek	2204	2143	-3%	2128	-3%
Peterson Creek	1045	1014	-3%	991	-5%
Smith Creek	867	867	0%	867	0%
Line Creek	1676	1676	0%	1676	0%
Total	6176	6059	-1.9%	6008	-2.7%

Table 10: STEPL Model Results for the Four Major Basins – Nitrogen (N)

Basin	Existing Condition N (lb/yr)	Proposed Condition No BMPs N (lb/yr)	% N Increase No BMP	Proposed Condition w/ BMPs N (lb/yr)	% N Increase W/ BMP
Dalton Creek	1935	2540	31%	2245	16%
Jacobs Creek	10401	11014	6%	10619	2%
Peterson Creek	5079	6532	29%	6011	18%
Smith Creek	3512	3512	0%	3512	0%
Line Creek	7139	7139	0%	7139	0%
Total	28066	30737	9.5%	29526	5%

This increase in Nitrogen will be further reduced by the 50 foot buffers (preservation and eh which are shown to significantly reduce nitrogen (EPA). The BMPs modeled above only include structural SCMs

Table 11: – STEPL Model Results for the Four Major Basins – Phosphorous (P)

Basin	Existing Condition P (lb/yr)	Proposed Condition No BMPs P (lb/yr)	% P Increase No BMP	Proposed Condition w/ BMPs N (lb/yr)	% P Increase W/ BMP
Dalton Creek	633	695	10%	633	0%
Jacobs Creek	3502	3558	2%	3470	-1%
Peterson Creek	1730	1914	11%	1799	4%
Smith Creek	1227	1227	0%	1228	0%
Line Creek	2479	2479	0%	2479	0%
Total	9571	9873	3.2%	9609	0.4%

A more detailed breakdown showing the STEPL input and output results for each basin and the associated sub-watersheds can be found in Appendix B.

ADDITIONAL POLLUTANTS AFFECTED

In addition to these modeled pollutants (Sed, N, and P), other pollutants of concerns are E. coli and temperature. E. coli will be added in the future into EPA STEPL model version but is not in the current model. Based on the development and proposed BMPs and published data on stormwater BMPs effectiveness on mitigation bacteria and temperature, the following assessment is provided:

- *E. coli and Fecal Coliform*: Currently a portion of the WPR site is under active livestock management. Historically, 400 cattle are grazing on the property. As part of this project, the cattle will be removed, thereby mitigating this high source of animal waste to surface waters. In addition, the stormwater BMPs and GI measures proposed above to reduce sediment, nitrogen, and phosphorous also have a positive impact on removing E. coli. These effective BMPs at reducing bacteria include bioretention, filtration, and retention.
 - From the removal of cattle, installation of a sewage collection and treatment system, and the stormwater BMPs, E. coli from NPS runoff will not increase and is anticipated to likely be reduced.
- *Temperature*: The relocation and reestablishment of creeks in the golf and alpine ski areas may have a moderate temporary effect on creek temperature due to loss of vegetation. This temporary impact will be mitigated through replanting vegetation in the reestablished reaches and the preservation and enhancement of buffers on the site in most the non-disturbed creeks.
 - Preservation of open space, including maintaining 100 feet (50 feet to each side) of riparian and wetland buffers and installing stormwater BMPs will help mitigate temperate impacts. BMPs that provide treatment by infiltration and filtration can moderate temperatures by thermal exchange with cool subsurface materials. These BMPs will be located where there are large impervious areas (e.g., parking lots, lodge area, etc.). Stormwater peak attenuation BMPs will be designed to mitigate temperature as outlined in the MDS.

LENGTH OF TIME DURING WHICH WATER QUALITY WILL BE LOWERED

The WPR construction will occur in phases. Construction and post-construction BMPs will be installed with each phase, minimizing water quality degradation from temporary impacts as the site is developed and the land uses are changed. As demonstrated in the above water quality impact analysis, changes in land use (e.g., the proposed development) can be mitigated through construction and post-construction BMPs maintaining the beneficial use.

The creek relocation(s) will cause a temporal loss. This temporal loss is mitigated and accounted for in the mitigation ratios in the site-specific mitigation plan in the USACE IP. After relocation, the restored riparian vegetation communities, reestablished creek substrate, and benthic communities typically take a few growing seasons to mature or recover.

LIKELIHOOD FOR LONG-TERM WATER QUALITY BENEFITS TO THE SEGMENT

Based on the above approach and the structural and non-structural BMPs discussed, it is anticipated that NPS pollution during construction and post-construction will be mitigated. The benefit of this project is the responsible low-impact development incorporating GI combined with preservation of the valuable open space and natural resources, including riparian buffers in the large majority watershed. This preservation has a long-term benefit to the watershed by protecting it from future more intensive development and/or agricultural uses.

POTENTIAL FOR ANY RESIDUAL LONG-TERM INFLUENCES ON EXISTING USES

No anticipated residual long-term influences on existing beneficial uses (discussed below) based on the analysis above and the proposed BMPs outlined.

BENEFICIAL USE ASSESSMENT

As presented above (Table 1), the State of Utah has classified Jacobs Creek, Peterson Creek, Dalton Creek, Smith Creek, and Line Creek as Category 1 waters, with the reaches of the Weber River located at the northern end of the project site as Category 3.

This project has been designed and is anticipated to be constructed and operated in a manner such that the current beneficial uses of the on-site creeks and the Weber River will continue to be provided to the regional watershed. The design approach for the project utilized the environmental setting of the creeks and river to develop design alternatives that avoided and minimized potential impacts to creeks and wetlands to the extent feasible, thereby minimizing potential impacts on the creeks and river and their designated beneficial uses. The design approach also took into consideration the type of creek from a flow characteristic (i.e., perennial, intermittent, or ephemeral).

For example, for the crossing of perennial creeks and the Weber River, which is necessary to provide an appropriate road network to access the project site from existing regional roads and provide an internal circulation network to connect residential lots with the villages and recreational amenities, a series of bottomless culverts (i.e., arch span culverts) and bridges were used in the project design to avoid direct impacts to these creeks and span over the Weber River. Bottomless culverts have abutments outside the ordinary high-water line, so they avoid a jurisdictional impact but still convey all flows from base flow to flood flows (100 year).

For the crossing of ephemeral creeks, the design approach was to use regular concrete pipes with headwalls and rip rap aprons. This design approach has some impact on that segment of the creek while maintaining hydrology and hydraulics of that creek and downstream waters during times of the year when the ephemeral creek flows.

This avoidance, minimization, and mitigation combined with the proposed construction and post-construction BMPs maintain the following beneficial uses.

CATEGORY 1 WATERS

INFREQUENT PRIMARY CONTACT RECREATION (CLASS 2B)

The Category 1 waters on the project site are listed as Class 2B, where infrequent primary contact recreation is protected, as well as secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water, such as wading, hunting, and fishing.

The current creeks on the project site are not currently used for public recreation purposes since it is private property. The only irrigation pond on the property, Three Toes Pond, is not used for any infrequent contact recreation. Hunting is currently allowed on the property.

Future residences of the resort will have the opportunity to use the on-site creeks for wading and fishing, which are secondary contact recreation. The creeks have relatively shallow water depths, up to two or three feet during high-flow periods. Three Toes Pond will be enlarged as part of the project, but no recreational uses will be permitted in the pond.

The WPR Development Project will retain the infrequent primary contact recreation beneficial uses of the creeks, where residences will be allowed to wade and fish in the creeks.

COLD WATER FISHERIES / AQUATIC LIFE (CLASS 3A)

The Category 1 waters on the project site are listed as Class 3A waters, where cold water species of game fish and other cold-water aquatic life, including the necessary aquatic organisms in their food chain, are protected as a beneficial use. The State has documented, through fish studies, that portions of the on-site creeks support a cold-water fishery.

The overall objectives of the project design is to maintain and protect the creek fisheries habitat by direct avoidance of potential impacts due to road crossings, where feasible, and, where creeks are to be impacted, to relocate and re-establish the creek to maintain the creek hydrologic, hydraulic, and geomorphic functions that supports and cold water fisheries and allow the relocated creek to reestablish a natural environment for aquatic life. The creek system, including the establishment of a protective riparian buffer corridor on both sides of the creeks, will be maintained and enhanced during operation of the project to maintain the cold-water fisheries and aquatic life of the creeks.

MINIMIZING CREEK IMPACT AND SAFEGUARD FISH HABITAT

The proposed design will protect aquatic habitat and allow for fish passage in creeks. Specifically, the measures discussed above will protect existing creek functions and allow for successful fish migration while preventing movement into the stormwater facilities. Several reference documents have been used for design guidance, including the *Utah Department of Transportation's Fish Passage Design Manual (2008)* and the *Minnesota Stormwater Manual*. The following design guidelines are recommended to safeguard fish habitat:

- Minimize Temperature Pollution
 - Runoff from impervious surfaces will be discharged through pervious areas prior to discharge into stormwater facilities and waterways (i.e., minimize directly connected impervious areas).

- Detention facilities will include an outlet structure design that drains the 1-year, 24-hour storm event within 12 hours and the 2-year, 24-hour event in 24 hours (*Minnesota Stormwater Manual*).
- Detention facility outlet structures will withdraw from a deeper point in the permanent micro-pool.
- Detention facility outfalls are recommended to minimize the use of riprap, which, when dry, stores more heat to be transferred to discharge flows than grass-lined outfalls.
- Detention facility outfalls are recommended to be designed and constructed with as little impact to the forested riparian zone as possible. If impacts are unavoidable, forested riparian zones should be reestablished in the shortest possible distance.
- Landscaping surrounding detention is recommended to include shade-providing trees and shrubs (where feasible). If landscaping is placed such that leaf litter and other materials will fall into the structure, the outlet structure should be designed to capture these objects and prevent the outfall structure from clogging.
- Fish Passage in Roadway Crossings
 - Crossings over perennial creeks where fish may be present are designed to be bottomless arch culverts or bridges preserving or restoring the natural creek bottom.
 - Road crossings are designed to safely pass the 100-year storm event and maintain the hydraulic geometry to the channel and flood-prone area through the crossing (i.e., under the bridge or bottomless culvert)
 - Structural features of the arch culverts and bridges (e.g., footings, etc.) will be placed outside of the Ordinary High-Water Mark (OHWM).
 - Crossing structures are designed to avoid and impact the perennial creek bed. If temporary impacts are unavoidable during construction, creek beds and banks will be restored to natural conditions.
 - During construction of the roadway crossings, temporary stormwater control measures will be implemented to prevent construction related pollutants from entering water bodies. Specific temporary control measures will be detailed in SWPPP with each construction submittal to UDEQ.
- Fish Passage in Golf Course Crossings
 - The golf course layout and vertical design has been optimized to avoid and minimize impacts to perennial creeks as discussed above.
 - Creek reestablishment areas will be designed to restore stream hydrology, hydraulics, geomorphology, and vegetation to maintain overall physiochemical and ecological function of the creeks, as well as landscape connectivity between upstream and downstream habitats.
- Fish Passage Prevention into Detention Facilities
 - Detention facility outfalls discharging into perennial creeks, where a channel all the way to the creek OHWM is required for stability, will be designed such that fish cannot pass into the outfall channel. Specifically, channels will be designed with step pools, such as Regenerative Stormwater Conveyance methods, with step/drop heights designed to be unpassable by fish.
 - Detention facility outfalls may impact the creek buffers but will not be designed past the OHWM.
- Creek Protection from Development
 - Creek habitat (perennial, intermittent, and ephemeral) will be protected from proposed developments throughout the project area. A 50-foot buffer (each side) has been established. Most of the proposed development will occur outside this buffer, including detention facilities. The only proposed infrastructure within these buffers shall consist of stabilized outfalls from stormwater infrastructure and road crossings.
 - During the design of each phase of development, a Construction SWPPP will be developed. This plan will ensure that physical barriers (i.e., orange construction fencing or silt fence) are constructed at the limits of disturbance (LOD) and at the 50-foot buffer upland to prevent any unnecessary construction

equipment or disturbances within the buffer. Ski run and golf course areas intend to interact with the natural environment and therefore will be addressed on a case-by-case basis in coordination with stakeholder agencies and regulatory authorities.

- The SWPPP will also include details for the contractor to install sediment reduction and/or treatment methods upstream of all waterbodies where construction is occurring. This could include silt fence, waddles, sediment traps, and diversion ditches installed just upstream of the buffer to capture sediment laden runoff and capture sediment prior to discharge into waterbodies.

AGRICULTURAL USES (CLASS 4)

The Category 1 waters on the project site are listed as Class 4, where agricultural uses are listed as a beneficial use. The project site currently supports animal grazing in the summer and agricultural field irrigation collection and storage.

The project will not change the current use of the on-site creeks to support regional agricultural activities. The development plan will allow for the continued use of the property to provide water from the onsite creeks to irrigate agricultural practices off-site for crops and watering their stock. The current use of the site for grazing by livestock (i.e., cattle) will cease with the construction and operation of the project.

Under the State's water exchange program, the project site currently contributes water from certain existing creeks to regional agricultural uses. Creek water is currently diverted by local farmers, including a diversion from Middle Fork of Peterson Creek to Three Toes Pond and two diversions from the Right Hand Fork of Peterson Creek for Sessions Canal and Joes Pond. Session Canal also includes diversions from Jacobs Creek and some unnamed tributaries to the Weber River. These diversions eventually fill onsite and off-site irrigation ponds, which are used to irrigate agricultural fields located on other property located to the east of the project site.

The construction and operation of the project will not divert any water from the onsite creeks. All water uses for the project will be pumped from groundwater wells proposed along the Weber River.

The project is not proposing any changes to the current diversion water rights from the on-site creeks that support agricultural uses on properties to the east of the project site.

SOCIAL, ENVIRONMENTAL, AND ECONOMIC IMPORTANCE

This project will provide important social and economic benefits for the County and region. The project will provide an increase in recreational opportunities in the region, and new regional employment opportunities and economic benefits during the construction and operation phases of the project. The project will provide a wide range of societal benefits from construction and operation of the project, including increased employment opportunities and County tax revenues. The overall social and economic benefits of the project outweigh any negative consequences to water quality of the region.

An Economic and Fiscal Impact Analysis (Fiscal Analysis) was prepared as part of the WPR RSD rezoning application (*RRC Associates, LLC 2019*). The Fiscal Analysis reviews the economic impact relating to economic output, jobs, and aggregate labor income. In addition, the Fiscal Analysis examines the fiscal impact of the project on the Morgan County government. Both population and employment resulting from the project are addressed in the economic and fiscal impact analysis. While the RSD Rezoning Application indicates the project could have up to 750 RDUs, the Fiscal Analysis made projections based on 475 RDUs.

EMPLOYMENT

As of December 2018, there were 5,331 people in the Morgan County labor force, according to data from the Utah Department of Workforce Services Utah Economic Data Viewer (*Utah Department of Workforce Services 2020*). According to the Quarterly Census of Employment and Wages (QCEW) data for Morgan County, there are 2,461 jobs based in Morgan County. The private-industry sectors with the highest number of workers are construction, retail trade, and manufacturing. The primary sources of QCEW data are reports submitted by employers to the Utah Unemployment Insurance program.

As indicated in the Fiscal Analysis, there are an estimated 699 jobs estimated by direct and indirect activity from the WPR project (*RRC Associates, LLC 2019*):

- Direct employment: Jobs created by the project upon stabilization (2034) after buildout is estimated at approximately 566 jobs.
- Indirect employment: Those jobs projected to indirectly attributable to the WPR project is estimated at 133 jobs.

The maximum number of total jobs during the life of the WPR project is projected to be higher at 978 jobs and occur in 2033, when initial construction is still underway (*RRC Associates, LLC 2019*). The jobs created represent a substantial employment impact to Morgan County increasing the reported 2018 workforce by over 12% through the 2034 buildout. Employment will vary depending on activity level for industry-specific jobs, which include construction, WPR operations, supplemental second homeowner purchases and services, and local resident household employment. Direct labor income is projected at approximately \$12 million annually. Total labor income is projected at approximately \$15 million annually (*RRC Associates, LLC 2019*).

The projected jobs and labor income are added to the existing employment market, creating new opportunities where none currently exist. These jobs generate more consumer spending and increased local and state tax revenues, representing a positive impact for the area. Thus, the project will have beneficial secondary impacts on the region as demand for commercial and recreational uses is increased.

PROJECT TAX REVENUES

The project will significantly contribute to the County tax base with residential units generating sizable County property taxes as the units are built. The tax base contribution from the project will outweigh the cost of the County of providing services to the development. As a community-based project with many of its own services, including potable water and sanitary sewer, the project will require minor governmental support from the County. Therefore, most of the property taxes paid to the County can be used by the County for services beyond the project.

The annual fiscal impacts on Morgan County Government funds attributable to the project after buildout is projected to have a taxable property value of \$3.49 billion, resulting in annual property tax collections to the County of \$10.76 million (based on 2018 tax rates) (*RRC Associates, LL. 2019*). Funds collected for County General Operations are projected to be approximately \$7.72 million annually. Additionally, the project will generate approximately \$663,000 annually to the Library Fund, \$59,000 to the Flood Control Fund, \$318,000 to the Capital Improvement Fund, and \$485,000 to the Health Fund (*RRC Associates, LLC 2019*). An additional \$1.51 million is projected to be generated for purposes of assessing and collecting property taxes. The Morgan County School District is projected to collect approximately \$28.1 million in annual property tax revenue from the project upon full buildout, while the Weber River Water Conservancy District is project to collect approximately \$573,000 annually based on 2018 rates.

With the Morgan County General Fund budgeted at \$2.51 million in property tax revenues in 2019, the project's projected \$7.72 million in property tax revenue is over three times the size of the County's existing General Operations property tax revenue stream

The project at full buildout is projected to generate approximately \$176,000 annually in aggregate sales tax revenue for Morgan County.

POPULATION GROWTH PROJECTION

The Morgan County 2010 population was 9,183 (*Morgan County 2010*). During the five years prior to 2010, Morgan County grew by 4.7%. From 2010, population growth was projected for 2015 as 11,621 and 2020 as 16,756.

According to American Community Survey (ACS) five-year estimates from 2013-2017, the Morgan County population is 11,014 (*U.S. Census Bureau 2018*). Approximately 35.5% of the county population is under 18 years of age and approximately 11.1% of the county population is 65 years of age and over.

The Fiscal Analysis population projection is based on 475 RDUs, comprising 285 single-family homes, 114 townhomes, and 76 condominiums (*RRC Associates, LLC 2019*). Key assumptions in the economic and fiscal impact analysis assume that approximately 90% of the RDUs, whether single family, townhome, or condo, would be second homes. Approximately 10% would be occupied full-time residents. Second homes would be occupied approximately 5-7% of the year, approximately 28 days per year as referenced in the Fiscal Analysis. When second homes are occupied, it is assumed the average household size would be 4 persons per unit.

To determine population impacts of the project, the 2016 U.S. Bureau of Labor Statistics Consumer Expenditure Survey data was used in the Fiscal Analysis to determine the average number of persons in a household unit. For residents with annual household incomes exceeding \$200,000, the average number of persons is 3.2 per unit. Averaging the anticipated full-time residents over 10 years amounts to growth of approximately 26 residents per year for the WPR project.

Based on 475 RDUs, the Fiscal Analysis projects an average daily population at full buildout of 265 residents, with 152 full-time residents and 113 in second homes. Based on the ACS 2013-2017 population of 11,014, these results in yearly growth of 0.02% and 2.4% growth over the 10-year buildout from 2024 to 2034. Based on these estimated growth and population figures, the estimated local population growth for the WPR Project would be considered de minimis and in line with growth projections provided in the Morgan County General Plan (*Morgan County 2010*).

The project will provide beneficial impacts to the local and regional economy. No significant adverse impacts regarding employment are anticipated.

ENVIRONMENTAL BENEFITS

The WPR Development Project includes several project components that focus on providing of environmental benefits of the project, including mitigation efforts to compensation for unavoidable environmental impacts. The environmental benefits include:

- Clustering of the development such that 75% of the private property (over 8,600 acres) will remain as open space in perpetuity
- Implementation of an on-site creek and riparian zone buffer restoration and preservation program that enhances creeks and buffers and establishes dedicated riparian zones adjacent to the creeks to protect the cold-water fisheries
- Wetland improvements along the Weber River through the establishment of approximately 8.2 acres of new wetlands in an abandoned agricultural field along the river

REFERENCES

Langan. April 8, 2020, Revised October 23, 2020. USACE Individual Permit Application (SPK-2018-00538), Wasatch Peaks Ranch Development Projects, Peterson, Morgan Utah.

Langan. April 8, 2020, Revised October 23, 2020. Wetland and Creek Mitigation Plan Document or Wasatch Peaks Ranch Development Project.

Kimley-Horn. March 2020, Draft Master Drainage Study for Wasatch Peaks Ranch Special District, Morgan County, Utah.

The United States Environmental Protection Agency (US EPA), Non-Point Source Pollution, Spreadsheet Tool for Estimating Pollutant Loads (STEPL), <https://www.epa.gov/nps/spreadsheet-tool-estimating-pollutant-loads-step>

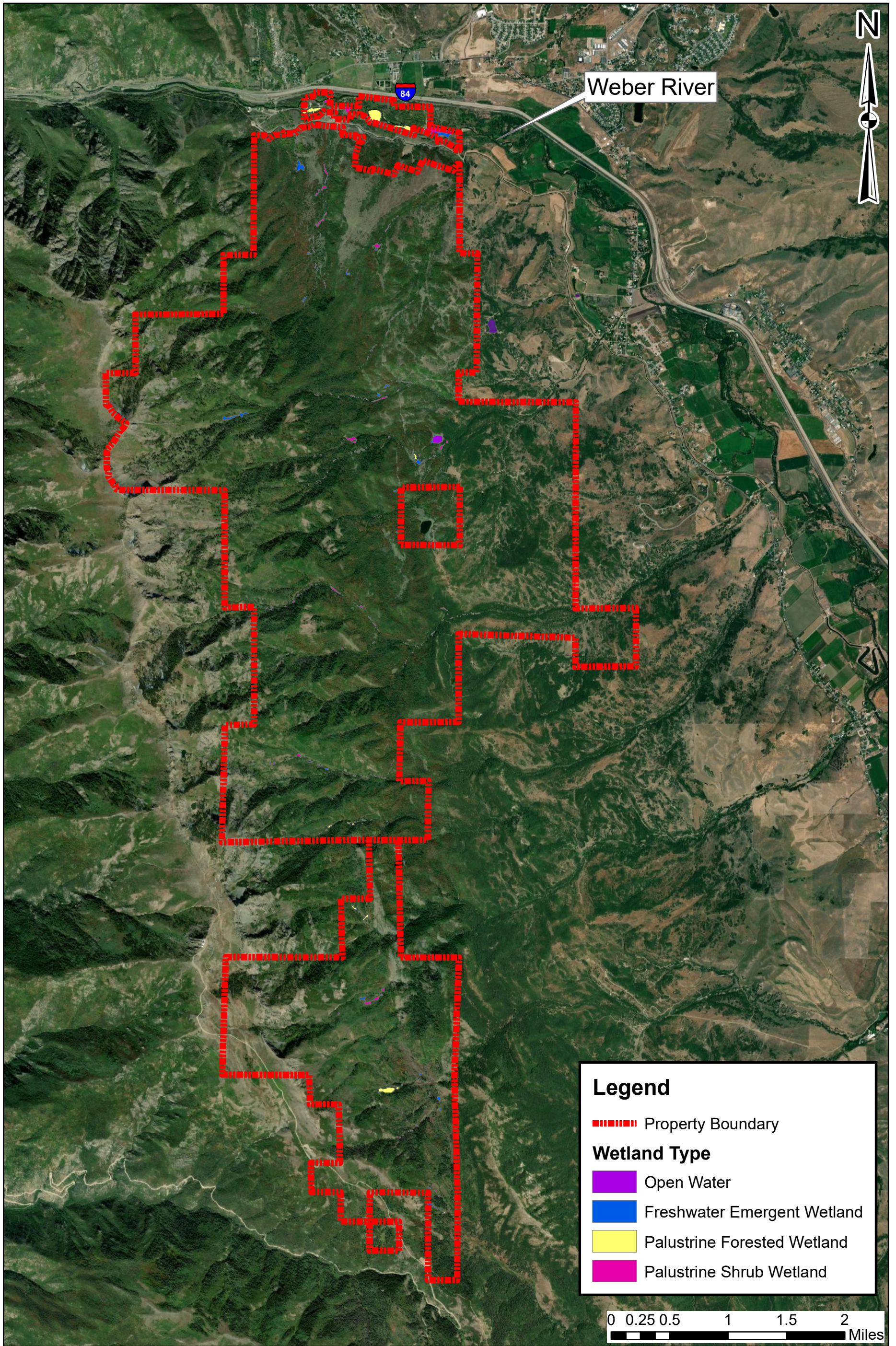
Mayer, et. al. (2005). Riparian Buffer Width, Vegetative Cover, and Nitrogen Removal Effectiveness: A Review of Current Science and Regulations (EPA/600/R-05/118). United States Environmental Protection Agency.

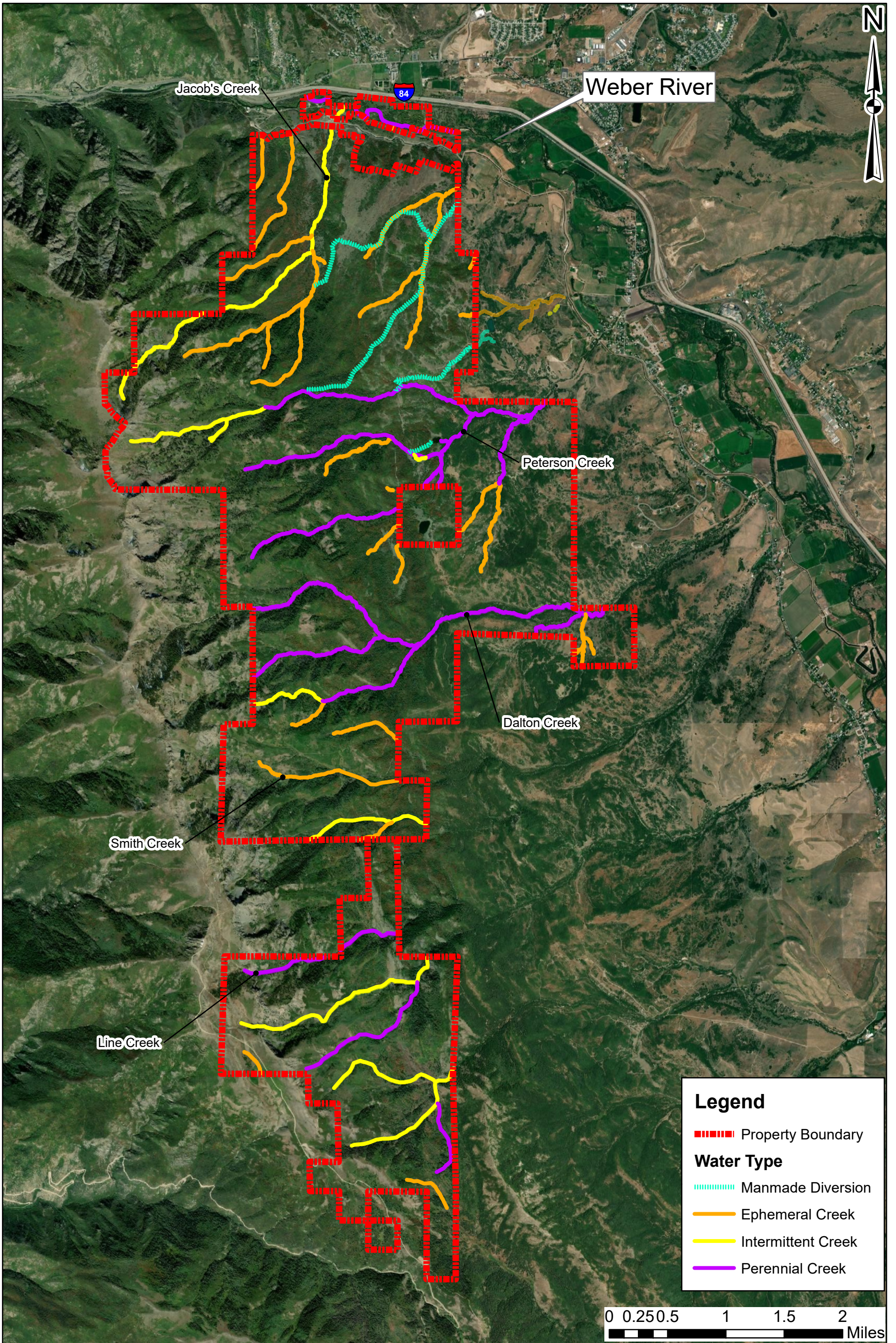
Morgan County, Utah. October 30, 2019 – Final Adopted. Development Agreement for Wasatch Peaks Ranch Located in Morgan County, Utah.

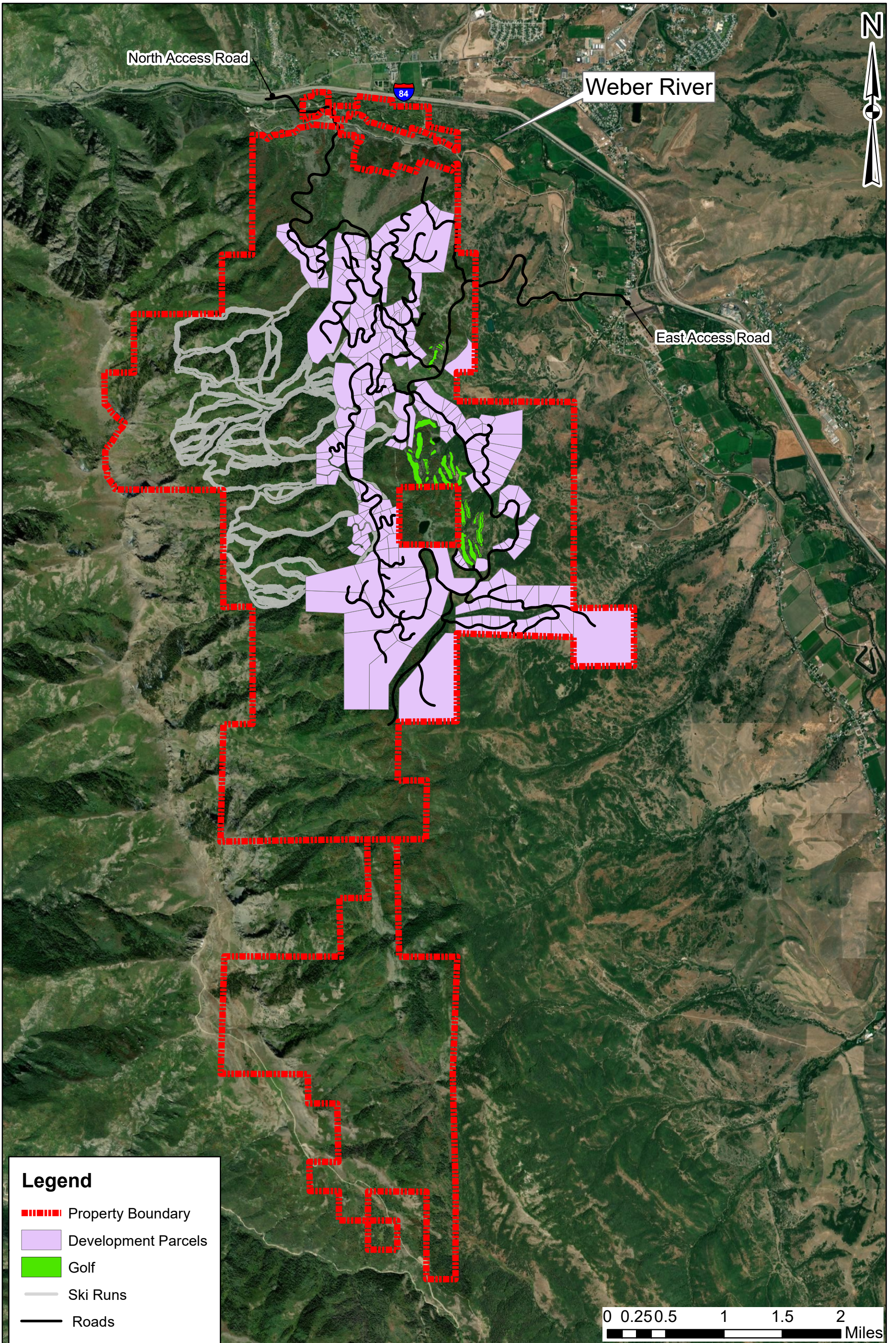
FIGURES



	Wasatch Peaks Ranch	Morgan, UT
	Figure 1 - Project Location	







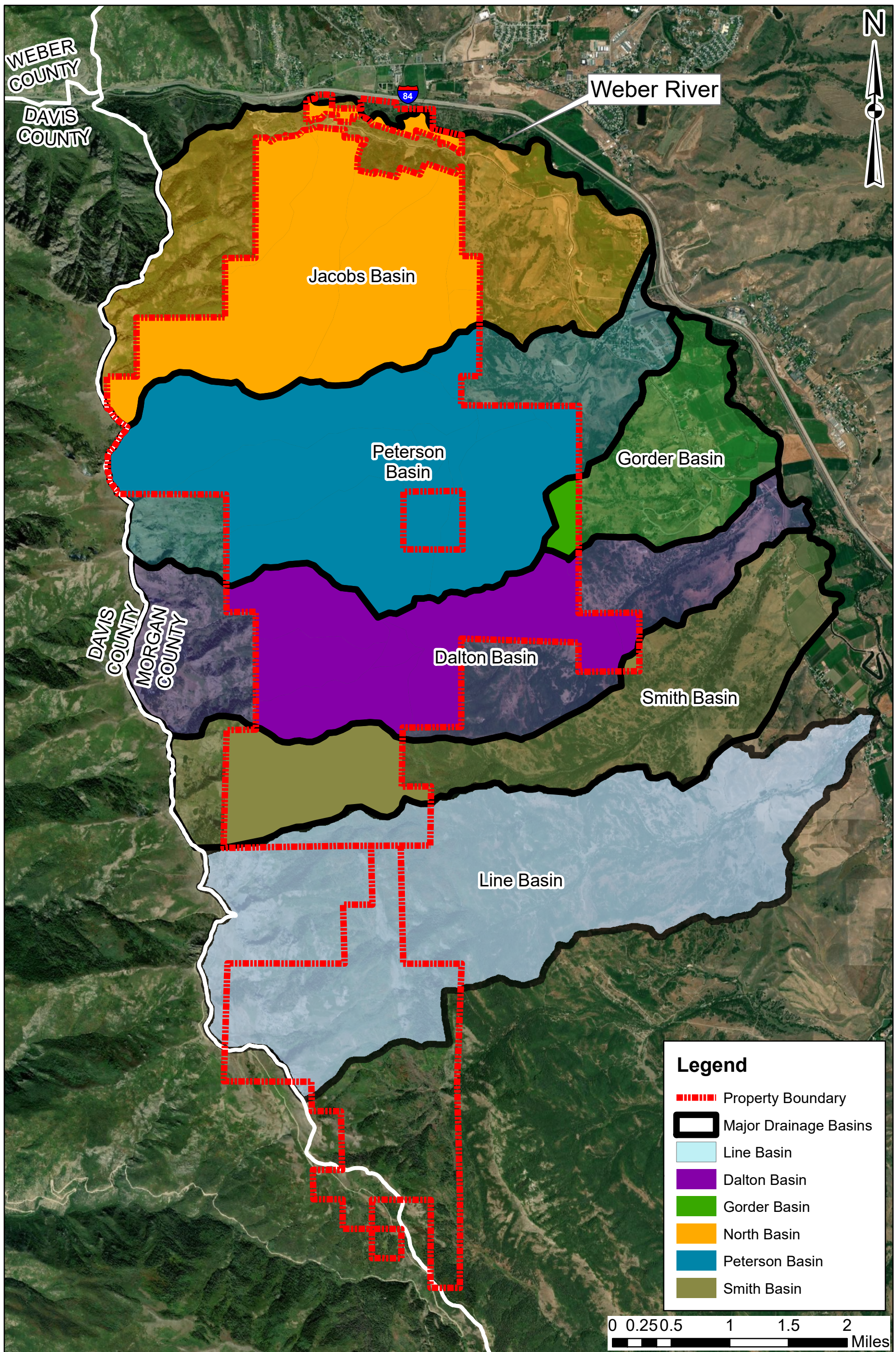
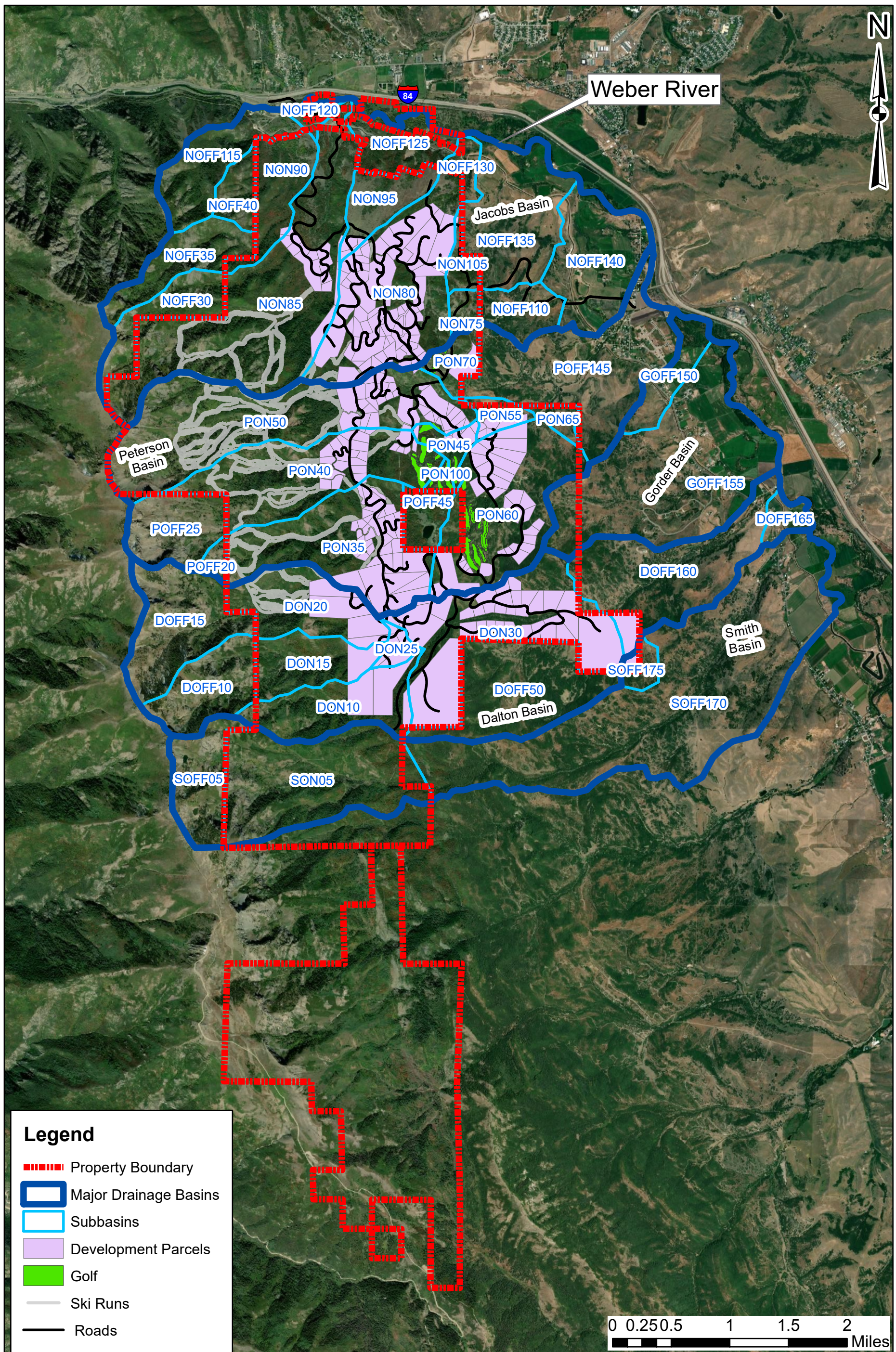
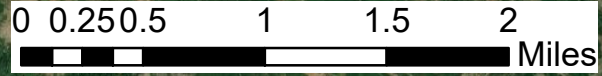


Figure 5 - Watersheds



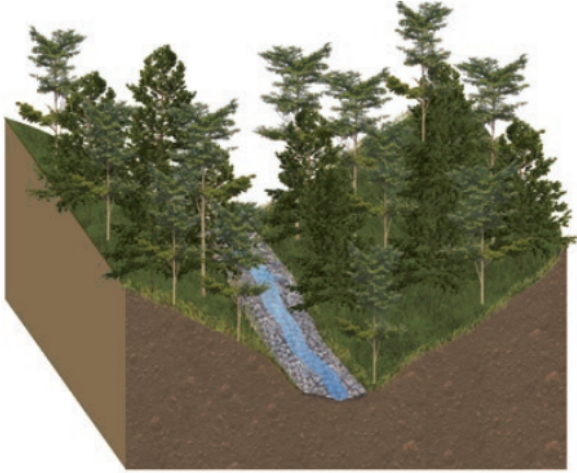
Legend

- - - - - Property Boundary
- Major Drainage Basins
- Subbasins
- Development Parcels
- Golf
- Ski Runs
- Roads



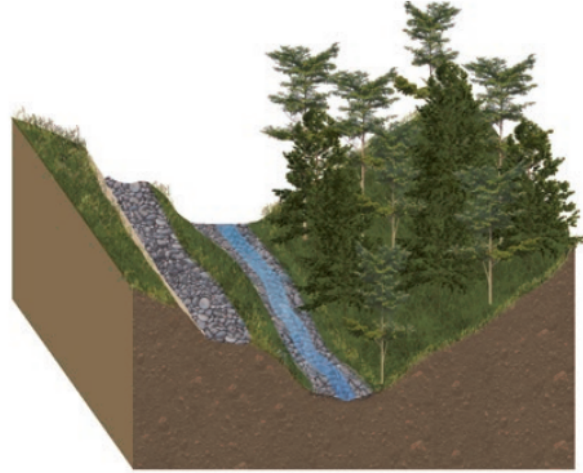
Ski Run Construction Sequencing

In areas where stream channel reconstruction is required



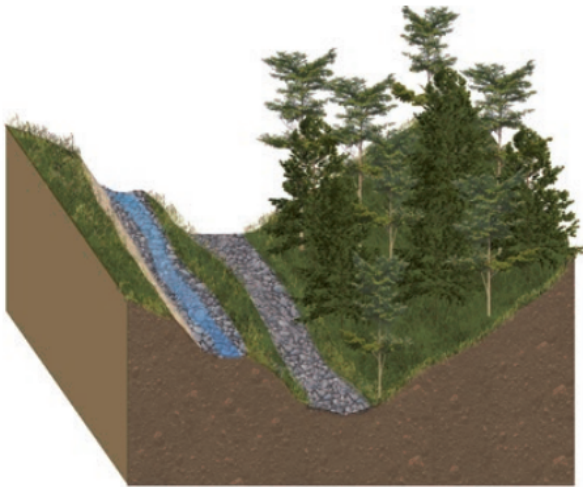
Step 1.

Existing Conditions. Start construction in segments – typically will be done in a rolling segments style, with pioneering crews working ahead of primary crews, with erosion control and planting/revegetation crews following.



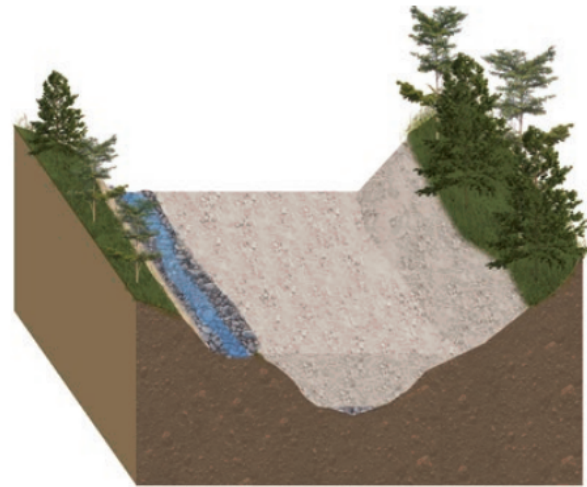
Step 2.

Create new stream channel in new location - typically higher in elevation, on the side of the valley, and horizontally offset. Note that in particularly narrow, steep valley segments, it may not be possible to create the stream channel in this step – in those cases, a sacrificial pipe would be used to carry the stream flow while the construction is completed.



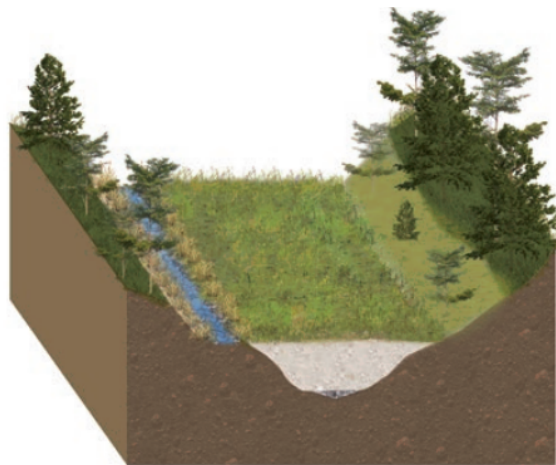
Step 3.

Divert the stream flow from the existing channel to the newly created channel.



Step 4.

Construct ski run, widening the valley and creating a side-to-side flat platform.



Step 5.

Complete mitigation and revegetation. Add rock drops and riffle pools, create riparian edges, complete erosion control measures (including permanent water bars at appropriate intervals), and revegetate ski run platform and cut slopes. Complete new stream channel by tying into existing channel, with a series of pools and velocity control structures.

Note: All construction will be done in accordance with all applicable municipal, county, state, and federal permits, including SWPPP.


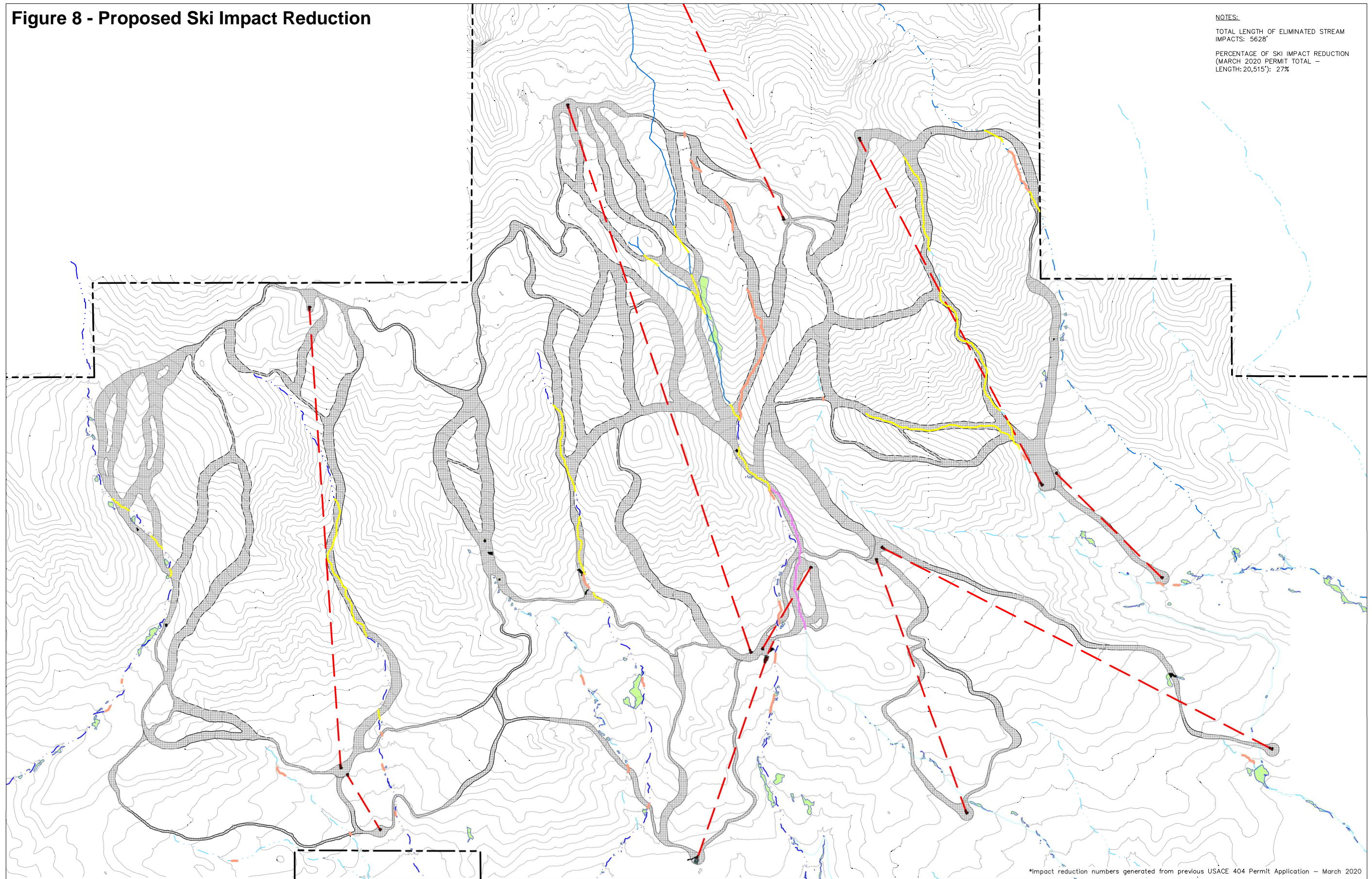
	Wasatch Peaks Ranch	Morgan, UT
	Figure 7 - Ski Run Construction Sequence	

Figure 8 - Proposed Ski Impact Reduction

NOTES:
 TOTAL LENGTH OF ELIMINATED STREAM IMPACTS: 5628'
 PERCENTAGE OF SKI IMPACT REDUCTION (MARCH 2020 PERMIT TOTAL - LENGTH: 20,515'): 27%



*Impact reduction numbers generated from previous USACE 404 Permit Application - March 2020

LEGEND

- | | | | |
|--|---------------------|--|---------------------------------|
| | PROPERTY LINE | | PROJ. STREAM IMPACT |
| | PROPOSED SKI LIFT | | PROJ. MAN-MADE DIVERSION IMPACT |
| | PROPOSED SKI RUN | | ELIMINATED STREAM IMPACTS |
| | EPIHEMERAL STREAM | | PROJ. WETLAND IMPACT |
| | INTERMITTENT STREAM | | |
| | PERENNIAL STREAM | | |
| | MAN MADE DIVERSION | | |
| | WETLANDS | | |

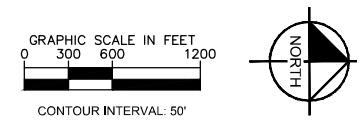
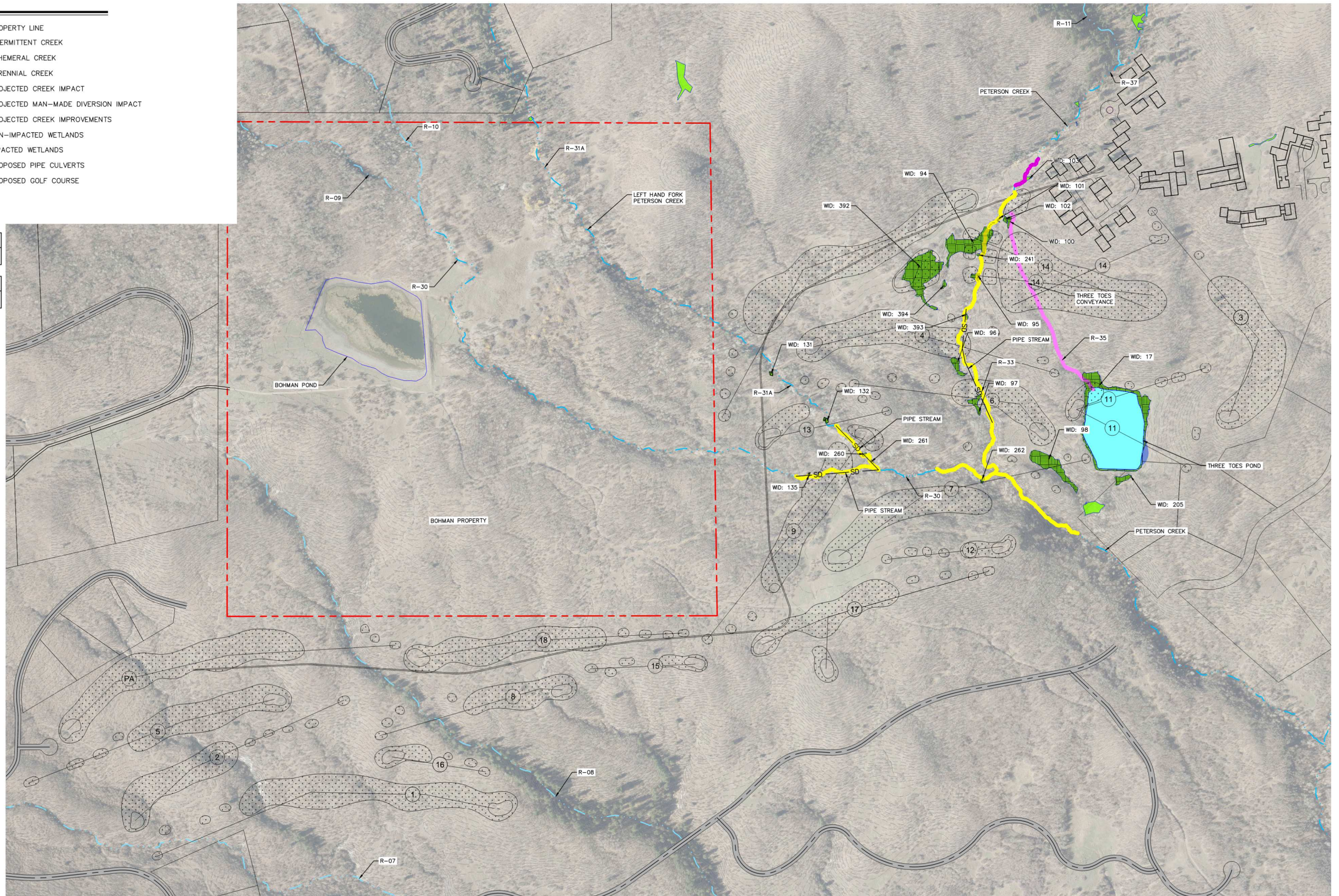


Figure 9 - Golf Design Option A

LEGEND

- - - - - PROPERTY LINE
- - - - - INTERMITTENT CREEK
- - - - - EPHEMERAL CREEK
- - - - - PERENNIAL CREEK
- PROJECTED CREEK IMPACT
- PROJECTED MAN-MADE DIVERSION IMPACT
- PROJECTED CREEK IMPROVEMENTS
- NON-IMPACTED WETLANDS
- IMPACTED WETLANDS
- SD SD SD
- PROPOSED PIPE CULVERTS
- PROPOSED GOLF COURSE

TOTAL WETLAND IMPACT	
IMPACT FOOTPRINT (SF)	106,180
TOTAL CREEK IMPACT	
IMPACT LENGTH (LF)	3,620



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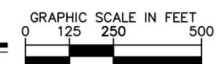
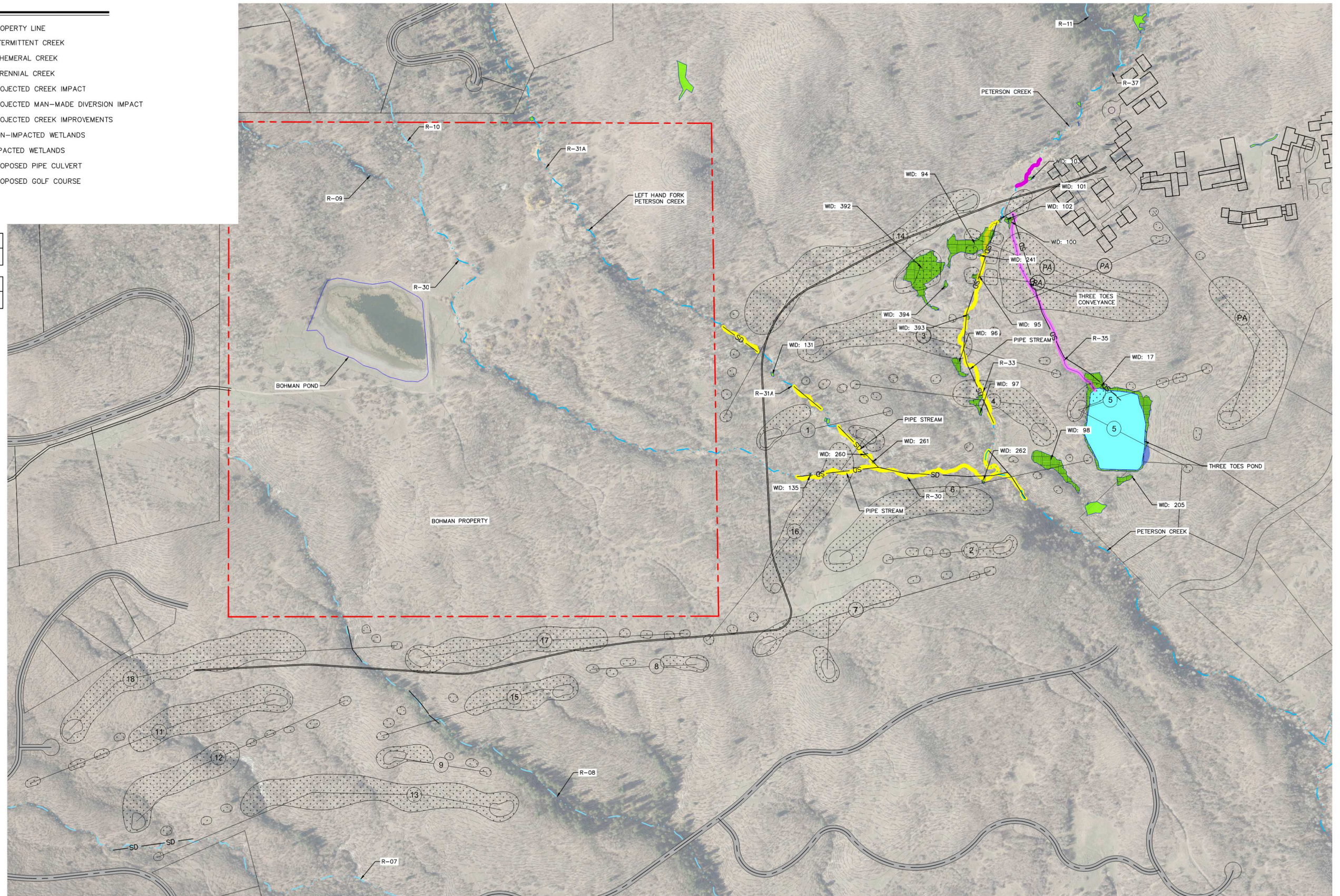


Figure 10 - Golf Design Option B

LEGEND

- - - PROPERTY LINE
- - - INTERMITTENT CREEK
- - - EPHEMERAL CREEK
- - - PERENNIAL CREEK
- PROJECTED CREEK IMPACT
- PROJECTED MAN-MADE DIVERSION IMPACT
- PROJECTED CREEK IMPROVEMENTS
- NON-IMPACTED WETLANDS
- IMPACTED WETLANDS
- SD SD SD
- PROPOSED PIPE CULVERT
- PROPOSED GOLF COURSE

TOTAL WETLAND IMPACT	
IMPACT FOOTPRINT (SF)	105,390
TOTAL CREEK IMPACT	
IMPACT LENGTH (LF)	3,674



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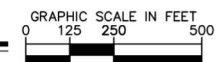
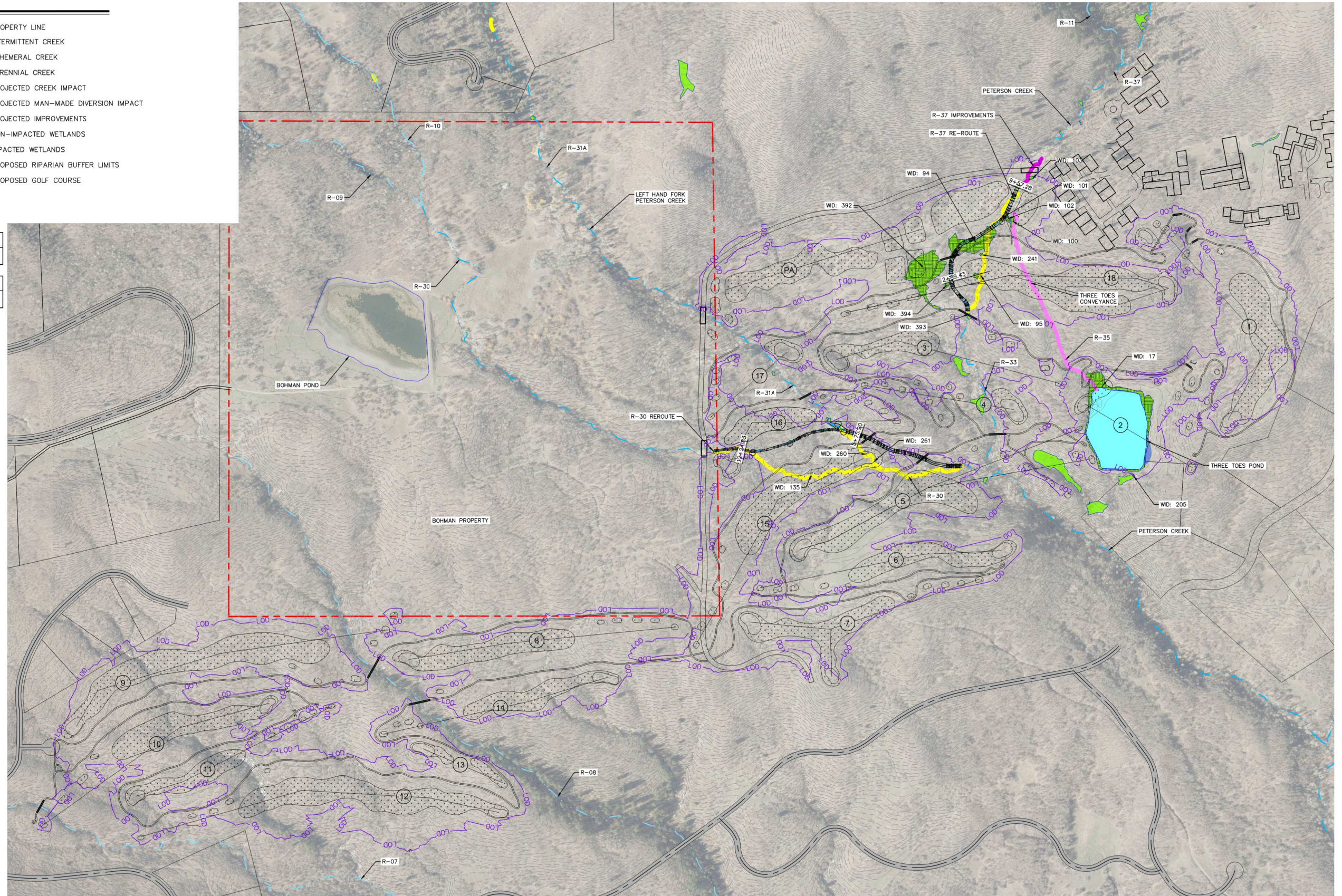


Figure 12 - Golf Design Option D

LEGEND

- PROPERTY LINE
- INTERMITTENT CREEK
- EPHEMERAL CREEK
- PERENNIAL CREEK
- PROJECTED CREEK IMPACT
- PROJECTED MAN-MADE DIVERSION IMPACT
- PROJECTED IMPROVEMENTS
- NON-IMPACTED WETLANDS
- IMPACTED WETLANDS
- LOD
- PROPOSED RIPARIAN BUFFER LIMITS
- PROPOSED GOLF COURSE

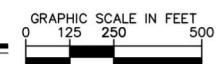
TOTAL WETLAND IMPACT	
IMPACT FOOTPRINT (SF)	80,910
TOTAL CREEK IMPACT	
IMPACT LENGTH (LF)	2,640



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WASATCH PEAKS GOLF IMPACT EXHIBIT - FINAL GOLF DESIGN OPTION D (SELECTED ALTERNATIVE)

MORGAN COUNTY, UT



APPENDIX A – DEVELOPMENT AGREEMENT APPROVED BY
MORGAN COUNTY

Ent 149303 Bk 355 Pg 1235
Date: 07-NOV-2019 5:26:34PM
Fee: \$123.00 Check Filed By: CB
BRENDA NELSON, Recorder
MORGAN COUNTY
For: WASATCH PEAKS RANCH LLC

DEVELOPMENT AGREEMENT FOR THE
“WASATCH PEAKS RANCH”
LOCATED IN MORGAN COUNTY, UTAH

October 30, 2019
Final Adopted

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

List of Exhibits

Exhibit A	Subject Property Legal Description
Exhibit B	Conceptual Land Use Plan
Exhibit C	Table of Permitted Uses
Exhibit D	Review and Approval Procedures for Uses
Exhibit E	Site Planning and Development Standards

This Development Agreement for the Wasatch Peaks Ranch (hereinafter "Development Agreement") is approved this 30th day of October 2019, with the adoption of Ordinance No. CO19-10 by the duly elected County Council (hereinafter "County Council") of Morgan County, Utah (hereinafter "County"), a political subdivision of the State of Utah, whose address is 48 West Young Street, Morgan, Utah 84050 between the County and Wasatch Peaks Ranch, LLC, a Delaware limited liability company (hereinafter "Owner") whose address is 136 E. South Temple, Suite 2425, Salt Lake City, Utah 84111. The Owner is the owner of certain real property, as identified by Exhibit A (hereinafter "Subject Property"). The County Council is the legislative body of the County and approves this Development Agreement, exercising its legislative authorities.

SECTION 1: FINDINGS

The County Council makes the following findings in approving this Development Agreement:

- 1.1. Owner is the fee owner of the Subject Property, as identified by the property records maintained in the office of the Morgan County Recorder.
- 1.2. The Subject Property is approximately 11,502 acres, as more particularly described by Exhibit A.
- 1.3. The Owner desires to develop the Subject Property as a private residential community and membership club with amenities and activities on the Subject Property, as more fully identified herein (hereinafter "the Project").
- 1.4. On December 21, 2010 the County adopted the Morgan County General Plan (hereinafter "General Plan") that established various public policies for the unincorporated areas of the County. The General Plan was amended on October 30th, 2019, identifying the Subject Property as suitable for the creation of a Master Planned Community.
- 1.5. The County has adopted the Morgan County Land Use Management Code (hereinafter "Management Code"), a land use ordinance of the County.
- 1.6. The Management Code provides various zoning districts, including the Multiple Use District (MU-160) and the Resort Special District (RSD), and divides the unincorporated areas of the

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

County into zone districts pursuant to the County Land Use, Development, and Management Act, Utah Code Annotated, 1953, as amended (hereinafter "the Act").

- 1.7. The Management Code also provides various standards and requirements for the establishment and operation of uses and activities allowed within each zoning district and further provides procedures and requirements for the division of all lands located within the County.
- 1.8. The Owner is contemplating presenting to the County various Land Use Applications to achieve the Wasatch Peaks Ranch private residential community, including necessary land use and subdivision applications, with required supporting information and materials.
- 1.9. The Owner is committed to providing all uses and activities occurring on the Subject Property to the highest standards to create a private residential community and has proposed to develop the Subject Property consistent with a Conceptual Land Use Plan (hereinafter "Conceptual Land Use Plan") provided by the Owner to the County, and attached hereto as Exhibit B.
- 1.10. The Owner has provided various supplemental information and materials to the County in support of this Development Agreement including "The Wasatch Peaks Ranch Master Plan Transportation Element," July 19, 2018, the "Wasatch Peaks Ranch Cost Benefit Analysis: Morgan County," February 28, 2019, the "Wasatch Peaks Ranch Infrastructure Master Plan", March 1, 2019, and the "Report Landslide Hazard Services, Wasatch Peaks Ranch, Morgan Counties, Utah," February 26, 2019. This information and these reports shall be considered as supporting information to this Development Agreement and shall be considered as reference and guidance materials but are not incorporated into this Development Agreement. The information and materials identified by this paragraph shall remain on file in the offices of the County's Planning and Development Services Department.
- 1.11. The Morgan County Planning Commission (hereinafter "Planning Commission") has previously considered a general plan land use designation amendment and zoning district designation for the Subject Property and forwarded a positive recommendation to the County Council on July 25, 2019.
- 1.12. The County Council, acting as the County's legislative body, and following the receipt of a Planning Commission recommendation may establish a general plan land use designation and zoning district(s) for the Subject Property when such general plan land use designation and zoning district(s) are found to implement the County's General Plan, appropriately balance the interests of private and public rights, and promote the orderly and appropriate development of the Subject Property.
- 1.13. The County Council has approved this Development Agreement based on its determination that the Subject Property is large and requires a comprehensive and coordinated Conceptual Land Use Plan, as identified by the General Plan, for the establishment of all uses and activities

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

occurring on the Subject Property, and to achieve the goals of the County and the Owner for a private residential community.

1.14. The County Council finds that this Development Agreement contains provisions required by the Management Code, including compliance with all applicable requirements of Chapter 5, Article J, Management Code, including achieving the purposes of the Resort Special Districts.

1.15. This Development Agreement, and all Exhibits attached hereto, identifies the current condition of the Subject Property, promotes the goals of the County and the Owner, and provides for the Owner's construction of those private infrastructure, facilities, services and other amenities, benefits, and improvements necessary to meet the needs of the Subject Property in a coordinated and timely manner.

1.16. The County Council approved a zone change for the Subject Property based on findings, as required by Title 8, Chapter 5, Article J of the Management Code that the zoning map amendment and Conceptual Land Use Plan, as represented by Exhibit B and this Development Agreement:

1.16.1. Is consistent with applicable provisions of the County's General Plan.

1.16.2. Conforms to applicable provisions of the Management Code.

1.16.3. Will better preserve the Subject Property and surrounding properties by integrated planning and design than would be possible under other zoning regulations.

1.16.4. Development of the Subject Property will contribute positively to the County's long-term economic stability, and

1.16.5. The infrastructure plan will not be detrimental to the County's health, safety, and welfare.

SECTION 2: PURPOSES

The County Council approved this Development Agreement to advance the public goals and policies of the County and to promote coordinated, consistent, and efficient decision-making and administration for all matters governed by this Development Agreement including, but not limited to, the following:

2.1. To achieve the vision and goals of the County and Owner to create a private residential community.

2.2. To achieve the goals and policies of the General Plan, including the creation of a Master Planned Community for the Subject Property.

2.3. To achieve the purposes of the Resort Special District "to permit a compatible, master planned mix of various types of residential and commercial land uses in combination with open space and recreational components on land that has characteristics that warrant customized development requirements" (Section 8-5J-1, Management Code).

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

- 2.4. To provide the Owner with certain assurances related to the development of the Subject Property, as allowed by the Resort Special District, subject to compliance with all applicable Local, State, and Federal laws, rules and regulations.
- 2.5. To establish clarity related to the development standards and regulations applicable to the Subject Property.
- 2.6. To identify the responsibilities of the County and the Owner-related to Land Use Applications for the Subject Property, and all portions thereof, the provision of necessary and required infrastructure and services, and the issuance of all necessary and related Land Use Permits and Building Permits.
- 2.7. To promote regular communication and coordination and to facilitate efficient decision-making by the County and the Owner on various matters related to the Subject Property and to achieve the goals and vision of the County and the Owner.
- 2.8. To facilitate communications and coordination with Local, State, and Federal agencies to the extent necessary to achieve the purposes of this Development Agreement and the Conceptual Land Use Plan.
- 2.9. To require and promote communication and coordination with all service providers as necessary, for the timely provision of necessary infrastructure, services, and amenities for the Subject Property.
- 2.10. To allow the Owner to voluntarily provide amenities, improvements, services, and facilities, as more fully described herein, for the benefit of the Subject Property, the County, and the Owner.

SECTION 3: APPROVAL

- 3.1. Upon receipt and full consideration of the Planning Commission's recommendation on the general plan land use designation amendment and zoning district designation for the Subject Property, and in consideration of the mutual goals of the County and the Owner, including, but not limited to, providing a coordinated Land Use Plan for the Subject Property, and the creation of a private residential community, the County Council approved this Development Agreement based upon the findings and purposes set forth herein.

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

SECTION 4: SUBJECT PROPERTY DESIGNATION, PROVISIONS, AND REQUIREMENTS

4.1. MANAGEMENT CODE DESIGNATION

- 4.1.1. The Subject Property is identified as "Master Planned Community" by the General Plan.
- 4.1.2. Prior to the approval and execution of this Development Agreement the Subject Property was located within MU-160 and F-1 Districts.
- 4.1.3. Consistent with the General Plan, and upon the execution of this Development Agreement by the County and the Owner, and upon the completion of all noticing as required by law and recordation of this Development Agreement in the Office of the Morgan County Recorder, the Subject Property shall be identified as a Resort Special District (RSD) of the Management Code, such zoning district being specifically identified as Resort Special District - Wasatch Peaks Ranch ("RSD-Wasatch Peaks Ranch"), such district to remain in place and in effect during the term of this Development Agreement, unless changed by affirmative action of the County Council, complying with the terms of this Development Agreement and all procedural and noticing requirements of Utah law as required for a land use ordinance amendment.
- 4.1.4. The County and the Owner agree that various Land Use Application approvals, Land Use Permits, and Building Permits will be required to implement this Development Agreement. All Land Use Applications shall be reviewed and decided by the County, and all Land Use Permits and Building Permits shall comply with all applicable requirements of this Development Agreement and the Management Code, as applicable. If the Development Agreement and Management Code should contradict, the Development Agreement shall control. If the Development Agreement does not address an issue, the Management Code shall govern.

4.2. CONCEPTUAL LAND USE PLAN AND DENSITY ENTITLEMENTS

- 4.2.1. The Conceptual Land Use Plan identifies the conceptual locations for each of the land use categories proposed for the Project.
- 4.2.2. The County and the Owner agree that all Land Use Application approvals and all Land Use Permits and Building Permits must be generally consistent with this Development Agreement and the Conceptual Land Use Plan.
- 4.2.3. Consistent with the maximum RDUs available to each Development Area, as identified by Exhibit B, and subject to compliance with the requirements of this Development Agreement, including Section 4.3.2 and Section 4.3.3, the Owner is entitled to have and the Conceptual Land Use Plan shall permit a maximum of 750 RDUs, as defined herein, on the Subject Property¹, without any maximum square footage limitation on the floor area of a single-family residential dwelling.
- 4.2.4. Residential Dwelling Unit ("RDU") is defined as a building, or a unit within a multi-family building, containing one or more kitchens and one or more other rooms comprising a dwelling, and including areas for living and sleeping, designed to be used for human

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

occupancy, and complying with all applicable provisions of the Building Codes and County Land Use Ordinances. Detached garages, sheds, barns and other structures ("accessory buildings") without living space do not require or utilize additional RDUs. Accessory buildings that include living space and a kitchen are only allowed for single family homes. Such accessory buildings do not require or utilize additional RDUs so long as the improved living area of such buildings does not exceed 20% of the living area of the primary residence ("main residence"), and such accessory buildings are not used as a full-time primary residence by the owner thereof or claimed as a primary residence for county taxation purposes. Accessory buildings not using RDUs: (i) may not be sold separate from the main residence to which they are appurtenant, (ii) may not be owned separate from the ownership of the main residence, and (iii) must be situated on the same platted lot as the main residence. For the purposes of this Development Agreement buildings for housing resort employees, fire fighters, emergency medical personnel, and security employees will utilize RDUs as part of the 750 RDU limit and will not exceed a total of 50 RDUs. For dormitory type housing, six bedrooms with one kitchen constitute 1 RDU. Each bedroom in dormitory type housing shall have no more than two residents per bedroom.

- 4.2.5. The County and the Owner agree that the Total Units as shown on the Conceptual Land Use Map shall be the maximum number for Development Areas F and G. Development Areas A - E may increase by 25 percent, provided the total RDUs for the Project never exceed 750 RDUs. Single family and multi-family units designated on the Conceptual Land Use Plan are estimates. Actual ratios may vary but total RDUs shall not exceed 750 RDUs.
- 4.2.6. Subject to compliance with the requirements of this Development Agreement, and specifically Section 4.3.2 and Section 4.3.3, the Owner is entitled to have and the Conceptual Land Use Plan permits nonresidential uses on identified portions of the Subject Property, as such nonresidential uses are more particularly identified on Exhibit C. Buildings shall meet all design guidelines stated in Design Standards document, Exhibit E.
- 4.2.7. The Conceptual Land Use Plan and Exhibit C, may be modified by mutual agreement by the County and the Owner from time-to-time, as additional information becomes available or as circumstances change, by complying with the procedures applicable to a Development Agreement amendment, as provided by Section 9.5.2 herein.

4.3. ALLOWED USES

- 4.3.1. Exhibit C establishes the list of permitted, conditional, uses for the Subject Property. Subject to compliance with the terms of this Development Agreement and the County's approval of the requisite Land Use Permits, the Owner may establish such permitted, conditional and accessory uses and activities on the Subject Property, or applicable portions thereof. The location and intensity of specific uses within the Project is subject to the applicable review and approval procedures, as identified by Exhibit D.
- 4.3.2. Notwithstanding Section 4.2.4 and Section 4.2.5, the maximum number of RDUs and the total amount of nonresidential uses permitted on the Subject Property shall be limited by the existing or reasonably planned capacity of:

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

- a. Culinary water facilities and services;
- b. Sanitary sewer facilities and services;
- c. Fire protection facilities and services; and
- d. Storm drainage and flood control facilities and services.

4.3.3 The determination of available, or planned, capacity for each item contained in Section 4.3.2 shall be made by the applicable Authority, as defined herein, and in consultation with the Owner and the service provider, as applicable, and based on level of service standards as established by Federal, State, or Local agencies, as applicable.

4.3.4 Except for Section 4.3.2 and Section 4.3.3 and all applicable Federal, State, and Local laws found necessary to protect the public health and safety, nothing in this Development Agreement shall be interpreted to modify or limit the density and use entitlements provided by Section 4.2.4 and Section 4.2.5.

4.4 DEVELOPMENT AGREEMENT, BUILDING CODES, ENGINEERING AND CONSTRUCTION

STANDARDS, AND HEALTH CODES, AS ADOPTED TO APPLY. The review and approval of all Land Use Applications, and the issuance of all Land Use Permits and Building Permits for the Subject Property, or any portion thereof, shall comply with the following:

4.4.1 All Land Use Permits shall comply with all applicable requirements of this Development Agreement and the Management Code, as applicable.

4.4.2 All Building Permits shall comply with all requirements of the County's Building Codes, as applicable, and in effect at the time a Building Permit Application is determined complete, as provided by the Act.

4.4.3 All Land Use Permits shall comply with the requirements of the adopted Management Code, as may be applicable, provided that such requirements do not conflict with the terms and provisions of this Development Agreement, but shall not be interpreted or applied so as to modify or limit the density and use entitlements provided by Section 4.2.5 and Section 4.2.6 herein.

4.4.4 All Land Use Permits shall comply with all County engineering and construction standards, as applicable, and in effect at the time a Land Use Application is determined complete, as provided by the Act.

4.4.5 All Land Use Permits, and all Building Permits, shall comply with all requirements of the Weber-Morgan Health Department, as applicable, and in effect at the time a Land Use Permit and/or Building Permit application is determined complete.

4.4.6 All applicable state and federal laws.

4.5 PROVISION OF REQUIRED INFRASTRUCTURE AND SERVICES, LAYOUT, AND DESIGN STANDARDS.

The County acknowledges that the Conceptual Land Use Plan is conceptual and the Project will be completed in phases. The County and the Owner mutually agree as follows:

4.5.1 The exact location and the accurate legal description of each Development Area shall be determined by the Owner, based on the logical and efficient extension of all necessary infrastructure and services at the time a Land Use Application is determined complete, as provided by the Act, and subject to compliance with the Site Planning and Development Standards and the approval of the County in connection with the review of the applicable

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Land Use Application. The overall phasing for the Project may be modified based on market conditions and other economic factors, as well as the logical and efficient extension of infrastructure and services to the Project and each Development Area.

- 4.5.2 The proposed location of the golf course as shown on the Conceptual Land Use Plan (Exhibit B) may be adjusted as necessary to accommodate the development of the golf course and adjacent development areas; provided, however, the foregoing adjustments shall not result in an overall relocation of the golf course within the Project.
- 4.5.3 The Conceptual Land Use Plan (Exhibit B) identifies various open space areas. Concurrent with the applicable Land Use Application approvals and issuance of necessary Land Use Permits, open space areas, including without limitation ski and golf-related parcels, shall, consistent with the Open Space Management Plan, be permanently preserved pursuant to conservation easements, plat notes, deed restrictions or other restrictive covenants that cannot be amended. Land located outside of Development Areas A-G may be platted so as to include protected open space as part of residential subdivision lots that have land within Development Areas A-G. Prior to the sale of any such lot, Owner shall record against such lot a deed restriction: (a) requiring any owner of such lot to adhere to the provisions of the Open Space Management Plan applicable to their lot, as expressly stated in the deed restriction.
- 4.5.4 The Site Planning and Development Standards, contained in Exhibit E, shall apply to the Subject Property and each portion thereof.
- 4.5.5 The Owner and the County agree that a fire prevention plan conforming to the 2018 International Fire Code shall be completed and approved by the County Fire Chief prior to the County's issuance of the first building permit for the Subject Property.
- 4.5.6 The Owner agrees that automatic fire suppression sprinkler systems shall be required in all single-family residential homes, all multi-family residential units and in non-residential buildings exceeding [62,000 square feet]. Consistent with the provisions of the 2018 International Fire Code (IFC) for Commercial Development, Owner and the County agree that: approved access road(s) will be in place prior to the commencement of combustible construction (IFC D104.1); and approved access roads providing two points of ingress and egress to and from the Subject Property will be required prior to the construction of the 200th multiple-family residential unit is permitted on the Subject Property (IFC D106.2). Single-family residential homes with automatic fire suppression sprinkler systems will not require two points of ingress and egress to and from the Subject Property (IFC D107.1).

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SECTION 5: REQUIRED INFRASTRUCTURE, FACILITIES AND SERVICES AND COUNTY AND OWNER RESPONSIBILITIES

5.1. CULINARY WATER FACILITIES AND SERVICES

5.1.1. The County agrees as follows:

- a. To recognize the culinary water provider, established by the Owner, and as provided for by the laws and rules of the State of Utah, as the culinary water service provider for the Subject Property, or any portion thereof (the "Culinary Water Service Provider").
- b. To recognize the Utah Department of Environmental Quality, Division of Drinking Water (hereinafter "DDW") as the Culinary Water Authority, as provided and required by Utah State Code.
- c. To receive from DDW a written approval of the feasibility of the proposed culinary water system including water rights and sources, systems and facilities for pumping, storage, and distribution of culinary water for the Subject Property, or any portion thereof, prior to the approval of a Land Use Application and the issuance of a Land Use Permit.

5.1.2. The Owner agrees as follows:

- a. Prior to the application for the first building permit for a residential or commercial building on the Subject Property, to create the Culinary Water Service Provider, as provided for by the applicable laws and rules of the State of Utah, as the culinary water service provider for the Subject Property.
- b. To be subject to all fees and charges, as may be lawfully established and imposed by the Culinary Water Service Provider.
- c. To comply with the requirements for the construction, installation, operation, and maintenance of all culinary water facilities, as may be required by a County Land Use Authority for the approval of a Land Use Application and the issuance of a Land Use Permit.
- d. To comply with all reasonable and applicable requirements of the County Engineer during the construction and installation of all culinary water infrastructure and facilities.
- e. To comply with all lawful and applicable orders of the State Engineer.
- f. To comply with all applicable Local, State, and Federal laws, rules and regulations for culinary water facilities, services, quality standards and controls, as may be applicable to the Culinary Water Service Provider or the Owner.
- g. If a determination is made by the State Engineer that water usage by uses and activities located on the Subject Property, or any portion thereof, is negatively impacting the water rights of other water users, the Owner and/or Culinary Water Service Provider shall comply with all corrective actions as required by the State Engineer.

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- h. The Owner agrees to indemnify, protect, defend and hold harmless the County from and against any claims arising by or in connection the failure of Owner or the Culinary Water Service Provider to comply with any corrective action required by the State Engineer, and Owner and Culinary Water Service Provider shall be responsible for working with water users to resolve issues related to potential negative impacts caused by Owner or the Culinary Water Service Provider to such water user's existing facilities.

5.2. SANITARY SEWER FACILITIES AND SERVICES

5.2.1. The County agrees as follows:

- a. To recognize the sanitary sewer service provider, established by the Owner, and as provided for by the laws and rules of the State of Utah, as the sanitary sewer service provider for the Subject Property, or any portion thereof (the "Sanitary Sewer Service Provider").
- b. To recognize the Weber-Morgan Health Department and the Utah Department of Environmental Quality ("DEQ") working cooperatively together, as the Sanitary Sewer Authority, as provided and required by the Act.
- c. To receive from the Weber-Morgan Health Department and DEQ working cooperatively together, a written approval of the feasibility of the proposed sanitary sewer system including collection and treatment for the Subject Property, or any portion thereof, prior to the approval of a Land Use Application and the issuance of a Land Use Permit.
- d. To allow septic systems, or other onsite sanitary sewer systems, for large remotely located single family residential lots where it is not practically feasible to connect such lots to the central sanitary sewer system, provided such septic or other onsite sanitary sewer systems are constructed in accordance with the approval of the Weber- Morgan Health Department "Onsite Wastewater Treatment Systems Regulation" and other applicable laws and rules of the State of Utah.

5.2.2. The Owner agrees as follows:

- a. Prior to the application for the first building permit for a residential or commercial building on the Subject Property, to create the Sanitary Sewer Service Provider, as provided for by the applicable laws and rules of the State of Utah, as the sanitary sewer service provider for the Subject Property.
- b. To be subject to all fees and charges, as may be lawfully established and imposed by the sanitary sewer provider.
- c. To comply with the requirements for the construction, installation, operation, and maintenance of all sanitary sewer facilities, as may be required by a County Land Use Authority for the approval of a Land Use Application and the issuance of a Land Use Permit.
- d. To comply with all reasonable and applicable requirements of the County Engineer or Weber-Morgan Health Department during the construction and installation of all sanitary sewer infrastructure and facilities.
- e. To comply with all lawful and applicable orders of DEQ.

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- f. To comply with the Weber-Morgan Health Department "Onsite Wastewater Treatment Systems Regulation" with respect to all onsite sanitary sewer systems, including but not limited to septic systems.
- g. To comply with all applicable Local, State, and Federal laws, rules and regulations for sanitary sewer facilities, services, quality standards and controls, as may be applicable to the Sanitary Sewer Service Provider or the Owner.

5.3. FIRE PROTECTION FACILITIES AND SERVICES

5.3.1. The County agrees as follows:

- a. To permit the formation of a fire district for the Subject Property as the fire protection and fire suppression service provider for the Subject Property (the "WPR Fire District"), and upon creation of the WPR Fire District, permit the exclusion of the Subject Property from the Morgan County Fire District (the "MC Fire District"), in accordance with applicable laws of the State of Utah.
- b. To recognize the MC Fire District or the WPR Fire District, which ever has jurisdiction, as the Fire Authority, as provided and required by the Act.
- c. To receive from the Fire District having jurisdiction or Fire Warden a written approval of the feasibility of the proposed fire protection and suppression facilities for the Subject Property, or any portion thereof, prior to the approval of a Land Use Application and the issuance of a Land Use Permit.
- d. To allow the Fire District having jurisdiction during the construction and installation of all fire protection and fire suppression services to conduct necessary construction inspections, and to provide any reporting to the County and the Owner.

5.3.2. The Owner agrees as follows:

- a. To promptly and diligently pursue to completion the formation of the WPR Fire District in accordance with applicable laws of the State of Utah.
- b. To be subject to all fees and charges, as may be lawfully established and imposed by the Fire District having jurisdiction.
- c. To provide to the WPR Fire District, MC Fire District or Fire Warden for review, and approval as necessary, all fire protection and mitigation plans as may be required by the Fire District having jurisdiction.
- d. To comply with the requirements for the construction, installation, operation, and maintenance of all fire protection and suppression facilities, as may be required by a County Land Use Authority for the approval of a Land Use Application and the issuance of a Land Use Permit.
- e. To comply with all reasonable and applicable requirements of the Fire District having jurisdiction or Fire Warden and Culinary Water Authority during the construction and installation of all fire protection and suppression facilities.
- f. To comply with all lawful and applicable orders of the State Fire Marshall.
- g. To comply with all applicable Local, State, and Federal laws, rules and regulations for fire protection and fire suppression facilities, services, quality standards and controls, as may be applicable to the Owner.
- h. Exercise reasonable effort to cause the WPR Fire District to enter into an inter-local

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agreement between the MC Fire District and Mountain Green Fire Districts.

5.4. EMERGENCY MEDICAL SERVICES AND FACILITIES

5.4.1. The County agrees as follows:

- a. To recognize the Morgan County Emergency Services/Ambulance Department as the emergency medical services authority and provider for the Subject Property.
- b. To receive from the Morgan County Emergency Services/Ambulance Department the review and written recommendations for emergency medical service and facilities for the Subject Property, or any portion thereof, prior to the approval of a Land Use Application and the issuance of a Land Use Permit.

5.4.2. The Owner agrees as follows:

- a. To be subject to all fees and charges, as may be lawfully established and imposed by the Morgan County Emergency Services/Ambulance Department.
- b. To comply with all applicable Local, State and Federal laws, rules and regulations for emergency medical facilities, services, quality standards and controls, as may be applicable to the Owner except that the Owner shall not be required by any Land Use Application approvals or otherwise to construct emergency medical facilities as a condition or requirement of development of the Project.

5.5. STORM DRAINAGE AND FLOOD CONTROL FACILITIES AND SERVICES

5.5.1. The County agrees as follows:

- a. To recognize the Owner as the storm drainage and flood control provider for the Subject Property.
- b. To identify and recognize the County Floodplain Administrator as the Storm Drainage and Flood Control Authority.
- c. To receive from the County Engineer a written recommendation of the feasibility of the proposed storm drainage and flood control facilities including collection, transportation, detention and retention improvements, and other storm drainage and flood control facilities and services for the Subject Property, or any portion thereof, prior to the approval of a Land Use Application and the issuance of a Land Use Permit.
- d. To require the implementation of a valid Storm Water Pollution Prevention Plan for the Subject Property, or any portion thereof, as prepared by Owner, and approved by the DEQ.

5.5.2. The Owner agrees as follows:

- a. The Project will be subject to all fees and charges, as may be lawfully established and imposed by the County for storm drainage and flood control facilities and services.
- b. To provide the required storm drainage and flood control facilities and services for the Subject Property, or any portion thereof.
- c. To prepare and obtain the approval of DEQ of a valid Storm Water Pollution Prevention Plan for the Subject Property, or any portion thereof, as may be required by DEQ, and to provide a copy of the approved plan to the County Engineer.

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- d. To comply with the applicable requirements for the construction, installation, operation, and maintenance of all storm drainage and flood control facilities, as may be required by a County Land Use Authority for the approval of a Land Use Application and the issuance of a Land Use Permit.
- e. To comply with all reasonable and applicable requirements of the County Engineer during the construction and installation of all storm drainage and flood control facilities.
- f. To comply with all lawful and applicable orders of DEQ.
- g. To comply with all applicable Local, State, and Federal laws, rules and regulations for storm drainage and flood control facilities, services, quality standards and controls, as may be applicable to the Owner.

5.6 ROADS, STREETS, AND APPURTENANT FACILITIES PROPOSED TO BE OWNED, MANAGED, AND MAINTAINED BY THE COUNTY. The roads, streets and appurtenant facilities on the Subject Property will be privately owned, managed and maintained. Various existing public roads, streets, and appurtenant facilities that are located outside of the Subject Property that are necessary for the development of the Project will be owned, managed and maintained by the County.

5.7 NON-PUBLIC RIGHTS-OF-WAY INCLUDING ROADS, STREETS, AND APPURTENANT FACILITIES. The Owner will construct private and other non-public roads, streets, and appurtenant facilities within the Project. For such non-public roads, streets, and appurtenant facilities, the County and the Owner agree as follows:

- 5.7.1 Such roads, streets, and appurtenant facilities shall be private roads, streets, and appurtenant facilities and shall remain owned and controlled by the Owner, an appropriate district or a private body organized by the Owner (e.g., an association of property owners with authority to levy assessments against its members for operational costs), with all obligations for the maintenance, repair and replacement of such private roads, streets, and appurtenant facilities, including snow removal, remaining with the Owner, such district or private body organized by the Owner.
- 5.7.2 Emergency access easements will be established over private roads and streets for access by law enforcement, fire and other emergency services. Entrances and exits to and from the Subject Property may be, at Owner's discretion, secured by gates, guard houses or other means, provided that reasonable accommodations are made so that entrances, exits and private roads within the Subject Property are accessible to emergency service vehicles.
- 5.7.3 Neither the Utah Department of Transportation ("UDOT") nor the County shall have any obligations related to any private roads, streets, roadway side swales or drainages and appurtenant facilities, now or in the future, located on the Subject Property, or any portion thereof. Non-public roads and streets shall be constructed in compliance with the applicable Morgan County road construction standards and specifications applicable to private roads and streets.

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- 5.7.4 To recognize all established legal public rights-of-way and public rights of access and all other legal accesses over the Subject Property to public or private properties adjacent to the Subject Property, or any portion thereof.

5.8 TRAILS.

5.8.1 PRIVATE TRAILS

- a. Consistent with the vision and goals of the Owner to create a private residential community, there will be no public access trails within the Subject Property. Private trails shall remain owned and controlled by the Owner, or other private body organized by the Owner, with all obligations for the maintenance, repair and replacement of such private trails remaining with the Owner, or other private body organized by the Owner.
- b. The County shall have no obligations related to any private trail, now or in the future, located on the Subject Property, or any portion thereof.

5.9 OPEN SPACE. Consistent with the vision and goals of the Owner to create a private residential community, an important element of the Conceptual Land Use Plan is the preservation of significant Open Space areas. The Owner has agreed that approximately 8,500 acres of the Subject Property will be preserved as Open Space, as conceptually identified on the Conceptual Land Use Plan, which includes ski terrain, platted or unplatted open space parcels, and portions of platted lots that include open space that is protected by plat notes or restrictive covenants that cannot be amended. Other areas will be preserved for Open Space uses including trails and to preserve the natural landscapes occurring on the Subject Property.

5.9.1 Owner will prepare and submit to the Planning and Development Services Department Director, for review and comment but without requiring official County action an Open Space Management Plan prior to or contemporaneous with the first subdivision application for the Subject Property, other than a subdivision application for the main access road for the Subject Property. The Open Space Management Plan will outline Owner's plan for: forest management, noxious weed management, wildlife habitat management, threatened and endangered species protocols and protections, stream crossing best practices and standards, stream and riparian buffers, etc. The Open Space Management Plan will be created and implemented so as to ensure that Open Space is properly protected. Owner will work closely with the Utah Division of Wildlife Resources to determine their requirements in drafting the plan.

5.9.2 To achieve the goals of the Owner to create a private residential community that includes providing areas for active and passive recreational activities, the County and the Owner agree that Open Space areas, as identified by the Conceptual Land Use Plan (Exhibit B) shall be limited to the following uses:

- Conservation of land in its natural state.
- Passive uses, including but not limited to, sensitive area protection, wildlife habitat, and view protection.
- Active recreational uses, including but not limited to, ski terrain, golf course, playing

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- fields, parks and trails.
- Storm water detention and retention areas.
- Above and below grade utility service facilities and easements.
- Wastewater treatment and water supply facilities.
- Roads, streets, and appurtenant facilities, approved as part of a Land Use Application approval.
- Any other use identified as a permitted or conditional use for Open Space areas on Exhibit C.

5.10 WILDLIFE AND WILDLIFE HABITAT PROTECTION

5.10.1 The County agrees to recognize the State of Utah Department of Natural Resources, Division of Wildlife (hereinafter "DWR") as the wildlife and wildlife habitat protection authority for the Subject Property.

5.10.2 The Owner agrees as follows:

- a. To recognize all wildlife habitat protection areas as may be identified by DWR.
- b. To comply with all applicable Local, State, and Federal laws, rules, and regulations for wildlife and wildlife habitat protection as may be applicable to the Subject Property.

5.11 CULTURAL RESOURCES

Owner agrees that its development of the Subject Property will be in compliance with all policies, regulations and processes required by the Utah State Historic Preservation Office (SHPO), subject to Section 106 of the National Preservation Act of 1966 (NHPA), and Utah's cultural resource law under Utah Code Section 9-8-404.

5.12 WATER QUALITY PROTECTION

5.12.1 The County agrees as follows:

- a. To recognize DEQ as the water quality protection authority for the Subject Property, or any portion thereof.
- b. To receive from DEQ any recommendations for water quality protection for the Subject Property, or any portion thereof, prior to the approval of a Land Use Application and the issuance of a Land Use Permit.

5.12.2 The Owner agrees as follows:

- a. To comply with the applicable requirements for water quality protection as may be required by a County Land Use Authority for the approval of a Land Use Application and the issuance of a Land Use Permit.
- b. To take all necessary water quality protection actions, as may be required by DEQ.
- c. To adopt all necessary water quality protection best management practices, as applicable, for the Subject Property, or any portion thereof.
- d. To comply with all applicable Local, State, and Federal laws, rules, and regulations for water quality protection as may be applicable to the Subject Property.

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5.13 OTHER REQUIRED ON-SITE AND OFF-SITE FACILITIES AND SERVICES

5.13.1 The County and the Owner mutually agree as follows:

- a. The Owner shall provide written evidence to the County that all other facilities and services required to serve the Subject Property, or any portion or phase thereof, including, but not limited to, solid waste disposal, off-site emergency medical facilities and services, mail, power and natural gas will be provided and available at the required capacities prior to the approval of a Land Use Application and the issuance of a Land Use Permit.
- b. The Owner, or applicable service provider, shall provide all other required facilities and services to the Subject Property, or any portion thereof, at no cost to the County.
 - As allowed by the provider, and as applicable, all other facilities and services shall be installed and constructed underground within road and street rights-of-way or legally established easements, and in conformance with all standards, specifications and regulations agreed to by the facility or service provider.
 - If located within a road or street right-of-way, the installation and construction of all other facilities and services shall be completed prior to final road and street construction, as feasible.
 - All required off-site facilities and services required to serve the Subject Property, or any portion thereof, shall be provided by the Owner or service provider, at the capacities required to serve the Subject Property, or any portion thereof, and in compliance with all applicable standards and specifications of all Local, State and Federal laws, rules, and regulations, as may be applicable.
 - The Owner shall have the right to restrict or limit non-emergency public access to the Project and shall have the right to provide private security for the Project.
 - Private ski patrol services may be provided for the Project.
- c. The Owner agrees to fence out livestock from all areas of development on the Subject Property where the Owner reasonably determines that such livestock will present a risk of property damage or bodily injury, including all residential and commercial subdivisions.

SECTION 6: BEST MANAGEMENT PRACTICES

The Owner agrees to apply best management practices to all uses and activities occurring on the Subject Property, and any portion thereof, including but not limited to, the following:

- 6.1. **Geologic Hazards.** The Owner agrees to comply with all applicable requirements of the County related to geologic issues and to establish and to require geologic best management practices, as may be identified by the County, the Owner, or any State or Federal agency for the Subject Property, or any portion thereof including, but not limited to, conducting site specific geologic hazard studies.
- 6.2. **Soil Protections and Erosion Control.** The Owner agrees to establish and require soils and erosion control best management practices, as may be identified by the County, the Owner, or any State or Federal agency for the Subject Property, or any portion thereof.
- 6.3. **Avalanche Areas.** While there are no known avalanche areas affecting the Development Areas per the Conceptual Land Use Plan, the Owner and the County agree to cooperate to establish and implement reasonable avalanche prevention and protection best management practices for the Project, which are necessary and consistent with applicable Local, State, and/or Federal laws.
- 6.4. **Fire Protection During Construction.** The risk of wildfire varies depending on local fuels and weather. Owner will engage in best management practices during construction to prevent sparking a fire. Once combustible materials are on-site, fire prevention will include the use of water truck(s) or approved water supply, fire suppression equipment, personnel trained for fire watch suppression and/or other tools, equipment and resources.
- 6.5. **Vegetation Protection.** The Owner agrees to establish and require vegetation best management practices, as may be identified by the County, the Owner, or any State or Federal agency for the Subject Property, or any portion thereof.
- 6.6. **Water Quality Protection.** The Owner agrees to establish surface and ground water quality protections, as may be identified by the County, the Owner, or any State or Federal agency for the Subject Property, or any portion thereof.
- 6.7. **Air Quality Protection.** The Owner agrees to establish and require air quality protection practices, as may be identified by the County, the Owner, or any State or Federal agency for the Subject Property, or any portion thereof.
- 6.8. **Street Lighting.** The Owner may, in its discretion and at Owner's or a service provider's expense, install appropriate street and pedestrian lighting within the Project so long as such lighting complies with the intent of the International Dark Sky standards. Any such street lighting shall

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remain the responsibility of the Owner, or other service provider, for operation and maintenance, for the Subject Property, or any portion thereof.

- 6.9. Protection of Integrity of Roads, Street, and Appurtenant Facilities. Construction traffic relating to the Owner's development activities on the Subject Property may cause accelerated wear and tear to that portion of Morgan Valley Drive running from the I-84 offramp to the access point of the Subject Property at the Whitear easement (the "Morgan Valley Drive Access"). The Owner will contribute equitably to the cost of one resurfacing of the Morgan Valley Drive Access, at a time reasonably determined by the County and the Owner. The Owner's share of such costs shall be determined by traffic counts on the Morgan Valley Drive Access by the Owner and its contractors during a representative period in relation to the total traffic counts on the Morgan Valley Drive Access during such period. As a condition to the approval of the first subdivision plat for any portion of the Subject Property the County shall have the right to require the Owner to post a bond or other security reasonably acceptable to the County, in an amount that is a reasonable estimate of the Owner's share of the cost such resurfacing.

SECTION 7: FEES

- 7.1. **Wasatch Peaks Ranch Project Improvement Fee.** The Owner may establish a reinvestment fee covenant that obligates a future buyer or seller of real property within the Subject Property to pay a common interest association, upon and as a result of a transfer of such real property, a fee that is dedicated to benefitting the Subject Property. Any such reinvestment fee covenant shall be established in compliance with Section 57-1-46 of the Utah Code. Such fee is proposed by the Owner for the purposes of providing and maintaining certain resort facilities and other project improvements located within the Subject Property boundary and for other purposes that benefit the Project as allowed by Utah law. The establishment of any reinvestment fee covenant by the Owner does not obligate the County in any way and shall be established by the Owner without exercising any authorities of the County.
- 7.2. **Impact or Similar Fees.** During the term of this Development Agreement, the County will not impose any new impact fees, system development fees, facilities fees, or similar fees or assessments (collectively "Fees") on the Subject Property or increase any such Fees which are in effect as of the date hereof and applicable to the Subject Property unless such Fees are generally applicable on a County-wide basis to all use classifications of a similar nature within the County (for example, applicable to all residential uses within the County) and do not apply (or have the impact of applying) exclusively or primarily to the Subject Property or discriminate against the Subject Property or uses within the Project, unless the Owner agrees in writing to such new or increased Fee as it applies to the Subject Property.
- 7.3 **Service Fees.** WPR recognizes that the scope of the Project will place added pressure on County services provided in reviewing and processing development applications, permits and development activity. The Project will also generate significant new revenue to the County in the form of application and permit fees. To the extent that such fees are insufficient to cover the added costs of processing the development of WPR, the Owner is willing to work with the County to determine an appropriate means of addressing any shortfall, so long as the Owner is not being asked to pay for costs relating to other development or other County activities unrelated to the Subject Property.

SECTION 8: SPECIAL ASSESSMENT AREAS, LIMITED PURPOSE GOVERNMENT ENTITIES, INTERLOCAL AGREEMENTS AND COMMUNITY AND ECONOMIC DEVELOPMENT AREAS

- 8.1. Other Limited Purpose Governmental Entities.** Subject to the completion of necessary feasibility studies, as mutually agreed by the County and the Owner and conducted by an independent consultant, with expertise, jointly selected by the County and the Owner and funded by the Owner, that identifies the benefits and obligations to the County and the Owner, the County agrees:
- 8.1.1.** To discuss and cooperate with the Owner regarding establishing one or more special service districts, improvement districts, service areas, or other limited purpose governmental entity, as provided and authorized by Utah law, for the purposes of providing required services to the Subject Property, or portions thereof.
 - 8.1.2.** Such special service districts, improvement districts, service areas, or other limited purpose governmental entity may be established with respect to the Subject Property, and other nearby property that the owner(s) thereof elect to submit to such district or other governmental entity, including, but not limited to culinary water, sanitary sewer, storm drainage and flood control, parks and recreation, solid waste, transportation facilities, street maintenance and lighting, emergency medical, fire protection and public safety; provided, however, any and all such service districts or areas shall not create any financial liabilities for the County, except as may be expressly authorized by the County at the time of their creation.
 - 8.1.3.** To reserve its rights under applicable Utah law to decide whether to exercise its authority to establish formally any special service districts, improvement districts, service areas, or other limited purpose governmental entity for the Subject Property, or any portion thereof, which rights shall not be unreasonably exercised.
 - 8.1.4.** The County agrees not to protest the establishment of any special service district, improvement district, service area, or other limited purpose governmental entity, that includes the Subject Property and other property included with the consent of the owner(s) thereof, determined necessary by the Owner, and directed to the benefit of the Subject Property so long as such district or area not create any financial liabilities for the County, except as may be expressly authorized by the County.
- 8.2 Public Infrastructure District.** Notwithstanding anything to the contrary on this Section 8, the County and Owner specifically agree and acknowledge that the Owner shall be entitled to seek the creation of one or more Public Infrastructure Districts permitted pursuant to Utah statutes, particularly Chapter 2a, Part 12 of the Public Infrastructure District Act, (the "PID Act") as determined by Owner, in order to implement and facilitate the financing, construction and operation of public infrastructure for the Subject Property. Subject to the provisions of the PID Act, the County and Owner agree to continuing cooperation in connection with the formation

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and operation of Public Infrastructure Districts in order to accommodate development circumstances, to fund, construct and/or provide public facilities and services set forth in this Development Agreement or otherwise required in connection with the development of Wasatch Peaks Ranch, including but not limited to streets, water, sewer and drainage, within or otherwise serving all or a portion of the Subject Property. The County agrees that it will exercise any rights reserved to the County under the PID Act in connection with the establishment or operation of any Public Infrastructure District for the Subject Property in accordance with the requirements of the PID Act, or any portion thereof. The County agrees that any obligation set forth in this Development Agreement for the financing and construction of public improvements which are required to serve the Subject Property, which will be owned by the County, a Public Infrastructure District or other limited purpose governmental entity may be undertaken, performed and completed by a Public Infrastructure District, subject to the requirements of the PID Act and the approval of the County consistent therewith. Any Public Infrastructure District created for the Subject Property, or any portion thereof, shall not create any financial liabilities for the County.

8.3 Interlocal Agreements. The County agrees to reasonably cooperate with the Owner regarding the establishment of one or more interlocal cooperation agreements, as provided and authorized by Utah law, for the purposes of providing cooperation and coordination by and between any political subdivision of the State of Utah, special assessment areas, special service districts, improvement districts, limited purpose local government entities, provided that such interlocal agreements do not create any financial liabilities for the County unless the County is a party to the interlocal cooperation agreement and the County expressly approves and authorizes such financial liabilities. The County expressly reserves its rights under applicable Utah law to decide whether to exercise its authorities to enter into any interlocal cooperation agreements, which rights shall not be unreasonably exercised.

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

SECTION 9: GENERAL TERMS AND CONDITIONS

9.1. INCORPORATION OF EXHIBITS

9.1.1. All Exhibits, as attached hereto, are incorporated into this Development Agreement by this reference.

9.2. AUTHORITY

9.2.1. The Owner warrants and represents that the Owner owns or controls all right, title and interest in and to all property located within the Subject Property and that no portion of said property, or any right, title, or interest therein has been sold, assigned, or otherwise transferred to any other entity or individual.

9.2.2. The Owner warrants and represents that to the best of its knowledge no portion of the property located within the Subject Property is subject to any lawsuit or pending legal claim of any kind.

9.3. MUTUAL DRAFTING.

9.3.1. Both the County and the Owner have participated in drafting this Development Agreement and therefore no provision of this Development Agreement shall be construed for or against the other based on whether the County or the Owner drafted any particular portion of this Agreement.

9.4. GOVERNING LAW AND COURT REVIEW

9.4.1. This Development Agreement shall be governed by and construed in accordance with the laws of the County and the State of Utah.

9.4.2. The County and the Owner may enforce the terms of this Development Agreement as allowed by State and Federal laws.

9.4.3. An interpretation or evaluation of any provision of this Development Agreement by a court of competent jurisdiction shall be made by considering this Development Agreement in its entirety. No provision shall be interpreted or evaluated separately or in isolation from all other provisions of this Development Agreement for the purposes of determining compliance with applicable State and Federal law.

9.5. ENTIRE AGREEMENT AND AMENDMENT

9.5.1. This Development Agreement, together with all Exhibits hereto, constitutes the entire Development Agreement. No representations or warranties made by the County or the Owner, or their officers, employees or agents shall be binding unless contained in this agreement or subsequent amendments hereto.

9.5.2. Development Agreement Amendments; Major vs. Minor Amendments.

- a. Major Amendment. The term "Major Amendment" means any change to this Development Agreement that: (i) constitutes an amendment to the County General Plan, (ii) changes the zoning designation of the Subject Property, (iii) modifies the Table of Permitted Uses, or (iv) modifies the boundaries of a

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

designated Development Area and results in a net addition of more than 100 acres to such Development Area. Minor Amendment. The term "Minor Amendment" means any amendment to this Development Agreement that does not constitute a Major Amendment.

- b. The County and Owner agree that any Major Amendment to this Development Agreement, including any Exhibits hereto, shall only be made by following the procedures and notice required for an amendment to a County Land Use Ordinance, as required by the Ordinances of the County.
- c. The County and Owner agree that any Minor Amendment to this Development Agreement, including any Exhibits hereto, may be submitted to the Land Use Authority designated in Section 9.7.2 for review and approval, without the need for a public hearing. Upon approval of any Minor Amendment by the Land Use Authority, the amendment shall be recorded in the Office of the Morgan County Recorder.

9.6. RESERVED POLICE AND LEGISLATIVE POWERS

9.6.1. Subject to Section 9.13, Nothing in this Agreement shall limit the future exercise of the police power by the County in enacting zoning, subdivision, development, transportation, environmental, open space, and related land use plans, policies, ordinances and regulations after the date of this Agreement. Notwithstanding the retained power of the County to enact such legislation under its police power, such legislation shall not modify the Developers' vested right as set forth herein unless facts and circumstances are present which meet the exceptions to the vested rights doctrine as set forth in Western Land Equities, Inc. v. City of Logan, 617 P.2d 388 (Utah, 1988), its progeny, or any other exception to the doctrine of vested rights recognized under state or federal.

9.6.2. Nothing contained in this Development Agreement constitutes a waiver of any governmental immunity and protections afforded the County by State or Federal law.

9.7. ADMINISTRATIVE INTERPRETATIONS AND ACTIONS

9.7.1. The singular includes the plural; the male gender includes the female; "shall" is mandatory, "may" is permissive.

9.7.2. In the event of a question of interpretation of any provision or requirement of this Development Agreement, the Planning and Development Services Department Director or other County staff member or administrative body designated by ordinance to interpret land use ordinances generally in the County, is hereby designated as the Land Use Authority to consider the provision or requirement that is the subject of interpretation. The Land Use Authority, after full and reasonable consideration, shall issue an opinion as to the correct interpretation.

9.7.3. The Planning and Development Services Department Director, is identified as the County representative with the responsibility to interpret and administer this Development Agreement on behalf of the County. The Planning and Development Services Department Director, or the Director's designee, is authorized to take the administrative actions necessary to efficiently carry out and implement this Development Agreement on behalf of the County.

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9.7.4. The administrative actions of the Planning and Development Services Department Director, provided by Section 9.7.4 shall not be interpreted or have the effect of constituting an amendment to this Development Agreement.

9.8. DEVELOPMENT AGREEMENT TO RUN WITH THE LAND

9.8.1. Within thirty (30) business days of approval by the County Council this Development Agreement shall be recorded in the Office of the Morgan County Recorder against the Subject Property, as described in Exhibit A, and shall run with the land, and shall be binding on the Owner, and all future successors and assigns of the Owner in any portion of the Subject Property. The benefits of this Development Agreement shall inure to successors-in-interest and subsequent owners, subject to transfer and assignment in accordance with Section 9.9.

9.9. ASSIGNMENT

9.9.1. The Owner shall not assign this Development Agreement, or any provisions, terms, or conditions hereto to another party, individual, or entity without assigning the rights as well as the obligations, and without the prior written consent of the County Council, which shall not be unreasonably withheld or delayed. Said assignment shall be subject to review by the County, which is intended to provide assurances that the assignee possesses sufficient ability to assume the provisions, terms, and conditions of this Development Agreement. Any proposed assignee who possesses the financial wherewithal and sufficient ability to assume and carry out the provisions, terms and conditions of this Development Agreement shall be a permitted assignee, and the assigning Owner shall be released of all duties and obligations under this Development Agreement relating to that portion of the Subject Property transferred to an approved assignee. . If the County reasonably determines that the assignee does not have the financial wherewithal or sufficient ability to assume and carry out the provisions, terms and conditions of this Development Agreement, a portion of this Development Agreement may still be assigned to such assignee but the Owner shall remain responsible for the performance of all obligations of this Development Agreement. Consent of the County Council shall not be required if such assignment is to a corporate affiliate of Owner. . No sale to the purchaser of an individual lot or a residential dwelling unit on the Subject Property shall require the consent of the County, and no sale to the developer of multiple lots or other development parcels or areas on the Subject Property shall require the County's consent if the selling/assigning Owner elects to remain liable for the performance of the Owner's duties and obligations hereunder with respect to the property being transferred.

9.9.2. Consistent with Section 9.9.1 the Owner shall not sell, transfer, or assign the Subject Property, or any portion thereof, to another party, individual or entity (other than a transfer to a purchaser of a residential lot with the Subject Property for the purpose of constructing a residential dwelling unit thereon or to the purchaser of a residential dwelling unit within the Subject Property) without the transfer of the uses and densities allowed, and all improvement, open space and trails obligations within the Subject Property, or any portion thereof. At the time of approval of the assignment to the new owner the Owner shall provide to the County a notice showing the new ownership, the

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

uses and densities, infrastructure, open spaces, trails and all other services and obligations being transferred, and the uses and densities remaining with the Owner.

- 9.9.3. If the Subject Property, or any portion thereof, is assigned to another party, individual or entity the Owner agrees that such assignment shall identify in writing the Assignee is subject to all provisions of this Development Agreement.
- 9.9.4. Notwithstanding Subsections 9.9.1, 9.9.2 and Section 9.9.3 this Section shall not prohibit the Owner from borrowing against the Subject Property, or any portion thereof.
- 9.9.5. A lender, who may acquire the Subject Property, or any portion thereof, shall constitute an approved assignee, without a requirement to obtain the specific consent or approval of the County, but such assignee shall be subject to all other provisions of this Development Agreement applicable to the property being acquired.

9.10. PERFORMANCE AND REMEDIES

- 9.10.1. Performance by the County and the Owner of their respective duties, as identified and required herein, is the essence of this Development Agreement. The County and the Owner agree to perform their respective duties with all due diligence in a timely manner. In the performance of this Development Agreement, the County and the Owner agree that each will act in good faith and will not act unreasonably, arbitrarily, capriciously, or unreasonably withhold, condition, or delay any approval or act required or necessary to the good faith performance of this Development Agreement. The County will use reasonable efforts to expedite all of the County development regulatory processes to the extent necessary for the timely development and construction of the improvements within the Subject Property, including but not limited to processes, procedures and inspections for construction and final acceptance of public improvements, and the review and processing of each land use application, land use permit and building permit applications within a reasonable period of time and without undue delay. If and to the extent that the Management Code establishes time periods applicable to the County's review and processing of land use applications, land use permits and building permit applications, the County shall comply with such time periods.
- 9.10.2. In the event of a default of any duty by the County or the Owner under the terms of this Development Agreement, then, any non-defaulting party may deliver to the defaulting party notice of such default at the address specified herein. Thereafter, the defaulting party shall have thirty (30) days from and after receipt of such notice to cure such default. If such default cannot be cured within such thirty (30) day period the defaulting party, within such thirty (30) day period, may give notice that it is actively and diligently pursuing such cure, and the defaulting party shall have a reasonable period of time following the end of such thirty (30) day period to cure such default, provided such defaulting party is at all times within such additional time period actively, diligently, and in good faith, pursuing such cure. If such default is not cured as provided herein, the non-defaulting party shall have the right, without prejudice, to performance, or any other rights or remedies that may be available under County, State or Federal laws except that no party shall have the right to recover special, consequential, punitive or exemplary damages.
- 9.10.3. In the spirit of the timely and efficient resolution of any default of any duty by the County or the Owner, required by this Development Agreement, the County and the

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Owner mutually agree to meet and confer to discuss the default and, if possible, reach a mutually agreeable default resolution before exercising their respective rights, as provided by Section 9.10. 2.

9.11. FORCE MAJEURE

9.11.1. If the County or the Owner is delayed in the performance of any of its obligations under this Development Agreement because of an event beyond the control of the County or the Owner, the time for performance of any obligations shall be extended for the period lost because of the event.

9.12. APPEALS

9.12.1. In the event of an appeal being brought related to the legislative approval of this Development Agreement the procedures for the Appeal of a legislative decision of the County Council shall apply.

9.12.2. In the event of an appeal being brought related to any matter of interpretation, administration, or any other decision related to this Development Agreement, the procedures, as established and provided by the County for the Appeal of an administrative decision of a County Land Use Authority, as applicable, shall apply.

9.13. TERM OF DEVELOPMENT AGREEMENT

9.13.1. This Development Agreement shall have an initial term of twenty-five (25) years from the date of recordation. This Development Agreement will be extended for an additional period of fifteen (15) years provided that development activities on the Subject Property pursuant to the Conceptual Land Use Plan, as may be amended, is ongoing and has not been completed and the Owner is not then in material default of the terms and provision of this Development Agreement.

9.13.2. This Development Agreement will terminate with a finding by the County Council that all obligations and responsibilities of this Development Agreement have been completed. The Owner shall provide written notice to the County that the Conceptual Land Use Plan is complete. Upon a finding by the County Council that the Conceptual Land Use Plan is complete, and all obligations and responsibilities have been completed, the Morgan County Clerk shall record a notice in the Office of the Morgan County Recorder that this Development Agreement has been fully performed and has been terminated.

9.13.3. Provisions of this Development Agreement that relate to the continued operation of the Subject Property, or portion thereof, and the Conceptual Land Use Plan shall continue and shall survive after termination.

9.13.4. Development of the Project requires Owner to make substantial upfront capital investment in facilities, including the access roads, streets, water, sewer, drainage and recreational facilities, as well as other infrastructure improvements required by this Development Agreement. Given the scope and scale of the Project, much of such infrastructure will serve multiple phases of the development and the recoupment of such investment by Owner will occur incrementally as development of the Project progresses. The Owner's investment and commitment to develop the Project is dependent on

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

assurance that there is an extended period of time in which the Project may be developed and marketed as currently envisioned, and that material modifications to the Conceptual Land Use Plan will not be unilaterally imposed by the County. During the term of this Development Agreement, neither the Conceptual Land Use Plan or this Development Agreement shall be subject to any limitation or restriction on the number of building permits that may be issued for the construction of residential dwelling units in any calendar year, and the County shall not take any zoning or land use action which would alter, impair, prevent, diminish, impose a moratorium on development, or otherwise delay development or the use of the Subject Property in accordance with the Conceptual Land Use Plan, nor shall the County unilaterally amend the Conceptual Land Use Plan, except the following actions shall not be precluded during the term of this Development Agreement ("Permitted Actions"): (i) the enforcement and application of the County regulations in effect as of the date of this Development Agreement except to the extent that this Development Agreement constitutes an amendment of such County regulations; (ii) the enforcement and application of County regulations in effect at any point in time during the term of this Development Agreement which are generally applicable to the Subject Property and all other residential and mixed use property within the County, development, or construction within the County, except as expressly provided in this Development Agreement or in the Conceptual Land Use Plan; (iii) the enforcement and application of County regulations to which Owner consents; or (iv) the imposition of state or federal regulations which are beyond the control of the County as reasonably determined by the County. Prior to expiration of the term of this Agreement, Owner shall have the right to undertake and complete the development and use of the Subject Property in accordance with this Development Agreement and the Conceptual Land Use Plan and without any maximum square footage limitation on the floor area of single-family residential dwellings.

9.14. SEVERABILITY

9.14.1. If any part or provision of this Development Agreement is held to be unconstitutional, invalid or unenforceable by a court of competent jurisdiction, such judgment shall not affect the other parts or provisions of this Development Agreement, all of which shall in full force and effect.

9.15. NO THIRD-PARTY RIGHTS

9.15.1. Nothing contained herein shall be deemed or construed to create any third-party rights.

9.16. REGULAR COUNTY - OWNER COMMUNICATIONS

9.16.1. At least once per year during the term of this Development Agreement, and at other times as determined necessary by the County Council and/or the Owner, an authorized representative of the Owner shall provide the County Council, at a regular meeting, an "in-person" Wasatch Peaks Ranch project progress and construction update.

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

9.17. NOTICE

- 9.17.1. Reasonable advance notice shall be provided to the Owner for all Public Hearings and all Public Meetings of the County and related to any provision of this Development Agreement.
- 9.17.2. All notices required by this Development Agreement shall, in addition to any other means of transmission, be given in writing by certified mail or nationally recognized overnight courier service to the following addresses:
 - a. To the County: Chair, Morgan County Council, c/o Morgan County Clerk 48 West Young Street, Morgan, Utah, 84050.
 - b. To the Owner: Wasatch Peaks Ranch, LLC, 136 E. South Temple, Suite 2425, Salt Lake City, Utah 84111.
- 9.17.3. A Notice shall be effective on the fifth business day after the notice is postmarked for mailing, postage prepaid, by Certified United States Mail or upon delivery to the intended recipient by nationally recognized courier service. The parties may change addresses for the purposes of receiving notice as required by this Section, by giving written notice in accordance with the provisions of this Section.

9.18. RECORDATION

- 9.18.1. As provided by Section 9.7 this Development Agreement shall be recorded in the Office of the Morgan County Recorder.
- 9.18.2. All Exhibits shall be maintained on file in the Office of the County Clerk and County's Department of Planning and Development Services.
- 9.18.3. Copies of the recorded Development Agreement, and all Exhibits, shall be provided to the Planning and Development Services Director, County Attorney, and Owner.

9.19. ENTIRE AGREEMENT

- 9.19.1. The Development Agreement constitutes the full and complete agreement of and between the County and the Owner. No representations or warranties made by the County or the Owner, or their officers, employees or agents shall be binding unless contained in this Development Agreement or subsequent amendments hereto.

9.20. AUTHORITY TO EXECUTE

- 9.20.1. Each signatory to this Development Agreement represents and warrants that they possess the lawful authority and authorization from their respective entities to execute this Development Agreement.

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

THE PARTIES, BY THEIR AUTHORIZED REPRESENTATIVES, EXECUTE THIS DEVELOPMENT THIS 30
DAY OF Oct., 2019.

COUNTY COUNCIL OF MORGAN COUNTY, STATE OF UTAH

By: Roland Haslam N on behalf of Morgan County Council.

The foregoing instrument as acknowledged before me this 30th day of October, 2019 by
Roland Haslam, Member County Council of Morgan County, State of
Utah.

Gina Grandpre
Notary Public



My commission expires: June 21, 2023

Residing at: Morgan, Utah

ATTEST:

Stacy Metzger
MORGAN COUNTY CLERK

APPROVED AS TO FORM:

James L. Jarvis
MORGAN COUNTY ATTORNEY

WASATCH PEAKS RANCH DEVELOPMENT AGREEMENT

OWNER, Wasatch Peaks Ranch, LLC.

By: [Signature]
AUTHORIZED SIGNATORY

The foregoing instrument as acknowledged before me this 6th day of November, 2019 by Ed Schultz, as Authorized Signatory for Wasatch Peaks Ranch, LLC.

[Signature]
Notary Public



My commission expires: 11-20-2022

Residing at: Toweles County, Utah

Exhibit A: Subject Property Legal Description**PSOMAS**

4179 Riverboat Road, Suite 200
Salt Lake City, Utah 84123
(801) 270-5777

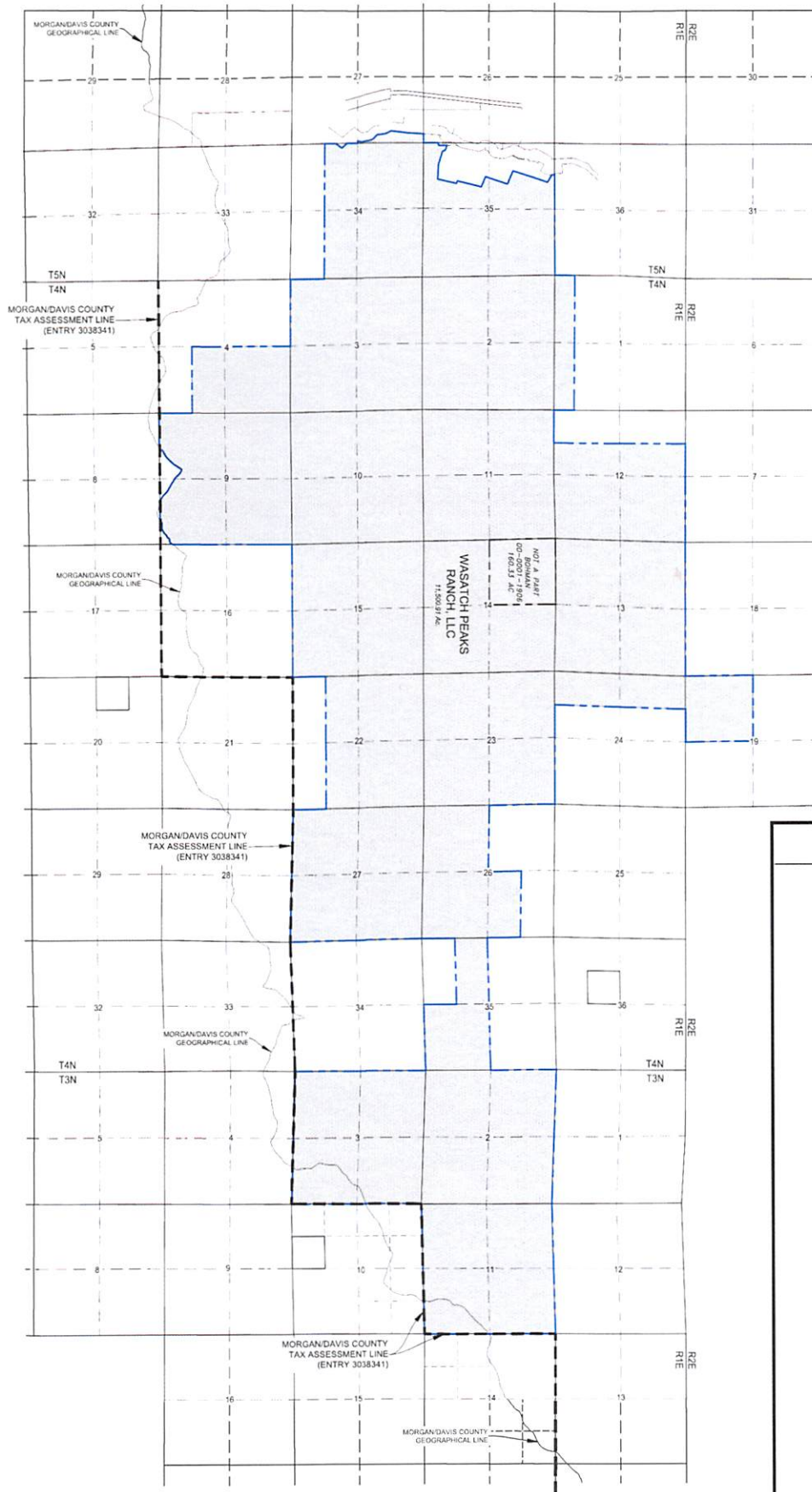
Wasatch Peaks Ranch, LLC
Property South of the Gateway Canal (03/01/2019)

A tract of land located in Sections 27, 34 and 35 of Township 5 North, Range 1 East, Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 22, 23, 24, 26, 27 and 35 of Township 4 North, Range 1 East, the Northwest Quarter of Section 19, Township 4 North Range 2 East and Sections 2, 3 and 11 of Township 3 North, Range 1 East Salt Lake Base and Meridian., Morgan County, Utah, said tract being more particularly described as follows:

Beginning at the Northwest Corner of said Section 35, Township 5 North, Range 1 East, Salt Lake Base and Meridian and running thence, along the north line of said Section 35, South 89°27'09" East 599.96 feet to the land condemned for the Gateway Canal in Book R of deeds, Pages 119 through 122 and the land deeded to Weber Basin Water Conservancy District in Book 292 at Page 1337 and Book 297 at Page 794; thence, along the said Weber Basin Water Conservancy District land and Gateway Canal the following sixteen (16) courses: 1) South 0°02'27" East 100.00 feet; 2) South 89°27'08" East 342.77 feet; 3) South 16°51'46" West 184.70 feet; 4) South 61°03'35" West 146.60 feet; 5) South 17°38'14" West 525.18 feet; 6) South 03°23'01" West 605.82 feet; 7) South 77°11'13" East 777.08 feet; 8) North 19°14'48" East 105.30 feet; 9) South 76°00'27" East 1,000.39 feet; 10) North 23°37'19" East 445.13 feet; 11) South 71°17'20" East 928.88 feet; 12) North 23°28'35" East 561.30 feet; 13) South 71°29'49" East 1,458.42 feet; 14) North 32°17'18" East 347.72 feet; 15) easterly 61.24 feet along the arc of a 680.00 foot non-tangent curve to the left, through a central angle of 5°09'35", (chord bears North 87°39'44" East 61.22 feet), 16) North 85°04'56" East 47.50 feet to the east line of said Section 35, Township 5 North, Range 1 East; thence, along said east line, South 00°05'04" East 4,026.96 feet to the Northwest Corner of said Section 1, Township 4 North, Range 1 East; thence, along said north line, South 89°40'39" East 808.50 feet; thence South 00°27'25" West 5,413.58 feet to the south line of said Section 1; thence, along said south line, North 89°45'46" West 808.49 feet to the Northwest Corner of said Section 12, Township 4 North, Range 1 East; thence, along the west line of said Section 12, South 00°11'58" West 1,320.00 feet to the south line of North Half of the North Half of said Section 12; thence, along said south line, South 89°41'38" East 5,313.91 feet to the east line of said Section 12; thence, along said east line, South 00°11' 22" West 1,326.37 feet to the East Quarter Corner of said Section 12, thence, continuing along said east line, South 00°11'24" West 2,662.32 feet to the Northeast Corner of said Section 13, Township 4 North, Range 1 East; thence, along the east line of said Section 13, South 00°09'33" West 5,360.38 feet to the Northwest Corner of said Section 19, Township 4 North, Range 2 East, thence, along the north line of said Section 19, North 89°27'31" East 2,730.99 to the North Quarter Corner of said Section 19; thence, along the east line of the northwest quarter of said Section 19, South 00°03'37" East 2,637.79 feet to the south line of the northwest quarter of said Section 19; thence, along said south line, South 89°25'07" West 2,739.67 feet to the East Quarter Corner of said Section 24, Township 4 North, Range 1 East; thence, along the east line of said Section 24, North 00°07'41" East 1,319.90 feet to the south line of the north half of the north half of said Section 24; thence, along said south line, North 88°04'34" West 5,279.87 feet

to the east line of said Section 23, Township 4 North, Range 1 East; thence, along said east line, South 00°01'33" West 1,315.89, to the East Quarter Corner of said Section 23; thence, continuing along the east line of said Section 23, South 00°01'33" West 2,669.07 feet to the Southeast Corner of said Section 23; thence, along the south line of said Section 23, South 89°27'47" West 2,638.30 feet to the North Quarter Corner of said Section 26 T4N, R1E; thence, along the east line of the northwest quarter of said Section 26, South 00°58'38" West 2,662.65 feet to the center of said Section 26, Township 4 North, Range 1 East; thence, along the north line of the southeast quarter of said Section 26, North 89°36'45" East 1,324.93 feet to east line of the west half of the southeast quarter of said Section 26; thence, along said east line, South 00°51'17" West 2,665.96 feet to the south line of said Section 26; thence, along said south line, South 89°45'39" West 1,330.56 feet to the South Quarter Corner of said Section 26; thence South 01°13'13" East 5327.16 feet to the South Quarter Corner of said Section 35 T4N, R1E; thence, along the south line of said Section 35, South 89°58'36" East 2634.39 feet to the Northeast Corner of Section 2, T3S, R1E; thence along the east line of said Section 2, South 02°11'27" West 5359.87 feet (*record = South 01°58' West 81.18 chains*), more or less, to the Northeast Corner of Section 11, T3N, R1E; thence, along the east line of said Section 11, South 01°27'28" East 5298.60 feet (*record = South 01°42' East 80.26 chains*), more or less, to the Southeast Corner of said Section 11; thence, along the south line of said Section 11, North 89°44'07" West 5285.28 feet (*record = North 89°57' West 80.08 chains*), more or less, to the Southwest Corner of said Section 11; thence, along the west line of said Section 11, North 01°09'07" West 5295.84 feet (*record = North 01°22' West 80.24 chains*), more or less, to the Southeast Corner of Section 3, T3N, R1E; thence, along the south line of said Section 3, North 89°46'07" West 5244.68 feet (*record = North 89°59' West 79.60 chains*), more or less, to the Southwest Corner of said Section 3; thence, along the west line of said Section 3, North 01°46'18" East 5331.73 feet (*record = North 01°35' East 80.85 chains*), more or less, to the Northwest Corner of said Section 3; thence, along the north line of said Section 3, South 89°51'40" East 2637.73 feet to the North Quarter Corner of said Section 3; thence, continuing along the said north line of Section 3, South 89°53'03" East 2634.50 feet, to the Southwest Corner of Section 35, T4N, R1E; thence, along the west line of said Section 35, North 01°30'19" West 2656.38 feet to the West Quarter Corner of said Section 35; thence, along the north line of the Southwest Quarter of said Section 35, North 89°54'25" East 1324.01 feet, to the west line of the east half of the Northwest Quarter of Section 35; thence, along the said west line, North 01°21'46" West 2659.61 feet, to the south line of Section 26, T4N, R1E; thence, along the said south line, South 89°45'39" West 1330.56 feet to the Southeast Corner of said Section 27, Township 4 North, Range 1 East; thence, along the south line of said Section 27, South 89°00'27" West 2,655.30 feet to the South Quarter Corner of said Section 27; thence, continuing along said south line, South 89°00'27" West 2,655.30 feet to the Southwest Corner of said Section 27; thence, along the west line of said Section 27, North 01°28'49" East 5,314.29 feet to the Northwest Corner of said Section 27; thence, along said north line, North 89°01'14" East 1,321.75 feet to the west line of the east half of the west half of said Section 22, Township 4 North, Range 1 East; thence, along said west line, North 00°05'50" West 5312.13 feet to the south line of said Section 15, Township 4 North, Range 1 East; thence, along the said south line, South 89°02'14" West 1,320.83 feet to the Southwest Corner of said Section 15; thence, along the west line of said Section 15, North 00°05'39" West 5312.52 feet to the Southeast Corner of said Section 9, Township 4 North, Range 1 East; thence, along said south line, North 89°42'37" West 4,824.90 feet to where said south line crosses the top of the mountain; thence, along the top of the mountain the following nineteen (19) courses: 1) North 63°52'18" West 29.02 feet, 2) North 76°43'01" West 39.61 feet, 3) North 61°14'43" West 25.60 feet, 4) North 39°27'22" West 23.03 feet, 5) North 03°40'41" West 47.37 feet, 6) North 22°40'41" West 36.47 feet, 7) North 09°27'25" West 23.48 feet, 8) North 09°44'47" East 48.90 feet, 9) North 45°30'50" West 53.85 feet, 10)

North 54°08'15" West 77.08 feet, 11) North 20°19'51" West 90.11 feet, 12)
 North 50°06'34" West 103.87 feet, 13) North 30°58'31" West 196.36 feet, 14)
 North 10°42'44" West 54.53 feet, 15) North 06°30'04" East 56.90 feet, 16) North 08°14'34" East
 74.77 feet, 17) North 09°49'45" West 80.92 feet, 18) North 27°17'17" West 58.91 feet, 19)
 North 44°32'48" West 55.75 feet to the west line of said Section 9; thence, along said west line,
 North 00°36'55" West 747.66 feet to the afore said top of the mountain; thence, along said top
 of the mountain, the following twelve (12) courses: 1) North 19°00'58" East 119.93 feet, 2)
 North 30°36'05" East 150.40 feet, 3) North 46°35'55" East 224.76 feet, 4) North 29°59'34" East
 306.25 feet, 5) North 30°40'16" East 337.88 feet, 6) North 48°06'58" East 117.76 feet, 7)
 North 43°19'09" East 150.38 feet, 8) North 27°49'42" East 183.94 feet, 9) North 55°32'25" West
 389.50 feet, 10) North 46°31'04" West 380.82 feet, 11) North 30°43'15" West 333.30 feet, 12)
 North 60°14'27" West 157.19 feet to the afore said west line of Section 9, thence, along said
 west line, North 00°36'55" West 1,431.15 feet to the north line of said Section 9; thence, along
 said north line, South 89°57'29" East 1,344.24 feet to the west line of the east half of the
 southwest quarter of said Section 4, Township 4 North, Range 1 East; thence, along said west
 line, North 00°18'57" West 2,658.65 feet to the north line of the southwest quarter of said
 Section 4; thence, along said north line, North 89°47'24" East 1,320.18 feet to the northwest
 quarter of the northeast quarter of said Section 4; thence, along the north line of the said
 northeast quarter of Section 4, North 89°47'24" East 2,667.70 feet to the West Quarter of said
 Section 3, Township 4 North, Range 1 East; thence, along the west line of said Section 3,
 North 00°07'26" East 2,676.19 feet to the Northwest Corner of said Section 3; thence, along the
 north line of said Section 3, North 89°31'45" East 1,362.10 feet to the west line of the east half
 of the west half of said Section 34, Township 5 North, Range 1 East; thence, along the said
 west line, North 00°13'30" East 5,411.31 feet to the north line of said Section 34; thence, along
 said north line, North 89°16'20" East 453.61 feet to the aforesaid land conveyed to Weber Basin
 Water Conservancy District; thence, along said land conveyed to Weber Basin Water
 Conservancy District, the following two (2) courses: 1) South 53°22'40" East 297.66 feet, 2)
 North 49°44'20" East 283.70 feet to the aforesaid north line of Section 34; thence, along said
 north line, North 89°16'20" East 417.40 feet to the South Quarter Corner of said Section 27,
 Township 5 North, Range 1 East; thence, along the west line of the southeast quarter of said
 Section 27, North 00°18'58" East 95.17 feet to the aforesaid land conveyed to Weber Basin
 Water Conservancy District; thence, along said land conveyed to Weber Basin Water
 Conservancy District, the following twelve (12) courses: 1) easterly 236.17 feet along the arc of
 a 350.00 non-tangent radius curve to the left, through a central angle of 38°39'44", (chord bears
 South 79°23'30" East 231.72 feet); 2) North 81°16'38" East 259.80 feet, 3) northeasterly
 232.22 feet along the arc of a 350.00 foot radius curve to the left, through a central angle of
 38°00'57", (chord bears North 62°16'07" East 227.99 feet), 4) North 43°15'38" East 153.09 feet,
 5) northeasterly 35.15 feet along the arc of a 50.00 foot radius curve to the right, through a
 central angle of 40°16'44", (chord bears North 63°24'16" East 34.43 feet), 6)
 North 83°32'38" East 254.70 feet, 7) easterly 116.38 feet along the arc of a 350.00 foot radius
 curve to the left, through a central angle of 19°03'03", (chord bears North 74°01'10" East
 115.84 feet, 8) North 64°29'38" East 189.48 feet, 9) easterly 28.15 feet along the arc of a 50.00
 foot radius curve to the right, through a central angle of 32°15'27", (chord bears
 North 80°37'55" East 27.78 feet, 10) South 83°14'22" East 676.10 feet, 11) easterly 59.57 feet
 along the arc of a 1150.00 foot radius curve to the left, through a central angle of 2°58'05",
 (chord bears South 84°43'19" East 59.56 feet), 12) South 86°12'22" East 553.41 feet to the east
 line of said Section 27 T5N R1E; thence, along said east line, South 00°06'34" West 358.28 feet
 to the Point of Beginning.



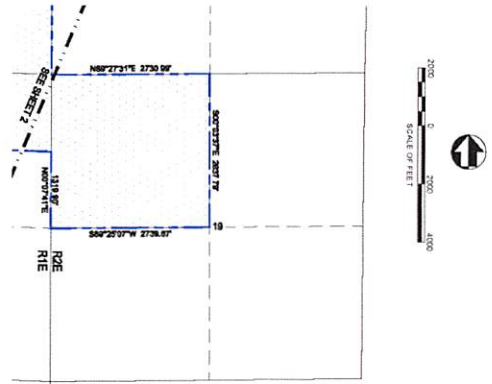
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01-004-024
01-004-040
01-004-041
01-004-047
01-004-262
01-005-071
01-005-072
01-004-149
01-004-142

	DESIGNED	SRV
	DRAWN	SRV
	CHECKED	JT

PSOMAS
 4179 Riverboat Road, Suite 200
 Salt Lake City, Utah 84123
 (801) 270-5777 (801) 270-5782 (FAX)

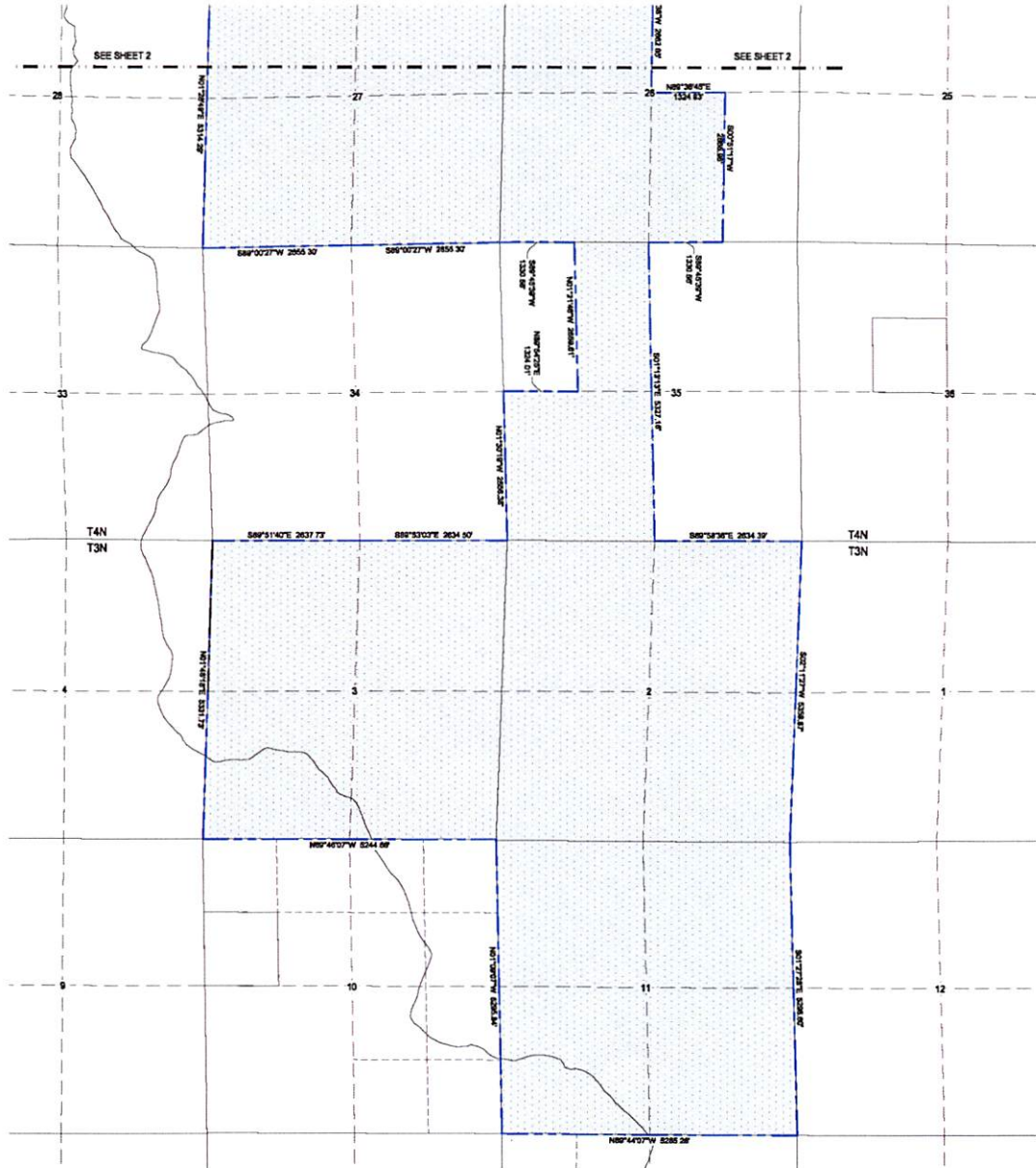
EXHIBIT
 WPR PROPERTY SOUTH OF CANAL
 MORGAN COUNTY, UTAH

DATE:	03/01/2019
PLAT DATE:	
SCALE:	1"=2000'
PROJECT NUMBER:	8WSP010200



LINE #	DIRECTION	LENGTH	LINE #	DIRECTION	LENGTH
L1	S60°22'15\"/>	888.89	L23	N67°47'17\"/>	74.77
L2	S60°22'15\"/>	950.82	L24	N67°47'17\"/>	802.82
L3	S60°22'15\"/>	342.77	L25	N67°47'17\"/>	58.81
L4	S60°22'15\"/>	848.82	L26	N67°47'17\"/>	59.79
L5	S60°22'15\"/>	529.82	L27	N67°47'17\"/>	319.82
L6	S60°22'15\"/>	858.82	L28	N67°47'17\"/>	149.82
L7	S60°22'15\"/>	858.82	L29	N67°47'17\"/>	204.77
L8	N67°47'17\"/>	777.82	L30	N67°47'17\"/>	204.77
L9	S70°22'15\"/>	1500.22	L31	N67°47'17\"/>	337.82
L10	S70°22'15\"/>	448.82	L32	N67°47'17\"/>	160.22
L11	S70°22'15\"/>	828.82	L33	N67°47'17\"/>	160.22
L12	S70°22'15\"/>	891.82	L34	N67°47'17\"/>	160.22
L13	S70°22'15\"/>	1488.82	L35	N67°47'17\"/>	308.82
L14	S70°22'15\"/>	340.77	L36	N67°47'17\"/>	308.82
L15	S70°22'15\"/>	492.82	L37	N67°47'17\"/>	302.82
L16	S70°22'15\"/>	282.82	L38	N67°47'17\"/>	351.77
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L24	N67°47'17\"/>	282.82	L46	N67°47'17\"/>	557.82
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L47	N67°47'17\"/>	282.82	L69	N67°47'17\"/>	557.82
L48	N67°47'17\"/>	282.82	L70	N67°47'17\"/>	557.82
L49	N67°47'17\"/>	282.82	L71	N67°47'17\"/>	557.82
L50	N67°47'17\"/>	282.82	L72	N67°47'17\"/>	557.82
L51	N67°47'17\"/>	282.82	L73	N67°47'17\"/>	557.82
L52	N67°47'17\"/>	282.82	L74	N67°47'17\"/>	557.82
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L54	N67°47'17\"/>	282.82	L76	N67°47'17\"/>	557.82
L55	N67°47'17\"/>	282.82	L77	N67°47'17\"/>	557.82
L56	N67°47'17\"/>	282.82	L78	N67°47'17\"/>	557.82
L57	N67°47'17\"/>	282.82	L79	N67°47'17\"/>	557.82
L58	N67°47'17\"/>	282.82	L80	N67°47'17\"/>	557.82
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L64	N67°47'17\"/>	282.82	L86	N67°47'17\"/>	557.82
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L72	N67°47'17\"/>	282.82	L94	N67°47'17\"/>	557.82
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L74	N67°47'17\"/>	282.82	L96	N67°47'17\"/>	557.82
L75	N67°47'17\"/>	282.82	L97	N67°47'17\"/>	557.82
L76	N67°47'17\"/>	282.82	L98	N67°47'17\"/>	557.82
L77	N67°47'17\"/>	282.82	L99	N67°47'17\"/>	557.82
L78	N67°47'17\"/>	282.82	L100	N67°47'17\"/>	557.82

LINE #	DIRECTION	LENGTH	CHANG E	LENGTH	MOULD	DELTA	CH BEG	CH END
C1	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00
C2	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00
C3	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00
C4	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00
C5	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00
C6	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00
C7	S12°15'00\"/>	100.00	S12°15'00\"/>	100.00	0.00	0.00	0.00	0.00



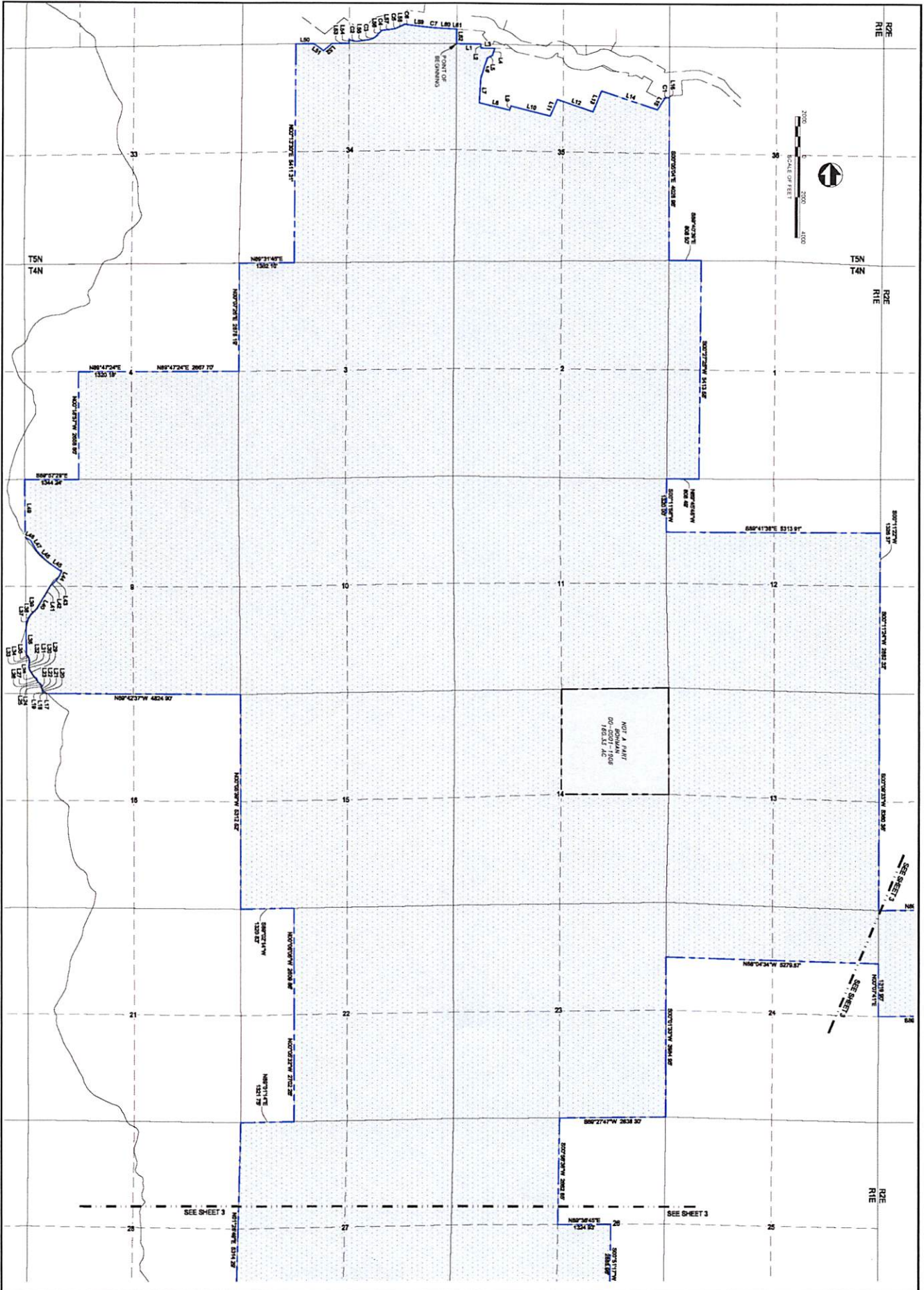
REVISED
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CHECKED
DATE

SRV
SRV
JT

PSOMAS
 4179 Riverwood Road, Suite 200
 Salt Lake City, Utah 84123
 (801) 270-3777 (801) 270-5782 (FAX)

EXHIBIT
 WPR PROPERTY SOUTH OF CANAL
 MORGAN COUNTY, UTAH

DATE: 03/01/2019
 SCALE: 1"=2000'
 SHEET NUMBER: 8WSPO10200



	DESIGNED: SRV DRAWN: SRV CHECKED: JT	<p style="text-align: center;">PSOMAS</p> 4179 Riverbend Road, Suite 200 Salt Lake City, Utah 84112 (801) 276-5777 (801) 270-5782 (FAX)	EXHIBIT WPR PROPERTY SOUTH OF CANAL MORGAN COUNTY, UTAH	DATE: 03/01/2019 PLAN DATE: SCALE: 1"=2000' PROJECT NUMBER: 8WSP010200
	9 3 2			SEE SHEET 3 SEE SHEET 3 SEE SHEET 3

CONCEPTUAL LAND USE PLAN

Exhibit B: Conceptual Land Use Plan



Exhibit C: Permitted Use Table

WASATCH PEAKS RANCH PERMITTED USE TABLE - REVISED 10.30.2019

USE	PLANNING AREA									
	A	B	C	D	E	F	G	GOLF + GOLF INFRASTRUCTURE	OPEN SPACE AREAS	SKIING + SKIING INFRASTRUCTURE
Accessory buildings and uses customarily incidental to conditional uses	P	P	P	P	P	P	P	P	P	P
Accessory buildings and uses customarily incidental to permitted uses	P	P	P	P	P	P	P	P	P	P
Accessory buildings and uses customarily incidental to permitted agricultural uses	P	P	P	P	P	P	P	P	P	P
AGRICULTURAL:										
Agriculture - tilling of soil, raising of crops, and pasturing of animals (non-intensive place holder until development occurs)	P	P	P	P	P	P	P	P	P	P
Agricultural industries	X	X	X	X	X	X	X	X	P	X
AGRICULTURE + FORESTRY:										
Agriculture, including grazing and pasturing of animals; the tilling of the soil, the raising of crops, horticulture and gardening	P	P	P	P	P	P	P	P	P	P
Tilling of the soil, the raising of crops, horticulture and gardening	P	P	P	P	P	P	P	P	P	X
Family food production	P	P	P	P	P	P	P	X	P	X
Forestry, except forest industry	X	X	X	X	X	X	X	X	P	P
Fruit/vegetable stand	X	X	X	P	X	X	X	X	X	X
COMMERCIAL RECREATION USE (SUBJECT TO REGULATIONS IN SECTION 8-6-40 OF THE MORGAN COUNTY CODE):										
Heli-skiing	X	X	X	X	X	X	X	X	P	P
CONSTRUCTION										
Construction – storage yard, equipment, materials (temporary for construction - must be removed and revegetated within 90 days of construction completion)	P	P	P	P	P	P	P	P	P	P
General contractor's office (temporary for construction - must be removed and revegetated within 90 days of construction completion)	P	P	P	P	P	P	P	P	P	P
Land excavations	P	P	P	P	P	P	P	P	P	P
DWELLINGS										
Accessory apartment	P	P	P	P	P	P	P	P	X	X
Single-family dwelling	P	P	P	P	P	P	P	X	X	X
Two-family dwelling	P	P	P	P	P	P	P	X	X	X
Three-family dwelling	X	X	P	P	P	P	P	X	X	X
Four-family dwelling	X	X	P	P	P	P	P	X	X	X
Multiple-family dwelling	X	X	P	P	P	P	P	X	X	X
Homes for worker housing	P	P	P	P	P	P	P	X	X	X

USE	PLANNING AREA									
	A	B	C	D	E	F	G	GOLF + GOLF INFRASTRUCTURE	OPEN SPACE AREAS	SKIING + SKIING INFRASTRUCTURE
Recreation dwelling (shall not utilize the same minimum lot area as a main dwelling)	P	P	P	P	P	P	P	X	X	X
Home occupation Class I and Class II	P	P	P	P	P	P	P	X	X	X
Private park or recreational grounds, or private recreational camps or resorts, including accessory or supporting dwellings or dwelling complexes, and commercial service uses which are owned or managed by the recreational facility to which it is accessory	P	P	P	P	P	P	P	P	P	P
ENTERTAINMENT										
Art galleries (except retail)	X	X	X	P	X	X	X	X	X	X
Art museums	X	X	X	P	X	X	X	X	X	X
Athletic club facilities, physical fitness, dance, gymnasiums, fitness centers	X	X	P	P	P	P	P	P	X	X
Bowling alleys, commercial	X	X	P	P	X	X	X	X	X	X
Country clubs	P	P	P	P	P	P	P	P	P	P
Electronic game arcades	X	X	P	P	P	P	P	X	X	X
Family fun centers	X	X	P	P	P	P	P	X	X	X
Indoor play areas	X	X	P	P	P	P	P	X	X	X
Recreational sports club facilities	X	X	P	P	P	P	P	P	P	P
Rinks, ice (up to 500 users)	X	X	X	P	X	X	X	X	P	X
Swimming pools	P	P	P	P	P	P	P	X	X	X
Tennis club facilities	P	P	P	P	P	P	P	P	X	X
Theater/cinemas	X	X	X	P	X	X	X	X	X	X
FINANCE + INSURANCE										
Bank and financial services	X	X	X	P	X	X	X	X	X	X
Professional, scientific and technical service offices	X	X	X	P	X	X	X	X	X	X
OFFICE										
Automobile rental (or other vehicle rental)	X	X	X	P	X	X	X	X	X	X
Commercials, Television Production	X	X	X	P	X	X	X	X	X	X
Medical Clinic	X	X	P	P	X	X	X	X	X	P
Office - general use	X	X	P	P	X	X	X	P	X	X
Sound recording studios	X	X	X	P	X	X	X	X	X	X
RESIDENTIAL:										
Residential units as part of a mixed-use development	P	P	P	P	P	P	P	X	X	X
RETAIL TRADE:										
Grocery	X	X	X	P	X	X	X	X	X	X
Retail store (not listed elsewhere)	X	X	P	P	X	X	X	P	X	P
OTHER SERVICES:										
Barber shops	X	X	X	P	X	X	X	X	X	X

USE	PLANNING AREA									
	A	B	C	D	E	F	G	GOLF + GOLF INFRASTRUCTURE	OPEN SPACE AREAS	SKIING + SKIING INFRASTRUCTURE
Beautician services	X	X	X	P	X	X	X	X	X	X
Comprehensive healthcare facilities	X	X	X	P	X	X	X	X	X	X
Cosmetology salons or shops	X	X	X	P	X	X	X	X	X	X
Day spas	X	X	X	P	X	X	X	P	X	X
Drinking place (alcoholic beverages)	X	X	P	P	X	X	X	P	X	P
Esthetician (i.e., skin care) services	X	X	X	P	X	X	X	X	X	X
Laundry services (laundromat, dry cleaner pick-up only)	X	X	P	P	X	X	X	X	X	X
Liquor - packaged sales (check Utah State Code)	X	X	P	P	X	X	X	X	X	X
Parking garage	X	X	P	P	X	X	X	X	X	X
Radio and television communication facilities	P	P	P	P	P	P	P	X	X	X
Repair shop (small equipment, personal items)	X	X	X	P	X	X	X	P	X	P
Storage facility enclosed	P	P	P	P	P	P	P	P	X	P
Storage outdoor	X	X	X	X	X	X	X	P	X	P
Tailor	X	X	X	P	X	X	X	X	X	X
Tanning salons	X	X	X	P	X	X	X	X	X	X
Tractor, farm or construction equipment repair and maintenance services	X	X	X	X	X	X	X	P	X	P
PUBLIC + QUASI-PUBLIC USES. EXCEPTION: PUBLIC SCHOOL										
Power generation – not generators (commercial use)	P	P	P	P	P	P	P	P	P	P
Power generation – not generators (personal use)	P	P	P	P	P	P	P	P	P	P
Public facilities	P	P	P	P	P	P	P	P	X	P
Public service facilities. Exception: essential service facilities such as police, fire, ambulance substations. Note: if in Open Space, limited to size and height - TBD.	P	P	P	P	P	P	P	P	P	P
Private stable, riding academy or riding ring, horse show barns or other equestrian facilities under single management	P	P	P	P	P	P	P	X	P	X
Recreational vehicle storage (personal storage only)	P	P	P	P	P	P	P	P	X	X
Religious uses (including churches, rectories, and other faith based uses)	X	X	X	P	X	X	X	P	X	X

USE	PLANNING AREA									
	A	B	C	D	E	F	G	GOLF + GOLF INFRASTRUCTURE	OPEN SPACE AREAS	SKIING + SKIING INFRASTRUCTURE
SPECIAL USES:										
Accommodation and food services:										
Banquet halls with catering staff	X	X	X	P	X	X	X	P	X	X
Caterers	P	P	P	P	P	P	P	P	X	P
Coffee shops, on premises brewing	X	X	P	P	P	X	X	P	X	X
Health spas (i.e., physical fitness facilities) with accommodations	X	X	P	P	X	X	X	P	X	X
Hotels (except casino hotels)	X	X	X	P	X	X	X	X	X	X
Restaurants	X	X	P	P	P	P	X	P	X	P
Swimming pool (private)	P	P	P	P	P	P	P	P	X	X
Temporary meteorological monitor tower, subject to regulations in section 8-5A-12 of this article	X	X	X	P	X	X	X	P	P	P
Temporary uses	Subject to regulations in Section 8-6-16 of the Morgan County Code									
OTHER PERMITTED USES:										
Helipad	X	X	P	P	X	X	P	X	P	P
Sporting Clays	X	X	X	X	X	X	P	X	P	X
Water Sports (non-motorized)	X	X	X	X	X	X	X	X	P	X
Real Estate Sales Center/Office	X	X	X	P	X	X	X	P	X	X
Recreation Dwelling/Yurt	X	X	X	P	X	X	P	P	P	X
Lodge	X	X	P	P	X	X	X	X	X	X

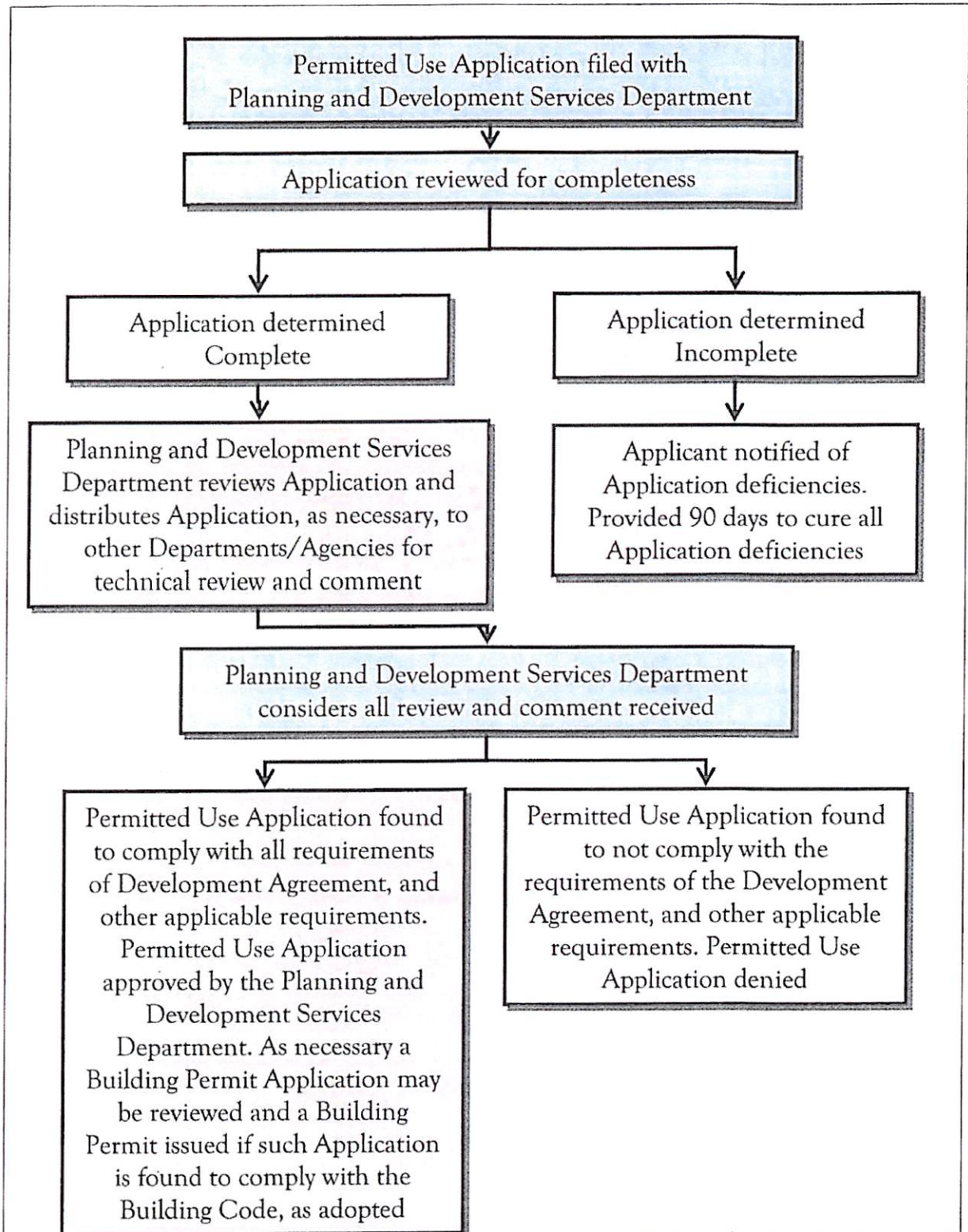
WASATCH PEAKS RANCH CONDITIONAL USE TABLE

USE	
COMMERCIAL RECREATION USE (SUBJECT TO REGULATIONS IN SECTION 8-6-40 OF THE MORGAN COUNTY CODE):	
Dams and reservoirs	C2
Quarry, gravel pit, rock crusher, concrete batching plant, oil and gas wells, steam wells, test borings for exploration, etc.(temporary for on-site construction; location approved as part of CUP process	C2

Note: No building, structure or land shall be used and no building or structure shall be hereafter erected, structurally altered, enlarged or maintained in the WPR RSD district, except as provided in the Permitted and Conditional Use tables. Any use not listed in the Permitted Use Table is not allowed. Any additional uses are subject to Conditional Use permits, which may be denied.

Exhibit D: Review and Approval Procedures for Uses

SUBJECT PROPERTY LAND USE APPLICATION REVIEW AND APPROVAL PROCEDURES
 PERMITTED USE APPLICATION





WASATCH PEAKS RANCH DESIGN STANDARDS

MORGAN COUNTY, UTAH
Updated October 30, 2019

PREPARED FOR
MORGAN COUNTY, UTAH

PREPARED BY
Wasatch Peaks Ranch Holdings, LLC
DESIGNWORKSHOP

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INTRODUCTION

PURPOSE + INTENT

The Wasatch Peaks Ranch consists of approximately 12,000 acres near the Wasatch National Forest in Morgan County.

Per County Code, Development Standards are required for the establishment of an RSD Zone (8-5J-2).

The purpose of the Wasatch Peaks Ranch Design Standards is to direct development in ways that will preserve and enhance the surrounding landscape. By maintaining the natural, open and mountain characteristics of the area, Wasatch Peaks Ranch will be integrated into the landscape. Specific objectives of the standards are below:

1. Retain and enhance the natural character of the site
2. Maximize perceived open space
3. Optimize mountain and valley views and privacy
4. Conform with Morgan County codes

This document is to be used in addition to the Morgan County Code. Where there is a conflict between this document and the Morgan County Code, the County Code governs. The criteria set forth within this document may be more stringent than the Morgan County Code but never less so.

ILLUSTRATIONS + IMAGES

The illustrations and images in this document are not intended to be representative of what will/should be built. Instead, they are intended to be a visual reference and an example and application that is consistent with the narrative language.

HOW TO USE THIS DOCUMENT

The goals and requirements for the design of each element are generally described under three headings for each review issue: Intent, Standard and Guideline.

They are described as follows:

Intent: Intent statements are provided to define the vision and goals that the standards and guidelines have been created to achieve. The Intent statement will provide additional information where a standard or guideline is in question.

Standard: Standards are objective criteria that provide a specific set of directions for achieving the Intent. Standards denote issues that are considered critical. Standards use the term "shall" to indicate that compliance is absolutely required and deemed necessary to achieve the Intent for each section.

Guideline: Guidelines provide alternative solutions for accomplishing the goals set forth in the Intent statement. Guidelines are more flexible and are sometimes more difficult to quantify than standards. Guidelines use the terms "should" or "may" to denote they are considered relevant to achieving the Intent statement and will be pertinent in the review process.

Where Guidelines amplify a Standard, they are preferred, but not mandatory criteria. Guidelines will, however, be strongly considered where a Standard is not being met and an alternative is being sought, but a Guideline shall never be considered a variance. In such a case, it must be demonstrated that the alternative meets one or more of the following criteria:

- Alternative better achieves the Intent statement
- The Intent statement that the Standard was created to address will be improved by application of the Guideline in this particular circumstance
- Application of other Standards will be improved by not applying the Standard in this particular circumstance
- Unique site characteristics make the Standard impractical or cost prohibitive

DEFINITION OF TERMS

Applicant(s): The owner of land proposed for any land use application, permit or license or such owner's duly authorized agent. Any agent must have written authorization from the owner.

Architect: A professional individual registered in the state of Utah to practice in the field of architecture.

Building Height: The vertical distance from the average finished grade surface at the foundation to the highest point of the building or structure.

Cut: Any disturbance on the land including any trenching, which results in the permanent removal of earth, rock or any other surface material such as vegetation, filling or paving. The reference for a cut shall be measured from natural to finished grade.

Defensible Space: An area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

Design Standards: The Intents, Standards and Guidelines adopted and enforced by Morgan County as set forth within this document.

Disturbed Area: Any lot surface area altered in any way during the construction of a building or landscape improvement.

Fill: Any addition of earth, rock or any other surface materials to the surface of the land that increases the natural elevation of the original surface. The reference for a fill shall be measured from natural to finished grade.

Finish Grade: The final elevation of the land surface of the site after completion of development.

Grading: An excavation, cut or fill, or the act of excavating, either cutting or filling.

Indigenous: Plants native to and/or originating from a locale.

Lot: A parcel or tract of land occupied or to be occupied by a building or group of buildings, together with such yards, open spaces, lot width and lot area and having frontage upon a street.

Owner: Any person who alone, jointly or severally with others, or in a representative capacity (including, without limitation, an authorized agent, executor or trustee) has legal or equitable title to any property

Owner Representative: Any Architect, contractor, subcontractor, agent or employee hired or engaged by an Owner to speak and act on behalf of the Owner regarding any Activity.

Permanent Enhancement: The construction of any landscaping wall, fencing or other non-temporary element to remain for more than one calendar year.

Permeable: A surface material that allows for the penetration or partial penetration of surface water.

Record Grade: Natural grade existing prior to any site preparation, grading or filling, unless a new Record Grade is approved and recorded at the time of subdivision approval and noted and filed on the final plat.

Retaining Wall: A wall designed and constructed to resist the lateral displacement and erosion of soils or other materials.

Ridgeline: The highest points along a mountain top.

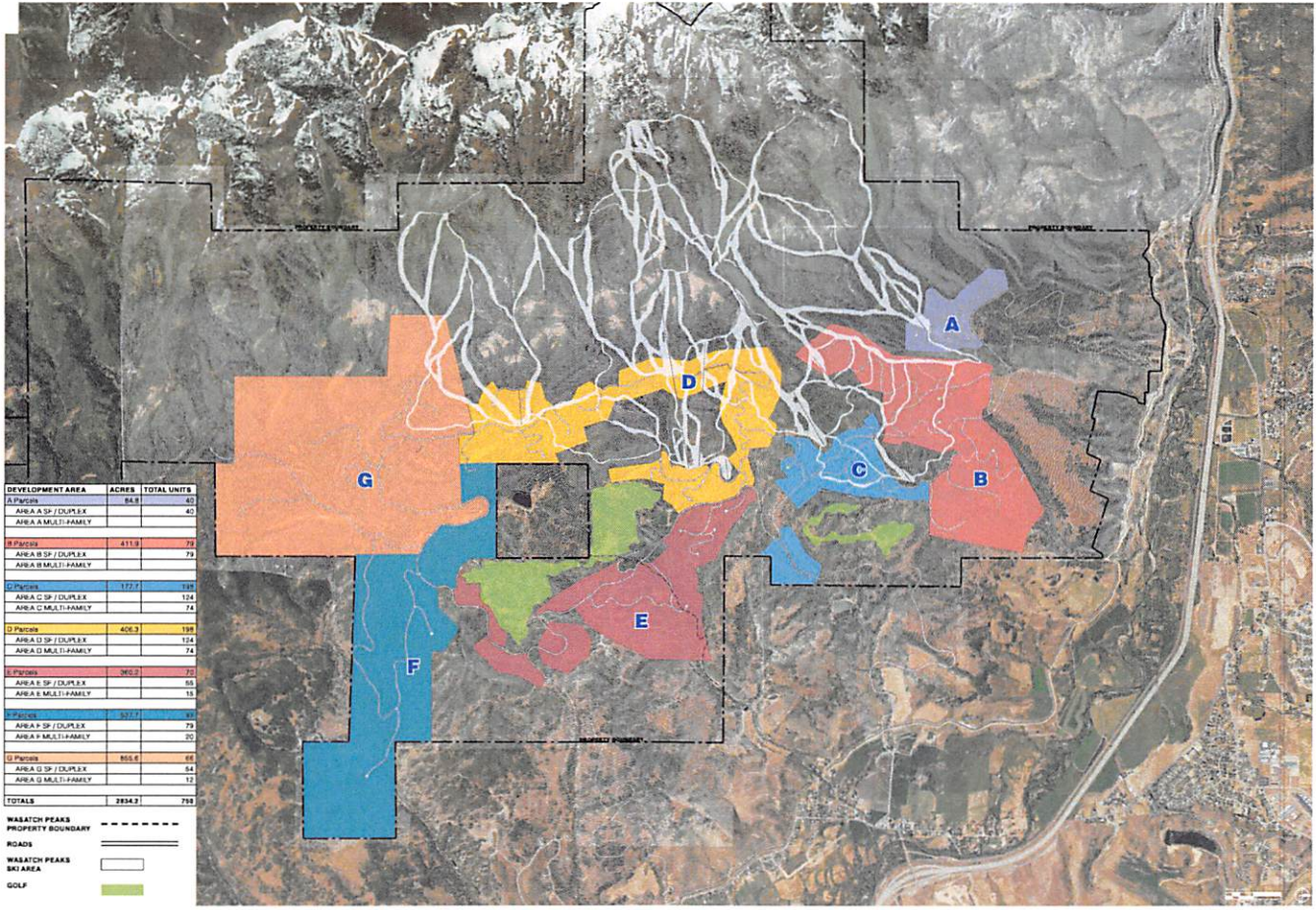
Skylining: Any structure or improvement that creates a silhouetted appearance against the sky. Typically referring to a structure or improvement above a ridgeline.

Slope (Percent): Percent slope is calculated by multiplying the ratio of a slope's rise (1') to run (2') by one hundred (100). For example, a slope of 2:1 is a 50% slope.



SITE PLANNING + DEVELOPMENT

LAND USE TYPES, LOCATION + DENSITY



DEVELOPMENT AREA	ACRES	TOTAL UNITS
A Parcels	84.8	40
AREA A SF / DUPLEX		40
AREA A MULTI-FAMILY		
B Parcels	411.9	79
AREA B SF / DUPLEX		79
AREA B MULTI-FAMILY		
C Parcels	177.7	198
AREA C SF / DUPLEX		124
AREA C MULTI-FAMILY		74
D Parcels	406.3	198
AREA D SF / DUPLEX		124
AREA D MULTI-FAMILY		74
E Parcels	360.2	70
AREA E SF / DUPLEX		55
AREA E MULTI-FAMILY		15
F Parcels	537.7	99
AREA F SF / DUPLEX		79
AREA F MULTI-FAMILY		20
G Parcels	855.6	66
AREA G SF / DUPLEX		54
AREA G MULTI-FAMILY		12
TOTALS	2834.2	750

GENERAL ARCHITECTURAL DESIGN CONSIDERATIONS

INTENT

To establish an architectural standard that is appropriate for Wasatch Peaks Ranch, is consistent with the natural surroundings, and exhibits the highest level of quality.

STANDARDS

- All buildings shall be designed by a licensed professional in accordance with the local building and fire codes.
- All buildings and structures shall be designed with consideration given to the mountain community home styles and shall be appropriate for the climate.

GUIDELINES

Architects and landscape architects are preferred to have experience in the region or similar climates/environments.

MINIMUM SETBACKS

INTENT

To provide boundaries that will be used to determine the location of any permanent construction, excluding the Mixed-Use land use.

STANDARDS: ALL LAND USE TYPES

- Setbacks from other public rights-of-way shall be a minimum of fifteen feet (15'), unless otherwise specified.

STANDARDS: MULTI-FAMILY RESIDENTIAL + SINGLE FAMILY-RESIDENTIAL

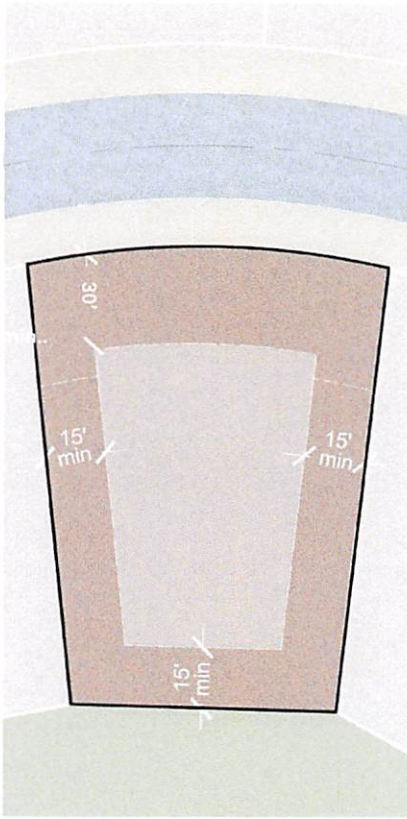
- Setbacks from the public right-of-way shall be a minimum of thirty feet (30') - unless this causes negative visual impact of cut.
- Side Yard setbacks shall be a minimum of fifteen feet (15').
- Rear Yard setbacks shall be a minimum of fifteen feet (15').

STANDARDS: COMMERCIAL/MIXED-USE

- No setback restrictions.

GUIDELINES

Permanent enhancements such as landscaping walls or fencing may be constructed within the setback area.



Multi-family and single family residential setbacks

BUILDING HEIGHT

INTENT

To maintain quality aesthetics for adjacent uses.

STANDARDS: MIXED USE (INCLUDING LODGE)

- No portion of any building shall exceed ninety feet (90') in height above Finish Grade with the exclusion of the following:
 - Chimneys
 - Lightning rods
 - Elevator core
 - Utility Stacks
 - Photovoltaic panels
- Buildings on natural topography above fifteen percent (15%) in slope shall be stepped in form.
- Larger structures shall include a variety of building heights to avoid a monumental appearance.



Buildings on natural topography above 15 percent in slope shall be stepped in form.



Construction on steep slopes should attempt to avoid excessive cutting into existing topography for foundations.

STANDARDS: MULTI-FAMILY RESIDENTIAL

- No portion of any multi-family building shall exceed seventy-five feet (75') in height above Finish Grade with the exclusion of the following
 - Chimneys
 - Lightning rods
 - Weather vanes
 - Photovoltaic panels
- Buildings on natural topography above fifteen percent (15%) in slope shall be stepped in form.
- Larger structures shall include a variety of building heights to avoid a monumental appearance.

STANDARDS: SINGLE FAMILY RESIDENTIAL

- No portion of any building shall exceed forty-five feet (45') in height above Finish Grade with the exclusion of the following:
 - Chimneys
 - Lightning rods
 - Weather vanes
 - Stacks
 - Photovoltaic panels

GUIDELINES

Variations in building height are encouraged to convey visual interest, reduce perceived mass, and give a sense of scale.



ROOFS

INTENT

To avoid large, unbroken expanses of single pitched roofs and to reduce reflection.

STANDARDS

- Roof pitches are from 2:12 to 12:12.
- Roofs shall have at least a Class A roof covering, Class B roof assembly or an approved noncombustible roof covering.
- Roof surfaces should be covered with composite shake or natural or synthetic slate tiles.
- Shiny or reflective metal roofing or flashing material shall not be allowed.

GUIDELINES

1. A hip, gable or shed roof configuration may be appropriate to achieve the intended rural architectural character.
2. Copper flashing may be used, as it will oxidize to a patina finish.



Examples of roof form.

BUILDING COLOR + TEXTURE

INTENT

To help blend the structure into the surrounding natural landscape.

SINGLE-FAMILY, MULTI-FAMILY, MIXED-USE + GOLF INFRASTRUCTURE STANDARDS

- Exterior color schemes shall reflect the natural earth tones of the surrounding landscape.
- Colors shall complement or blend with surrounding landscape.
- Stone and mortar shall reflect the natural colors of the surrounding landscape.
- All building surfaces, excluding metal, shall be painted or stained. Metal siding shall be resistant to glare.

GUIDELINES

Accent colors that are not included within the natural earth tone color palette that are used in specific and limited applications may be approved, if it is demonstrated that the additional color benefits the overall design scheme.



Example of guideline 1 and 2.

ALL NON-RESIDENTIAL BUILDINGS

INTENT

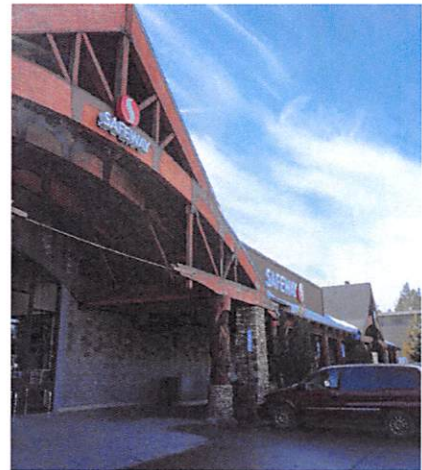
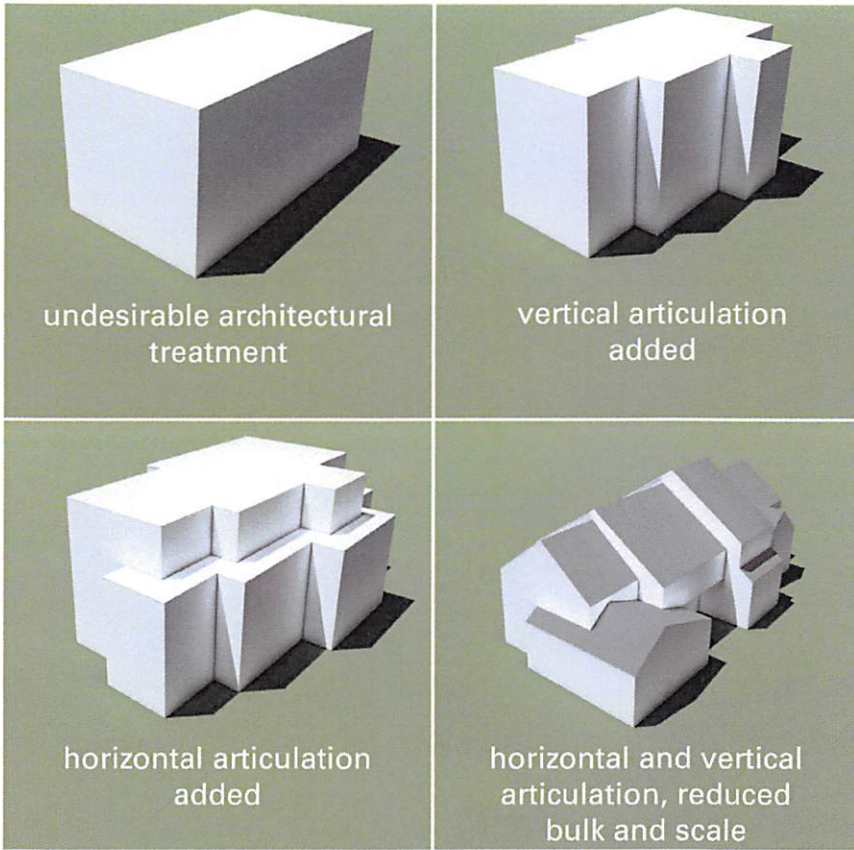
Building form, articulation, materials and colors should be compatible with the surrounding mountain environment.

Building exteriors are typically designed with clear distinction between the three main building components; the base, middle and top. The base grounds the building to the site through the use of materials and forms that convey a sense of weight and stability. The base of a building is also the most visually dynamic zone due to its connection to the street level. The building's middle section should incorporate materials, textures, colors and detailing to provide interest and articulation. The tops of buildings are encouraged to be capped with well-proportioned, pitched roofs that act as the uppermost unifying component.

GUIDELINES

1. Buildings should have consistent architectural style and related detailing. All elevations visible to the public should have a complementary level of detailing.
2. Use gables, shed roof forms, cornices, balconies, roof terraces and other elements to step and articulate roof lines.
3. Use both horizontal and vertical articulation to reduce a building's scale and mass.
4. The visual mass of large buildings should be broken up through the use of elements such as roof forms, gables, projections and arcades.
5. Break up building facades with projections, recesses, piers, textured materials, trim and other architectural details to avoid a bulky or "box-like" appearance.
6. Placement, shapes, materials, texture, details and colors should contribute to the overall building articulation. Design complex building forms with setback, overhangs, porches and varied skylines.
7. Use brackets and overhangs to intercept sunlight and encourage building shadowing articulation where significant amounts of glass is used. Windows and doors should relate to the structural expression of the building.
8. Glazing should avoid large amounts of reflective window planes without suitable overhangs or other articulation.

STANDARDS: BUILDING FORM + ARTICULATION



Example of guideline 4.

Example of guideline 3.

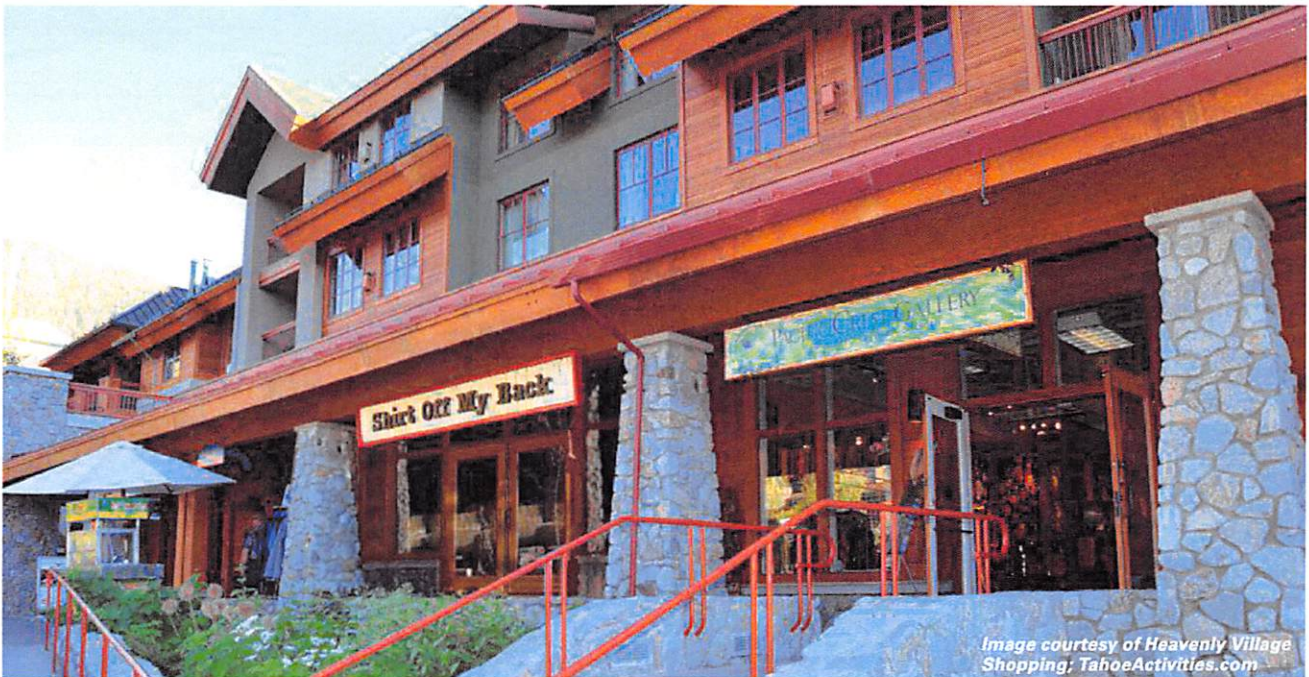
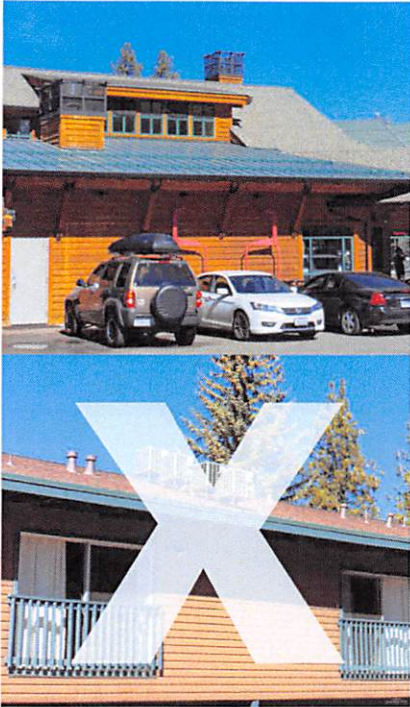


Image courtesy of Heavenly Village Shopping; TahoeActivities.com

Example of guideline 5.



Equipment may be screened from view.



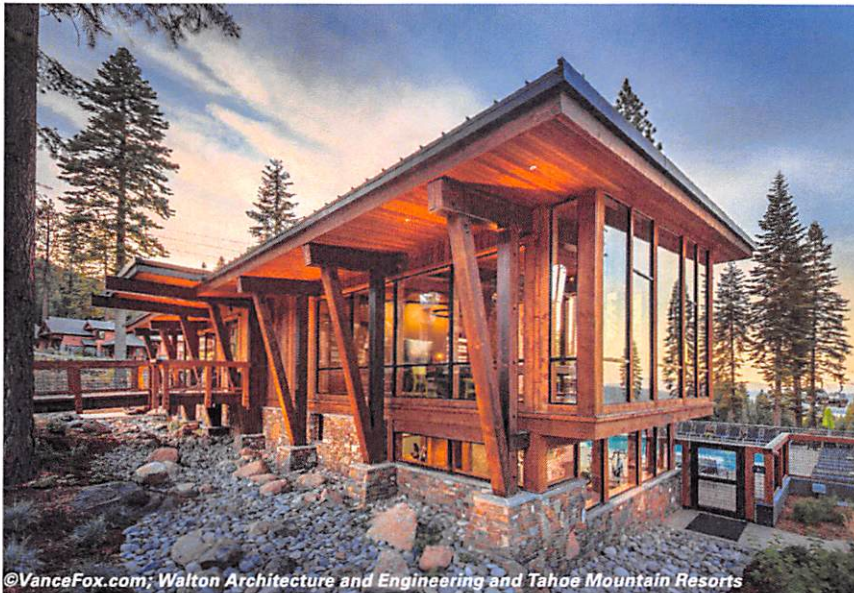
Differentiated materials is one way to visually separate the base floors from the upper floors.



Protruding overhead canopies create interesting architectural façades and provide protection from falling snow.



Example of guideline 6.



©VanceFox.com; Walton Architecture and Engineering and Tahoe Mountain Resorts

Example of guideline 7.



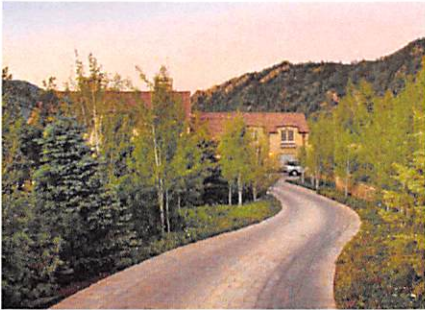
DRIVEWAY STANDARDS

INTENT

Provide alignments that minimize grading and other disruption of the site.

STANDARDS: MIXED-USE AND MULTI-FAMILY RESIDENTIAL

- All parking and drive lanes shall be paved with concrete, asphalt or permeable paver, unless alternative material is approved.
- Maximum gradient of parking lots shall meet Morgan County code requirements.
- All subdivisions shall be provided with fire apparatus access roads in accordance with fire codes.
- Driveways shall provide a minimum unobstructed width of twelve feet (12') and a minimum unobstructed height of eighteen feet (18').



Example of guideline 2.

GUIDELINES

1. A garage may be located above or below main living area to accommodate a lesser driveway gradient and avoid driveways in excess of 12 percent (12%) slope.
2. Driveways are to be designed with the natural topography when feasible.



PARKING LOT STANDARDS

Determined to not be applicable by County stakeholders and applicant, given that this is a private community.

PARKING LOT LIGHTING STANDARDS

INTENT

To minimize lighting, maintain the rural character of the site, limit lighting as required only by safety, and preserve views of the night sky in Morgan County. The Owner may, in its discretion and at Owner's or a service provider's expense, install appropriate street and pedestrian lighting within the Project so long as such lighting complies with the intent of the International Dark Sky standards. Any such street lighting shall remain the responsibility of the Owner, or other service provider, for operation and maintenance, for the Subject Property, or any portion thereof.



STANDARDS

- Full cut-off lights shall be required for all lighting fixtures.
- The maximum total lumens of any exterior light fixture shall be 1000 lumens.
- Sodium vapor and all colored lights shall be prohibited.

GUIDELINES

1. LED lighting requirements may exceed the 1000 lumens maximum if deemed necessary for safety.



Examples of preferred down-lighting.

SIGNAGE STANDARDS

Determined to not be applicable by County stakeholders and applicant, given the attributes of the Wasatch Peaks Ranch development.

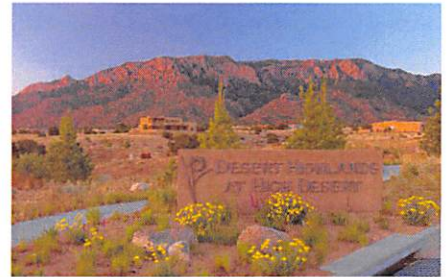
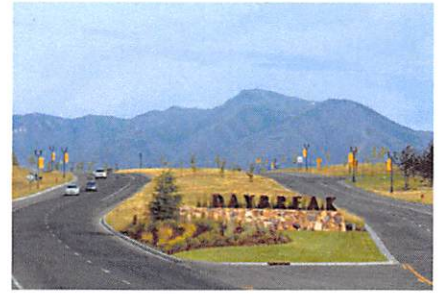
ENTRY SIGNAGE

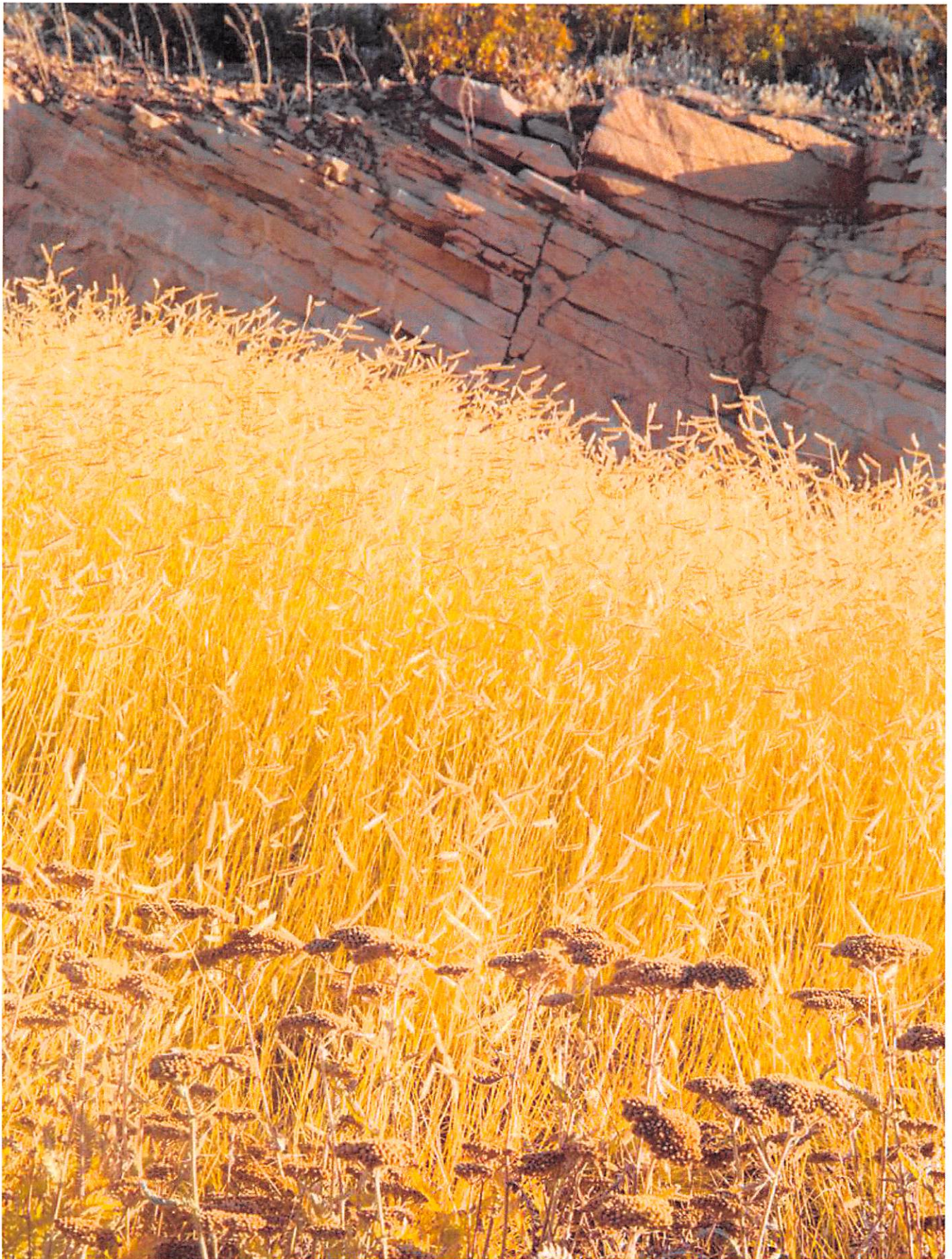
INTENT

To provide clear identity and wayfinding signage for residents and guests.

ENTRY OR MONUMENT STANDARD

- Each entry to Wasatch Peaks Ranch is allowed two entry or monument signs with the name of the property. The entry or monument signs may include architectural features and may sit on a landscaped berm.
- Each freestanding monument sign may be illuminated with a series of external down lights or with internal halo lighting.
- Lighting shall be warm white. No colored lighting is allowed.





LANDSCAPE + BUFFERING STANDARDS

DEFENSIBLE SPACE

INTENT

To reduce the possibility and intensity of a wildfire, reduce the rate of fire spread and provide increased safety for emergency fire equipment.

STANDARDS

- A minimum of 30 feet adjacent to all structures shall be considered defensible space. In order to qualify as defensible space, fuel modification shall be provided as follows:
 - Nonfire-resistive vegetation must be modified or removed.
 - Trees are allowed, provided the horizontal distance between crowns of adjacent trees and overhead electrical facilities or unmodified fuels is not less than 10 feet (10').
 - Ornamental vegetative fuel or cultivated ground cover, such as green grass, ivy, succulents or similar plants are allowed provided they do not form a means of transmitting the fire from the native growth to any structure.

GUIDELINE

Nonfire-resistive vegetation or growth shall be kept clear of buildings or structures.

REVEGETATION + SEED MIXES FOR SUBJECT PROPERTY

INTENT

To prevent erosion and the invasion of unwanted species.

STANDARDS

- All disturbed areas on each lot shall be revegetated via drill seeding or hydromulch application the first growing season after disturbance has occurred using a native seed mix. A minimum of 95% of the disturbed area must be covered two years after the application or additional seeding will be required.
- Any disturbance caused by utility construction shall be revegetated immediately following completion of construction, or when seasonally appropriate (next growing season).
- All slopes 3:1 and greater shall be protected with erosion control fabric as appropriate. Hydromulch may also be utilized.

GUIDELINE

An alternative seed mix may be considered and approved outside of the building envelope if the alternative seed mix unifies the overall landscaping theme for the lot and does not include invasive or unwanted species.



Examples of natural revegetation.



GRADING

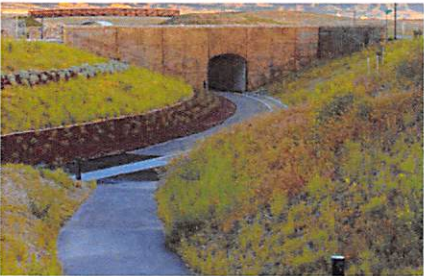
INTENT

To promote the public health, safety, and welfare, to protect property and infrastructure, and to minimize grading impacts on the natural contour of the land on each site by blending new designs into existing topography and land forms, while ensuring the protection of drainage corridors.



STANDARDS

- Buildings shall not appear perched on site.
- Maximum slopes shall be 2:1, subject to geotech report and adequate stabilization. Slopes greater than 2:1 shall require a retaining wall.
- Disturbed areas shall be revegetated to match and blend naturally into surrounding environment.
- All cuts and fills shall be shaped, rounded, minimized and non-uniform to simulate natural existing contours.
- Existing topsoil will be stockpiled and utilized to cover manufactured slopes.
- All earthwork and grading shall respect any landslide mitigation strategies for the property, depending upon location.
- A geotech report is required for all structural grading.



GUIDELINE

Slopes up to 2: 1 may be considered without the use of retaining walls if proper slope stabilization products are utilized and approved by Morgan County.



Examples of preferred grading solutions.

DRAINAGE

INTENT

To maintain existing drainage patterns and discharge points both during and after construction.

STANDARDS

- New drainage ways shall appear natural and function like natural drainage ways.
- Drainage resulting from development shall be dispersed on site and not directed to other lots.
- Passive landscape swales shall be protected prior to drainage leaving the site.

GUIDELINE

When existing drainage patterns run through a development parcel, the drainage pattern may be manipulated to accommodate a built structure if the drainage is rerouted.



Examples of preferred drainage solutions.



APPENDICES

APPENDIX A: APPROVED PLANT SPECIES PALETTE

PLANT TYPES	BOTANICAL NAME	COMMON NAME
Evergreen Trees	<i>Picea pungens</i>	Colorado Spruce
	<i>Pinus ponderosa</i>	Ponderosa Pine
	<i>Pinus edulis</i>	Pinyon Pine
	<i>Pinus nigra</i>	Austrian Pine
	<i>Pseudotsuga menziesii</i>	Douglas Fir
Deciduous Trees	<i>Acer grandidentatum</i>	Big-tooth Maple
	<i>Celtis occidentalis</i>	Common Hackberry
	<i>Crataegus douglasii</i>	Douglas Hawthorn
	<i>Populus tremuloides</i>	Quaking Aspen
	<i>Sorbus scopulina</i>	Rocky Mountain Ash
Evergreen Shrubs	<i>Cercocarpus ledifolius</i>	Curl-leaf Mountain Mahogany
	<i>Juniperus horizontalis</i>	Creeping Juniper
	<i>Mahonia repens</i>	Creeping Mahonia
Deciduous Shrubs	<i>Acer glabrum</i>	Rocky Mountain Maple
	<i>Amelanchier alnifolia</i>	Saskatoon Serviceberry
	<i>Cornus stolonifera</i>	Redtwig Dogwood
	<i>Euonymus alatus</i>	Burning Bush
	<i>Fallugia paradoxa</i>	Apache Plume
	<i>Foresteria neomexicana</i>	Mountain Privet
	<i>Physocarpus malvaceus</i>	Ninebark
	<i>Philadelphus lewisii</i>	Mockorange
	<i>Potentilla fruticosa</i>	Shrubby Cinquefoil
	<i>Prunus melanocarpa</i>	Chokecherry
	<i>Rhus glabra</i>	Smooth Sumac
	<i>Rhus trilobata</i>	Oakleaf Sumac
	<i>Ribes alpinum</i>	Alpine Currant
	<i>Ribes aureum</i>	Golden Currant
	<i>Rosa woodseii</i>	Wood's Rose
<i>Symphoricarpos albus</i>	Common Snowberry	

PLANT TYPES	BOTANICAL NAME	COMMON NAME
Perennials/Ground Covers	<i>Alyssum montanum</i>	Basket of Gold
	<i>Aquilegia caerulea</i>	Rocky Mountain Columbine
	<i>Arctostaphylos uva-urii</i>	Kinnikinnick
	<i>Chrysanthemum maximum</i>	Shasta Daisy
	<i>Delphinium elatum</i>	Delphinium
	<i>Echinacea purpurea</i>	Purple Coneflower
	<i>Eriogonum species</i>	Buckwheat species
	<i>Euonymus fortunei</i>	Wintercreeper
	<i>Fragaria species</i>	Wild Strawberry
	<i>Gaillardia species</i>	Blanket Flower
	<i>Heuchera sanguinea</i>	Coralbells
	<i>Hemerocallis hybrids</i>	Daylillies
	<i>Linum perenne</i>	Wild Blue Flax
	<i>Lupinus polyphyllus</i>	Lupine
	<i>Oenothera missouriensis</i>	Evening Primrose
	<i>Penstemon species</i>	Penstemon
<i>Sphaeralcea species</i>	Globemallow species	
<i>Vinca species</i>	Periwinkle	
Ornamental Grasses	<i>Andropogon scoparium</i>	Little Bluestem
	<i>Bouteloua gracilis</i>	Blue Grama
	<i>Festuca ovina</i>	Sheep Fescue
	<i>Helictotrichon sempervirens</i>	Blue Avena
	<i>Oryzopsis hymenoides</i>	Indian Ricegrass
	<i>Pseudoroegneria spicata</i>	Bluebunch Wheatgrass

Native Seed Mix - Provide seed mixes designed to perform at altitude, with an initial cover crop to minimize erosion.

GUIDELINE

Drought tolerant plants that are not local to the immediate the Wasatch Peaks Ranch property, but that work well in Morgan County and other Xeriscape gardens may be acceptable.

All weeds officially designated and published as noxious per the Utah Noxious Weed Act shall not be introduced on the site. If evidence supports that any noxious weeds exist prior to development, all efforts should be taken to eliminate the noxious weeds.

APPENDIX B: VEGETATION MANAGEMENT PLAN

PLANT TYPES	BOTANICAL NAME	COMMON NAME
Grasses	<i>Agropyron cristatum</i>	Crested Wheatgrass
	<i>Agropyron smithii</i>	Western Wheatgrass
	<i>Buchloe dactyloides</i>	Buffalograss
	<i>Dactylis glomerata</i>	Orchardgrass
	<i>Festuca cinerea and other species</i>	Blue Fescue
	<i>Lolium species</i>	Rye Grass
	<i>Poa pratensis</i>	Kentucky Bluegrass
	<i>Poa secunda</i>	Sandberg Bluegrass
Herbaceous Perennials	<i>Achillea clavennae</i>	Silvery Yarrow
	<i>Achillea filipendulina</i>	Fernleaf Yarrow
	<i>Achillea - other species & hybrids</i>	Yarrow*
	<i>Aquilegia - species & hybrids</i>	Columbine
	<i>Armeria maritime</i>	Sea Pink, Sea Thrift
	<i>Artemisia stelleriana</i>	Beach Wormwood, Dusty Miller
	<i>Artemisia - other species & hybrids</i>	Various names*
	<i>Bergenia - species & hybrids</i>	Bergenia
	<i>Centranthus ruber</i>	Red Valerian, Jupiter's Beard
	<i>Cerastium tomentosum</i>	Snow-in-Summer
	<i>Coreopsis auriculata var. Nana</i>	Dwarf Mouse Ear Coreopsis
	<i>Coreopsis - other perennial species</i>	Coreopsis
	<i>Delosperma nubigenum</i>	Hardy Ice Plant
	<i>Dianthus plumarius & others</i>	Pinks
	<i>Erigeron hybrids</i>	Fleabane
	<i>Gaillardia X grandiflora</i>	Blanket Flower
	<i>Geranium cinereum</i>	Hardy Geranium
	<i>Geranium sanguineum</i>	Bloody Cranesbill, Bloodred Geranium
	<i>Geranium species</i>	Geranium
	<i>Hemerocallis species</i>	Daylily
	<i>Heuchera sanguinea</i>	Coral Bells, Alum Root
	<i>Iberis sempervirens</i>	Evergreen Candytuft
	<i>Iris species & hybrids</i>	Iris
	<i>Kniphofia species & hybrids</i>	Red-hot Poker
	<i>Lavandula species</i>	Lavender
	<i>Leucanthemum X superbum</i>	Shasta Daisy
	<i>Limonium latifolium</i>	Sea-lavender, Statice
	<i>Linum species</i>	Flax
	<i>Liriope spicata</i>	Lily-turf
	<i>Lupinus species & hybrids</i>	Lupine*
<i>Medicago sativus</i>	Alfalfa	
<i>Oenothera species</i>	Primrose	

PLANT TYPES	BOTANICAL NAME	COMMON NAME
	<i>Papaver species</i>	Poppy
	<i>Penstemon species & hybrids</i>	Penstemon
	<i>Perovskia atriplicifolia</i>	Russian Sage, Azure Sage
	<i>Potentilla nepalensis</i>	Nepal Cinquefoil
	<i>Potentilla tridentata</i>	Wineleaf Cinquefoil
	<i>Potentilla verna</i>	Spring Cinquefoil, Creeping Potentilla
	<i>Potentilla - other non-shrubby species & hybrids</i>	Cinquefoil, Potentilla*
	<i>Salvia species & hybrids</i>	Salvia, Sage*
	<i>Sedum species</i>	Stonecrop, Sedum
	<i>Sempervivum tectorum</i>	Hen and Chicks
	<i>Stachys byzantina</i>	Lamb's Ear
	<i>Yucca filamentosa</i>	Yucca
Shrubs & Woody Vines	<i>Atriplex species</i>	Saltbush
	<i>Ceanothus americanus</i>	New Jersey Tea
	<i>Ceanothus ovatus & others</i>	Ceanothus
	<i>Cistus species</i>	Rock-rose
	<i>Cotoneaster dammeri</i>	Bearberry Cotoneaster
	<i>Cotoneaster horizontalis</i>	Rockspray or Rock Cotoneaster
	<i>Cotoneaster - other compact species</i>	Cotoneaster
	<i>Lonicera species & hybrids</i>	Honeysuckle
	<i>Mahonia repens</i>	Creeping Oregon Grape
	<i>Parthenocissus quinquefolia</i>	Virginia Creeper
	<i>Prunus besseyi</i>	Sand Cherry
	<i>Purshia tridentata</i>	Bitterbrush, Antelope Bitterbrush
	<i>Pyracantha species</i>	(Firethorn, Pyracantha)
	<i>Rhamnus species</i>	Buckthorn
	<i>Rhus trilobata</i>	Skunkbush Sumac
	<i>Rhus - other species</i>	Sumac
	<i>Ribes species</i>	Currant, Gooseberry
	<i>Rosa rugosa & other hedge roses</i>	Rugosa Rose
	<i>Shepherdia canadensis</i>	Russet Buffaloberry
	<i>Syringa vulgare</i>	Lilac
	<i>Vinca major</i>	Large Periwinkle
	<i>Vinca minor</i>	Dwarf Periwinkle, Common Periwinkle

PLANT TYPES	BOTANICAL NAME	COMMON NAME
Trees	Acer species	Maple
	Betula species	Birch
	Cercis canadensis	Eastern Redbud
	Populus tremuloides	Quaking Aspen
	<i>Populus</i> - other species	Poplar, Cottonwood
	Salix species	Willow

**Plants or groups of plants marked with an asterisk (*) can become weedy in certain circumstances and may even be noxious weeds with legal restrictions against their planting and cultivation. Check with your local Extension office or State Department of Agriculture for information on noxious weeds in your area.*

Note: Some of the listed plants may not be considered "water-wise" or drought-tolerant for arid climates.

Source: 2006 Utah Wildland-Urban Interface Code; Utah fire resistive species (adapted from "Utah forest facts: firewise plants for utah landscapes" Utah state university press extension, 2002)

APPENDIX B – EPA STEPL MODEL DETAILED RESULTS

Dalton - Existing Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	91.7	34.8	23.5	0.0	0.0	0.0	0.0	0.0	91.7	34.8	23.5	0.0	0.0	0.0	0.0	0.0
W2	135.0	51.4	32.8	0.0	0.0	0.0	0.0	0.0	135.0	51.4	32.8	0.0	0.0	0.0	0.0	0.0
W3	677.5	205.7	134.9	0.0	0.0	0.0	0.0	0.0	751.3	225.9	134.9	0.0	0.0	0.0	0.0	0.0
W4	292.1	67.8	45.3	0.0	7.7	1.1	0.4	0.0	290.9	68.5	44.9	0.0	2.6	1.6	0.8	0.0
W5	154.4	57.2	29.0	0.0	0.0	0.0	0.0	0.0	154.4	57.2	29.0	0.0	0.0	0.0	0.0	0.0
W6	110.4	41.7	29.2	0.0	0.0	0.0	0.0	0.0	110.4	41.7	29.2	0.0	0.0	0.0	0.0	0.0
W7	67.2	25.9	13.5	0.0	0.0	0.0	0.0	0.0	67.2	25.9	13.5	0.0	0.0	0.0	0.0	0.0
W8	101.5	39.0	21.8	0.0	0.0	0.0	0.0	0.0	101.5	39.0	21.8	0.0	0.0	0.0	0.0	0.0
W9	12.4	4.8	2.5	0.0	0.0	0.0	0.0	0.0	12.4	4.8	2.5	0.0	0.0	0.0	0.0	0.0
W10	220.5	84.1	52.2	0.0	0.0	0.0	0.0	0.0	220.5	84.1	52.2	0.0	0.0	0.0	0.0	0.0
Total	1862.7	612.4	384.6	0.0	7.7	1.1	0.4	0.0	1935.3	633.3	384.3	0.0	0.4	0.2	0.1	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	95.25	16.05	2.21	0.00
Cropland	350.85	114.02	88.35	0.00
Pastureland	370.27	83.66	58.10	0.00
Forest	962.27	371.42	193.17	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	76.38	26.14	42.43	0.00
Groundwater	0.00	0.00	0.00	0.00

Dalton - Proposed Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/year	%	%	%	%
W1	83.9	34.8	23.5	0.0	0.0	0.0	0.0	0.0	83.9	34.8	23.5	0.0	0.0	0.0	0.0	0.0
W2	123.7	51.4	32.8	0.0	0.0	0.0	0.0	0.0	123.7	51.4	32.8	0.0	0.0	0.0	0.0	0.0
W3	600.9	199.7	132.4	0.0	14.5	3.0	0.6	0.0	586.4	196.7	131.8	0.0	2.4	1.5	0.5	0.0
W4	274.2	67.8	45.3	0.0	1.9	0.7	0.3	0.0	272.3	67.1	45.0	0.0	0.7	1.1	0.7	0.0
W5	132.9	55.4	28.8	0.0	0.0	0.0	0.0	0.0	132.9	55.4	28.8	0.0	0.0	0.0	0.0	0.0
W6	221.0	56.5	26.2	0.0	46.3	9.6	2.0	0.0	174.8	46.9	24.3	0.0	20.9	17.0	7.5	0.0
W7	100.5	30.6	12.5	0.0	15.2	3.1	0.6	0.0	85.3	27.5	11.8	0.0	15.1	10.2	5.1	0.0
W8	223.0	55.0	18.6	0.0	49.9	10.4	2.1	0.0	173.1	44.6	16.4	0.0	22.4	18.8	11.5	0.0
W9	60.8	11.0	1.4	0.0	18.0	3.8	0.8	0.0	42.8	7.2	0.6	0.0	29.6	34.4	56.4	0.0
W10	718.7	133.2	37.3	0.0	148.4	31.5	6.8	0.0	570.3	101.7	30.5	0.0	20.6	23.7	18.2	0.0
Total	2539.6	695.4	358.8	0.0	294.2	62.1	13.2	0.0	2245.4	633.3	345.5	0.0	11.6	8.9	3.7	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	858.38	133.93	13.32	0.00
Cropland	315.51	114.02	88.35	0.00
Pastureland	347.03	83.66	58.10	0.00
Forest	656.63	275.57	143.32	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	67.89	26.14	42.43	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	2245.45	633.32	345.52	0.00

3. Total load by subwatershed(s) (PROPOSED - EXISTING)

Watershed ID	Watershed	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
DOFF10	W1	-7.8	0.0	0.0	0.0	-9%	0%	0%	0%
DOFF15	W2	-11.3	0.0	0.0	0.0	-8%	0%	0%	0%
DOFF160	W3	-164.9	-29.2	-3.1	0.0	-22%	-13%	-2%	0%
DOFF165	W4	-18.6	-1.4	0.1	0.0	-6%	-2%	0%	0%
DOFF50	W5	-21.5	-1.8	-0.3	0.0	-14%	-3%	-1%	0%
DON10	W6	64.4	5.2	-4.9	0.0	58%	12%	-17%	0%
DON15	W7	18.1	1.6	-1.6	0.0	27%	6%	-12%	0%
DON20	W8	71.6	5.6	-5.3	0.0	71%	14%	-24%	0%
DON25	W9	30.4	2.4	-1.9	0.0	245%	51%	-75%	0%
DON30	W10	349.8	17.5	-21.7	0.0	159%	21%	-42%	0%
Total		310.2	0.0	-38.7	0.0	16%	0%	-10%	0%

3. Total load by subwatershed(s) NO BMPS (PROPOSED - EXISTING)

Watershed ID	Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
DOFF10	W1	-7.8	0.0	0.0	0.0	-9%	0%	0%	0%
DOFF15	W2	-11.3	0.0	0.0	0.0	-8%	0%	0%	0%
DOFF160	W3	-150.4	-26.2	-2.5	0.0	-20%	-12%	-2%	0%
DOFF165	W4	-16.7	-0.7	0.4	0.0	-6%	-1%	1%	0%
DOFF50	W5	-21.5	-1.7	-0.3	0.0	-14%	-3%	-1%	0%
DON10	W6	110.7	14.8	-3.0	0.0	100%	35%	-10%	0%
DON15	W7	33.3	4.7	-1.0	0.0	50%	18%	-7%	0%
DON20	W8	121.5	16.0	-3.2	0.0	120%	41%	-15%	0%
DON25	W9	48.4	6.2	-1.1	0.0	390%	130%	-43%	0%
DON30	W10	498.2	49.0	-14.9	0.0	226%	58%	-29%	0%
Total		604.4	62.2	-25.5	0.0	31%	10%	-7%	0%

Jacobs - Existing Condition

1. Total load by subwatershed(s)																
Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	9350.3	3106.0	1961.0	0.0	0.0	0.0	0.0	0.0	9350.3	3106.0	1961.0	0.0	0.0	0.0	0.0	0.0
W2	87.7	35.6	33.6	0.0	0.0	0.0	0.0	0.0	87.7	35.6	33.6	0.0	0.0	0.0	0.0	0.0
W3	72.4	30.0	20.4	0.0	0.0	0.0	0.0	0.0	72.4	30.0	20.4	0.0	0.0	0.0	0.0	0.0
W4	31.9	13.2	9.6	0.0	0.0	0.0	0.0	0.0	31.9	13.2	9.6	0.0	0.0	0.0	0.0	0.0
W5	30.3	11.7	11.2	0.0	0.0	0.0	0.0	0.0	30.3	11.7	11.2	0.0	0.0	0.0	0.0	0.0
W6	20.8	8.5	7.9	0.0	0.0	0.0	0.0	0.0	20.8	8.5	7.9	0.0	0.0	0.0	0.0	0.0
W7	232.0	89.3	47.8	0.0	0.0	0.0	0.0	0.0	232.0	89.3	47.8	0.0	0.0	0.0	0.0	0.0
W8	384.8	145.5	76.0	0.0	0.0	0.0	0.0	0.0	384.8	145.5	76.0	0.0	0.0	0.0	0.0	0.0
W9	69.5	26.8	15.3	0.0	0.0	0.0	0.0	0.0	69.5	26.8	15.3	0.0	0.0	0.0	0.0	0.0
W10	121.3	35.5	21.3	0.0	0.0	0.0	0.0	0.0	121.3	35.5	21.3	0.0	0.0	0.0	0.0	0.0
Total	10401.0	3502.2	2204.0	0.0	0.0	0.0	0.0	0.0	10401.0	3502.2	2204.0	0.0	0.0	0.0	0.0	0.0

2. Total load by land uses (with BMP)				
Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	409.80	68.30	10.24	0.00
Cropland	8324.83	2846.75	1826.83	0.00
Pastureland	601.59	142.31	97.97	0.00
Forest	965.61	406.63	206.99	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	99.17	38.18	61.98	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	10400.99	3502.16	2204.02	0.00

Jacobs - Proposed Condition

1. Total load by subwatershed(s)																
Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	8859.6	3015.6	1924.1	0.0	2.1	0.8	0.3	0.0	8857.5	3014.8	1923.8	0.0	0.0	0.0	0.0	0.0
W2	88.0	35.7	30.8	0.0	0.0	0.0	0.0	0.0	88.0	35.7	30.8	0.0	0.0	0.0	0.0	0.0
W3	72.4	30.1	19.5	0.0	0.0	0.0	0.0	0.0	72.4	30.1	19.5	0.0	0.0	0.0	0.0	0.0
W4	31.9	13.2	9.0	0.0	0.0	0.0	0.0	0.0	31.9	13.2	9.0	0.0	0.0	0.0	0.0	0.0
W5	43.2	13.6	10.3	0.0	2.3	0.6	0.2	0.0	41.0	13.0	10.1	0.0	5.2	4.3	1.7	0.0
W6	26.2	9.3	7.4	0.0	0.4	0.2	0.1	0.0	25.8	9.2	7.3	0.0	1.6	1.7	0.9	0.0
W7	1075.5	199.9	33.6	0.0	303.5	64.8	12.0	0.0	772.0	135.1	21.6	0.0	28.2	32.4	35.8	0.0
W8	606.7	176.1	73.6	0.0	81.1	18.2	2.2	0.0	525.5	157.9	71.4	0.0	13.4	10.3	3.0	0.0
W9	71.4	26.9	14.7	0.0	3.2	0.7	0.0	0.0	68.2	26.2	14.7	0.0	4.5	2.6	0.3	0.0
W10	139.5	37.2	19.9	0.0	11.9	2.6	0.6	0.0	127.6	34.6	19.4	0.0	8.6	6.9	2.8	0.0
Total	11014.4	3557.6	2143.0	0.0	404.5	87.8	15.4	0.0	10609.8	3469.7	2127.5	0.0	3.7	2.5	0.7	0.0

2. Total load by land uses (with BMP)				
Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	1020.92	167.90	17.43	0.00
Cropland	8324.83	2846.75	1826.83	0.00
Pastureland	398.89	94.36	64.96	0.00
Forest	765.42	322.33	164.08	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	99.79	38.42	54.23	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	10609.84	3469.74	2127.53	0.00

3. Total load by subwatershed(s) (PROPOSED - EXISTING)									
Watershed ID	Watershed	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
NOFF110, 115, 120, 125, 130, 135, 140	W1	-492.8	-91.2	-37.2	0.0	-5%	-3%	-2%	0%
NOFF30	W2	0.2	0.1	-2.8	0.0	0%	0%	-8%	0%
NOFF35	W3	0.1	0.0	-0.9	0.0	0%	0%	-5%	0%
NOFF40	W4	0.0	0.0	-0.5	0.0	0%	0%	-5%	0%
NON105	W5	10.6	1.3	-1.0	0.0	35%	11%	-9%	0%
NON75	W6	5.0	0.7	-0.6	0.0	24%	8%	-8%	0%
NON80	W7	540.0	45.8	-26.2	0.0	233%	51%	-55%	0%
NON85	W8	140.7	12.4	-4.6	0.0	37%	9%	-6%	0%
NON90	W9	-1.3	-0.6	-0.7	0.0	-2%	-2%	-4%	0%
NON95	W10	6.2	-0.9	-1.9	0.0	5%	-2%	-9%	0%
Total		208.8	-32.4	-76.5	0.0	2%	-1%	-3%	0%

3. Total load by subwatershed(s) (PROPOSED - EXISTING)									
Watershed ID	Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
DOFF10	W1	-490.7	-90.4	-36.8	0.0	-5%	-3%	-2%	0%
DOFF15	W2	0.2	0.1	-2.8	0.0	0%	0%	-8%	0%
DOFF160	W3	0.1	0.0	-0.9	0.0	0%	0%	-5%	0%
DOFF165	W4	0.0	0.0	-0.5	0.0	0%	0%	-5%	0%
DOFF50	W5	12.9	1.9	-0.8	0.0	42%	16%	-8%	0%
DON10	W6	5.4	0.9	-0.6	0.0	26%	10%	-7%	0%
DON15	W7	843.5	110.5	-14.2	0.0	364%	124%	-30%	0%
DON20	W8	221.8	30.6	-2.4	0.0	58%	21%	-3%	0%
DON25	W9	2.0	0.1	-0.6	0.0	3%	0%	-4%	0%
DON30	W10	18.2	1.7	-1.4	0.0	15%	5%	-6%	0%
Total		613.4	55.4	-61.1	0.0	6%	2%	-3%	0%

Line Creek - Existing Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	9716.8	3391.9	2331.4	0.0	2578.0	913.1	655.8	0.0	7138.8	2478.8	1675.6	0.0	26.5	26.9	28.1	0.0
W2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	9716.8	3391.9	2331.4	0.0	2578.0	913.1	655.8	0.0	7138.8	2478.8	1675.6	0.0	26.5	26.9	28.1	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	120.67	19.99	3.01	0.00
Cropland	5669.97	1991.75	1352.55	0.00
Pastureland	414.27	86.85	58.41	0.00
Forest	850.89	348.28	209.69	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	83.05	31.97	51.90	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	7138.84	2478.83	1675.57	0.00

Total Load This is the summary of annual nutrient and sediment load for each subwatershed. This sheet is initially protected.

Peterson Basin - Existing Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	4188.4	1369.0	841.0	0.0	0.0	0.0	0.0	0.0	4188.4	1369.0	841.0	0.0	0.0	0.0	0.0	0.0
W2	5.7	2.4	1.2	0.0	0.0	0.0	0.0	0.0	5.7	2.4	1.2	0.0	0.0	0.0	0.0	0.0
W3	164.7	69.1	37.8	0.0	0.0	0.0	0.0	0.0	164.7	69.1	37.8	0.0	0.0	0.0	0.0	0.0
W4	152.6	64.0	34.7	0.0	0.0	0.0	0.0	0.0	152.6	64.0	34.7	0.0	0.0	0.0	0.0	0.0
W5	23.9	8.6	4.1	0.0	0.0	0.0	0.0	0.0	23.9	8.6	4.1	0.0	0.0	0.0	0.0	0.0
W6	246.1	103.4	55.1	0.0	0.0	0.0	0.0	0.0	246.1	103.4	55.1	0.0	0.0	0.0	0.0	0.0
W7	20.7	7.7	3.7	0.0	0.0	0.0	0.0	0.0	20.7	7.7	3.7	0.0	0.0	0.0	0.0	0.0
W8	181.6	74.0	38.6	0.0	0.0	0.0	0.0	0.0	181.6	74.0	38.6	0.0	0.0	0.0	0.0	0.0
W9	24.5	9.8	10.7	0.0	0.0	0.0	0.0	0.0	24.5	9.8	10.7	0.0	0.0	0.0	0.0	0.0
W10	70.9	22.2	18.5	0.0	0.0	0.0	0.0	0.0	70.9	22.2	18.5	0.0	0.0	0.0	0.0	0.0
Total	5079.1	1730.3	1045.4	0.0	0.0	0.0	0.0	0.0	5079.1	1730.3	1045.4	0.0	0.0	0.0	0.0	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	424.71	70.79	10.62	0.00
Cropland	3456.14	1183.48	761.95	0.00
Pastureland	143.17	34.04	23.49	0.00
Forest	1001.07	421.18	215.64	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	53.97	20.78	33.73	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	5079.07	1730.27	1045.44	0.00

Peterson Basin - Proposed Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	4186.6	1368.2	840.4	0.0	28.8	11.2	4.6	0.0	4157.7	1357.0	835.9	0.0	0.7	0.8	0.5	0.0
W2	5.7	2.4	1.2	0.0	0.0	0.0	0.0	0.0	5.7	2.4	1.2	0.0	0.0	0.0	0.0	0.0
W3	621.8	126.9	28.3	0.0	107.0	22.6	4.8	0.0	514.8	104.3	23.5	0.0	17.2	17.8	16.9	0.0
W4	280.6	80.9	32.6	0.0	46.2	9.9	1.7	0.0	234.4	71.0	30.9	0.0	16.5	12.2	5.3	0.0
W5	55.7	12.6	3.4	0.0	13.2	2.8	0.5	0.0	42.4	9.8	2.9	0.0	23.8	22.4	14.8	0.0
W6	531.8	142.7	51.9	0.0	99.6	21.8	2.9	0.0	432.3	120.9	49.0	0.0	18.7	15.3	5.6	0.0
W7	41.3	10.1	3.1	0.0	9.4	2.0	0.4	0.0	31.9	8.2	2.7	0.0	22.8	19.3	13.1	0.0
W8	660.3	132.2	26.0	0.0	192.7	39.6	8.0	0.0	467.6	92.6	18.0	0.0	29.2	30.0	30.7	0.0
W9	24.5	9.8	10.7	0.0	0.0	0.0	0.0	0.0	24.5	9.8	10.7	0.0	0.0	0.0	0.0	0.0
W10	123.2	28.6	17.1	0.0	23.4	5.2	1.2	0.0	99.8	23.4	15.9	0.0	19.0	18.1	7.0	0.0
Total	6531.5	1914.4	1014.8	0.0	520.4	115.1	24.1	0.0	6011.1	1799.3	990.7	0.0	8.0	6.0	2.4	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	1689.03	278.78	27.29	0.00
Cropland	3453.29	1182.51	761.32	0.00
Pastureland	139.60	33.19	22.91	0.00
Forest	675.18	284.07	145.44	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	53.97	20.78	33.73	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	6011.08	1799.33	990.70	0.00

3. Total load by subwatershed(s) (PROPOSED - EXISTING)

Watershed ID	Watershed	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
POFF	W1	-30.6	-12.0	-5.2	0.0	-1%	-1%	-1%	0%
PON100	W2	0.0	0.0	0.0	0.0	0%	0%	0%	0%
PON35	W3	350.2	35.2	-14.2	0.0	213%	51%	-38%	0%
PON40	W4	81.8	7.0	-3.8	0.0	54%	11%	-11%	0%
PON45	W5	18.6	1.1	-1.2	0.0	78%	13%	-30%	0%
PON50	W6	186.1	17.5	-6.1	0.0	76%	17%	-11%	0%
PON55	W7	11.2	0.5	-1.0	0.0	54%	6%	-28%	0%
PON60	W8	285.9	18.5	-20.6	0.0	157%	25%	-53%	0%
PON65	W9	0.0	0.0	0.0	0.0	0%	0%	0%	0%
PON70	W10	28.8	1.2	-2.5	0.0	41%	6%	-14%	0%
Total		932.0	69.1	-54.7	0.0	18%	4%	-5%	0%

3. Total load by subwatershed(s) (PROPOSED - EXISTING)

Watershed ID	Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
DOFF10	W1	-1.8	-0.8	-0.6	0.0	0%	0%	0%	0%
DOFF15	W2	0.0	0.0	0.0	0.0	0%	0%	0%	0%
DOFF160	W3	457.2	57.8	-9.4	0.0	278%	84%	-25%	0%
DOFF165	W4	128.0	16.8	-2.1	0.0	84%	26%	-6%	0%
DOFF50	W5	31.8	4.0	-0.7	0.0	133%	46%	-18%	0%
DON10	W6	285.7	39.3	-3.2	0.0	116%	38%	-6%	0%
DON15	W7	20.7	2.5	-0.6	0.0	100%	32%	-17%	0%
DON20	W8	478.6	58.2	-12.6	0.0	264%	79%	-33%	0%
DON25	W9	0.0	0.0	0.0	0.0	0%	0%	0%	0%
DON30	W10	52.3	6.4	-1.3	0.0	74%	29%	-7%	0%
Total		1452.4	184.1	-30.7	0.0	29%	11%	-3%	0%

Total Load This is the summary of annual nutrient and sediment load for each subwatershed. This sheet is initially protected.

Smith Basin - Existing Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	78.2	31.4	26.7	0.0	0.0	0.0	0.0	0.0	78.2	31.4	26.7	0.0	0.0	0.0	0.0	0.0
W2	3784.2	1331.6	921.4	0.0	597.3	234.4	167.6	0.0	3187.0	1097.2	753.7	0.0	15.8	17.6	18.2	0.0
W3	34.4	13.5	16.2	0.0	0.0	0.0	0.0	0.0	34.4	13.5	16.2	0.0	0.0	0.0	0.0	0.0
W4	212.5	85.5	70.2	0.0	0.0	0.0	0.0	0.0	212.5	85.5	70.2	0.0	0.0	0.0	0.0	0.0
W5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4109.3	1462.1	1034.4	0.0	597.3	234.4	167.6	0.0	3512.1	1227.7	866.8	0.0	14.5	16.0	16.2	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	42.70	6.58	0.99	0.00
Cropland	2561.41	886.21	618.15	0.00
Pastureland	250.27	69.07	50.57	0.00
Forest	574.65	233.90	145.18	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	83.05	31.98	51.91	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	3512.08	1227.73	866.79	0.00

Smith Basin - Proposed Conditions

1. Total load by subwatershed(s)

Watershed	N Load (no BMP)	P Load (no BMP)	Sediment Load (no BMP)	E. coli Load (no BMP)	N Reduction	P Reduction	Sediment Reduction	E. coli Reduction	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Reduction	%P Reduction	%Sed Reduction	%E. coli Reduction
	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	lb/year	lb/year	t/year	Billion MPN/yr	%	%	%	%
W1	78.2	31.4	26.7	0.0	0.0	0.0	0.0	0.0	78.2	31.4	26.7	0.0	0.0	0.0	0.0	0.0
W2	3784.2	1331.6	921.4	0.0	597.3	234.4	167.6	0.0	3187.0	1097.2	753.7	0.0	15.8	17.6	18.2	0.0
W3	34.4	13.5	16.2	0.0	0.0	0.0	0.0	0.0	34.4	13.5	16.2	0.0	0.0	0.0	0.0	0.0
W4	212.5	85.5	70.2	0.0	0.0	0.0	0.0	0.0	212.5	85.5	70.2	0.0	0.0	0.0	0.0	0.0
W5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4109.3	1462.1	1034.4	0.0	597.3	234.4	167.6	0.0	3512.1	1227.7	866.8	0.0	14.5	16.0	16.2	0.0

2. Total load by land uses (with BMP)

Sources	N Load (lb/yr)	P Load (lb/yr)	Sediment Load (t/yr)	E. coli Load (Billion MPN/yr)
Urban	42.70	6.58	0.99	0.00
Cropland	2561.41	886.21	618.15	0.00
Pastureland	250.27	69.07	50.57	0.00
Forest	574.65	233.90	145.18	0.00
Feedlots	0.00	0.00	0.00	0.00
User Defined	0.00	0.00	0.00	0.00
Septic	0.00	0.00	0.00	0.00
Gully	0.00	0.00	0.00	0.00
Streambank	83.05	31.98	51.91	0.00
Groundwater	0.00	0.00	0.00	0.00
Total	3512.08	1227.73	866.79	0.00

3. Total load by subwatershed(s) (PROPOSED - EXISTING)

Watershed ID	Watershed	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
SOFF05	W1	0.0	0.0	0.0	0.0	0%	0%	0%	0%
SOFF170	W2	0.0	0.0	0.0	0.0	0%	0%	0%	0%
SOFF175	W3	0.0	0.0	0.0	0.0	0%	0%	0%	0%
SON05	W4	0.0	0.0	0.0	0.0	0%	0%	0%	0%
	Total	0.0	0.0	0.0	0.0	0%	0%	0%	0%

3. Total load by subwatershed(s) (PROPOSED - EXISTING)

Watershed ID	Watershed	N Load (with BMP)	P Load (with BMP)	Sediment Load (with BMP)	E. coli Load (with BMP)	%N Increase	%P Increase	%Sed Increase	%E. coli Increase
		lb/year	lb/year	t/year	Billion MPN/year				
SOFF05	W1	0.0	0.0	0.0	0.0	0%	0%	0%	0%
SOFF170	W2	597.3	234.4	167.6	0.0	19%	21%	22%	0%
SOFF175	W3	0.0	0.0	0.0	0.0	0%	0%	0%	0%
SON05	W4	0.0	0.0	0.0	0.0	0%	0%	0%	0%
	Total	597.3	234.4	167.6	0.0	17%	19%	19%	0%