City of Ketchum, Idaho

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November 13, 2012

Mayor Hall and City Councilors
City of Ketchum
Ketchum, Idaho

R&PP Update
and Request for Plan of Development Approval

Mayor Hall and City Councilors:

Introduction/History

The City of Ketchum applied for a Recreation and Public Purposes (R&PP) patent in 2008 for an approximate total of 316 acres of land owned by the United States and administered by the Bureau of Land Management. Part of the yet to be adopted management plan for the patent includes creation of a River Park along the Big Wood River about two miles north of City limits adjacent to the Hulen Meadows subdivision.

The City's partner in the R&PP patent application is the Wood River Land Trust. Additionally, myriad stakeholders are engaged in multiple components of the patent including but not limited to recreation, habitat restoration, flood mitigation and accessibility.

The City undertook a formal master planning effort for an "area of intense study" within what is commonly known as the North Parcel in July 2011. S2o Design and Engineering, a Lyons, Colorado firm specializing in whitewater park and river recreation planning, was hired in January 2012 to provide professional design and engineering of the River Park at Sun Peak. The River Park at Sun Peak is a focused area of recreational use while the remainder of the R&PP properties' uses will remain largely as they are today.

Current Report

The R&PP Task Force recommended revisions to the concept design of the River Park at Sun Peak on October 15, 2012. These revisions as well as budgetary approval for remaining Environmental Assessment work as required by the R&PP application process occurred at this October 15th meeting.

The next document required by BLM is called a Plan of Development (POD). The POD was first submitted to BLM when the City submitted its R&PP application in 2008. Subsequent amendments to the application (including the whitewater park and focused area of use known as the River Park at Sun Peak) have occurred since 2008 which compelled the BLM to require a re-written POD which includes

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all of the amendments (if they are still included). The River Park also required further EA work which is being conducted at this time.

The draft POD has been through several edits by Task Force members including the Wood River Land Trust and BLM. Of note is a meeting which occurred in Twin Falls with both the Twin Falls District and Shoshone District offices of BLM called by representatives of Congressman Mike Simpson and U.S. Senator Mike Crapo to further clarify requirements of the POD. A final Task Force meeting on 11/12/12 revealed final edits to the draft document before you today.

A Memorandum of Understanding between BLM and the City of Ketchum regarding EA work (and referenced in the last update to City Council on 10/15/12) was agreed upon by both City and BLM representatives (including legal) but has not yet been signed by Twin Falls District Manager Mel Meier. As indicated earlier, EA work is being conducted at this time by third party contractor GeoEngineers through a contract with S2o Design and Engineers.

Financial Requirement/Impact

No financial requirement exists at this time; however, the Plan of Development does present a cost estimate section for City Council's understanding relative to budget considerations for fiscal years 2014 and beyond.

The Task Force's next undertaking will be to develop a funding strategy for all development and maintenance components of the R&PP properties' Plan of Development along with its partner (Wood River Land Trust) and stakeholders. The funding strategy will focus in large part on philanthropic fundraising, endowment establishment, grant research and acquisition through various stakeholders, and through increases to the Parks & Recreation Department's annual budget. Funding for projects and maintenance will not be required until such a time that the R&PP application has received formal approval by BLM. Additionally, funding will be contingent on approval of a final alternative chosen by BLM.

Recommendation

I respectfully recommend that City Council approve the submitted Plan of Development and its formal presentation to BLM.

Suggested Motion

"I move to approve the submitted Plan of Development and its formal presentation to BLM."

Respectfully Submitted,

Jennifer L. Smith
Director of Parks & Recreation

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UPDATED PLAN OF DEVELOPMENT
NOVEMBER 2012

CITY OF KETCHUM R&PP PLAN OF DEVELOPMENT
Hulen Meadows Floodplain and River Access Area
(North R&PP Parcel)
And
Hemingway Floodplain and Access Area
(South R&PP Parcel)

I. STATEMENT OF PROPOSED USES OF LAND

1. Introduction

The City of Ketchum ("City") is a national and international tourist destination with great need for outdoor recreational access points to local river resources. Ketchum lacks broad-spectrum, high use natural recreation areas to meet local and tourist recreational demand for access to river resources. Pursuant to the Recreation and Public Purposes ("R&PP") Act the City has submitted an application to the Bureau of Land Management ("BLM") to acquire two parcels of public land. The proposed Hulen Meadows Floodplain and River Access Area ("North Parcel") and Hemingway Floodplain and Access Area ("South Parcel") comprise a total of 316 acres in Blaine County, Idaho.

The North R&PP Parcel encompasses about 210 acres and stretches from the BLM Sun Peak Day Use area, north to the confluence of Lake Creek and the Big Wood River. The North R&PP Parcel is a stressed hyper-manipulated environment that is currently used by several recreational groups for fishing, swimming, boating, hiking, and bird-watching. Located within this area of use is a sediment pond that is not being maintained and is

needed for sediment control downstream. As discussed in this POD, the City proposes to restore and maintain this area so that it is accessible to all users, including those with special needs, and to rehabilitate the sediment pond and protect the floodplain. The Sun Peak Day Use area is immediately adjacent to the City. The South R&PP Parcel includes about 106 acres and is located near the Hemingway Elementary School in Ketchum, Idaho at the confluence of the Big Wood River and Warm Springs Creek also adjacent to City. The proposed R&PP parcels will provide continued/improved river access for swimming, fishing, kayaking, bird-watching, school educational outings, and other recreational activities. The R&PP parcels provide connectivity to existing recreation amenities within the City, as well as possible future recreational sites and amenities.

The Wood River Land Trust ("WRLT") is a local, non-profit conservation organization with professional expertise in river restoration and floodplain management. WRLT approached the City to work collaboratively in creating a solution as well as creating a benefit to the general public by pro-actively managing the parcels; which were areas already in use by the public. There are several stakeholders for this project including WRLT, the whitewater community, the neighboring subdivision, downstream property owners that may be affected if the Sediment Trap fills up, government stakeholders, and general interested citizens. Due to the diverse stakeholder groups, the City formed a task force comprised of representatives of these groups to actively participate in the R&PP process.

Off of Hwy 75, north of Ketchum near Sage Road, there is a large sediment trap located on the North R&PP Parcel which is generally known as the "Hulen Meadows Pond" named after the neighboring subdivision, Hulen Meadows, hereinafter referred to as "the Sediment Trap". It is used regularly for fishing, swimming and kayaking and recently served as a source of water for fighting the Castle Rock Forest Fire in 2007. The Sediment Trap is a well-used recreational resource that requires restoration and long-term maintenance to preserve existing uses.

This Plan of Development ("POD") derives from WRLT and the City recognizing restoration and recreational opportunities on an altered stretch of the Big Wood River and Sediment Trap. Without maintenance, it is anticipated that the Sediment Trap will eventually become disconnected from the Big Wood River. This will increase channelization of the river and downstream transport of sediment and bedload. As proposed in this POD, ongoing maintenance of the Sediment Trap will continue to capture sediment and bedload and help alleviate downstream flooding. Long-term maintenance of the Sediment Trap will provide a stable source of water to fight future wildfires close to the communities of Ketchum and Sun Valley.

The South R&PP Parcel will provide connectivity to a possible connector trail between the River Run and Warm Springs trail complexes on Bald Mountain. Beginning in 2006, the City's Parks & Recreation Department performed maintenance duties on both R&PP parcels under an Assistance Agreement (AA) with the BLM Shoshone Field Office.

The AA lapsed at the end of 2010. Currently, there is an informal agreement between the City and BLM for the City to continue with the maintenance and receive comparable compensation as under the AA. However, the BLM does not have any funds set-aside or have an agreement in place to guarantee the City compensation for the continued maintenance on the parcels.

The BLM website provides the purpose of the Recreation and Public Purposes Act, 68 Stat. 173; 43 USC 869 *et. seq.* It states:

> *Over the past 40 years, Americans have expressed a dynamic and accelerated interest in outdoor recreation. Our expanding urban populations, increased mobility and leisure time, and higher standard of living have created a demand for more and better recreation facilities.*
> *…*
> *The act authorizes the sale or lease of public lands for recreational or public purposes to State and local governments and to qualified nonprofit organizations. Examples of typical uses under the act are historic monument sites, campgrounds, schools, fire houses, law enforcement (sic)facilities, municipal facilities, landfills, hospitals, parks, and fairgrounds.*

http://www.blm.gov/wo/st/en/prog/more/lands/recreation_and_public.html (last retrieved September 28, 2012).

The City's R&PP application carries out the spirit of this Act and satisfies several elements including increasing outdoor recreation opportunities and providing municipal facilities, including a City water storage tank and municipal well. The City recognizes the desire for public outdoor recreation but is also cognizant that the "outdoor experience" is not one that should be manufactured or overly developed. This project provides minimal development and infrastructure except what is needed to provide access with the least impact so the naturally beautiful landscape can be enjoyed. The City will be rehabilitating a currently stressed environment and implementing mechanisms that will maintain the improvements. Under BLM rules and guidelines, these parcels possess characteristics that identify them as a "high priority" for disposal and the City of Ketchum is a preferred recipient for an R&PP patent.

Approval for a patent by BLM is subject to several criteria being met by the City pursuant to the *Amendments to Shoshone Field Office Land Use Plans for Land Tenure Adjustment and Areas of Environmental Concern*, U.S. Department of Interior, BLM (August 2003)("LUP Amendments").

UPDATED PLAN OF DEVELOPMENT
NOVEMBER 2012

This R&PP patent project satisfies the following criteria for disposal under the LUP Amendments:

1. The local (city or county) government's interest in acquiring public lands to support infrastructure and extend community services;
2. Provides for high quality continuous habitat throughout retention and connectivity of wild lands;
3. Reduces hazardous fuels and the risk of wildfire (provides a water source for firefighting);
4. Retains "open space" and protect scenic corridors;
5. Will facilitate ongoing and future trails and other public access;
6. Protects floodplains from further development.

The LUP Amendments require BLM to give a preference for disposal through R&PP patent to local or State government entities (since these are expected to provide management of the lands over the long term versus a nonprofit organization) when the BLM's priorities, the local or State government's priorities, and the public's needs are met by the patent process. These parcels fall under the area for "High Priority" for disposal. They are difficult to manage due to their isolation and distance from the field office; and are more suitable for management by the City which is supported by the AA agreement with BLM on these parcels. Finally, these parcels are of special importance to (and adjacent to) the local community for purposes including, but not limited to, community expansion, extended community services, and economic development. These parcels are "Lands to Support Local Needs" which require that "reasonably necessary" sized parcels of public land may be made available for disposal through the R&PP Act, preferably directly to local governments, to support local needs for community infrastructure and extended services. Community needs will be accommodated to the greatest extent possible.

This POD supports the City's R&PP application submitted to the BLM and describes the projects the City will complete upon the issuance of a patent. Included in the POD and incorporated by reference is the Master Plan for the proposed River Park; the Master Plan was created through a very thorough vetting process with the public and local government officials. The River Park encompasses all proposed improvements, including trails, parking areas, restrooms, picnic shelters, etc. Within the River Park is an in-stream whitewater amenity, referred to as the whitewater park. The City hired the best consultants in their industry, including an Olympic kayaker and engineer to design the whitewater park. The Master Plan includes elements of the criteria set forth above such as formal designation of a trail system of existing trails and building additional ADA accessible trails to the Sediment Trap and Big Wood River. The Master Plan also includes riparian and wetland restoration zones that will be protected and undeveloped. There will also be bank stabilization along the Sediment Trap and river channels to repair and protect the river and banks within the floodplain.

2. *Proposed Sites*

Below is a list of proposed sites and uses for the R&PP parcels. Paragraphs A-G, describe proposed uses on the North R&PP Parcel with H describing those for the South R&PP Parcel. The Master Plan provides for a much more detailed description of these uses. In essence, after a lot of planning and consulting the Master Plan creates a campus-like nature park with many amenities and sites that target different audiences which allows for much more diverse uses of the park and special experience. This provides recreation to anglers, boaters, dog owners, families with young children, and people needing ADA access.

Most of these sites are connected or are contiguous as indicated on the attached maps. All of the sites are situated within the proposed patent areas and all serve the public and provide the City and region with beneficial mitigation, flood management, and restoration qualities.

Proposed sites with categories (R=Recreation, PP=Public Purpose, and U=Utility)

A. <u>Whitewater Park</u> (R, PP)

i. Park Description

The whitewater park would primarily be comprised of the in-stream drop structures on both the west channel leading to the Sediment Trap and the eastern channel of the Big Wood River. The whitewater park would accommodate whitewater competitive events, but also provide a place for all levels of boating, including instructional, beginner, intermediate, and expert. The whitewater park would provide in-stream recreation and instruction, as well as a venue for slalom and freestyle competition. Drop structures installed by ITD in the 1990's are currently in place but have not been maintained. As part of the river restoration, the drop structures would be maintained to help decrease the elevation grade in the river and create whitewater waves for boaters. The proposed design of the whitewater park is largely based on the plan to rebuild and refurbish the existing drop structures in the reach. The rebuilt drop structures would be designed to provide ideal whitewater recreation for a variety of boaters at varying flow rates from early spring run-off to late summer low water. The in-stream drop structures would maintain the riffle, run, pool morphology and provide beneficial elements to in-stream species, including deep pools.

The location of the whitewater park is uniquely advantageous. The two channels allow for the east channel to be for more advanced boaters and the west channel to accommodate beginners. The existence of an island adjacent to the Sediment Trap allows the designers to shape existing drop structures such that the west channel could be utilized during the warmer months as an instructional channel. In this proposed layout, the Sediment Trap would help instructional and novice boaters to recover should they lose

control of their craft in the beginner's channel. This configuration is unique to this proposed whitewater park. This not only lowers safety risks of boaters having to find a suitable exit down the river but also allows beginners, including children, a safe place to get out without the difficulty of the river current. This is also in close proximity to another R&PP project, the Griffin Butte Fire Station, which would allow for the staff to utilize this area for swift water rescue practice and training.

ii. Construction

The primary construction would be the maintenance and restoration of the existing drop structures. Examples of potential drop structures that would be installed and/or modified are identified below and can also be found on page 3-7 of the Master Plan. The proposed project would be constructed during low-flow periods of the year, typically in late fall October/early November and within the "in-water work windows" that would limit impacts to in-stream species. Heavy machinery will be required during the construct the proposed structures; however, the machinery will be operated in a manner that creates the least amount of disturbance to the site.

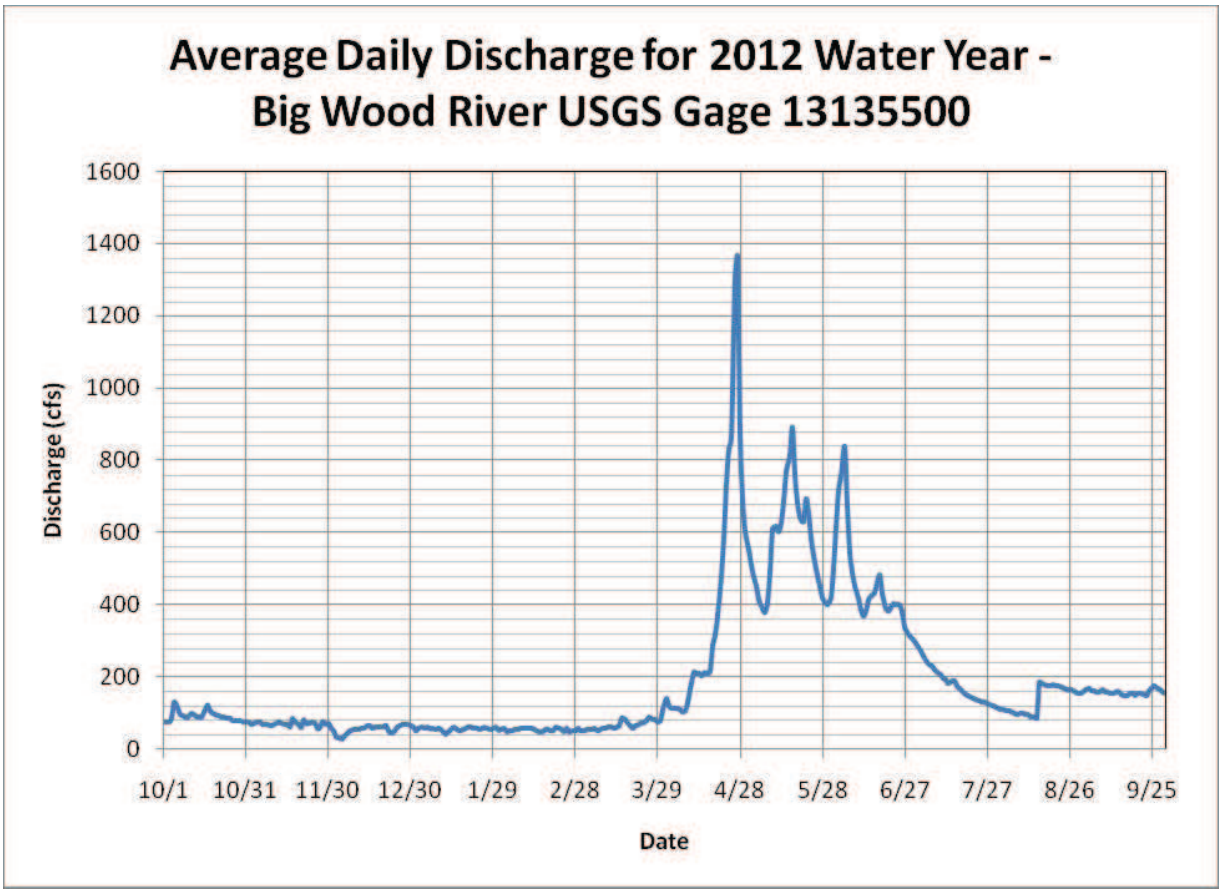
The maintenance plan would use Best Management Practices in light of stormwater pollution, erosion, and sediment control. Finalization of the maintenance plan cannot be completed until a final design for the Master Plan is in place. As part of the revitalization and protection of the river banks there would be bank enhancements along the river. Depending on the current condition of the banks, there would be soft bank protection, natural riprap, and channel and wetland enhancements. Typical locations and design diagrams are found in 3-7 through 3-9 of the Master Plan.

iii. Maintenance

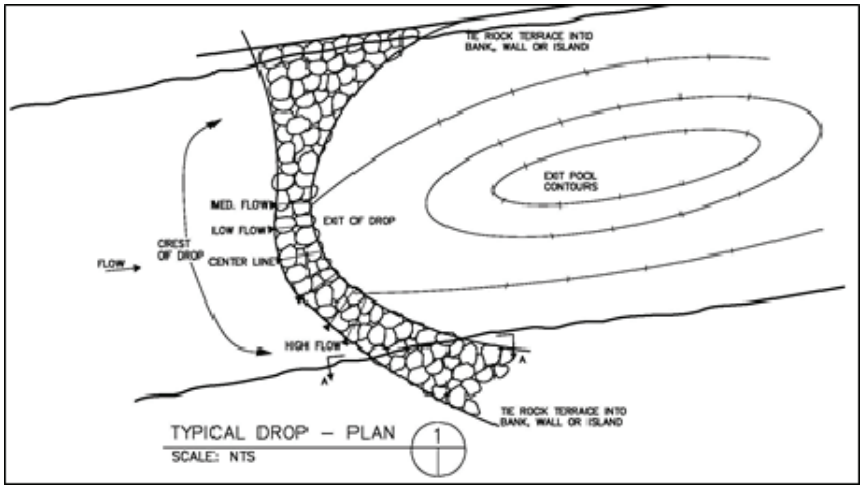
The proposed maintenance plan for this whitewater park, if necessary, would include tuning of the drop structures, typically after the first year, or the first seasonal run-off period. The tuning would adapt and enhance any features that are under-functioning. Estimated costs of initial tuning are expected to range from $10,000 to $20,000. There is an estimated in-stream repair every 5 and 10 years but this is a very conservative estimate.

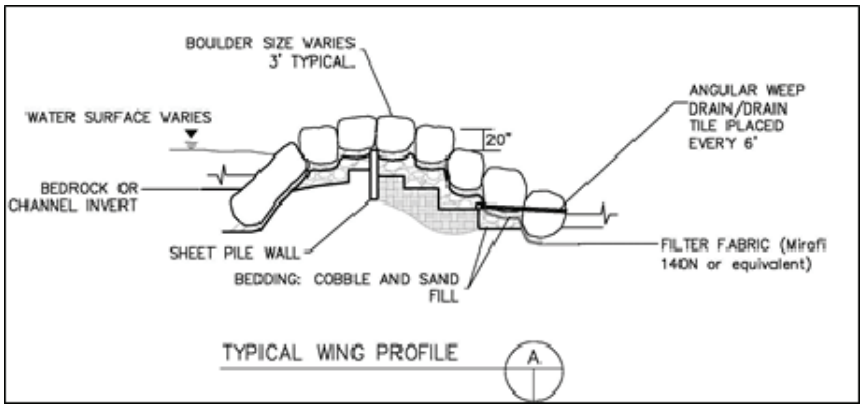
iv. Flow Data and Drop Structures

Average daily discharge rates for the 2012 water year (October 1, 2011 through September 25, 2012) were obtained from the United States Geological Survey (USGS) National Water Information System: Web Interface and is presented in the graph below. The gaging station, from which this data was obtained, is located upstream of the project reach approximately 4.5 miles within the North Fork Campground. This data will be interpreted through a geomorphic study to aid and create a final design for placement, materials, and types of structures.



Drop Structure Examples:





B. <u>Hulen Sediment Trap</u> (R, PP, U)

i. Sediment Trap Description

The Sediment Trap is accessible via Sage Road, a Blaine County public road, off of Hwy 75. It is also accessible by an existing parking lot area on the east side of the Big Wood River and a multi-use river path. Additional access would be provided for anglers as well as a place for strollers, dogs, and nature walkers. It would also have ADA access on the west side of the river from a smaller parking lot that would allow direct access to the Sediment Trap and ADA compliant fishing pier.

The Sediment Trap was originally part of a material site constructed by the Idaho Department of Transportation ("ITD"). The Sediment Trap was part of a river restoration project that utilized the Sediment Trap to mitigate downstream flooding. The river naturally has high sediment discharge and channel diversion and sediment traps have been a common mitigation practice. Generally, high bedload streams do not require sediment traps to function properly if the river and banks are in their natural state. However, due to the downstream proximity of the City of Ketchum, relocation of Hwy 75, and riverfront development resulting in channelization and bank armoring, sediment management is required. Restoration and maintenance is needed in order for the Sediment Trap to continue to provide flood mitigation. This delays downstream sedimentation, bedload migration and other flood related impacts. Without maintenance the Sediment Trap would fill up. The City is unaware of any ongoing or planned maintenance by ITD or any other government agency. The Sediment Trap is an element of the whitewater park. As part of this POD, the Sediment Trap would be maintained in order to fulfill these purposes and exist as an element of the whitewater park. In addition to recreation and flood mitigation, the Sediment Trap would be accessible as a water source for firefighting measures for nearby fires and emergencies.

ii. Construction

Enhancements of the Sediment Trap would include bank stabilization, an ADA accessible fishing pier, and access trails. The areas around the Sediment Trap have become eroded from runoff and heavy human use. The Master Plan includes grading and access improvements that would stabilize the Sediment Trap's banks and improve public access. There would be planting of native trees and shrubs in an effort to provide shade to the pond which in turn may reduce water temperatures. Public access would be encouraged along trails and limited in areas designated for riparian and wetland restoration. These areas would have underwater benches and native plantings along the bank. Examples of bank restoration and design can be found on 3-2, 3-8, 3-9, and 3-12 of the Master Plan.

iii. Maintenance

The Sediment Trap excavation and maintenance is difficult to anticipate due to the high variability of spring runoff. However, ongoing maintenance is necessary regardless of whether the R&PP is approved. There is no good historical data since the Sediment Trap has always been downstream of two other sediment traps that no longer exist. There would be a maintenance schedule similar to the in stream maintenance planned for the whitewater park structures but the City does not expect to do more than monitor in the first couple of years anticipating possible excavations in years five and/or ten and on down the line. However, 15 and 20 year flood/high sediment maintenance, such as dredging, is calculated into the maintenance plan as indicated below. Maintenance dredging would be essential in order to remove sediment captured in the Sediment Trap and maintain the flow of the west channel of the Big Wood River. Another alternative would be the potential use of the northern sediment trap (north of Sage Road bridge) as an area of impact mitigation. The frequency and amount of sediment removal would be based on many factors and is difficult to predict beyond the typical 10 year flood occurrence. Factors that influence the frequency of maintenance dredging include above average water years, fires, landslides or flooding occurrences, and natural disasters up-stream of the whitewater park.

It is anticipated that Sediment Trap dredging activities would most likely occur approximately every 15 to 20 years based on historic river flow events. The cost of dredging the Sediment Trap would vary significantly depending on the type and amount of sediment needed to be removed; however it is estimated that dredging would range between $30,000 and $50,000. The City may be able to offset costs by selling the materials to various private contractors; additional permits may be required.

C. <u>Picnic/Shade Areas and Parking</u> (R, PP)

The primary parking area would be on the east side of the Big Wood River near Highway 75. The parking areas would utilize permeable surface parking as shown on 3-5 of the Master Plan. It would connect to the river and the Sediment Trap by a non-motorized trail system. An additional smaller parking area of 25-30 spaces would be created adjacent to the Sediment Trap on the west side of the river. The west parking area would be ADA

compliant and allow for ADA access so persons with disabilities and mobility challenges may access the park and amenities in a safe manner. A picnic area would also be located near the west parking area.

The west parking area is the closest to the private subdivision, Hulen Meadows. The Master Plan is designed to limit traffic and parking on the west side of the river in order to address concerns raised by subdivision residents. The picnic area is ideally located to complement the ADA access to the Sediment Trap as well as be in near proximity to the children's natural play area and shown on 3-4 of the Master Plan. All other users would primarily access the river, Sediment Trap, and amenities from the east side parking area through trails and a foot bridge. Construction could be done at any time outside of the winter months. Maintenance of the parking areas and shelters would be done through the Ketchum Parks and Recreation Department.

D. Children's Natural Play Area (R, PP)

The children's natural play area is a low-maintenance park amenity specifically designed for small children. It includes a water feature built out of natural materials designed to be safe for children. The feature is designed to appear like a small stream with safety rocks along the sides. The park would allow families with young children a place to enjoy the outdoors and park area without the related dangers of the fast moving river.

The play area would have an interpretive element to educate children about local plants, geography, and wildlife species. It would be located near the restrooms, covered shade/picnic areas and accessible by trail. Construction is fairly minimal as the area is designed to maintain a "natural" feel and is shown on 3-3 of the Master Plan. Maintenance of the children's play area would be done through the Ketchum Parks and Recreation Department.

E. River Park Infrastructure (R, PP)

i. Description

The Master Plan includes river habitat restoration, flood mitigation, parking, ADA access, a whitewater park, restrooms, a bridge, trails, picnic areas, and a children's play area. Current infrastructure may be utilized and/or altered, and new infrastructure would be required.

1. Parking Areas (current/new)—a smaller parking area with ADA access located on the west side; a larger one on the east side of the river.
2. 2 restrooms (new)—located on east and west side of river, upon further investigation, sealed outhouses may be used if needed.
3. Pedestrian bridge (new)—located south of Sage Road Bridge near channel split (3-12, Master Plan)

4. ADA Fishing Pier (new)—located on Sediment Trap (3-13, Master Plan)
5. Trail System (current/new)—connect existing trails and create new trails to provide access to all of the areas, including: kayak put-in and take-out, children's play area, picnic area, the Sediment Trap, restored wetland and riparian habitats, and parking areas.

ii. Maintenance

The City of Ketchum Parks & Recreation Department would be the main point of contact and overseer of general day to day management. Fee scales for reserved organized use of these areas may be determined by City Council resolution based upon Parks & Recreation Department recommendations.

F. Big Wood Reservoir (U)

The City of Ketchum stores city water at a site known as Big Wood Reservoir located on the east side of Highway 75 within the North R&PP parcel. The storage tank site is currently authorized to be located on public lands through a right-of-way administered by the BLM. The storage tank site plays an important role in maintaining water service to city residents. The City needs additional water sources close by to maximize efficient storage at the Big Wood Reservoir. Acquisition of the storage tank site would save the City money annually by eliminating the lease associated with the right-of-way.

The City's former (now retired) Utilities Manager identified the Big Wood Reservoir as an integral component of the R&PP patent. The Big Wood Reservoir contains 2 million gallons of water for domestic and firefighting purposes. This volume of water represents two-thirds of the total available water storage for the entire City and can also be instrumental in providing fire supply for areas outside of the City, including the Hulen Meadows Subdivision and surrounding areas. The Castle Rock fire of 2007, which utilized City water, is an example of how City water storage and associated fire hydrants located outside of City limits can directly benefit the public. The Utilities and Parks Department both currently provide maintenance to this area, including weed mitigation and landscape maintenance.

G. Well Site (U)

i. Description

Installation of a Ketchum well site at the Sun Peak Day Use Area would augment the City's ability to reach capacity at the Big Wood Reservoir site. The City Engineer through the City Water Master Plan determined that the City needs a new well for redundancy purposes (a backup well) and the Sun Peak Day Use site is the area of choice

due to its proximity to the Big Wood Reservoir. The well site would provide a guaranteed water supply The City has begun a water monitoring program to ensure that the proposed well would not conflict with other water user's rights. The City would collect data and secure all required permits to drill a city well in the Sun Peak Day Use Area. Consistent with the permit and state law, the City would discontinue pumping or take any other mitigation steps as required by IDWR if the City well operation adversely affects other senior water user rights.

ii. Maintenance and Costs

The City would use its Water Capital Improvement Fund for developing the well and the Water Operating Fund for maintaining the well.

H. <u>South Parcel Site</u> (R, PP)

i. Description

The South R&PP Parcel located adjacent to Hemingway School and the City's Atkinson Park is currently accessed through a 10' (ten foot) fisherman's easement along Bear Lane to the confluence area of the Big Wood River and the Warm Springs River. It is a popular fishing and dog walking area. Existing amenities include a dog waste receptacle and bags. An interpretive trail was developed by a Hemingway Elementary School class some years ago which could be re-developed and maintained. It is a low-maintenance and low-impact area that is anticipated to remain the same.

Consistent with the development plans for River Run and Warm Springs subdivisions the City plans to build a small connector between the two developments. Other than easement maintenance, waste management, weed mitigation and connector trail, the site would retain its current recreational use opportunities.

ii. Maintenance and Costs

The City of Ketchum Parks & Recreation Department will be the main point of contact and overseer of general day to day management. The City currently does not anticipate charging for this site but any fee scales for reserved organized use of these areas will be determined by City Council resolution based upon Parks & Recreation Department recommendations.

<u>Possible Future Projects</u>

The stakeholders and general public have expressed enthusiasm for connectivity between the North and South R&PP Parcels. As part of the connectivity, there is potential for year around use of the trails and providing for Nordic ski trails or snowshoeing in the winter. During preliminary discussions, the task force team suggested a possible trail

connector (South Parcel, Warm Springs base area to River Run base area of Bald Mountain/Sun Valley Resort), Lake Creek Preserve Overlook Trail (North Parcel, northeast section), basically starting from the Big Wood Reservoir storage tank site and heading north along the ridge over to the Lake Creek Preserve, managed by the WRLT. Additionally, the City recently received through private and public donations, areas along the Big Wood River immediately north of the South Parcel and upstream connecting several other City properties including Atkinson Park, Rotary Park, the Guy Coles Skate Park, and the Northwood/Hemingway Natural Area. These land donations offer connectivity to the South Parcel with other City properties and the Blaine County Recreation District's Wood River Trail which connects to the North Parcel. The Wood River Trail terminates at the North Parcel. A map of the acquired public land is displayed below.

The BLM staff requested that any potential future projects be provided. These potential future projects have undergone little vetting and the City plans to further explore these options once the processing for the current R&PP application is complete and the City is able to evaluate actual public use and whether there is continued momentum for these projects as well as available funding.

UPDATED PLAN OF DEVELOPMENT
NOVEMBER 2012

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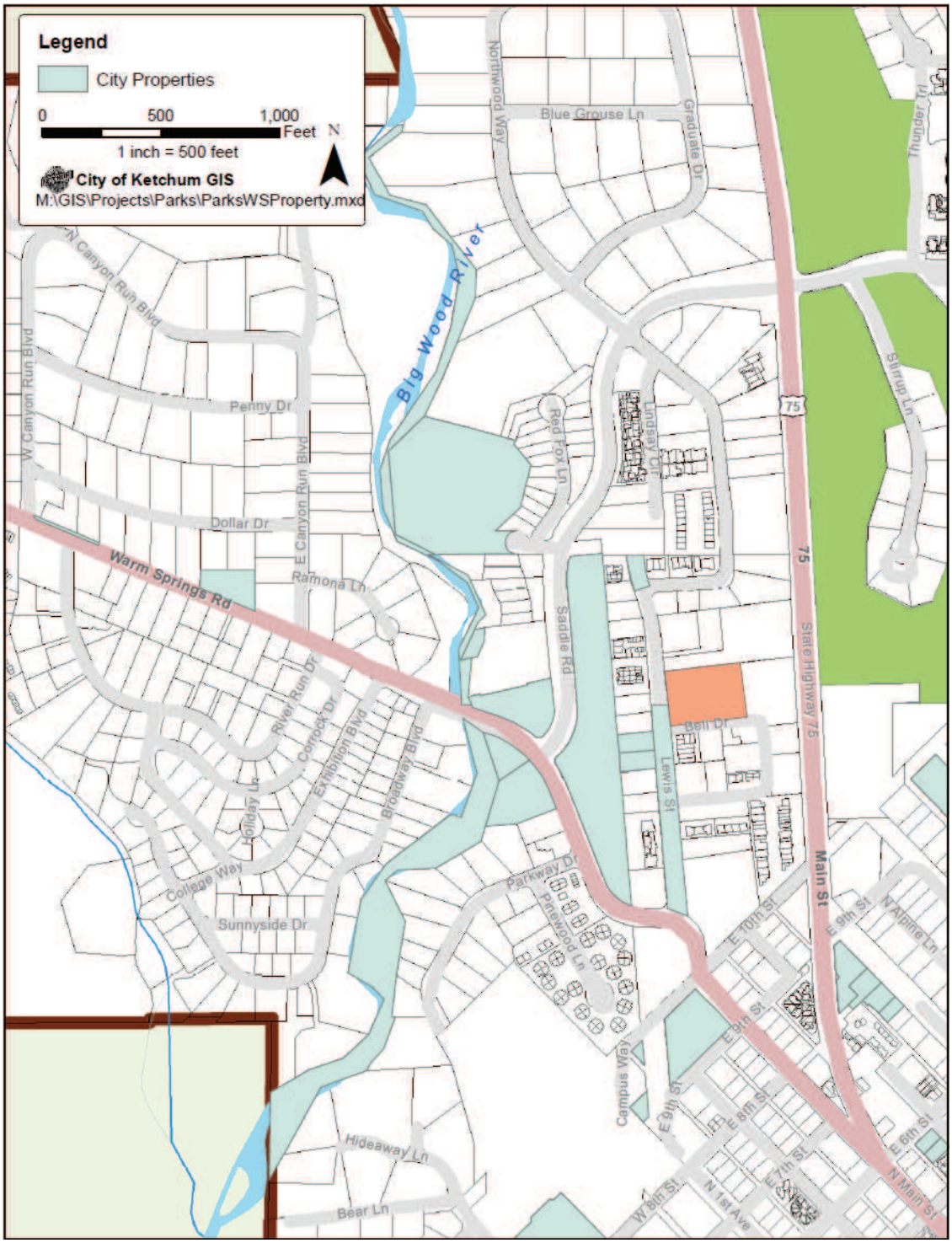


II. DESCRIPTION OF LANDS

The City's R&PP application is comprised of two parcels of property totaling 316 acres in Blaine County, Idaho. The larger, northern 210 acre parcel, North R&PP Parcel, stretches from the Sun Peak Day Use area, north to the confluence of Lake Creek and the Big Wood River. The Sun Peak Day Use area is immediately adjacent to the city limits of Ketchum, Idaho. The southern 106 acre parcel, South R&PP Parcel, is located near the Hemingway Elementary School in Ketchum, Idaho at the confluence of the Big Wood River and Warm Springs Creek, immediately adjacent to Ketchum, Idaho's city limits on the parcel's eastern boundary.

The North Parcel includes approximately 1.4 miles of shoreline along the Big Wood River and features approximately 141 acres of floodplain and associated riparian area. The remaining approximately 69 acres features steep sage uplands. The parcel straddles both sides of Highway 75, a scenic Byway for the State of Idaho. The South Parcel features approximately 22 acres of floodplain and associated cottonwood gallery forest along Warm Springs Creek and the Big Wood River. The remaining 84 acres features primarily steep hillside forested with Douglas Fir and sage uplands.

The lands encompassed by the proposed R&PP parcels are public lands owned by the United States and managed by the BLM Legal descriptions follow below.

North R&PP Parcel:
T. 5 N., R. 17 E., Boise Meridian, Idaho
Section 36 SE¼NW¼, E½SW¼
T. 4N.,R 17 E., Boise Meridian, Idaho
Section 1 Lots 2, 5, & 8.

South R&PP Parcel:
T. 4N., R 17 E., Boise Meridian, Idaho
Section 13: W½NW¼NW¼, N½SW¼NW¼, N½S½SW¼NW¼, N½SE¼NW¼, N½S½SE¼NW¼, SE¼SE¼SE¼NW¼, E½NE¼NE¼SW¼, Lot 6.

For additional information, see attached maps.

III. RIVER PARK MASTER PLAN

The overall Master Plan document for the Ketchum River Park, herein incorporated as part of the POD, is to restore and enhance the North R&PP Parcel, an area already utilized by the public and formally develop trails, parking areas, restrooms, a children's play area, and a whitewater park. These lands include the Sediment Trap and associated riparian areas along the Big Wood River. The City would cooperatively manage the Sediment Trap and riparian areas with the WRLT. Working with local communities and state and federal agencies, the City would work with WRLT, the whitewater community

and other stakeholders to raise the necessary funds to restore the Sediment Trap and surrounding floodplain areas for recreational use including wildlife viewing, fishing, swimming and bird watching, as well as habitat improvement for fish and wildlife. Under the cooperative management plan, activities may include restoration and enhancement of the secondary channel of the Big Wood River north of the Sediment Trap to improve fish habitat. The facilities proposed for the North R&PP Parcel may be used to hold public events to support fundraising and restoration activities to achieve cooperative management goals.

Long-term uses may include additional recreational improvements with costs to be determined when any such improvements are identified. Stakeholders, including the Hulen Meadows Subdivision residents, would be engaged with any long-term recreational planning and improvements.

IV. MAINTENANCE AND MANAGEMENT

The City in partnership with the WRLT would provide the maintenance and management for the R&PP parcels. The City of Ketchum Parks & Recreation Department would be the main point of contact and overseer of general day to day management. Fee scales for reserved organized use of these areas would be determined by City Council resolution based upon Parks & Recreation Department recommendations i.e. reserving a picnic shelter or hosting an event. The Parks & Recreation Department would oversee organized recreational and public use in conjunction with its current parks reservations and special events program. The City expressly agrees to the following responsibilities:

- To maintain the lands open to use by the public for recreational purposes without discrimination or favor.
- To develop and manage the lands in accordance with the approved program of utilization, submitted with this application.
- To secure approval of the Secretary of the Interior or his delegate of all plans of construction prior to commencing actual construction.
- To maintain in satisfactory condition the recreational resources on these lands and any associated facilities for recreational access and enjoyment.

Per the request of the BLM, the City and WRLT will be active in a task force that will incorporate this POD into its watershed planning efforts.

V. ANTICIPATED FUNDING AND RESOURCES

The City in partnership with the WRLT and other private donors would provide the funding necessary to carry out this POD, including the Master Plan. The City has allocated specific funds for this project in its annual budget.

UPDATED PLAN OF DEVELOPMENT
NOVEMBER 2012

Currently, the City of Ketchum Parks and Recreation Department is maintaining the public lands encompassed by the North and South R&PP parcels for BLM and receiving $2,500 annually as compensation for maintenance. The City is also currently paying BLM $5,000 annually to lease the right-of-way for the Big Wood Reservoir storage tank site from BLM. Upon patent, the City would no longer incur the $5,000 lease cost and would not receive $2500 in maintenance and would start with a $2,500 increase in current budget expenditures. The maintenance anticipated with the additional sites and infrastructure does raise the current maintenance costs as estimated below.

Ketchum R&PP – Cost Estimates

North R&PP Parcel :

- Master Plan costs are set forth in the Master Plan at 4-4 and totals: $2,559,375.00
- Materials (garbage bags, dog bags, toilet paper, cleaning supplies, paint/stain, dumpster rental) ($2,000)
- Trail construction on NE triangle/connector to Lake Creek Preserve Overlook (*this was an idea for "development" that arose when the BLM suggested the alternative for removing this piece from the R&PP*: ($5,000)
- Staffing (4x per week maintenance [May-Nov] and monitoring, spring clean up) ($3,000)
- Spring removal of wood from whitewater park area as necessary for safe participation of river recreationists in the park ($2-3,000)
- Periodic post-flood event repair of whitewater park features ($10,000 every 5-10 years)
- Periodic repair and maintenance of structures (picnic shelters, rest rooms, instructional and interpretive signs, benches, bridges) ($5,000 every 10-15 years)
- Noxious weed mitigation ($1,000)
- Noxious Weed and Risk tree monitoring and mitigation ($2,000)

- **TOTAL one-time costs: these are listed in the River Park Master Plan, with contingencies, $2,700,000 (+$5,000 for trail construction to Lake Creek Preserve Overlook)**
  TOTAL periodic costs: $30,000 every 15-20 years

TOTAL annual costs: $8,000

South R&PP Parcel :

- Materials (garbage bags, dog bags, paint/stain) ($200)
- Staffing (2x per week maintenance [June-Oct] and monitoring, spring clean up) ($1,000)
- Trail construction - Warm Springs to River Run connector ($10,000/one time cost) and maintenance ($1,000)
- Lookout maintenance and monitoring ($300) (this is an antiquated structure on the South R&PP Parcel)

- Periodic repair, maintenance, rebuilding of Lookout, trail systems, signs, etc. ($7,000)
- Noxious weed mitigation ($500)
- Risk tree monitoring and mitigation ($2,000)
  TOTAL one-time costs: $10,000
  TOTAL periodic costs: $7,000 every 10-15 years

TOTAL ANNUAL costs: $5,000

In addition to the above costs for both R&PP parcels, the City would provide maintenance and custodial services with funds from the annual city budget under the "various" line item of the Parks & Recreation budget.

The City, with its partners, would prioritize raising funds in the local community to fund this project. The City would use its Water Capital Improvement Fund for developing the well and the Water Operating Fund for maintaining the well.

VI. TIMETABLE

For the North R&PP Parcel, the City with its partners would prioritize raising funds in the local community to fund the flood mitigation and proposed improvements for recreational and habitat enhancements, as well as create an endowment necessary for annual maintenance associated with these projects. The parties would also identify future floodplain and riparian restoration opportunities north of the Sediment Trap in subsequent years and raise the funds necessary to conduct restoration efforts at a later date.

The South R&PP Parcel would include an overall needs assessment for both the east and west areas of the river confluence. Possible connectivity opportunities may exist for other adjacent pedestrian/fisherman's access points. Weed mitigation would occur as needed. Waste management efforts would remain as they are today.

The City proposes this timetable as a conservative estimate of the R&PP project plan. In the event, the process can proceed more quickly, the City will make every feasible effort to expedite this project for its citizens and stakeholders.

North R&PP Parcel:

First Year:
Finalize Final Design for the Master Plan. Secure permits and seek cooperative funding from multiple sources including private donations and conduct restoration of the Sediment Trap and river banks. Acquire permits from IDWR for well and drill municipal well.

Second Year: Fall of second year begin in-stream construction per the Master Plan. Restore drop structures. Complete Final Design and construct. Open to public.

Third-Fifth Year: Initial tuning of the structures and general park maintenance.

South R&PP Parcel:

First Year: redevelop interpretative trails and weed mitigation.

Second-Fifth Year: minimal maintenance and repair.

The general goals after the initial construction of proposed projects would be maintenance of the trails, infrastructure, and in-stream maintenance for waterpark and flood and sediment mitigation. The trails would be used seasonally and maintenance would be routine upkeep would be needed by the City of Ketchum Parks & Recreation Department.

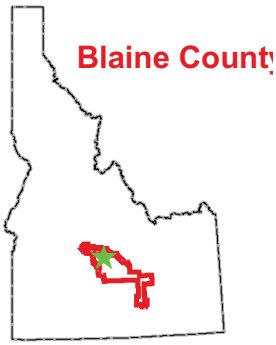
ATTACHMENTS:

KETCHUM RIVER PARK MASTER PLAN
MASTER PLAN MAP
MAP-NORTH PARCEL
MAP-SOUTH PARCEL

Ketchum R&PPA Proposal

South R&PP Parcel

U.S. Department of Interior
Bureau of Land Management
State of Idaho
Twin Falls District
Shoshone Field Office



- Bureau of Land Management
- US Forest Service
- Private; Other
- State
- State Dept. Fish & Game
- City Boundary
- South R&PP Parcel

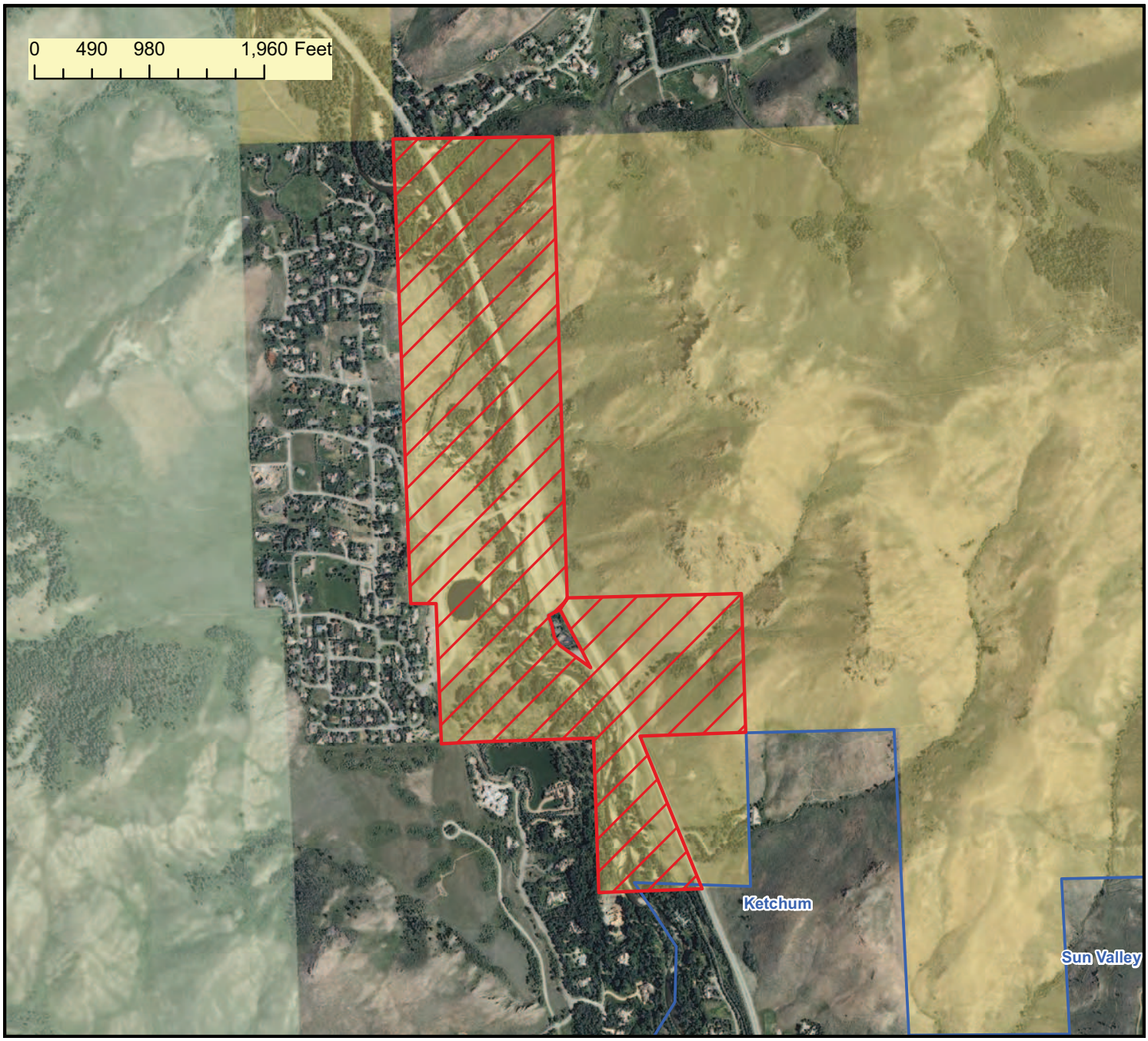
South R&PP Parcel
T. 4 N., R. 17 E., B.M.,
Section 13: W2NWNW, N2SWNW, N2S2SWNW, N2SENW, N2S2SENW, SESESENW, E2NENESW, Lot 6

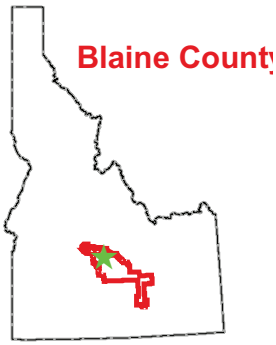
TH 2/2012

Ketchum R&PPA Proposal

North R&PP Parcel

U.S. Department of Interior
Bureau of Land Management
State of Idaho
Twin Falls District
Shoshone Field Office





- Bureau of Land Management
- US Forest Service
- Private; Other
- State
- State Dept. Fish & Game
- City Boundary
- North R&PP Parcel

North R&PP Parcel
T. 4 N., R. 17 E., B.M.,
Sec. 1: Lots 2, 5, & 8
T. 5 N., R. 17 E., B.M.,
Sec. 36: SENW, E2SW

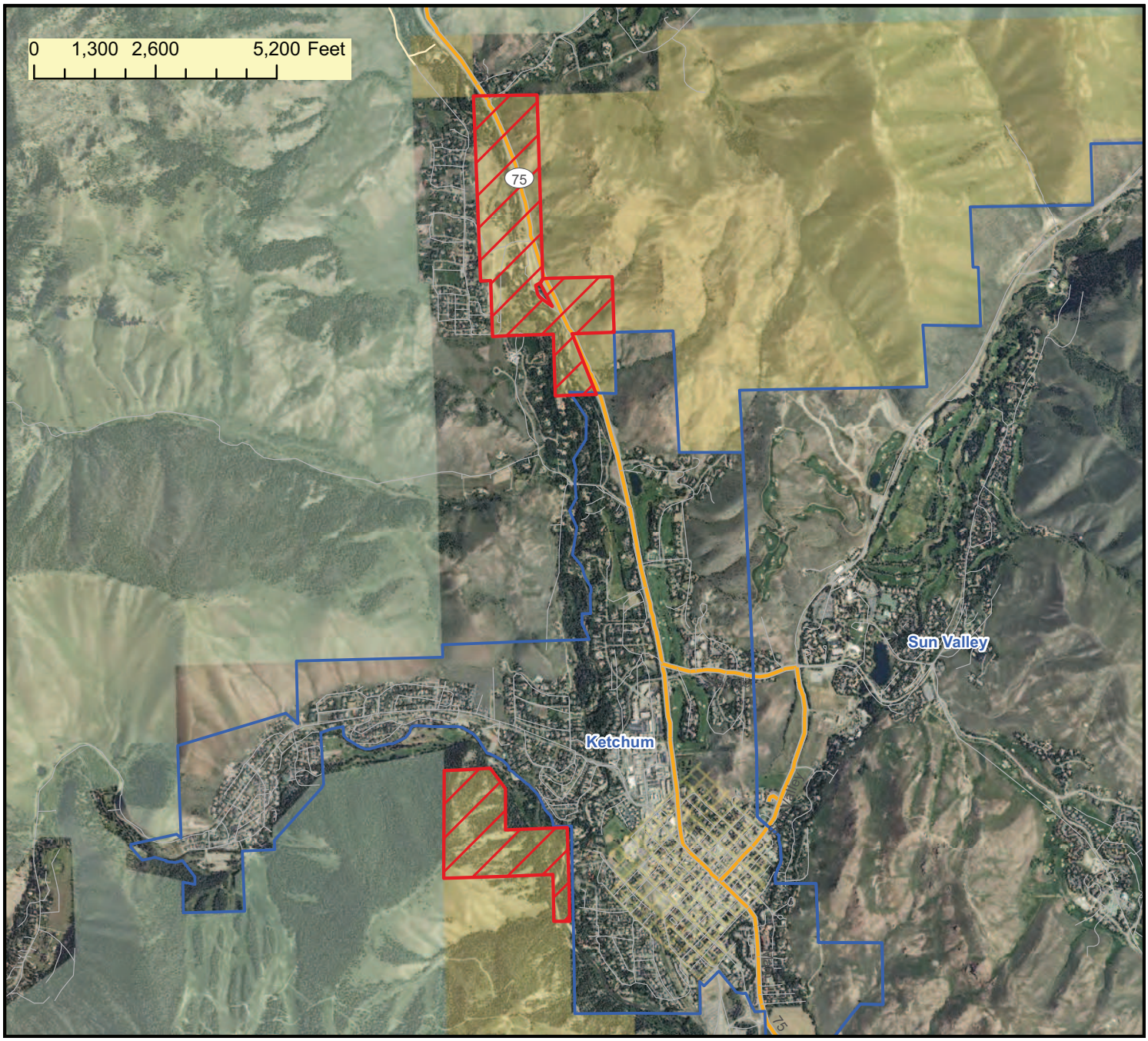
TH 2/2012

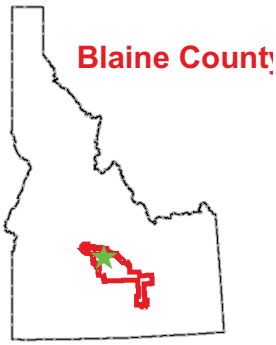
Ketchum R&PPA Proposal

North & South R&PP Parcels

N

U.S. Department of Interior
Bureau of Land Management
State of Idaho
Twin Falls District
Shoshone Field Office





Bureau of Land Management
US Forest Service
Private; Other
State
State Dept. Fish & Game
City Boundary
North R&PP Parcel
South R&PP Parcel

North R&PP Parcel
T. 4 N., R. 17 E., B.M.,
Sec. 1: Lots 2, 5, & 8
T. 5 N., R. 17 E., B.M.,
Sec. 36: SENW, E2SW

South R&PP Parcel
T. 4 N., R. 17 E., B.M.,
Section 13: W2NWNW, N2SWNW, N2S2SWNW, N2SENW, N2S2SENW, SESESENW, E2NENESW, Lot 6

TH 2/2012

NEW LANDSCAPING
(FILL AND PLANT)
RIPARIAN
RESTORATION
RESTORED
SEDIMENT TRAP
HULEN MEADOWS
HOMEOWNERS
ACCESS/ BIKE RACK
PAINTBRUSH LANE
ADA VIEWING/
FISHING ACCESS
KIDS NATURAL
PLAY AREA
PROPOSED
PARKING
HULEN POND
(SEDIMENT TRAP)
EXISTING
PARKING
RIPARIAN
ENVIRONMENT
EXISTING TRAIL
RESTROOMS
PICNIC
SHELTER
SAGE ROAD
DROP 1
WEST CHANNEL
DROP 4R
BIG WOOD RIVER
RIPARIAN
RESTORATION
DROP 3R
DROP 2
DROP 5
DROP 4L
WOOD RIVER TRAIL
GRADE
CONTROL
EAST CHANNEL
DROP 3L
EXISTING
PARKING
DEFLECTORS
RESTROOMS
HIGHWAY 75
WILDLIFE
HABITAT
OVERFLOW
PARKING
SHADE
STRUCTURE
NATURAL
LAWN AREA
Scale: 1:100
MASTER PLAN
RIVER PARK
at SUN PEAK
PREPARED B Y:
S2O Design and Engineering
GeoEngineers
Eggers Associates
Benchmark Associates
Brockway Engineering
October 5, 2012

2012

MASTER PLAN DOCUMENT

KETCHUM RIVER PARK

AT SUN PEAK

PREPARED FOR:

CITY OF KETCHUM, IDAHO

PREPARED BY:

S2o Design and Engineering
GeoEngineers
Eggers Associates
Benchmark Associates
Brockway Engineering

TABLE OF CONTENTS

	PAGE
INTRODUCTION	II
RIVER PARK AT SUN PEAK TODAY	1-1
EXISTING CONDITIONS	1-2
EXISTING HABITAT	1-3
CURRENT USERS	1-4
HYDROLOGY AND HYDRAULICS	1-5
RIVER MORPHOLOGY	1-6
R & PP MASTER PLAN	2-1
MASTER PLAN PROCESS	2-2
STAKEHOLDERS	2-3;2-4
USER DIAGRAMS	
KAYAKER	2-5
POND USERS	2-6
FISHERMEN	2-7
TUBERS/FLOATERS	2-8
WADERS	2-9
PASSIVE USER	2-10
PROGRAM ELEMENTS MAP	3-1
POND RESTORATION AND ENHANCEMENTS	3-2
NATURAL OUTDOOR PLAY AREA	3-3
PICNIC SHELTER AND RESTROOMS	3-4
PARKING AND INFRASTRUCTURE	3-5
WHITEWATER PARK	3-6
WHITEWATER PARK-TYPICAL DETAILS	3-7
WHITEWATER PARK- BANKSIDE SECTIONS	3-8
WHITEWATER PARK- CHANNEL SECTIONS	3-9
INTERPRETIVE LOOP AND TRAILS	3-10
EVENTS AREA	3-11
FISHING AND PRESERVED AREAS	3-12
MASTER PLAN SUMMARY	3-13;3-14
IMPLEMENTATION	
PERMITTING	4-1
PROJECT COSTS	4-2;4-3
MAINTENANCE	4-4
	4-5

Design Team:

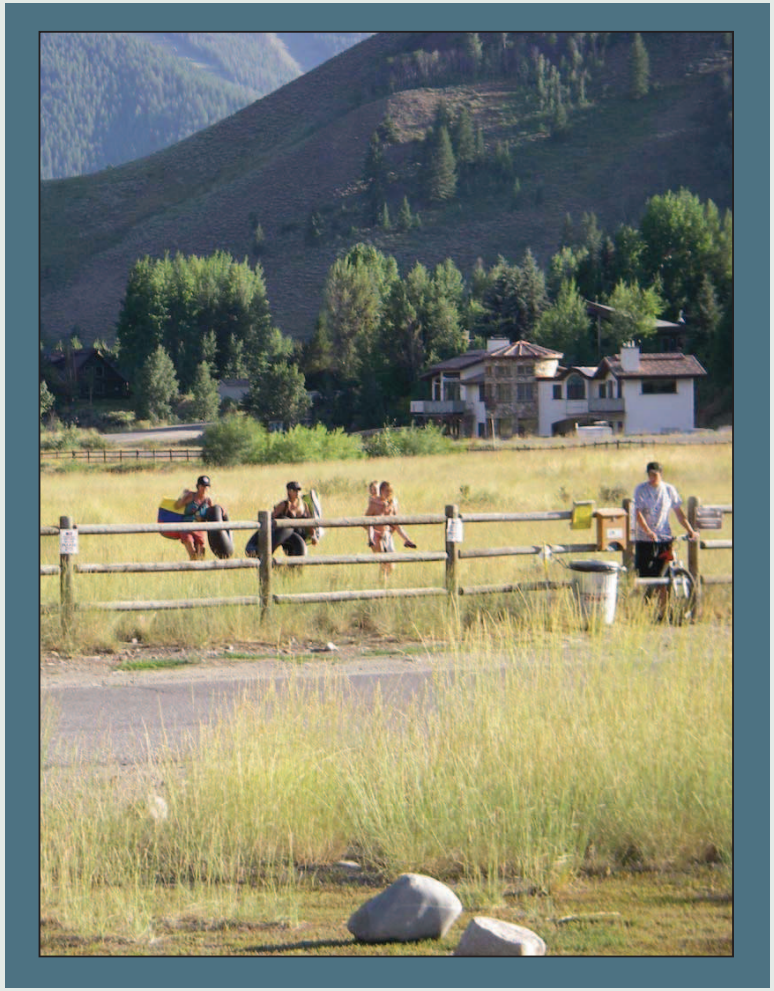
S2O REINVENTING WHITEWATER

GEOENGINEERS

EGGERS ASSOCIATES, PA landscape architecture

BENCHMARK ASSOCIATES

BROCKWAY ENGINEERING P.L.L.C.



INTRODUCTION

S2o Design has assembled a team of experts to complete a Master Plan Study of the Hulen Meadows Floodplain and River Access Area. The purpose of the study is to define recreational uses and users that are appropriate for the property and to suggest improvements that can enhance the recreational value of these uses while minimizing the impact to the property. The final plan, shown in this document, describes proposed improvements, both in the Big Wood River as well as on the banks, that provides for recreational enhancements and that also serves to restore and preserve the natural habitat and ecosystems of the Big wood. The area of proposed improvements will be called the River Park at Sun Peak.

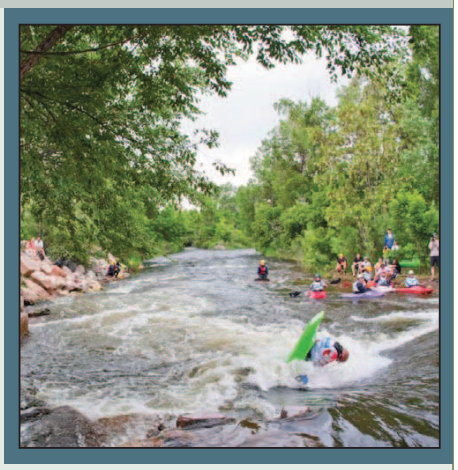
Background: The City of Ketchum, in association with the Wood River Land Trust, is entering into an agreement to take ownership, and management responsibility, for a 210.5 Acre parcel of property along the Big Wood River upstream of the City from the Bureau of Land Management (BLM) under the Recreation and Public Purposes Act (R & PP). The City of Ketchum proposes to use the land for recreation, pond maintenance, and other public purposes. The City is a national and international destination for tourists and has applied to acquire the land because the City has identified a need to create outdoor recreational access points to the Big Wood River. The project is tasked with creating river access for swimming, fishing, kayaking, bird-watching, school educational outings and other recreational activities. This study presents a Master Plan for this effort that has been vetted through agency, stakeholder, and public review.

The Site: The proposed River Park at Sun Peaks site is located along the Big Wood River upstream of Ketchum in the area that surrounds Hulen Meadows Pond. The River Park at Sun Peaks will be upstream of, and geographically separated from, the existing BLM Sun Peak Recreation Site. There are two significant components to the area of the Big Wood that is being studied. The first is the Big Wood itself. This is a dynamic river that has often, and recently, migrated in its banks to varying positions in the valley. The Big Wood carries a significant sediment load and a large amount of woody debris –particularly during its annual flooding. The river is also a trophy trout fishing area which is valued by the community.

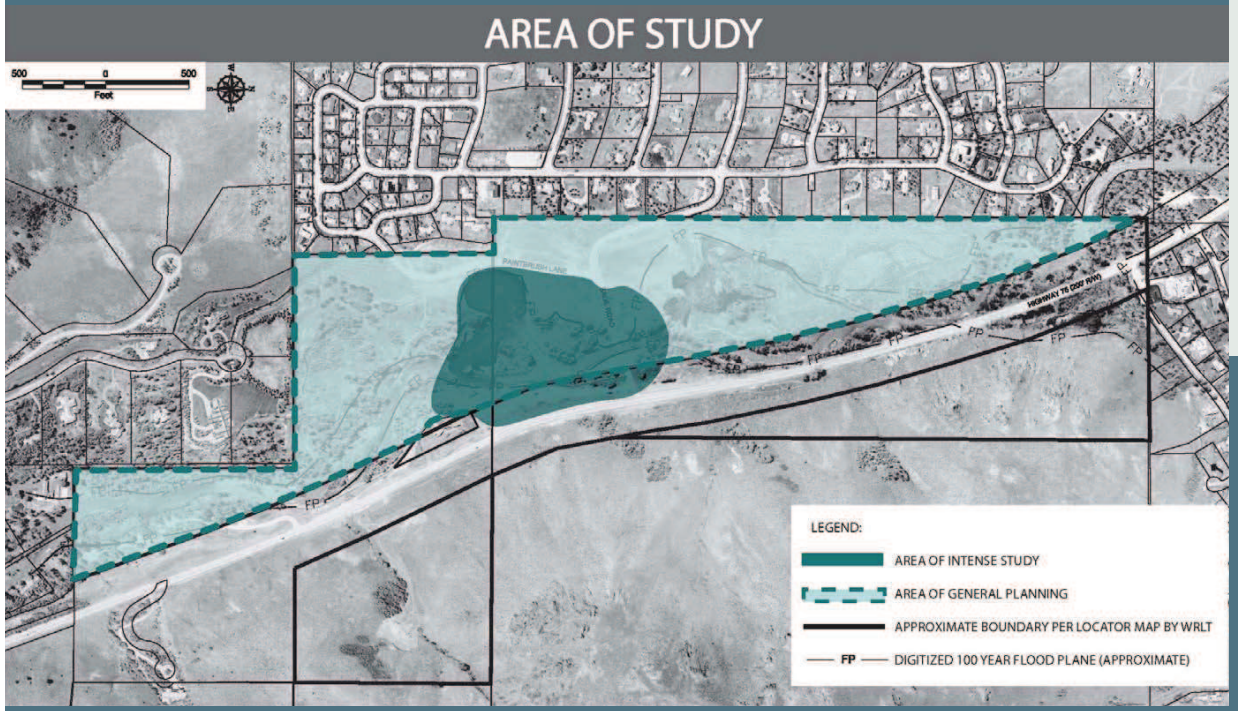
The other significant component is the Hulen Meadows Pond. This pond was originally created as a sediment trap and borrow pit for nearby road work. Since that time the pond has come to function as a community pond that hosts swimming, dog walking, kayaking and other uses. The pond played a vital role during the 2007 Castle Rock Wildfire as it was used as a water source for helicopter air support.

The Master Plan: The Master Plan proposed in this document includes river habitat restoration, parking, ADA access, a whitewater park, enhancements to the River Park at Sun Peak Plan, a dog walking park, restrooms, bridges, and trail access as well as viewing areas, picnic areas and trails enhancements. The intent of the master plan is to provide for healthy, active, outdoor recreation in a healthy and active natural environment while mitigating flood risks. The plan has focused on the expected users at the site and expected uses of the site to provide recreational and interpretive opportunities for all users, of all ages. The plan augments current uses, such as fishing and dog walking, while providing for additional uses including the ADA accessible fishing pier, the loop trail, and the interpretive area.

There is also a restorative component to the project. Much of the River Park at Sun Peak area including the pond and the banks of the Big Wood suffer from sedimentation or erosion. The Master Plan proposes to replant the banks of the pond to create shaded areas and to create and maintain wetland areas within the reach. The plan also proposes a management plan to remove excess sediment and preserve the existing configuration of the ponds and river channel. The intent is to create a thriving system within the Hulen Pond area that complements the recreational uses there



SECTION ONE: RIVER PARK AT SUN PEAK TODAY



1.1 LOCATION MAP

The River Park at Sun Peak is located North of Ketchum, ID in the The R & PP North parcel. The R & PP North parcel is located at:

T.5 N., R. 17E., Boise Meridian, Idaho.
Section 36 SE 1/4 NW 1/4
E 1/2 S@ 1/4

T. 4N., R 17 E., Boise Meridian, Idaho
Section 1 Lot 2
Lot 5
Approx. 27 ac. of SW 1/4 NE 1/4

The map to the left divides The R & PP North parcel into two areas of study, the area of intense study, which is the primary focus of this master plan, as well as the area of general planning which contains a reach of land that extends upstream from the BLM's Sun Peak Day Use area to the confluence of Lake Creek and the Big Wood River.

SITE LOCATION MAP:

1.2 EXISTING CONDITIONS

A large part of the parcel is a floodplain which is currently a mix of wetlands and riparian vegetation. The remainder of the parcel is upland shrub-steppe habitat. Initial investigations indicate that there are some protected species that are native to the area.

Sage Road crosses the Big Wood River in the central part of the property providing access from State Highway 75 to the Hulen Meadows neighborhood area. This neighborhood of roughly 141 residences bounds the parcel to the West Side. There are other residences that abut the parcel on the North and South boundaries as well.

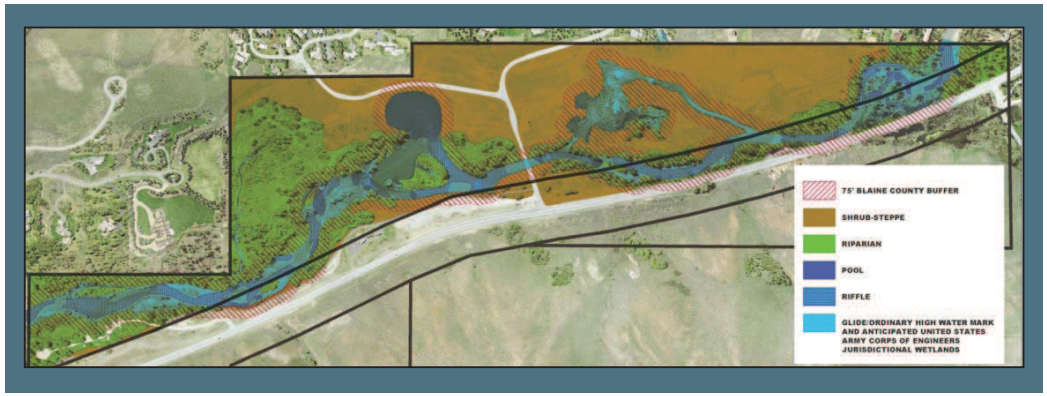
The site is also accessed from the South by a walking and bicycle trail that terminates at the rough parking area located to the east of the Big Wood River at Sage Road.

The River Park at Sun Peak area of the parcel has been specified in the R & PP application for further improvement to host recreational activities (the topic of this study). At current this area has some parking located to the North of Sage road. Current users are asked to park in this area and walk an extended distance to the pond after traversing a fence entrance (non ADA). The pond areas are eroded along the banks with large deposits of sediment in the entrance to the pond. Some residents use these depositional areas as beaches during low water times. The area is popular for dog walkers and some waders but water quality issues during the warmer months have largely prevented swimmers in recent years. Kayakers, fishermen, and other users also frequent this area.

Of note to this project is that the pond and a number of existing drop structures in the river were created by a previous project. The pond/sediment trap and the structures are in a state of disrepair and require maintenance but functioned well when they were first constructed.

Entrance to Hulen Meadows Pond Area

1.3 EXISTING HABITAT



The river corridor is contains numerous pools, riffles, and wetland areas that will fall under the jurisdiction of the US Army Corps of Engineers

The Habitat above the river channel is characterized as upland shrub-steppe habitat

The Big Wood River is a dynamic and complex system as a whole and is recognized as a premier wild Rainbow Trout fishery and is home to the Wood River Sculpin, which can be found in no other region in the world. The river plays a vital role in wildlife sustainability of the region and provides a significant sense of place for those that have chosen to live and recreate in and along the river.

The project site is located on the valley floor of the Big Wood River. The project area is located within portions of the riverine environment. A relatively thin riparian corridor surrounded by upland shrub-steppe habitat parallels most of the stream through the project reach. Vegetation within the shrub-steppe consists of various herbs, grasses, sagebrush and rabbit brush with riparian vegetation consisting mainly of cottonwoods and willows.

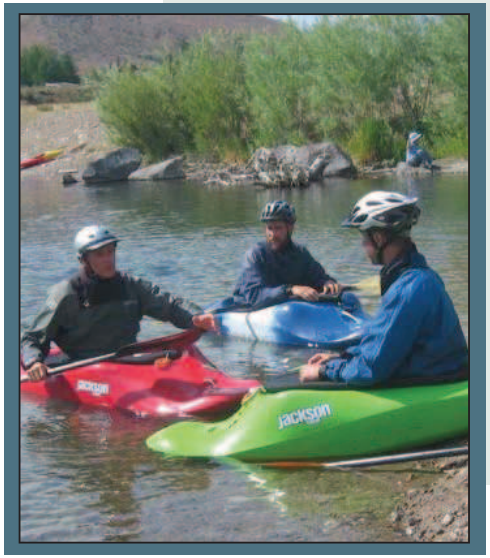
Efforts are being made to enhance the aquatic and terrestrial (riparian) habit in various areas throughout the project site. Providing a “biological lift” to the stream and riparian corridors throughout this reach would assist in developing future productivity and diversity that this system is known for.

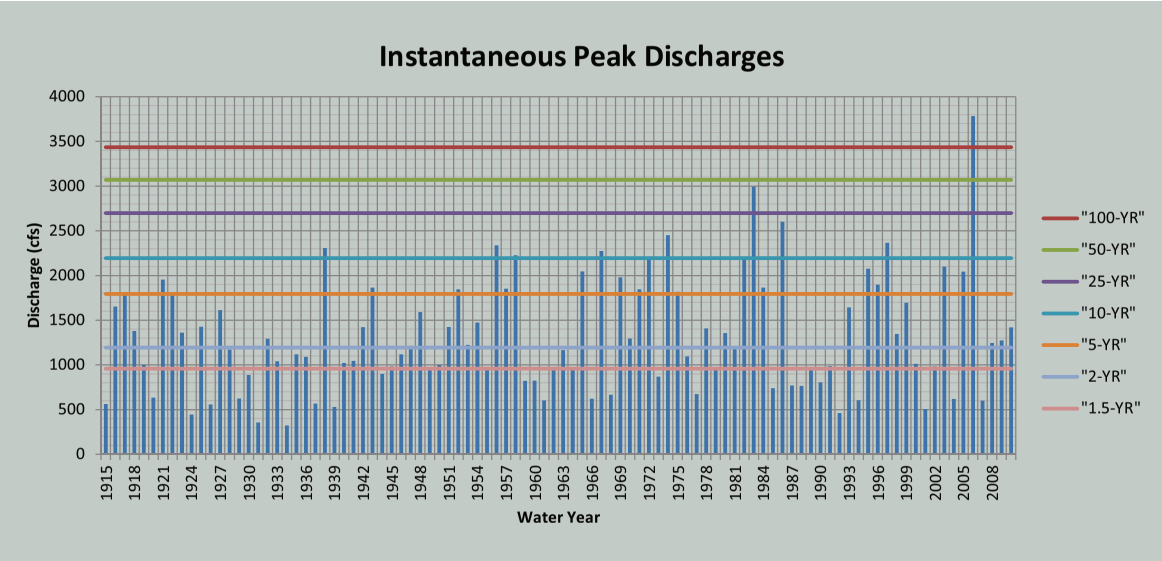
1.4 CURRENT USERS

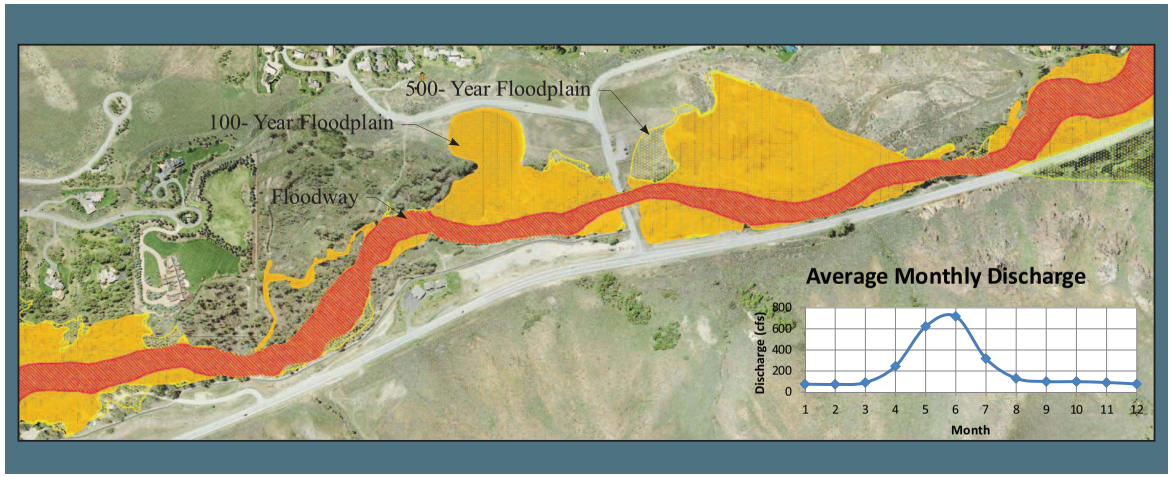
The River Park at Sun Peak Pond area is currently used by a variety of stakeholders. The primary stakeholders that are specifically mentioned in the R & PP application are the Wood River Land Trust and the Hulen Meadows homeowners. The Wood River Land Trust is a foundation that has a long history of attaining and working to preserve and enhance native habitats in and around the Big Wood River Valley. Additional users and stakeholders include:

- Kayakers
- Pond Users
- Fishermen
- Tubers/Floaters
- Waders
- Passive Users

S2o utilizes a "user-based" design approach that is highlighted in this master plan. Our design process is driven by the needs and requirements of the various users that currently use, or are expected to use, the River Park. This master plan therefore details the identified needs and requirements of these varying users and then addresses them in the master plan design.







1.5 HYDROLOGY AND HYDRAULICS

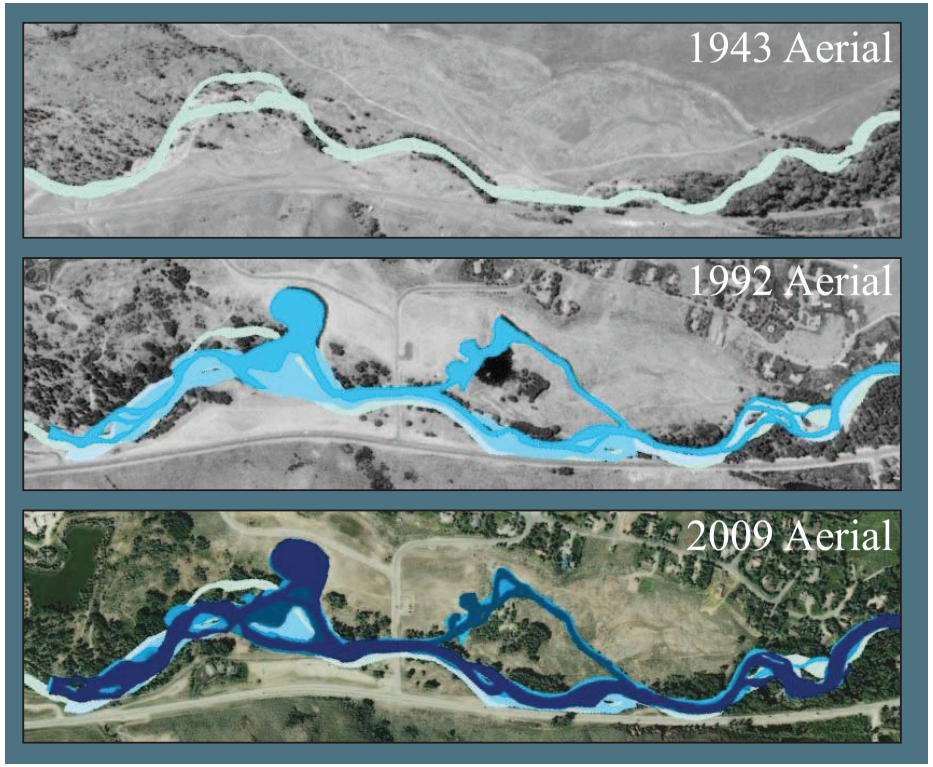
The Big Wood River near the River Park at Sun Peak area drains runoff from over approximately 227 square miles encompassing the Smoky Mountains to the west and the Boulder Mountains to the northeast. The mean basin elevation of the watershed is approximately 8,100 feet. The River receives its water from over 31 inches of annual precipitation over the watershed, with the majority of it falling in the form of snow from December through March.

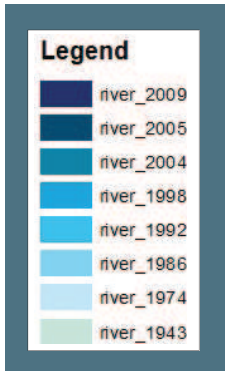
At such a high altitude the riverine system is dominated by snow melt during the spring thaw. River discharges tend to peak during the month of June with low flows in December. Monthly average flows range from 80 cubic feet per second (cfs) during the month of December up to 720 cfs during the month of June. The peak flood of record at the River Park at Sun Peak site is estimated to be approximately 3,780 cfs on May 21, 2006, which was greater than the 100-year recurrence interval flood discharge of approximately 3,435 cfs

The Big Wood River in the vicinity of the River Park at Sun Peak area is located within a Federal Emergency Management Agency (FEMA) regulated floodplain and floodway. The regulated floodplain and floodway are based off of the Flood Insurance Rate Maps and Flood Insurance Study for Blaine County, dated November 26, 2010. The floodplain and floodway are designated as a FEMA Zone AE, which is defined as an area inundated by the 100-year base flood event where base flood elevations have been determined. A FEMA floodway is defined as the area of special concern adjacent to and including the channel where the greatest carrying capacity and conveyance are located.

The proposed river and floodplain improvements would likely include more gradual slopes along the river and pond as well as initial and periodic sediment dredging. In addition to enhancing aquatic and riparian habitat these enhancements would increase flood conveyance and storage. All habitat and whitewater improvements proposed with this project would be designed in accordance with FEMA and County flood regulations and would not reduce flood conveyance and would not increase flood elevations on adjacent properties. During the 2007 Castle Rock Wildfire the River Park at Sun Peak Pond was used as a water source for aerial fire fighting. Periodic dredging would ensure the pond can continue to be used in future fire-fighting efforts.

Fish passage design flows are often assumed to fall between the five percent and ninety-five percent daily exceedance values. These values are estimated at 898 and 54 cfs, respectively. These discharges are used to ensure adequate fish passage during critical times of the year when fish are actively migrating up and down the channel. The proposed in-stream features are designed to enable fish passage for these flows.





The Big Wood River is a highly dynamic river channel that conveys a large amount of bedload consisting of sands, gravels, and cobbles. The river on the upstream portion of the site was straightened and laterally confined by the highway when the highway was reconstructed in the 1980s and 1990s. These alterations straightened and steepened the channel and increased the velocities and sediment transport capacity of the river. At least three borrow pits were excavated to supply gravel for the highway construction as well. These pits doubled as sediment traps to temporally capture some of the river's bedload. Because it was furthest upstream, the trap upstream of the River Park at Sun Peak site filled in first. The sediment trap just north of Sage Road has almost completely filled in and currently only conveys water at discharges at and above the estimated peak annual flow. What is commonly referred to as the Hulen Meadows Pond was also a borrow pit and sediment trap.

Sedimentation of the Hulen Meadows Pond trap has accelerated recently with the filling of the upstream traps and the entrance to the pond is essentially filled with sediment. This has caused the river – and its sediment - to flow through the river's eastern channel. If sediment is not removed from the river system it will continue downstream through Ketchum.
While sediment movement is a natural process and important to maintain healthy riverine processes and habitat it can aggravate flooding, bank erosion and lateral channel migration, which can become problematic further downstream where the riverbanks and floodplain are more developed. The in-stream and floodplain enhancements and ongoing maintenance dredging associated with the proposed River Park would strike a safer, more appropriate balance between the river's natural processes and habitat and the downstream community.

1.6 RIVER MORPHOLOGY

HISTORIC TIME LINE:

- 1943: River only occupies western channel
- 1987: Upstream gravel pit/sediment trap excavated
- 1990: Hulen Meadows Pond excavated
- All water flows through western channel near the pond

AFTER 1990:

- Upper sediment ponds fills in with sediment and become disconnected from main channel
- Western Channel near Hulen Meadows Pond fills with sediment
- Main river channel migrates easterly away from Hulen Meadows Pond

ANTICIPATED FUTURE TIME LINE IF NOTHING IS DONE:

- Western Channel near pond fills with sediment
- Main river channel migrates easterly away from Hulen Meadows Pond
- Pond will become cut off from river
- Pond no longer captures significant amounts of sediment
- Pond becomes warmer, stagnates in summer
- Habitat degrades
- Majority of water flows through Eastern Channel
- Existing in-stream rock structures continue to erode/degrade
- Sediment bypasses pond area and is conveyed downstream
- Frequency of flooding and channel migration increases downstream

Existing Sediment Trap Becoming Blocked Off

Sediment Trap North of Sage Road During High Water Event

SECTION TWO: R & PP MASTER PLAN

2.1 The Master Plan

2.2 THE MASTER PLAN PROCESS

The Master Plan process was founded on information gathered from three primary sources. The first of these sources was public input. A first public meeting was held and public commentary has been collected over a roughly six month period. A second public meeting was held following the initial design creation in order to test assumptions and collect input on the draft design.

The second source of information was provided by governmental agencies and municipalities. The BLM provided preliminary environmental assessment documentation as well as guidance and input with regards to objectives and constraints for an R & PP project. The City of Ketchum also provided guidance and input with regards to objectives as well as information about users and uses at the site. Other agencies reviewed design documents and provided commentary and input. The Wood River Land Trust was also a tremendous source of information and guidance.

The final source of information was evaluation of known ecological, environmental, and hydraulic data about this location and the Big Wood River. Site inspections and evaluation of primary data such as USGS gauge information and historical aerial photography contributed to an evaluation of the current conditions, morphology, and environment at this site along the Big Wood River.

The Master Plan was driven by profiles that were created of expected and current users at the site. Profiles of these users were used to define likely desires, requirements, and constraints associated with usage of this site. These desires, requirements, and constraints were combined with those specified by the BLM, the City, and other project reviewers and were used to define project elements, locations, and functionality.

The following pages describe the information collected during this master planning process and illustrate how the project was defined. The following section is used to define project elements and how they provide for the many requirements of the project.

2.3 BUREAU OF LAND MANAGEMENT

The Bureau of Land Management (BLM) are the current managers of this property which is owned by the United States of America. The Recreation and Public Purposes Act provides a mechanism for the BLM to convey ownership of the property to the City of Ketchum provided the City's management plan and usage of the property meets the objectives of the R&PP application as well as those of the BLM. A summary of the City's statement for need for this parcel includes:

- "The proposed Floodplain and River Access Areas will provide river access for swimming, fishing, kayaking, bird-watching, school educational outings, and other recreational activities"
- "The Hulen Meadows Pond is a well-used recreational resource that requires restoration and long-term maintenance."
- "Long-term maintenance of the Hulen Meadows Pond will provide a stable source of water to fight future wildfires close to the community of Ketchum."
- "The pond will provide some flood control during high flows on the Big Wood River"

The R & PP application to the BLM, who will transfer property ownership to the City, further states the following criteria for implementation. The project will be evaluated based on its ability to:

- Provide for high quality continuous habitat through retention and connectivity of wild lands
- Reduce hazardous fuels and the risk of wildfire;
- Retain "open space" (undeveloped landscapes) and protect scenic corridors;
- Increase motorized access and trails
- Protect floodplains from development

The .R&PP application specifies certain components which are to become a part of the Master Plan for this site. These components include:

- Whitewater Park for paddlers of varying abilities
- Wheelchair Accessible Fishing Pier
  - Family friendly structure
- Dog Agility Course
  - Natural appearing but with additional temporary structures for events
- Recreational Support Facilities
  - Restrooms
    - Screened from residents view by vegetation
    - Two-sided pre-cast pit style
  - Additional Parking
  - Picnic Shelter (on the West Side)
  - Drinking Fountain (ADA accessible)

The BLM's duty is to the people of the United States and, in this case, specifically to the people and likely visitors to Blaine County, Idaho. Having said that, the R & PP application for this site specifically calls out the Wood River Land Trust and the homeowners of Hulen Meadows as key stakeholders to this project. As such, the desires, constraints, and requirements of these users are specifically highlighted in this document.

2.4 HULEN MEADOWS

The Hulen Meadows homeowners live on the west side of the proposed project area. These homeowners cross through the site via the Sage Road bridge which crosses the Big Wood River. Many homeowners then access their homes either via Sage Road directly or Paintbrush lane, which abuts the site and Hulen Meadows Pond specifically. Many of the concerns related to the Hulen Meadows homeowners are with respect to access to their homes, crowding and noise in their neighborhood, and impacts to their views and current uses at the site. A specific list of concerns received from the Hulen Meadows Board of Directors (BOD) and addressed in this process includes:

- **Opposed to the Well:** The well is a component of the R & PP process outside the scope of this study.
- **Provisions for Parking:** The residents of Hulen Meadows have experienced roadside parking along Sage Road and Paintbrush Lane in the past. The BOD has expressed a wish that additional parking be provided and that park planning be used to encourage these visitors to park in appropriate areas.
- **Access to and from the actual site and the parking facilities:** The Hulen Meadows residents have expressed a need to continue to have easy access to the pond as well as to provide appropriate access for other users that does not congest their neighborhood.
- **Possible congestion on the Sage Road:** The Hulen Meadows neighborhood is accessed across a narrow two-lane bridge that can become congested due to walking, bike, and road traffic. The homeowners have expressed a wish for a design that minimizes access across this bridge.

2.5 WOOD RIVER LAND TRUST

The Wood River Land Trust's Mission is to protect and restore land, water, and wildlife habitat in the Wood River Valley and its surrounding areas. The Land Trust continues to work cooperatively with private landowners and local communities to ensure these areas are protected now and for future generations. The Wood River Land Trust (WRLT) conceived of this project and helped to create and draft the R & PP application. WRLT continues to be integral to the process shepherding this project with the objective of preserving continuous habitat and improving and maintaining the health of the Big Wood River.

The WRLT has encouraged the design team to maintain the area upstream (North) of a point roughly 100 yards upstream of the Sage Road bridge in its existing condition and restoring and protecting habitat within the areas downstream of this bridge. WRLT has also expressed a wish for the Master Planning Process to specify a management plan for the Big Wood River Corridor on the R & PP Property that can adaptively manage the health of the river. These concerns are addressed in the Master Plan.

2.6 THE CITY OF KETCHUM

In addition to being the proposed patent holder of the park land, the City of Ketchum will also be one of the primary users of the park. The City can be figuratively described as having a horse in the race because of the potential for significant impact on tourism within the City due to the Whitewater Park. The City has expressed a desire to seek out opportunities to improve the tourism and local recreational amenities in and around the region, and this project is in keeping with that objective.
The City also has an interest in protecting local property and citizens from flood risk, and maintaining or improving the fish habitat and riparian zone in this region. The City also has an interest in preserving the ability of fishermen to fish and float through this reach of the river.

The City is also seeking improvements that can be economically implemented and maintained. These improvements should be designed to be permanent, with only limited maintenance, and should not create an increased flood risk. The City would also like to see access to the sites be through appropriate parking, appropriate trail access, and appropriate ingress and egress locations. If possible, the City has asked that existing amenities be preserved or improved such that, for example, users of the river trail are provided a return loop and the emergency fire exit from Hulen Meadows be augmented for trail usage.

The City Council for Ketchum is the proposed future landowner for the R & PP parcel and has direct power of approval over this Master Plan. As such, the City has taken part in the public meetings and has used this guidance to help direct this project in terms of objectives and outcomes.

2.7 KAYAKERS

Whitewater kayakers will come to the River Park at Sun Peak with a variety of objectives and expectations. The kayakers can be loosely grouped into three general categories: Beginner/ instructional, intermediate, and expert competitor.

Beginner/Instructional: Beginner and instructional kayakers come to the site with little or no experience or expertise. These users typically have appropriate gear, often rented or borrowed, such as a life jacket and helmet but may not have the experience necessary to paddle in the park without capsizing. A upturned boat for these paddlers often results in a swim and the need to find a safe place to exit the river. An ideal design for this type of boater, and for instructional programs in general are simple and clearly defined jets of water with large eddies on both sides and a calm body of water in which to recover. Many may start in the Pond itself. It is also interesting to note that these users tend to paddle most often when the weather is warm and when flows are past peak run-off and are of manageable strength and volume.

Intermediate: The intermediate paddler, for the purposes of this discussion, spans a broad gamut of abilities from capable paddler within the whitewater park to the avid kayaker that paddles in the park to prepare for other, more challenging adventures. These paddlers arrive with their own gear and have a clear understanding of where to ingress and egress the river. For the most part these paddlers can play at will throughout the park and seldom swim. These boaters are seeking a paddling experience that includes a variety of whitewater options including surfing, eddies and eddy turns, places to gather and watch in a group, and fast shooting currents in places. These boaters paddle the full extent of the whitewater park and return to the top--or return to the parking lot--on foot by the trail provided Places need to be provided for ingress/egress and some wet exits.

Expert Competitor: The expert competitor uses the park for practice and competitions. This user is provided features in the form of surfing waves and fast shooting water in the East Channel during higher flows. The master plan design would accommodates these users and their competitive needs.

2.8 POND USERS

The pond is the centerpiece of River Park at Sun Peak and this proposed Master Plan. The pond is currently used for many activities including walking, swimming, wading, kayaking, dog walking, and fire fighting, among others.

In recent years the pond has begun to fill with sediment and the bulk of the flows of the Big Wood River have moved to the Easterly channel. This has left the pond, during low-water times, with insufficient inflow and the water becomes warm, stagnant and experiences algae blooms. The pond is highly impacted and features no wetland nor riparian zone habitat. The banks are steep and eroded from runoff and heavy traffic.

This Master Plan proposes dramatic changes to the Hulen Meadows Pond in order to enhance and preserve the existing uses and experiences. The plan includes grading and access improvements that would stabilize the pond's banks and improve access. These improvements include the inclusion of an ADA fishing pier and pond-side trail. The plan also suggests the planting of native tree species to provide shading along the banks and to separate areas that are historically used by local residents from areas that are expected to be used by other visitors. The plan also includes an enhanced pond edge design that creates areas designed for access--a place where people can swim, boat, or throw sticks for their dogs--and areas designed for riparian and wetland restoration. These areas would have underwater benches and native plantings that would thrive along the banks of the pond.

Users of the pond are expected to come from two main groups--local residents who stroll down to the park and access from the South and visitors who visit the park either up the Big Wood River Corridor Trail or come and park in the lots provided on the East side of the property. It is expected that the differing access points would provide separation for these two types of users and would preserve the existing experience for local users.

2.9 ANGLERS

The Big Wood River provides excellent fishing with a large population of Rainbow Trout. This amenity draws locals and visitors alike to its banks to take advantage of the prolific hatches and beautiful scenery.

To promote fishing in Ketchum, River Park at Sun Peak Master Plan provides river access along the banks of the Big Wood to allow fishermen to access the river and pond in a variety of locations. The network of trails are designed to wind through the park and along the river, leading fishermen of all ages, to a variety of fishing environments including slow moving water, pools and riffles. The trails would include ADA river access points and an ADA fishing pier.

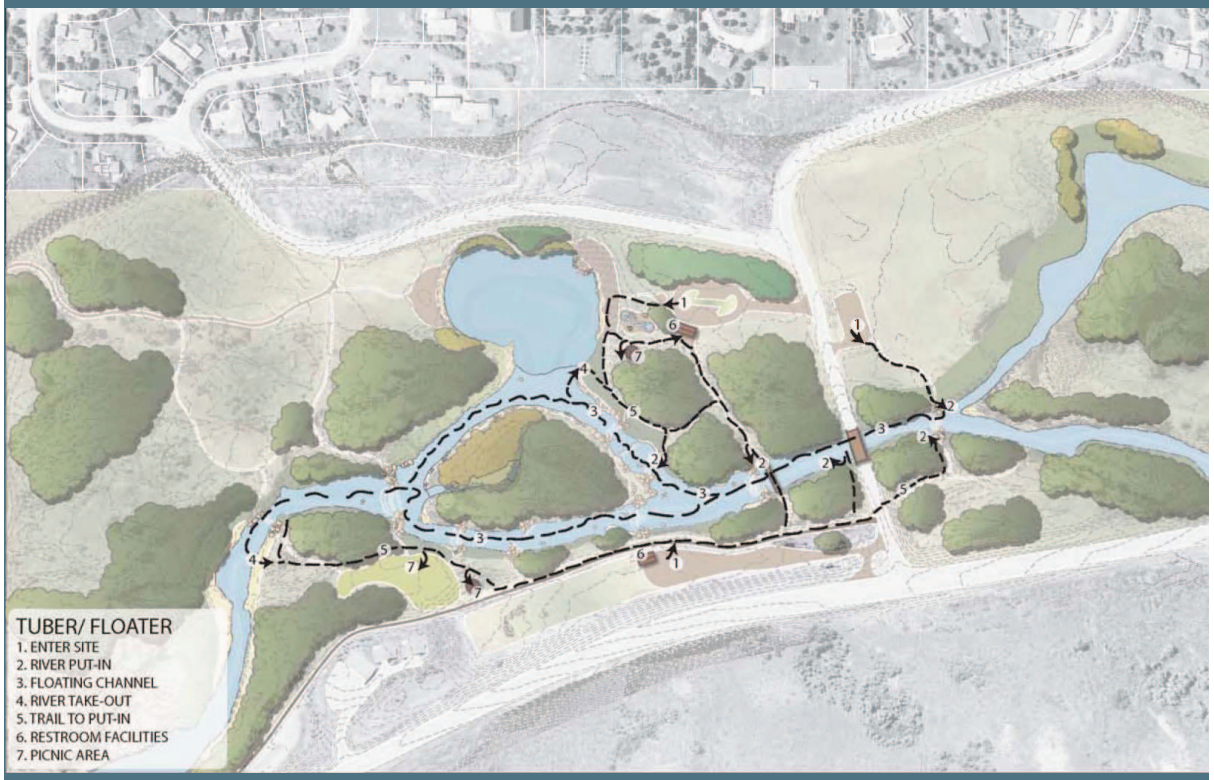
Fishermen, as with kayakers/floaters, can be divided into two classes of users: Recreationalists and enthusiasts. The recreationalists arrive with some gear and equipment but will largely be seeking out the experience of fishing. These users typically access the river at easy access points near parking areas. Often the recreationalists come as a part of a group of folks who may be pursuing other activities. Due to this users lack of knowledge and experience, signage and direction are often required.

Enthusiasts are different. Enthusiasts arrive with adequate gear and experience and seek out fishing locations based on a knowledge and experience of where fish will likely congregate. Often this user prefers less populated and more rural areas to fish as a part of the experience that they are seeking. These users require little guidance and tend to seek out experiences where they are not directed by signage, fences, etc.

The Master Plan would also improve the fish habitat by creating pools, hydraulics, eddies and strategically placed rocks to increase the fish habitat and aid in fish navigation and spawning. The pond would also provide opportunities for children to learn to fish with their families as well as with fishing programs.

At the suggestion of the Wood River Land Trust the reach upstream of the bridge has been preserved in its existing condition in order to maintain the existing habitat in this area. This upper reach of the R & PP property is valued by fishermen for its quality of fishing and its natural aesthetic. Our master plan anticipates that enthusiasts will seek out this upper reach, as they do today, for fishing opportunities while the developed park area would provide areas for recreational fishermen to easily access the river and divide their time between fishing and other activities.

2.10 TUBER/ FLOATERS



Tubing and floating can be a user group in whitewater parks and this type of user could benefit significantly from the River Park at Sun Peak. As the name implies, the Big Wood River contains many instances of woody debris. This woody debris can be beneficial to the ecosystem but can also be a navigational hazard. This debris can be a particular danger to in-stream floaters that lack the know-how, and the mobility, to avoid them. The creation of the River Park would provide a controlled and maintained environment for floaters to navigate the Big Wood River.

Floaters are typically inexperienced boaters who arrive with little or no safety equipment save the watercraft that they bring. This type of user does not understand river etiquette nor are they typically knowledgeable in river safety and rescue techniques. This type of use is not appropriate for higher flow times where the river's power, cold temperature, and speed increase the risk associated with their abilities.

The design for these users allows for multiple routes down the East and West channels of the river park. Users who choose to travel into the West Channel would have more room to recover in the calm pools prior to negotiating the final drops. This user is expected to loop upstream from the downstream end of the river park by means of the East-side trail. Parking is provided and encouraged on the East side of the river with the opportunity to route back to the river and float the section multiple times (this is typically how these users navigate the park).

Signage and river management are recommended to ensure that these users are encouraged to wear an approved flotation device and to give directions and guidance with regards to appropriate water levels as well as return routes back to the top of the Whitewater Park.

2.11 WADERS

Currently there are large depositional areas adjacent to the Hulen Meadows Pond as well as on the downstream side of the mid-stream island. Residents and visitors alike tend to wade out to these cobbled beaches to sunbathe, explore the island, and to play at the water's edge. These users tend to be low-water users who come to the site to sunbathe or play in the warmest months of the late to mid summer. Temperatures and water levels are prohibitive for this activity in the spring and early summer.

This existing usage would be impacted by the sediment management plan that is suggested in this document. The sediment management process would include the removal of the depositional materials in the pond area on an as-needed basis in order to maintain pond depth and the ability to trap sediment, as well as to mitigate flood hazards.

The sediment removal plan would impact the existing deposition areas and would affect the users who currently sunbathe and wade in these areas.

In order to accommodate these users the sediment removal areas are defined by hardened natural stone benches. These benches would define a pilot channel through the depositional area. The benches would define the elevation of depositional areas adjacent to Hulen Meadows Pond and to the downstream end of the island. The sediment management plan would preserve depositions in these areas at these specified elevations.

Waders are expected to access the site from the east side parking lot(s) along the main River Park at Sun Peak Pond Trail.

Waders are an existing usage and are not expected to increase the current levels of traffic through the site.

2.12 PASSIVE USERS

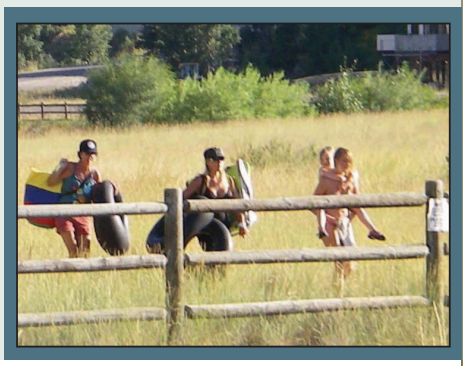
The River Park at Sun Peak would be unique to the region and an attraction for paddlers and non-paddlers alike. Ketchum is a destination town with many attractive amenities but this venue would create a unique attraction for the City. People of all ages and backgrounds would come to the venue to walk its banks, tour its trails, and visit the pond, the whitewater park, and other amenities.

These users arrive on site to explore the venue and seek out recreation and exploration activities. Typically this user is uninformed and appreciates signage that tells of the project's history, the town's history, and that explains the flora and fauna.

This user also seeks out children's play areas for family recreation, as well as paths and bridges to exercise and walk with family and friends. These users explore the river and pond's banks and typically tour the site's trails. This user typically seeks out vistas where they can see the project, the pond, the mountains, and other scenic views.

It is a primary objective of the project to tie this particular user to the City itself. Kayakers, fishermen, rafters, and other active users will come to the River Park at Sun Peaks for extended stays and will naturally gravitate to the town. The passive users may only come to view an event or to tour the site. Design of the venue should draw them to the Town of Ketchum either through signage, direct trail access, or other means..

Some of these visitors will not be active by nature. Handicap access allows all types of spectators to the venue including older or physically challenged companions who will also seek the venue out as a day's outing. These users desire ramps, shaded areas to rest and access pathways that are appropriate so that they can share the experience with family and friends without limit.



Others of these visitors will bring family and will desire an active place in which to play with their children in the outdoors and to gather with their families under cover.

SECTION THREE: THE R & PP MASTER PLAN PROGRAM ELEMENTS

3.1 PROGRAM ELEMENTS MAP

3.2 POND RESTORATION

Hulen Meadows Pond is one of the central attractions of the River Park at Sun Peaks. As noted above the pond is currently utilized by a number of user groups for a variety of reasons but has become highly impacted by this usage.

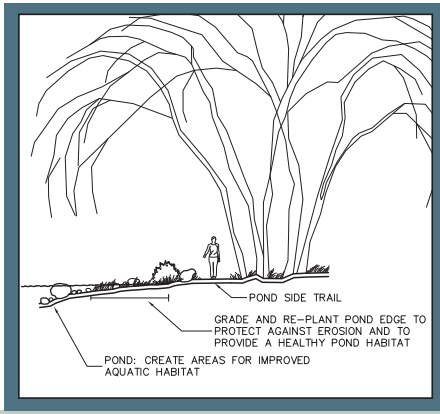
The Master Plan includes a number of improvements intended to enhance the user experience while also restoring and protecting the valuable habitat that will be planted and maintained around the pond.

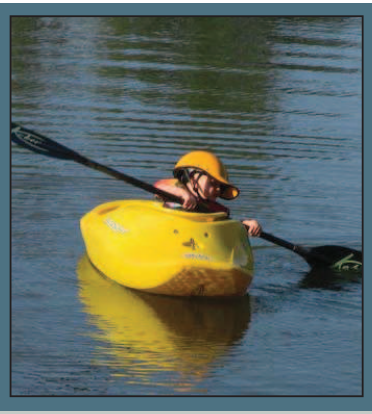
The general public would access the pond from two directions: either from the primary parking on the east side of the river or from the family and accessible parking located just to the north of Hulen Meadows Pond. These users are provided with trail and ADA access to the north shore of the ponds and continue to the east along the Big Wood River or to the West along the Hulen Meadows Pond if they choose. An area of the pond edge along this northern shore of the pond would be graded back to a gentle slope and a safety bench would be created in the pond. This gently sloping access to the pond would provide a safe and attractive access for swimmers, waders, and kayakers. Rest rooms, a water fountain, a natural kids play area and a covered picnic area would also be created along this north shore.

A second access has been provided to the south and east of the pond. Given the lack of available parking in this area and the direct access from the Hulen Meadows neighborhood, it is anticipated that this access would be used primarily by Hulen Meadows residents. The south shore of the pond would be graded back to a gentler slope and a safety bench would also be created on this shore to provide a gently sloping access for swimmers, waders, and kayakers on this bank as well.

A direct route has been designed to provide ADA access from the family and accessible parking to the ADA Fishing Pier. This pier would provide fishing access on the northwest shore of the Hulen Meadows Pond through a structure that is designed to safely allow family and disabled individuals to fish and view the pond.

The pond edge would be replanted and restored in select locations along the south and west shores. These plantings have been designed to create a wetland area as well as a riparian zone. The plantings are expected to provide the mutual benefits of restored habitat as well as shading and aesthetic appeal. All plantings would be with species native to the Big Wood near the river park at Sun Peaks.





3.3 NATURAL OUTDOOR PLAY AREA

The Pond area would also contain a naturally appearing children's play areas. The natural outdoor play area would focus on creating a low-maintenance child-specific play area.

The play area has been designed to cater to children's natural desire to play in the water, climb, and explore. The primary features would include a splash-depth stream that consists of potable water poured over a mini-streambed and vented to the Hulen Meadows Pond. This mini streambed wiould be made from sands and gravels with larger rocks provided that can be used to create dams , pools, and riffles.

The play area would also contain children's height climbing rocks that are placed in a stable manner into the ground and surrounded by a soft-surface base.

This amenity would include an interpretive element designed to encourage children to seek out natural habitats for various species and then learn about these species and their lives. These interpretive elements would be designed in partnership with the WRLT with the objective of fostering stewardship and a love for the natural environment.

The play area would contain a variety of native plants and plant material, as well as sufficient shade and sunlight, to meet the needs of the activities and seasonal changes. The play area would also have a variety of boulders for children of all ages to climb, sit, or use as props.

The Play area would be located near the restrooms, covered shade area, and water fountain such that the children would have access to necessary facilities and can be watched by family members who might be using the covered picnic area for family events and gatherings.

3.4 PICNIC SHELTER AND RESTROOMS

The City's R&PP application includes a covered picnic area and restroom facilities for users of the Hulen Meadows Pond. A second constraint, provided by the Hulen Meadows Neighborhood, requests that traffic, noise, and users be minimized on the west side of the project. As such, two restrooms and covered picnic areas are provided in this plan. One provides for users on the West Side and one on the East side.

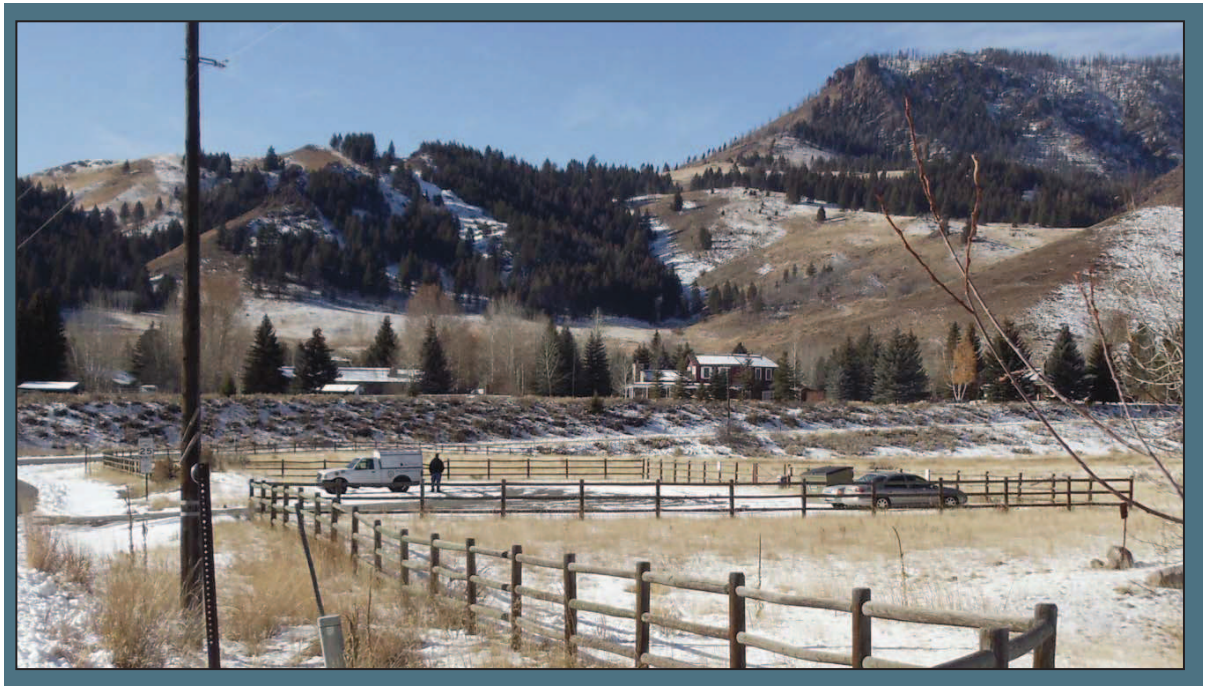
On the west side of the river, restrooms and a covered picnic area would be provided adjacent to the handicap and family parking as well as the pond and children's play area. The restrooms would be sited such that children and families that visit the pond, the children's play area, and/or the covered picnic area do not have to cross the parking or the road in order to visit the restrooms. The restrooms would be further shrouded from direct view by the Hulen Meadows neighborhood through plantings and landscape design.

The covered picnic area on the west side would be located such that families who "base" out of the covered area for picnics and shelter can cook, socialize, or relax while still monitoring the pond edge and the children's play area. This site was chosen such that those in the picnic area can contribute to on-site safety and oversight.

The east side picnic and restrooms would be sited in an existing meadow adjacent to the fire station. This location was chosen as it provides an area for group picnics and festivals that is far removed from the Hulen Meadows neighborhood. The site is also adjacent to water and sewer lines. The intent of creating this second picnic and restroom area was to service users of the whitewater park and east side river users. The east side gathering area would significantly reduce the need to cross the river to the Hulen Meadows Pond area.

Typical examples of restooms and picnic shelters are shown in the adjacent images. The R & PP application specifies pit-type outhouses for the restrooms but concern has been expressed by the BLM about seepage into the adjacent groundwater. Sealed outhouses could be used upon further investigation during detailed design.

3.5 PARKING AND INFRASTRUCTURE



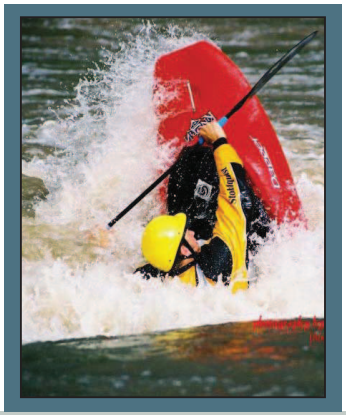
Parking would be provided at both sides of the River Park at Sun Peak. The primary parking would be located on the east side of the river and is an improvement to an existing parking area that is currently utilized by fishermen and kayakers who access the Big Wood River. This parking area would accommodate 80 to 100 vehicles on the east side of the river with room for future expansion. Signage and the design of the entryway would encourage visiting traffic to park in this lot.

In addition, close-in parking would be provided near Hulen Meadows Pond for families and ADA access. This parking area would accommodate 25 to 35 cars including ADA parking spaces. All of the parking would be permeable surface parking.

The parking has been designed with two objectives. The first objective is to provide for parking and access on the west side. These parking areas would provide ADA access to the pond and allow for some close-in parking by visitors. By providing adequate parking, neighborhood street parking would decrease and visitors would feel welcomed to the area. The second objective is to provide and attract the bulk of the parking on the East side, to decrease the congestion and noise levels on the West side of the bridge.

The East parking is designed to carry the brunt of the visitors as the primary site parking. Making the east parking the primary parking area has several advantages: The first is to decrease traffic on the Sage Road bridge. The second is to focus much of the additional usage and traffic on the East side of the river. The plan includes separate trail access to the river, as well as the pond, from this parking area. This parking area would also be expandable, if needed

- Permeable surface parking
- Main parking on the east side of the river.
- Pedestrian bridges
- Parking expandable for events and to adapt to usage.



3.6 WHITEWATER PARK

The restoration of existing drop structures in the reach and creation of the in-stream features of the River Park at Sun Peak is one of the primary components of the park plan. This centerpiece attraction is designed to be both naturally beautiful, through the use of materials such as local rock and native plantings, as well as a recreational attraction for many types of users.

The river features that are planned are restorations of existing structures that were built in the Big Wood River. The river features have been designed to accommodate a variety of activities from wading and sunning at lower water levels to elite level kayaking at higher water levels.

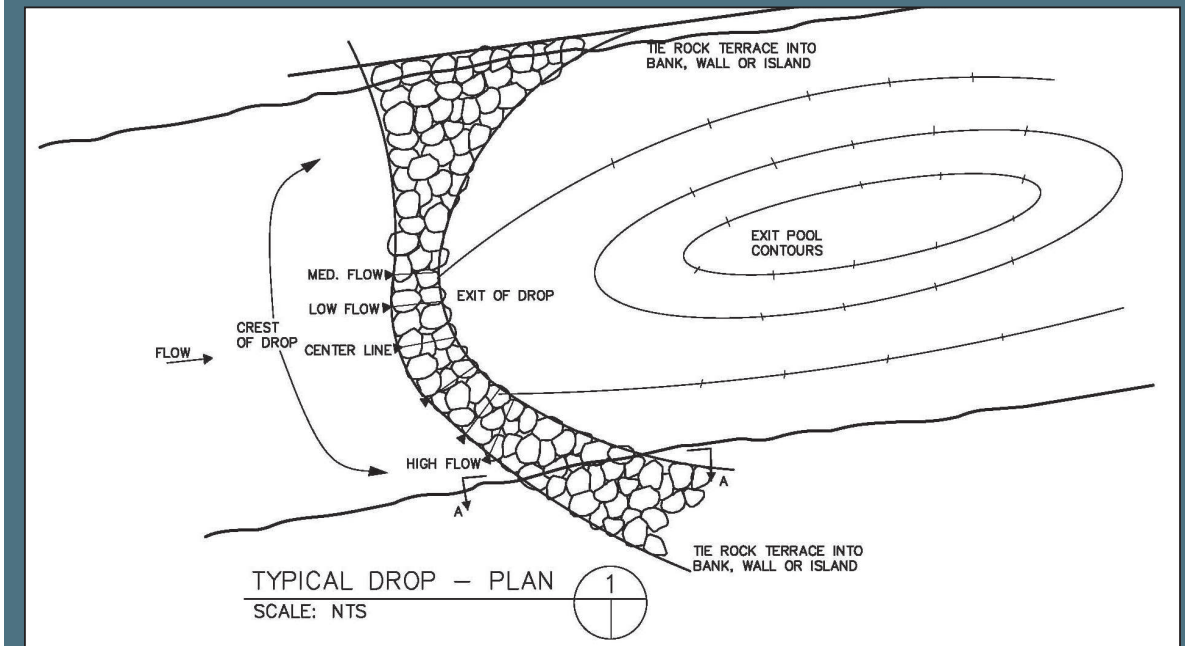
The park features two main channels and controls the amount of flow that travels through each channel at varying water levels. At lower flows the predominant amount of flow would pass through the west channel, through a low-slope reach that features some small waves and drops, past the Hulen Meadows Pond and downstream through the restored habitat areas to the junction with the west channel.

The east channel would always have some flow but would transform from the secondary channel to the primary channel at higher water levels. This channel would feature larger wave features and hydraulics at these higher flows and would be designed to cater to intermediate and elite boaters during these high flow time periods. This reach of the river features distinct drop features that would be used for freestyle, recreational boating, and some slalom type paddling. There are three additional drop structures that would use the entire flow of the river located upstream and downstream of the divided channels.

The in-stream features have been designed to provide the riffle-run-pool morphology that is beneficial to in-stream species. The scour pools created by the drop structures would provide additional deep water pool over-winter habitat which is important to the Big Wood at this location. The structures would also be designed into the current flood model of record in order to ensure that there are no negative impacts to the floodplain in the area

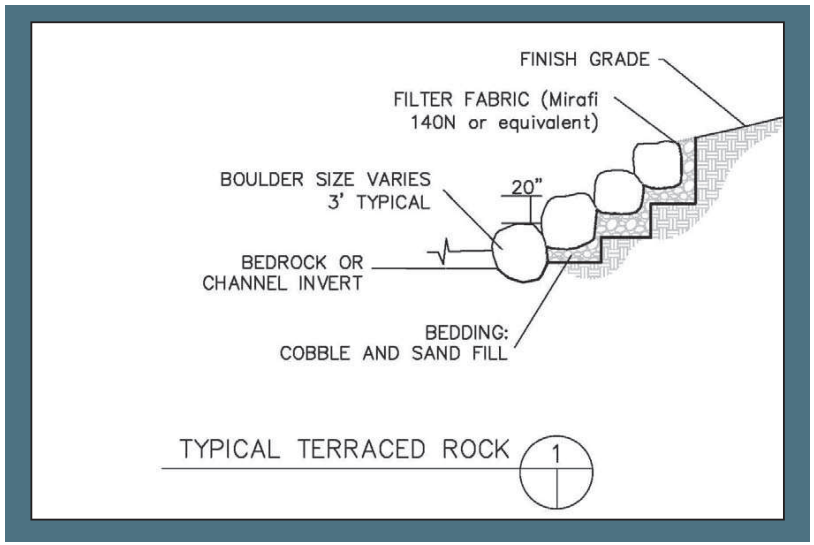
The structures planned also provided fishing access via trails and hardened bankside access points. This access would provide fishing at each of the deep scour pools as well as to wading areas at lower flows.

3.7 WHITEWATER PARK- TYPICAL DETAILS

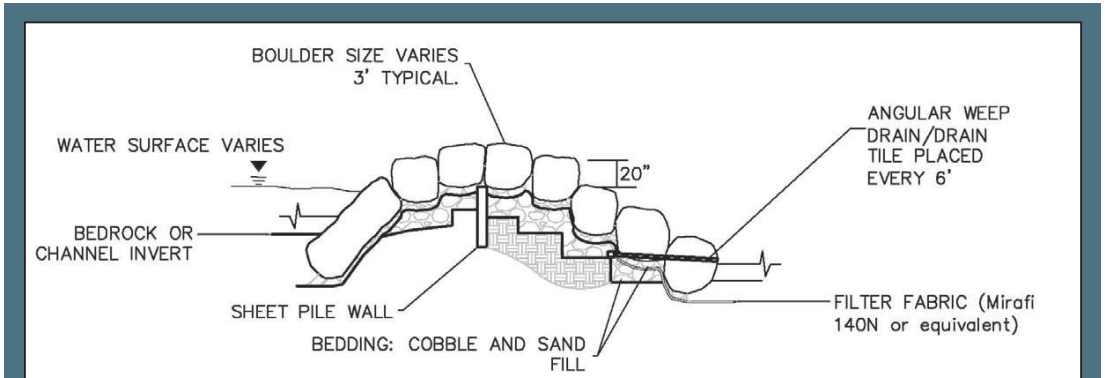


TYPICAL DROP – PLAN 1

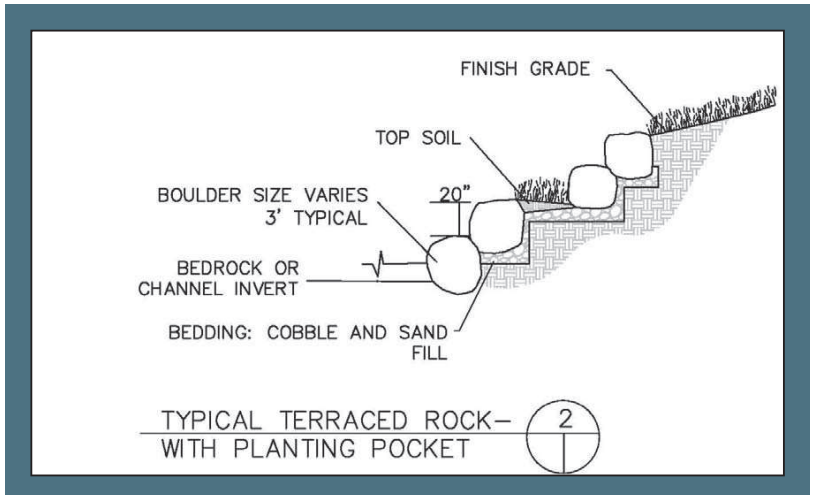
SCALE: NTS



TYPICAL TERRACED ROCK 1



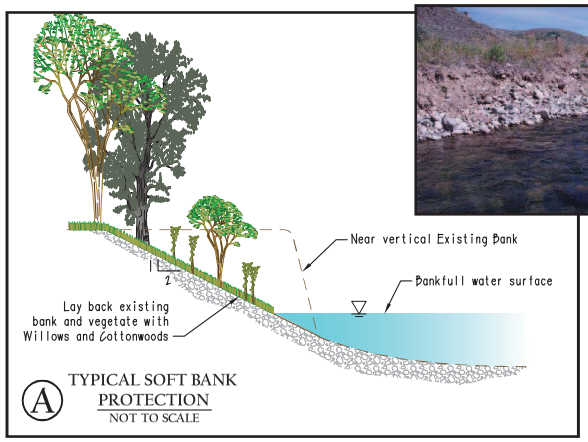
TYPICAL WING PROFILE A



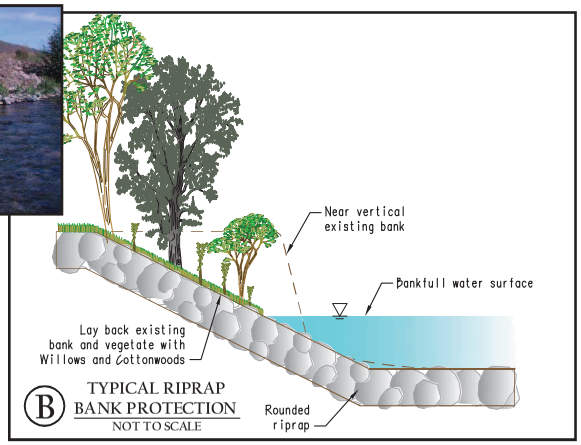
TYPICAL TERRACED ROCK– WITH PLANTING POCKET 2

3.8 WHITEWATER PARK- BANKSIDE SECTIONS

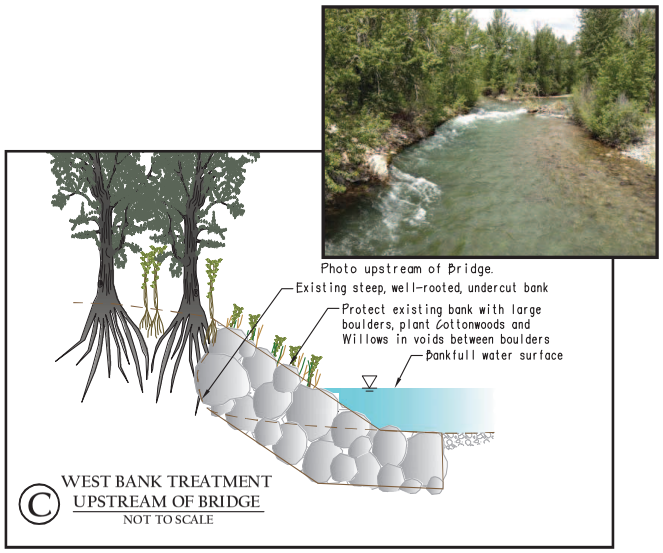
PLAN VIEW - POND AREA
NOT TO SCALE



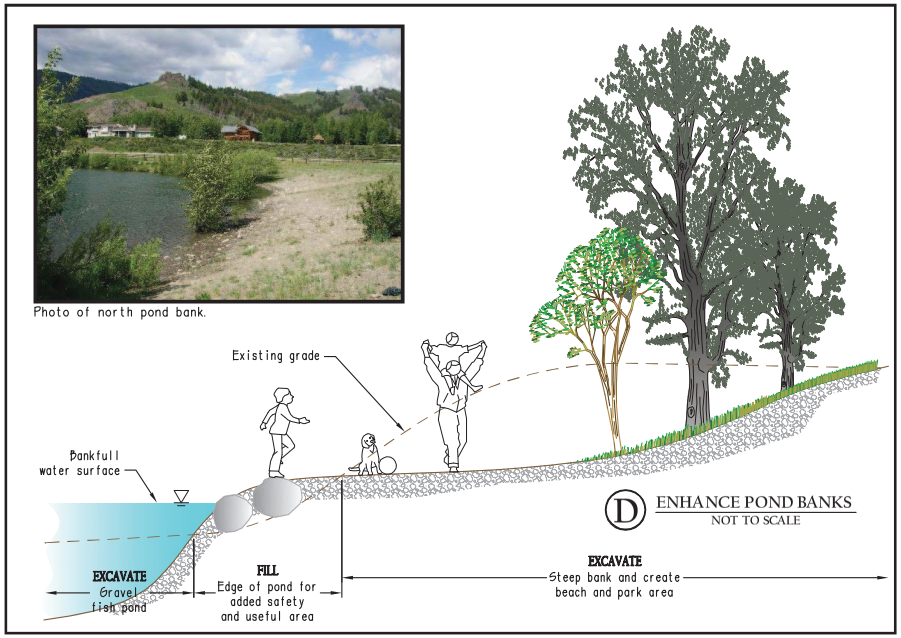
A TYPICAL SOFT BANK PROTECTION
NOT TO SCALE



B TYPICAL RIPRAP BANK PROTECTION
NOT TO SCALE



C WEST BANK TREATMENT UPSTREAM OF BRIDGE
NOT TO SCALE



D ENHANCE POND BANKS
NOT TO SCALE

3.10 INTERPRETIVE LOOP AND TRAILS

One of the primary objectives of the park is to allow people to explore the River Park at Sun Peak. A hard surface trail currently connects Ketchum to the site but terminates at the Sage Road Bridge. The master plan design provides a loop trail that circles the river park providing access to each of the project components identified in this study.

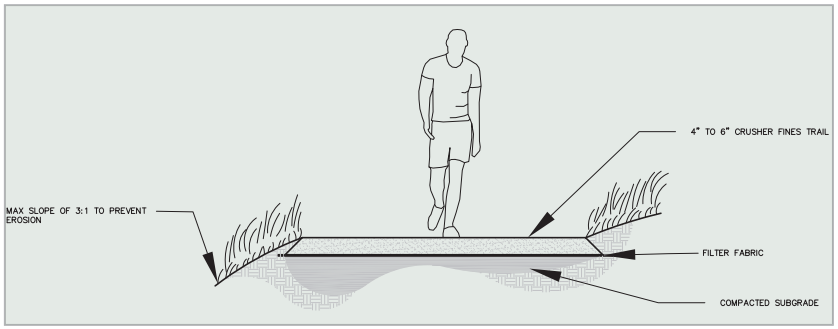
The trails network would include two proposed walking bridges--one at the upstream end of the site adjacent to the existing Sage Road car Bridge--and the other at the downstream end of the site near the kayaker's take-out. The downstream bridge would connect to the east side return route for floaters and kayakers.

The trails are all designed as compacted fines soft surface trails that are 8' wide. The main trail, which circles the site, could be transformed to a hard surface trail in the future if usage presents a maintenance problem for the city. The City could also choose to widen this trail to allow for walkers as well as bikers if usage creates a safety issue.

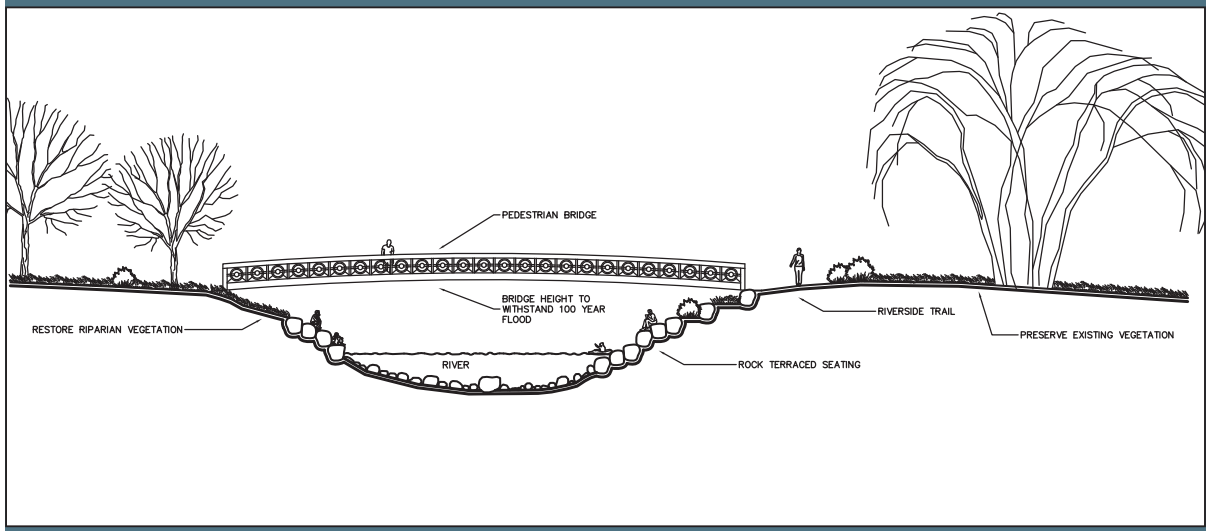
The trails would provide access to kayaking, a children's play area, restored riparian and wetland habitats, preserved habitat areas and areas of interest--such as the Hulen Meadows Pond which has been used for fire fighting. The property and park itself are a part of community program to protect and preserve native habitat in the Big Wood Valley. This type of trail tour would provide the opportunity to include interpretive elements that help to support the mission of habitat preservation, that fosters outdoor education and stewardship, and that highlights and showcases the history and people of this valley. The master plan includes two opportunities for interpretive elements:

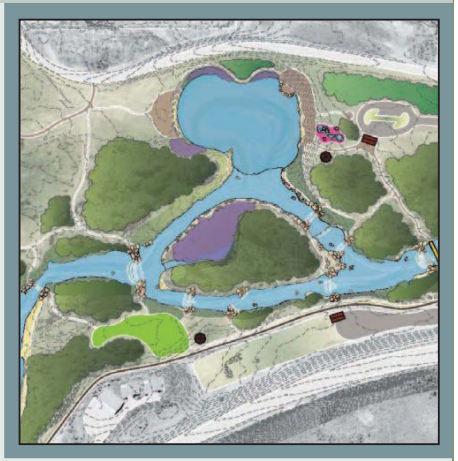
The first is a children's educational element that would be a part of the natural outdoor play area. This element would have a spinning dial with hints on where to find species within the "habitat" of the natural play area. The elements would mimic actual species in the Big Wood River.

The second is an interpretive element to the circular tour of the site. This element would provide signage that educates those who explore the site about the habitat, history, and values of the region. The WRLT has offered to aid in the design of these elements.



3.11 EVENTS AREAS

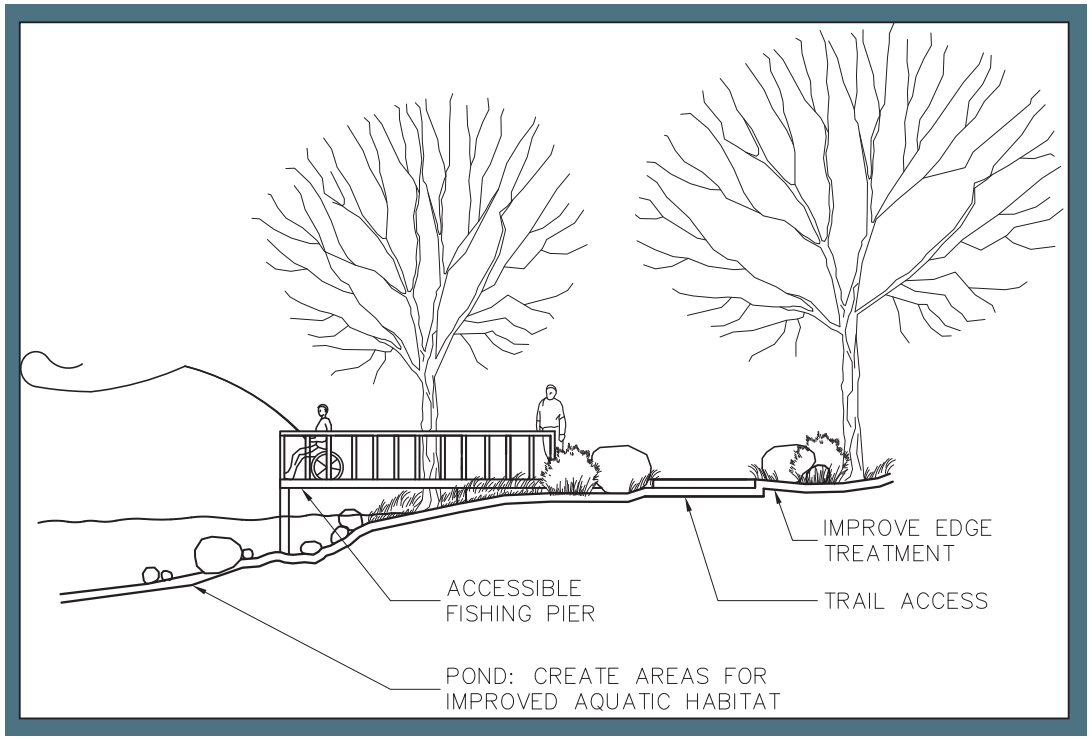




It is anticipated that events will take place in a number of locations within the River Park at Sun Peak. These events may include gatherings as small as weddings and family reunions and as large as river festivals and whitewater competitions. The site has been designed to accommodate these uses.

Larger events would be located on the east bank and would use the primary parking and, if needed, overflow parking in this location. Gathering and showcase areas would be available on both the east and west sides of the bike path. It is anticipated that any commercial showcases would most likely occur in the overflow parking areas while gathering and entertainment events would be hosted in the firehouse meadows area.

Smaller events can also be hosted, in a similar manner, on the east bank but would also occur on the west bank. The covered picnic area can play host to small events. It is anticipated that the City would schedule and coordinate these events such that they do not impact regular usage at the park during peak usage times. Events at the Hulen Meadows Pond area would likely be subject to schedule and noise level limitations that are defined in negotiations between the City and the neighborhood BOD.



3.12 FISHING AND PRESERVED AREAS

Restoration and preservation is one of the primary focuses of the River Park at Sun Peaks and key areas of the River Park would be restored and set aside to ensure a healthy habitat and ecosystem and to provide educational opportunities for the community. The current project location features some areas of stunning natural beauty that host a thriving ecosystem. Other areas, such as the pond, are weeded with non-native species, steep, inaccessible, and largely devoid of wildlife and habitat areas.

This project aims to restore these areas in a way that contributes to the active and interpretive nature of the park, while also creating a thriving and healthy ecosystem throughout the reach. The project includes lake edge treatments, fish passage elements, and wetlands and riparian restorations intended to create habitat as well as to showcase preservations throughout the site.

The current master plan is a restoration of the existing configuration of the river. As such, areas that would be impacted by construction are limited to areas that currently feature man-made structures and elements. Areas outside of those shown for improvement would be restored and improved. In addition, restoration and replanting would be implemented in areas as shown in the above diagram.

One of the key areas of restoration for this project is around the perimeter of Hulen Meadows Pond. This restoration would include a safety bench surrounding the pond and riparian and wetland plantings in specific areas around the pond's edge. These plantings would be used to provide habitat as well as shade and would also delineate areas appropriate for human impacts from areas that are to be preserved. As an example, plantings would separate the south from the north banks of the pond and encourage visitors to access the pond's edge only in areas that have been graded to a gentler slope. Typical details and example pictures of these restored areas are shown in the images on this page.

	Pond Restoration	Outdoor Play Area	Picnic Shelter and Restrooms	Parking and Infrastructure	Whitewater Park	Interpretive Loop and Trails	Dog Agility Course	Events Areas
Bureau of Land Management	+	0	+	+	+	+	+	0
Hulen Meadows Home Owners	+	+	+	+	0	0	0	-
Wood River Land Trust	+	0	+	+	0	+	0	0
The City of Ketchum	+	+	+	+	+	+	+	+
Kayakers	+	0	+	+	+	0	0	+
Tubers and Floaters	0	0	+	+	+	0	0	0
Waders	+	+	+	+	0	0	0	0
Pond Users	+	+	+	+	0	0	0	0
Fishermen	+	0	0	+	+	0	0	0
Passive Users	+	+	+	+	+	+	+	+

+ indicates that the design meets this stakeholder's objectives
0 indicates that the design component neither hurts nor helps this stakeholders objectives
- indicates that the design component negatively impacts this user's objectives

3.13 MASTER PLAN SUMMARY

The Master Plan was guided by the client's desire to create a park that catered to a wide variety of expected users with a wide variety of expected uses within the park boundaries. The included park components were created to meet BLM objectives for the property while also meeting the objectives, desires, and constraints of the many stakeholders on this project.

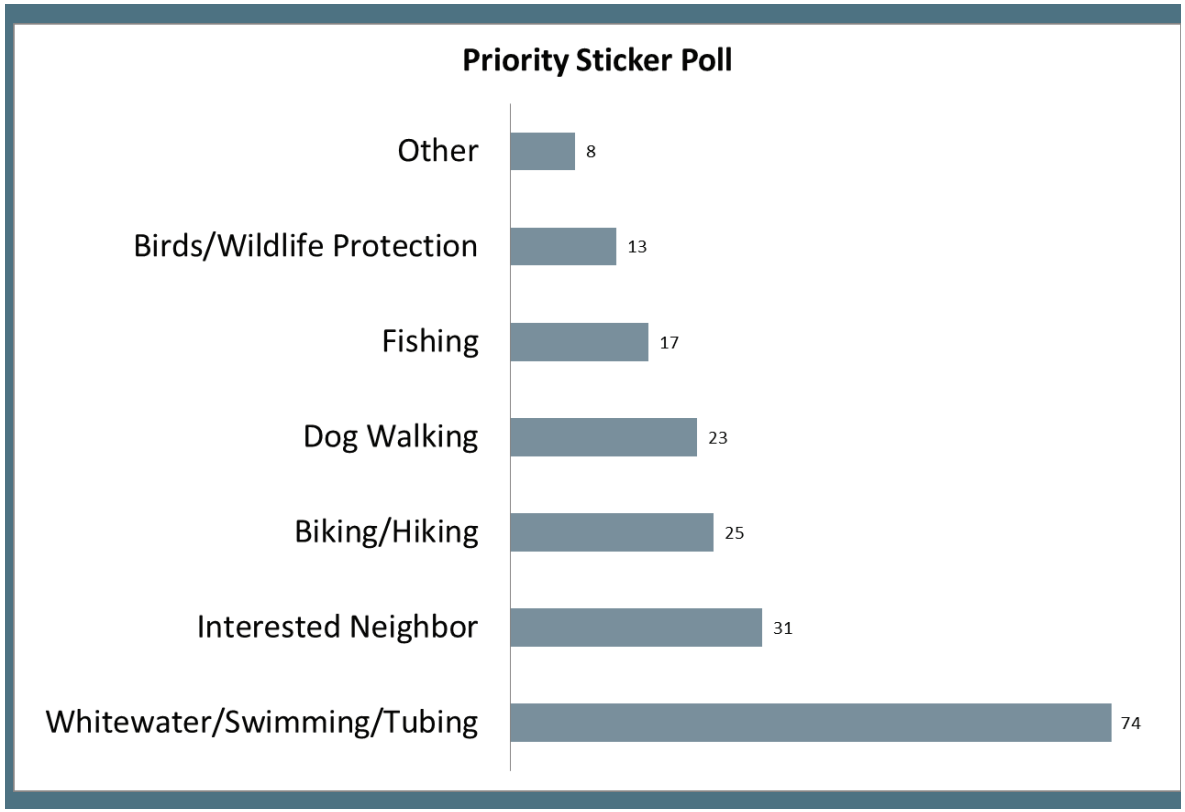
The table to the left illustrates which project components are provided for which users and are based on the ability of the project component to provide for a users needs, requirements, or constraints. As an example, the walking bridge adjacent to the Sage Road Bridge provides access to the site for walkers and bikers who wish to follow the loop trail. The bridge also meets the desire expressed by the Hulen Meadows BOD to decrease car, bike, and pedestrian traffic on their bridge.

This comparison shows that the park components provide utility for each of the project users. In some cases, such as the Dog Agility Area, the inclusion of a project component neither helps nor hurts many of the expected users but caters to a particular users preferences.

A comparison of the project requirements to the expected users reveals that the events areas do not necessarily meet the Hulen Meadows Neighborhoods desires for this project. Events could bring large crowds and might raise the noise level. This analysis suggests that the inclusion of an additional events area, on the east bank of the river adjacent to the fire station was a well founded solution that provides an alternate area for louder, or larger, crowds to congregate. It is expected that the Hulen Meadows neighborhood would be less impacted by these events given the distance and buffers in place between the two.

The analysis suggests that the master plan also meets all project requirements included in the R & PP application, but includes additional components for consideration. These additional components include the east bank parking and events area, the additional shelters, bridges, and restrooms, and the children's play area. It is this design team's belief that these components are complementary to the BLM's objectives and intent for this project.

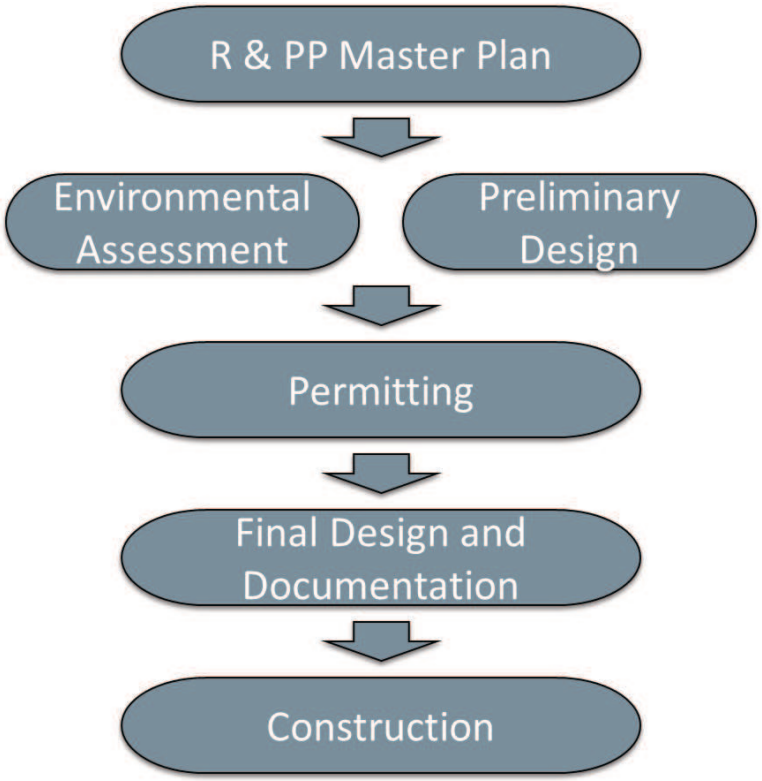
MASTER PLAN SUMMARY (CONT'D)



The project was vetted through two public meetings. The first meeting was held to inform the public about the project, the process, and the character of similar river park projects. Those who attended were asked to complete a sticker poll in which they placed three stickers on the three components which held the most priority for them in the process. The figure at the left shows the results of this poll suggesting that the majority of users and stakeholders identified in the public meeting are addressed in this study. Of those who attended the meeting the most important components are related to the in-stream whitewater features. Concerned and/or interested neighbors also were well represented. The remaining majority were the existing user groups of bikers/hikers, dog walkers, fishermen and environmentalists.

At the second meeting the master plan was presented and explained. This meeting was also well attended although the attendees were not polled. The presented master plan was well received. Those who were concerned about the master plan were primarily Hulen Meadows neighbors who cited concerns about the traffic on the site. Discussions with the design team and with the City indicate that the design has met the objectives of the project, mitigated the Hulen Meadow neighbor's concern, and has gained the general approval of the broader community.

SECTION FOUR: IMPLEMENTATION



4.1 INTRODUCTION

The purpose of the master planning process was to create a layout and project definition that could be approved by the City of Ketchum. This Master Plan would become a part of the City's application to the BLM as a part of the R & PP application to the BLM and would be subject to the BLM's evaluation during the Environmental Assessment process. Creation of the actual park requires EA approval and additional engineering analysis and design work to create specific design documents that are ready for construction.

The figure to the left, describes the recommended approach to completing the project. This approach, which follows final approval of the Master Plan by the City of Ketchum, suggests that the water rights issues be addressed while preliminary design is undertaken. Our design team, as noted later in this section, feels that there are advantages to attaining a water right prior to applying for permits and approvals.

A permitting phase would be undertaken following preliminary design. Section 4.2 describes this process including the required permits that must be attained. The master plan has been vetted with the permitting authorities in a courtesy meeting in order to inform them of the project and design intent of the master plan in advance of applying for actual permits. The permitting agencies were also asked to comment on the project.

After receiving the required permits, a final design phase would be undertaken to update the design to meet permit requirements and to create detailed construction documents in anticipation of bidding the project to a contractor. The City would then bid the project to a contractor and proceed with construction.

4.2 PERMITTING

REGULATORY GUIDELINES & POTENTIAL PERMITS

Regulatory Authority for the proposed Whitewater Park will fall under multiple jurisdictional agencies. The goal of the project development team is to make sure each jurisdictional agency is well informed along each phase of project development and on a regular basis. By keeping communication open between the project team and jurisdictional agencies it allows for a more focused and stream-line permitting process with fewer delays. The project development team would also look for input from the other non-jurisdictional agencies as needed and appropriate. At this time, it is anticipated that the following jurisdictional agencies along with supporting permits/ applications would be involved with the proposed project.

FEDERAL PERMITS

BUREAU OF LAND MANAGEMENT (BLM)

National Environmental Policy Act (NEPA): The project lies on Federal lands and therefore an Environmental Assessment (EA) will be required to comply with Federal Regulations. The purpose of an EA is to determine the significance of the environmental effects that a specific project may have on the environment and to look at alternative means to achieve the agency's objectives. The EA is intended to be a concise document that (1) briefly provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS); (2) aids an agency's compliance with NEPA when no EIS is necessary; and (3) facilitates preparation of an EIS when one is necessary(40 C.F.R. § 1508.9). If after investigation and drafting of the EA no substantial effects on the environment are found the agency may produce a Finding of No Significant Impact (FONSI). (www.wikipedia.com)

- Although an EA is being completed for the R & PP process/land exchange, it is understood that the EA will also need to incorporate the activities of the proposed White Water Park.
- The City's application to approve the Patent for the land exchange will include a reversionary interest to the US. Due to this reversionary interest the BLM will be required to conduct compliance monitoring on an ongoing basis.

43 CFR 3602.34 Materials Sale Permit/Contract (potential): Federal Regulations establish procedures for the exploration, development, and disposal of mineral material resources on the public lands, and for the protection of the resources and the environment. The regulations apply to permits for free use and contracts for sale of mineral materials. This permit would be required to support the maintenance and upkeep of the project through sediment removal and sale. *(http://www.ntc.blm.gov/krc/uploads/238/3600FinalRule.pdf)*

U.S. ARMY CORPS OF ENGINEERS (USACE)

Clean Water Act, 404/401 Permits (Joint Application): Although there are numerous federal and state laws that affect wetlands, the Clean Water Act (CWA) is the main regulatory tool. There are two sections of the CWA that are of particular significance:

- Section 404 of the Clean Water Act enables the USACE to grant permits for certain activities within waterways and wetlands. Construction projects affecting wetlands in any state cannot proceed until a §404 permit has been issued. In deciding whether to grant or deny a permit, the Corps must follow certain guidelines, which are discussed below.
- Section 401 of the Clean Water Act gives EPA the authority to prohibit an activity, including a construction project, if it can adversely impact water quality or have other unacceptable environmental consequences. For most states, EPA has delegated this authority to state environmental agencies. In Idaho, the Idaho Department of Environmental Quality (IDEQ) has this authority.

These two regulatory activities are conducted cooperatively through use of a Joint Application. The USACE reviews the permit application to determine if practical alternatives to the project exist. They also may impose mitigation requirements on the project developer and perform public interest review. The USACE also determines if other environmental laws must be addressed, including the NEPA, Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA). Following review, the USACE can authorize, deny or stipulate specific conditions for the project. The USACE then consults the IDEQ for an opinion (under §401 authority) on the impact potential that a given project may have on water quality. When warranted, IDEQ will then grant a §401 certification, which is needed prior to the issuance of final permit (§404) by the USACE. (www.cicacenter.org)

STATE OF IDAHO PERMITS:

IDAHO DEPARTMENT OF WATER RESOURCES (IDWR)

Stream Alteration Permit (Joint Application): The Department of Army Corps of Engineers (USACE), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code).

Currently, the Master Plan has several amenities that require water and may require additional water rights to be obtained by the City. This may require additional permitting or transfers from IDWR.

COUNTY PERMITS:

BLAINE COUNTY, IDAHO

Floodplain Development Conditional Use Permit: This permit application and review was implemented in order to more adequately control hazards from flooding; to ensure that the important environmental features are protected and enhanced; to protect life and property; to protect, preserve and enhance fish, wildlife habitat and recreation resources; to avoid undue water and air pollution; to ensure qualification for the National Flood Insurance Program and to ensure that all persons desiring to undertake any stream alteration are afforded equal protection and procedural due process of law. *(www.co.blaine.id.us)*

Additional Permits

- Public Outdoor Recreational Facilities Conditional Use Permit
- Standard Setback Requirements (Wetlands/Streams/Floodplains)
- Stream Alteration Permit
- Gravel/Mining Permit (Sediment Removal Maintenance may be incorporated into the Stream Alteration Permit)
- Mountain Overlay District (MOD) Categorical Exclusion Permit or Site Alteration Permit

PERMITTING (Cont'd)

SUPPORT DOCUMENTATION

- Wetland / Ordinary High Water Mark (OHWM) Delineation
- Wildlife/Vegetation Survey
- Biological Assessment
- Project Design (Stream /Habitat) Reports
- Section 106 Cultural Resources Report
- HEC RAS Flood Study/No rise certification
- Stamped Design Drawings
- Other technical Survey/support documents that may be required by the Jurisdictional Agencies

PERMITS

BUREAU OF LAND MANAGEMENT (BLM)

- BLM 43 CFR 3602.34 Materials Sale Permit/Contract (potential)

JOINT PERMIT APPLICATION

- U.S. Army Corp of Engineers (USACE) – Section 404 Individual Permit
- Idaho Department of Environmental Quality (IDEQ) – Section 401
- Water Quality Permit
- Idaho Department of Water Resources (IDWR) – Stream Alteration Permit

BLAINE COUNTY, IDAHO PERMITS

- Floodplain Development Conditional Use Permit
- Public Outdoor Recreational Facilities Conditional Use Permit
- Standard Setback Requirements from Stream, Wetlands and Floodplains
- Stream Alteration Permit
- Gravel/Mining Permit (Sediment Removal/Maintenance may be incorporated into Stream Alteration Permit)
- Mountain Overlay District (MOD) Categorical

BUREAU OF LAND MANAGEMENT (BLM):
The agency within the United States Department of the Interior which administers America's public lands. The BLM's mission is to sustain the health, diversity and productivity of the public lands of the United States for the use and enjoyment of present and future generations. This agency is the current landowner of the R & PP property and will monitor the property in perpetuity to ensure that the property is managed and operated according to the requirements of the R & PP application.

U.S. ARMY CORPS OF ENGINEERS (USACE):
The USACE is a federal agency and a major army command made up of a mix of civilian and military personnel. The USACE's mission includes environmental regulation and ecosystem restoration. The USACE is authorized to protect the Nation's aquatic resources.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA):
The federal agency that regulates and administers the National Flood Insurance Program.

IDAHO DEPARTMENT OF WATER RESOURCES (IDWR):
The department of the State of Idaho responsible for conserving water and ensuring that water is available to sustain Idaho's economy and ecosystem.

BLAINE COUNTY, IDAHO:
The local governmental body with regulatory jurisdiction over the R & PP Property

All Permits and Technical Documents will be incorporated into and/or used in support of the NEPA / Environmental Assessment

Item #	Item Description	Units	Adjusted Unit Cost ($)	No. of Units	Cost per Item ($)
1	Excavate Hulen Pond and Layback Slopes	LS	100,000.00	1.0	100,000
2	Whitewater Features--8 Drop Structures, 4-6 point bars, 20 boulders for boulder clusters/velocity barriers	SF	232.00	2500.0	580,000
3	West Parking Lot	SF	2.00	30000.0	60,000
4	East Parking Lot	SF	2.00	30000.0	60,000
5	Pathways	LF	10.00	3000.0	30,000
6	Interpretive signage to be created and added in cooperation with the Wood River Land Trust	LS	25,000.00	1.0	25,000
7	ADA Fishing Access, Drystack Rock Wall or Dock to be sized according to ADA specications	LS	50,000.00	1.0	50,000
8	Kids Splash Water Feature to contain a natural stream with potable water, some climbing rocks, some interpretive elements and landscaping.	LS	150,000.00	1.0	150,000
9	Riparian Planting--to be placed in the areas specified and restored in additional areas as specified during detailed design.	LS	70,000.00	1.0	70,000
10	Landscape Planting--as shown in the design drawings.	LS	70,000.00	1.0	70,000
11	Well and Pump--if needed	Each	15,000.00	1.0	15,000
12	Irrigation--as allowed by water rights	Each	25,000.00	1.0	25,000
13	Ground Treatment	SF	0.15	100000.000	15,000
14	Foot Bridges	Each	250,000.00	1.0	250,000
15	Restrooms	Each	75,000.00	2.0	150,000
16	Picnic Shelter	Each	75,000.00	1.0	75,000
17	Shade Structure	Each	25,000.00	1.0	25,000
18	Bank Protection (Layback Slopes & Riparian Planting)--done as needed and as specified in detailed design documents	LS	125,000.00	1.0	125,000
	Constrution Sub-Total				**1,875,000**
101	Mobilization (as % of Construction Sub-Total)			3.0%	56,250
102	Taxes (as % of Construction Sub-Total)			0.0%	0
103	Incidentals not included in items above (as % of Construction Sub-Total)			1.5%	28,125
104	Contingency (as % of Construction Sub-Total)			20.0%	375,000
105	Permitting & Design (as % of Construction Sub-Total)			12.0%	225,000
106	Other (as % of Construction Sub-Total)			0.0%	0
	Final Construction Cost				**$2,559,375**

4.3 PROJECT COSTS

Budget costs have been created for project completion. These costs are based on conceptual level drawings and often vary from the number projected. The total projected construction cost for the project is roughly $2 million dollars. When design, permitting, contingencies and other expected cost items are included the total cost is projected to be roughly $2.7 million dollars.

If the City chooses to excavate the northern sediment trap this will cost an additional $100,000.

The City may choose to implement the project in a single phase or, due to funding challenges, phase the project over time. If the project is phased funds can be raised for particular components of the project which are then implemented prior to raising funds for subsequent phases. The phasing of a project requires careful planning to ensure that each phase provides the necessary infrastructure to support the desired activity. A typical phasing approach would be to do the in-stream improvements separately from the bank side improvements.

KETCHUM MAYOR HALL, INTRODUCING THE WHITEWATER PARK AT A PUBLIC MEETING

KETCHUM WHITEWATER TASK FORCE MEETING

4.4 MAINTENANCE

The maintenance needs of the River Park at Sun Peaks park would be addressed at two levels:

The Local Level: At the local level the direct maintenace of the park would be accomplished by the City of Ketchum's Parks and Recreation department. This department would be responsible for maintenance of parking and structures, landscape, trails and other park elements.

At the Drainage Level: The River Park at Sun Peak would be part of a large dynamic landscape and must therefore be designed and managed to be adaptable to its ever changing environment. Accordingly, the park would be accompanied by an Adaptive Management Plan that monitors changes over time and prescribes adjustments as necessary. The Adaptive Management Plan would be an Owner's Manual for the park that ensures the park functions as intended and achieves its specific design objectives.

Monitoring would occur at scheduled intervals in order to understand not only the changes that occur, but also the rates of change, long-term trends as well as the system's responses to maintenance and management practices. This approach enables future management practices to be as flexible as the natural environment in which the park will reside. This type of built-in flexibility is necessary in natural systems where wildfires, landslides, floods as well as drought are to be expected.

While the physical extents of the park itself are limited, it is situated within the broader landscape of both a large dynamic river system and a diverse ecosystem. Accordingly, the river would be monitored upstream and downstream of the park's relatively small footprint. Channel locations and bed elevations would be monitored to understand where and how the river is changing both laterally and vertically. Bank erosion, log jams and habitat characteristics would also be monitored. In addition to simply monitoring the river, the Plan would include prescriptive actions. For example, pond dredging may be required when downstream gravel deposition reaches specified locations or elevations or if the pond becomes isolated from the river.

In-stream, riparian and upland habitat and vegetation as well as fish and animal movement and behavior may also be monitored in order to maximize the ecological benefit to the larger ecosystem and adapt to changing conditions. The management plan would need to be flexible to adapt to the "human animal" as well, so changes in regulatory constraints and site usage can be adjusted if necessary..

The Adaptive Management Plan would be developed throughout the design and permitting process so all the pertinent issues are appropriately addressed. The Plan would be the result of a collaborative community effort that would help guide decisions, thereby providing a means by which immediate as well as long-term issues can be addressed in a manner that considers the long term health of the Big Wood River and its associated ecosystems.