



JOHNSON CREEK CONSERVANCY PARK

Sewer Utility Property Assessment & Master Plan

Village of Johnson Creek, Wisconsin
June, 2010

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Prepared for:

The Village of Johnson Creek

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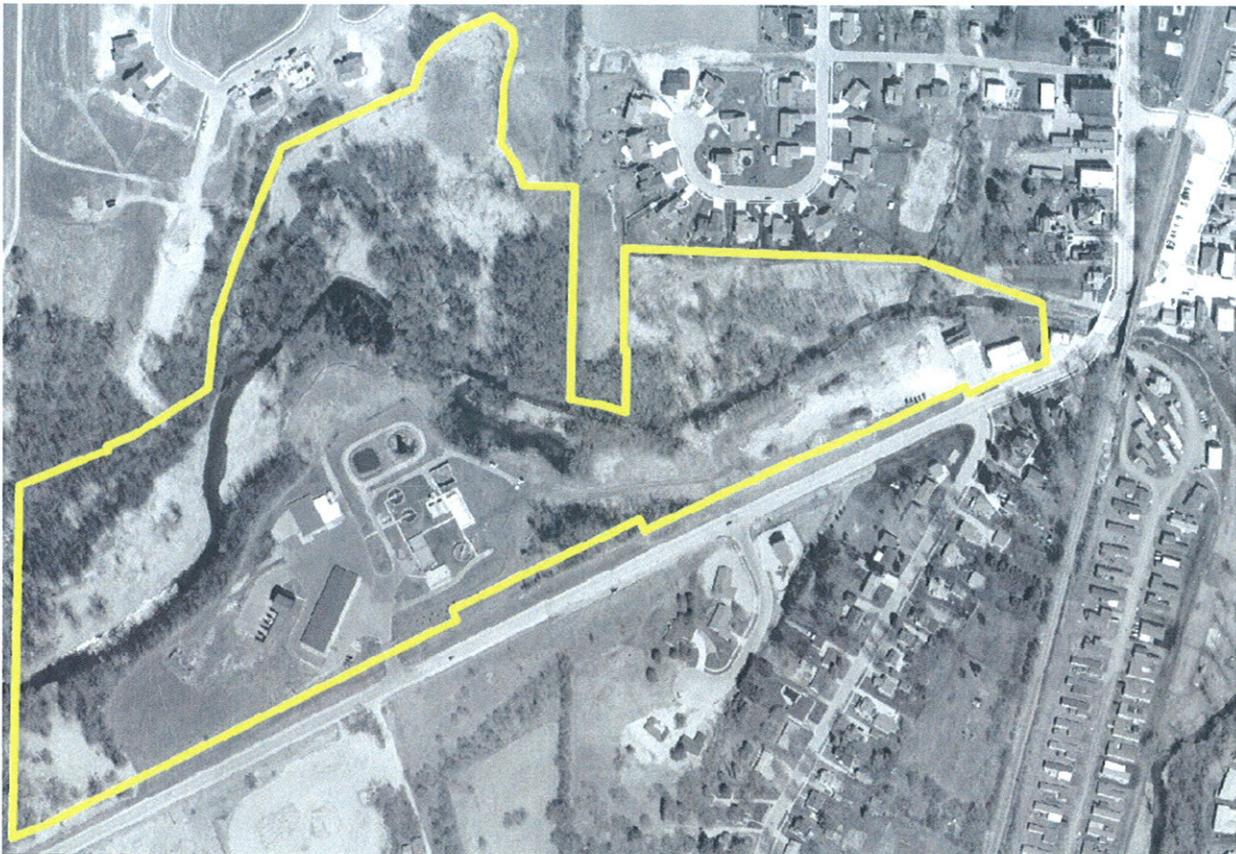
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Master Plan for the Johnson Creek Conservancy Park Johnson Creek, WI

Introduction

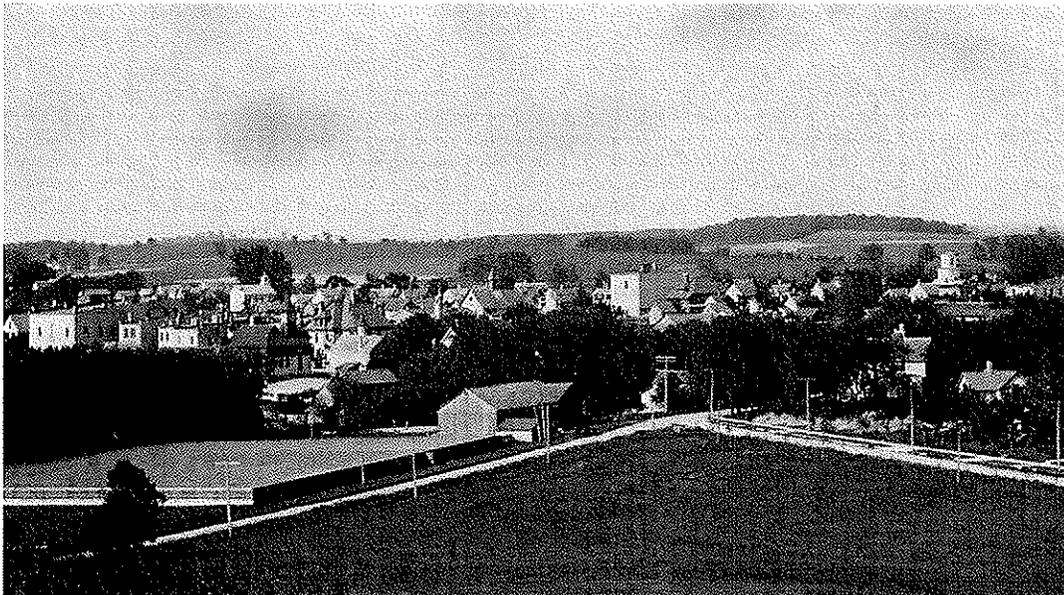
The following memorandum summarizes the process, findings, and recommendations of the Master Plan for the Johnson Creek Conservancy Park. Exhibits referenced in this report are attached at the end of the document.

History

The Village Public Utility Department owns and operates the current wastewater treatment plant on a parcel of land situated in a prominent location as the western entrance to the Village. The current facility is the third generation of this use.

The old treatment plant (north-east section of property) was constructed in the mid-late 1950's, and served as the facility for Johnson Creek until 1980. Construction of the new facility began in the early 1980's at the current location and was upgraded in 2000 – 2001. The old 1950's and the 1980's plants were demolished, remnants still remain north of the current facility. (denoted by 'Debris' on **Exhibit B-Analysis**). The current yard waste and compost site consists of road demolition from the reconstruction of Union Street and other small projects during the mid 1990's. This area ceased being used for roadway demolition debris some fifteen years ago. The area south west of the turtle pond contained signs indicating "Artesian Well – do not drink water," currently the spring no longer flows where the sign is located.

In 2010, the Village contracted with Schreiber/Anderson Associates, Inc. (SAA), a Madison-based landscape architecture and planning firm, to develop a Master Plan for the existing site that would utilize the natural advantages for the site, provide for public recreational and educational uses, and connect the park with adjacent area properties and community destinations.



*Image 2 - View of the West Side Johnson Creek,
Aztalan Street & Jefferson Street - 1905*

Image 1 describes the boundaries of the 46 AC site (approximately 28 acres is currently vacant). The planning area is located west of the downtown business district on the north side of CTH B/Aztalan Street. The parcel straddles the Johnson Creek waterway and is bounded by Sanctuary Court and Chapel Hill Drive to the north. The planning area includes the current Village dump and composting site, open grass land, sloping topography, a hillock, wooded areas, the glade, oxbow area, and wetlands. **Exhibit A** provides an Area Context Map that shows the relationship of the subject property to the Village and the surrounding area. The Johnson Creek watershed corridor empties into the Rock River which lies ½ mile to the west of the site.

Site Analysis and Assessment

Exhibit B and **Image 3** graphically illustrate the conceptual analysis of the existing site that was used to prepare the Master Plan. Exhibit B was derived from the May 18 Public Information and Design Charrette meeting where the consultants began over drawing an existing aerial photo per participants comments and recommendations. Additional studies for the site were reviewed and findings from these studies were considered in the development of project recommendations. These studies included:

- Soil Boring Report (Giles Engineering) – October 2006
- Johnson Creek Zoning Map (Jefferson County Land Information Office)- February 2010
- Park and Open Space Plan (Vandewalle) – 2003
- Downtown Master Plan (Vandewalle) – 2004
- Bikeway and Pedestrian Trail System Plan (SAA) – 2005
- Jefferson County Bicycle Plan (SAA) – 2010

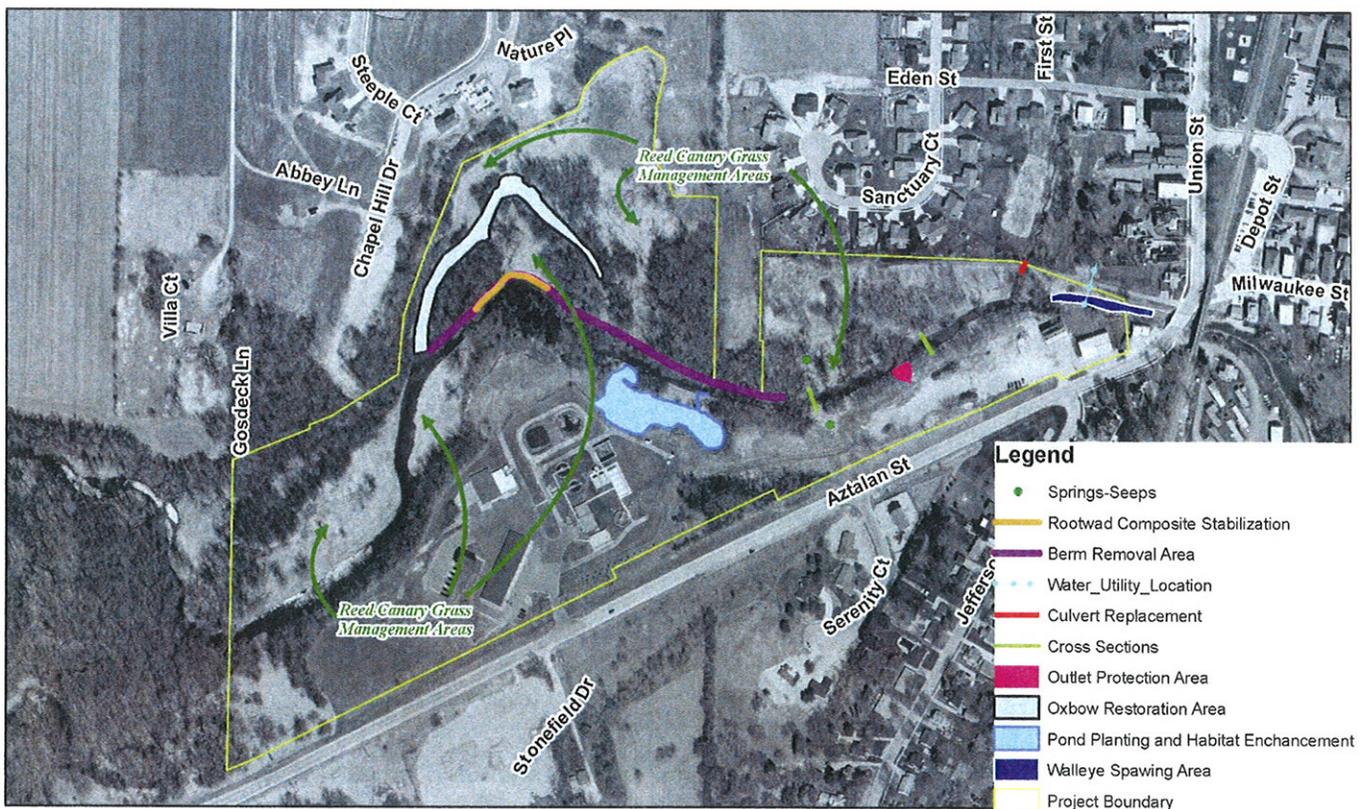


Image 3 – Ecological inventory map - 2010

Ecological Survey Summary

Riparian areas along Johnson Creek were surveyed in conjunction with the stream channel survey. Riparian surveys consisted of a meander survey throughout areas owned by the Village both north and south of the creek. All riparian vegetation (including trees, shrubs, herbaceous, and vine species) were identified and recorded during the survey. The survey also recorded additional information such as visible utilities, potential wetland boundaries, and infrastructure as well as wildlife observations.

The survey identified a series of wetland and upland riparian forest, wet meadow/grassland, and oxbow wetland complexes. Wet riparian forests were generally dominated by box elder (*Acer negundo*), black willow (*Salix nigra*), and eastern cottonwood (*Populus deltoides*). Upland forests (found mainly behind the wastewater treatment plant) were dominated by eastern white pine (*Pinus strobus*). The shrub layer throughout the forest was dominated by the invasive, exotic species common buckthorn (*Rhamnus cathartica*) as well as Tartarian honeysuckle (*Lonicera tatarica*). The herbaceous layer consisted of a mix of species including blue flag iris (*Iris versicolor*) and skunk cabbage (*Symplocarpus foetidus*). Many wet meadow areas were dominated by reed canarygrass (*Phalaris arundinacea*), and jewelweed (*Impatiens capensis*). The following tables contain a complete list of the species identified during the site visit.



Pine Knoll – 2010

Riparian Woodlands

	Scientific Name	Common Name
ACENEG-D	<i>Acer negundo</i>	box elder
ACESAC-D	<i>Acer saccharinum</i>	silver maple, soft maple
ALLPET	<i>Alliaria petiolata</i>	garlic mustard
MUGWORT	<i>Artemisia vulgaris</i>	common wormwood, mugwort, sage-wort
CELOCC	<i>Celtis occidentalis</i>	northern hackberry
CORSTO	<i>Cornus stolonifera</i>	red osier dogwood
FRAPEN	<i>Fraxinus pennsylvanica</i>	green ash, red ash
GALASP	<i>Galium asprellum</i>	rough bedstraw
GERMAC	<i>Geranium maculatum</i>	Crane's-bill, spotted geranium, wild geranium
HESMAT	<i>Hesperis matronalis</i>	dame's rocket
HYDYIR	<i>Hydrophyllum virginianum</i>	John's-cabbage, Shawnee-salad, Virginia water-leaf
JUGNIG	<i>Juglans nigra</i>	black walnut
LEEVIR	<i>Leersia virginica</i>	white grass
LOLPER	<i>Lolium perenne</i>	English rye grass, perennial rye grass
LONTAT	<i>Lonicera tatarica</i>	Tartarian honeysuckle
PHAARU	<i>Phalaris arundinacea</i>	reed canary grass
PINSTR	<i>Pinus strobus</i>	eastern white pine
POAPRA	<i>Poa pratensis</i>	Kentucky bluegrass
POPDEL	<i>Populus deltoides</i>	plains cottonwood
POPTRE	<i>Populus tremuloides</i>	aspen, quaking aspen
PRUSER	<i>Prunus serotina</i>	wild black cherry
QUEMAC	<i>Quercus macrocarpa</i>	bur oak
RANADO	<i>Ranunculus abortivus</i>	little-leaf buttercup, small-flowered buttercup
RIBAME	<i>Ribes americanum</i>	American black currant, eastern black currant, wild black currant
RUBALL	<i>Rubus allegheniensis</i>	Allegheny blackberry, common blackberry
SALNIG	<i>Salix nigra</i>	black willow
SAMCAN	<i>Sambucus canadensis</i>	American elder, elderberry
SOLCAN	<i>Solidago canadensis</i>	Canadian goldenrod, common goldenrod, tall goldenrod
TAROFF	<i>Taraxacum officinale</i>	common dandelion
TOXRAD	<i>Toxicodendron radicans</i>	common eastern poison-ivy
VERTHA	<i>Verbascum thapsus</i>	common mullein, flannel plant, giant mullein
VIBACE	<i>Viburnum acerifolium</i>	dockmackie, maple-leaved arrow-wood, maple-leaved viburnum
VIOSOR	<i>Viola sororia</i>	door-yard violet, common blue violet, hairy wood violet

Riparian Meadows

	Scientific Name	Common Name
ACESAC	<i>Acer saccharinum</i>	silver maple, soft maple
ALLPET	<i>Alliaria petiolata</i>	garlic mustard
ARCMIN	<i>Arctium minus</i>	common burdock, lesser burdock
ASCSYR	<i>Asclepias syriaca</i>	common milkweed, silkweed
BARVUL	<i>Barbarea vulgaris</i>	garden yellow-rocket, winter-cress, yellow-rocket
CARLAC	<i>Carex lacustris</i>	common lake sedge, rip-gut sedge
CIRARV	<i>Cirsium arvense</i>	Canada thistle, creeping thistle, field thistle
CARVUL	<i>Cirsium vulgare</i>	bull thistle
ELEPAL	<i>Eleocharis palustris</i>	common spike-rush, marsh spike-rush
EQUARV	<i>Equisetum arvense</i>	common horsetail, field horsetail
GALASP	<i>Galium asprellum</i>	rough bedstraw
HESMAT	<i>Hesperis matronalis</i>	dame's rocket
IMPCAP	<i>Impatiens capensis</i>	orange jewelweed, orange touch-me-not, spotted touch-me-not
IRIVER	<i>Iris versicolor</i>	blue flag, harlequin blue flag, northern blue flag
LAMAMP	<i>Lamium amplexicaule</i>	henbit, dead-nettle
LEMMIN	<i>Lemna minor</i>	common duckweed, lesser duckweed, small duckweed
PHAARU	<i>Phalaris arundinacea</i>	reed canary grass
RUBALL	<i>Rubus allegheniensis</i>	Allegheny blackberry, common blackberry
RUBIDA	<i>Rubus idaeus</i>	American red raspberry, red raspberry, wild red raspberry
SALINT	<i>Salix exigua</i>	sandbar willow
SAMCAN	<i>Sambucus canadensis</i>	American elder, elderberry
SYMFOE	<i>Symplocarpus foetidus</i>	skunk-cabbage
TRIHVB	<i>Trifolium hybridum</i>	alsike clover
URTDIO	<i>Urtica dioica</i>	stinging nettle
VIOSOR	<i>Viola sororia</i>	door-yard violet, common blue violet, hairy wood violet
ZIZAUR	<i>Zizia aurea</i>	common golden alexanders, golden alexanders, golden zizia

A brief review of rare, threatened, and endangered species distributions in the area (generalized to the township-level) via the Wisconsin DNR Aquatic and Terrestrial Inventory mapping system was performed for this site. This review did indicate one terrestrial (Jade Cliptail Dragonfly) and one aquatic species (Red Fin Shiner) of conservation concern (potentially rare, threatened, or endangered) that is located either up or downstream of the project survey site location. There is also an endangered, threatened or species of special concern located within the Johnson Creek watershed identified as American Gromwell (*Lithospermum latifolium*) which should not be removed (Brodzinski, et al., 2002).

The team also observed a mix of wildlife typical of fragmented riparian forests in this part of Wisconsin. Deer and raccoon tracks were identified along the creek corridor. Painted and snapping turtles were found to utilize the off-line pond in significant numbers. Common generalist birds such as cardinals, robins, northern flickers, house sparrows, golden finches, blackbirds and crows were found throughout the corridor. A pair of wood ducks was repeatedly observed along the stream channel along with some Canadian geese. The large mature forest likely provides suitable nesting habitat for the wood ducks and should be taken into restoration considerations. It is important to note that this survey was conducted prior to the influx of the spring migration, so it is likely that many other, more conservative; species utilize this riparian corridor at different times throughout the year. Resident confirmed bird species sightings include: Sandhill Cranes, nesting Hooded Mergansers, Buffle Heads, nesting Mallards, blue and green Winged Teals, King Fishers, Green Herons, Red Tail Hawks, Sharp Shinned Hawk, Coopers Hawk, Great Horned Owls, Barn Owls, Wild Turkey and others.

Hydrologic/Hydraulic Assessment

In order to conduct a preliminary hydrologic assessment, the entire reach was evaluated and two cross-section locations identified to provide data on the typical riffle and pool structure of Johnson Creek flowing through the project property. While assessing the reach, numerous seeps and springs were found on the property. The locations of these springs are identified on the site plan map found in this report. These springs are important cold water contributors to the creek as well as contributing micro-nutrients available for plants and microorganisms that are found within the groundwater.

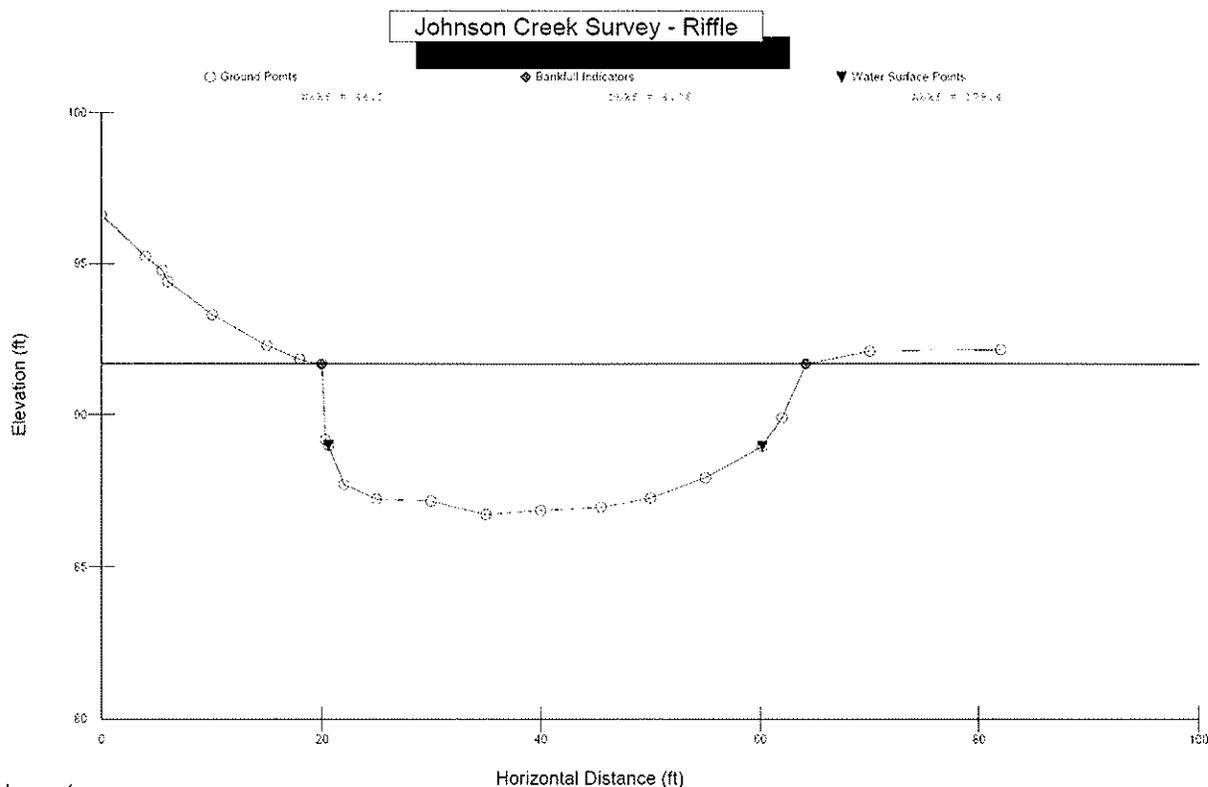


Image 4



Image 5 – Possible location for stream riffle structure – December 2009

The riffle cross-section above provides insight into the stability of the channel. The bankfull width of 44.2 feet at this section and mean bankfull depth of 4.06 feet yields a cross sectional area of nearly 180 square feet to carry bankfull flows and flood flows that are able to get outside the streambanks and out onto the floodplain. Accessing the floodplain is important during high flows because it allows the creek to dissipate energy when it spreads out, lessening energy that could be expended eroding streambanks. The entrenchment ratio is a measure of vertical containment of flows in the stream. The stream in the project area is not completely vertically contained and does allow flooding at high flows. It is slightly entrenched with an entrenchment ratio of 1.9, which is a general measurement of how easily the stream can access its floodplain and is due in-part to a berm built on the north side of the channel throughout most of the project property. Removal of these berms will be critical to restoring the hydrologic connection between the stream channel and adjacent riparian habitats. Restoring this connection will aid in providing flood access and an improved biological interface between the stream and riparian plant and animal species.

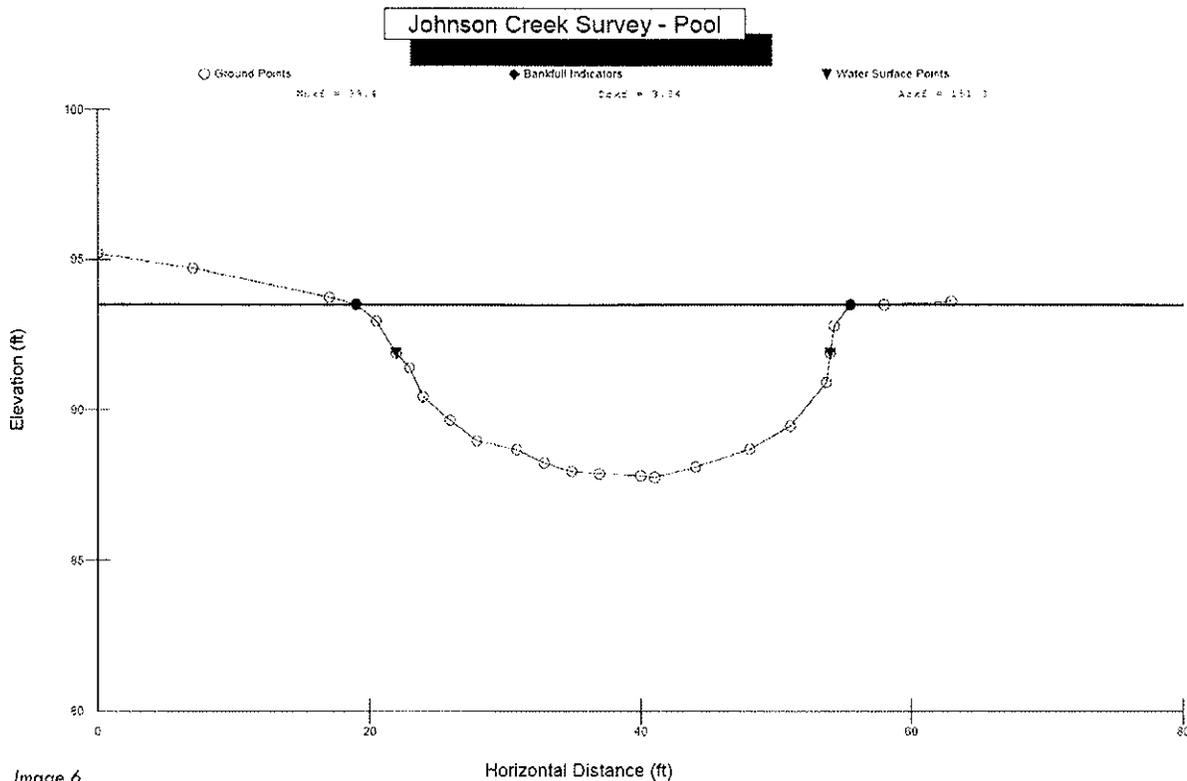


Image 6

The existing pool cross-section illustrates that in some places there is existing pool habitat which could be mimicked in other degraded sections of the stream. This cross section shows a maximum pool depth at bankfull of 5.75 feet. Pools of this depth can harbor many different species of fish, especially during the warm summer months when water temperatures rise and water levels fall.

The riparian survey also identified a series of stormwater outfalls that likely discharge directly into the creek during precipitation events. One of these areas is severely eroded and contributing sediment and other pollutants to the creek.

A water supply line was also noted crossing the creek at the upstream extent of the survey area. This infrastructure, as well as others that may potentially be on site, yet unobservable, will need to be considered in the final design of any stream and/or riparian restoration project.

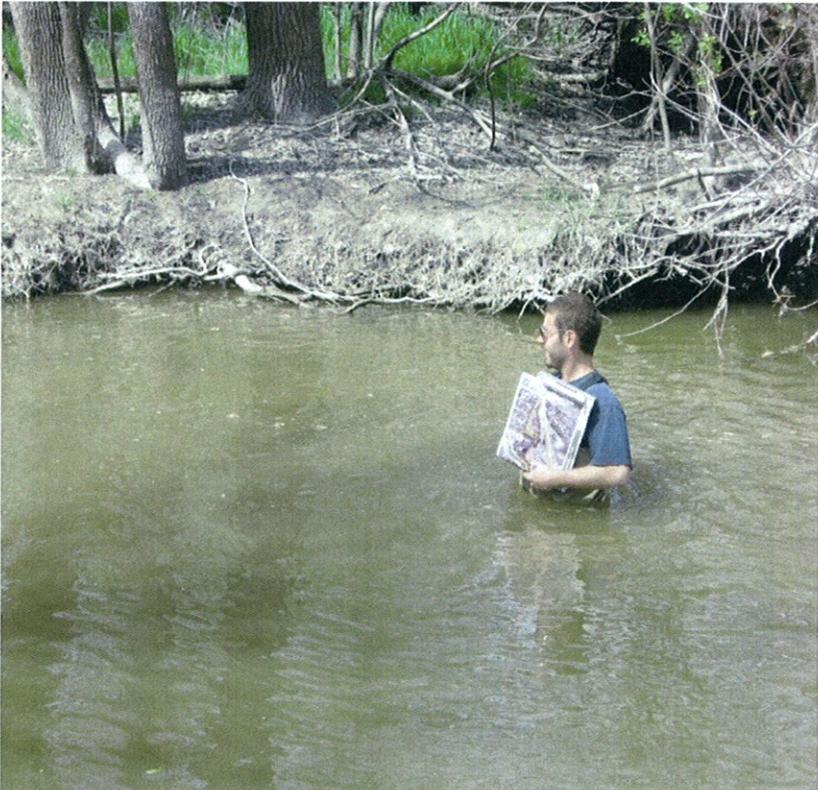


Image 7 - Location of pool survey – April 2010



Image 8 - Sediment laden water entering Johnson Creek from a stormwater outfall – April 2010



Image 9 - Drainage ditch conveying stormwater into Johnson Creek – December 2009

Public Process

The Master Plan for the Conservancy Park was prepared with input from the Village Board, members of the community, and Village staff. The following is a schedule of meetings held during the planning process:

- Meeting No. 1: Village Board Start-Up Meeting – Thursday, January 31, 2010
- Meeting No. 2: Site Assessment and Hydrologic Analysis –Tuesday, April 20, 2010
- Meeting No. 3: Public Drop-in Session #1 AM, Tuesday May 18, 2010
- Meeting No. 4 Village staff Work Session, Tuesday May 18, 2010
- Meeting No. 5: Public Drop-in Session #2 PM, Tuesday May 18, 2010
- Meeting No. 6: Public Information and Design Charrette Meeting – Tuesday, May 18, 2009
- Meeting No. 7: Village Board Presentation and Approval Meeting, June 28, 2010

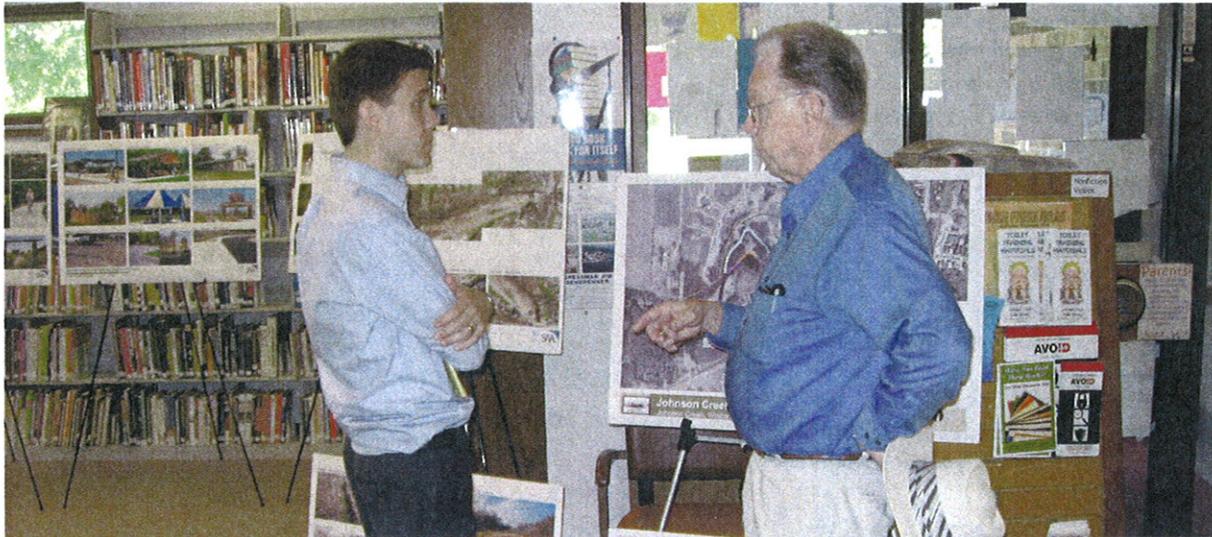


Image 10 - Community resident discussing the potential development options – May 2010

During the May public information meeting, the following goals for the park were established:

- Best use of existing natural resources
- Should be a destination
- Environmental preservation and sustainable design
- Attractive appearance from CTH B/Aztalan Street
- Western gateway into the Village
- Open space and greenway connections
- Pedestrian and bicycle friendly use mix
- Trail connections to adjacent residential areas and other community destinations
- Retain natural feel of site
- Enhance and restore creek corridor to healthy geometry
- Remove invasive species
- Increase bio-diversity

Development Program

The following uses were identified for the park during the May public information meeting:

- Parking area
- Natural material shelter
- Combination of stone, mulch, mowed lawn, and boardwalk trail system

- Wildlife viewing opportunities
- Educational and interpretive signage
- Water access
- Informal gathering spaces
- Improved streambank
- Potential Research Center Location

Recommendations

Recreational Use Summary

Exhibit C (Master Plan) displays the recreational recommendations for the site. The central node of the new park development occurs at the existing yard waste composting site location via a trail head area. The yard waste composting site is proposed to be relocated potentially near the Lower Creek area on the Sewer Utility site. A new paved parking lot accommodating up to 40 vehicles will provide site access to the park and offer parking space for the potential future development of a research/educational center proposed for the corner of CTH B and Union Street. A small shelter will offer visitors a shaded picnic and gathering area with views of the creek. The area to the west of the new parking lot should be restored with a small turf lawn area and native prairie land inviting birds, butterflies, and other transient wildlife species to the area. The existing mowed turf trail should be improved with crushed limestone or asphalt to provide ADA compliant access from the parking area to the western portion of the site. This important connection will provide a safe route for students walking or cycling to the proposed school site south of CTH B. A small boardwalk section and wildlife viewing area situated northwest of The Clearing will provide closer access to the creek and ecological restoration areas. The Clearing should be cleared of debris and screened from the treatment facility to the south.

Heading north from the trail head an improved asphalt trail will lead visitors to a wooden/metal structure bridge providing views of the new improved creek bed, and access across the creek. The trail system will continue on the north side of the creek leading both east and west. The eastern portion is proposed to be paved from the bridge connecting to the existing pedestrian facilities on Union Street and Village Green, as well as an additional connection to the north via an existing pedestrian easement to Eden Street. A small overlook is proposed at the meeting of these two trails to contain interpretive signage about the restored Walleye spawning area. These connections will provide residents safe and unhindered access to the park, and to the future school development site located south west of the park. The trail segment leading west of the bridge will connect to the existing Boy Scout Trail between Williams Street and Nature Place. An existing mowed turf path leads further westward skirting the northside of the Oxbow Area and The Glade should connect to Gosdeck Lane providing a continuous loop trail system. These trail segments are proposed to be crushed limestone, and boardwalk when within the floodway. The Village owns the right-of-way and plans a future connection from Gosdeck Lane to CTH B for a multi-modal trail or possible automotive vehicle access. This would also complete a loop trail system.

Given that a large area of the site is in the creek floodway (**Exhibit D**), a spur trail is proposed to provide access closer to the water and wooded area on the northern creek bank. This trail segment should be constructed of mulch and may have to be maintained after large storm events. A section of wooden boardwalk will also provide wildlife viewing and ecosystem education opportunities in the flood prone Oxbow Area. Smaller, non-intrusive interpretive and educational signage should highlight the restoration efforts and the natural ecological processes occurring on the site.

Trail System

A proper multi-use trail should have a width of 10' minimum to accommodate pedestrians and bicyclists. While the entire network is not proposed to accommodate all user groups, the main segments of the

corridor should meet this standard. Asphalt sections should be constructed with 3" of bituminous over an 8" base course. The crushed limestone segments should be a minimum of 6" thick with tapered shoulders. Modular boardwalk systems can be installed by volunteer efforts (friends, groups, school organizations, etc.) and permits are easily obtained by the DNR. Several manufacturers are based in Wisconsin and even within the adjacent counties. Mulch paths can be easily maintained and top dressed by volunteer or Village staff efforts as needed.



Image 11 – Boardwalk sections are easily constructed and geometry is almost unlimited – SAA 2009

Parking/Day Use Area

This will most likely be the most frequented area of the site. Currently there are no facilities of this type in the southwestern quadrant of the Village. With the relocation of the dump/compost site, the site will be cleared and moderately prepared for the parking lot. It should be possible to reuse the gravel base as the base course for the new paved area. Additional soil borings may be necessary to properly design the pavement structure for sustained vehicle loading. With the addition of new impervious surface, storm water should be pre-treated in bio-swales and infiltration basins before entering the creek. See **Image 13** for a possible treatment option. All access points to the trail network, shelter, and picnic areas should be designed for ADA accessibility compliance. Ramp slopes should not exceed 5% in these areas, otherwise railings and/or landings should be provided. The shelter area should provide a variety of seating options including picnic tables, benches, or natural material seats (sections from removed tree trunks, boulders, etc). The existing vegetation between the parking area and the creek should be thinned to provide visual access from passing traffic on CTH B and users of the day use area. Clearing efforts should be coordinated to ensure proper species removal and avoid clear cutting.

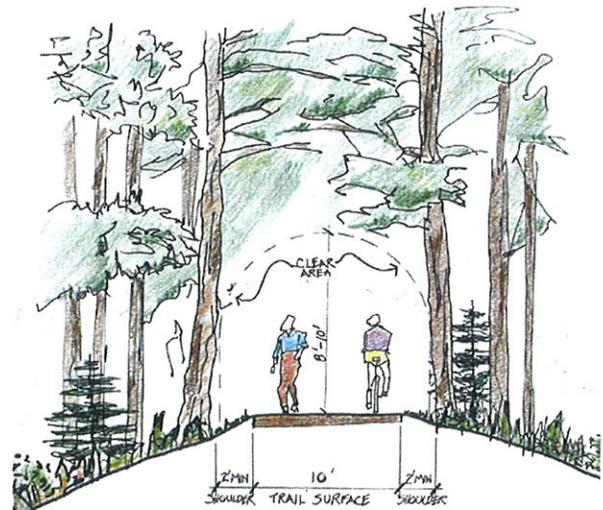


Image 12 – Proper trail design should accommodate width and height clearances - SAA 2010

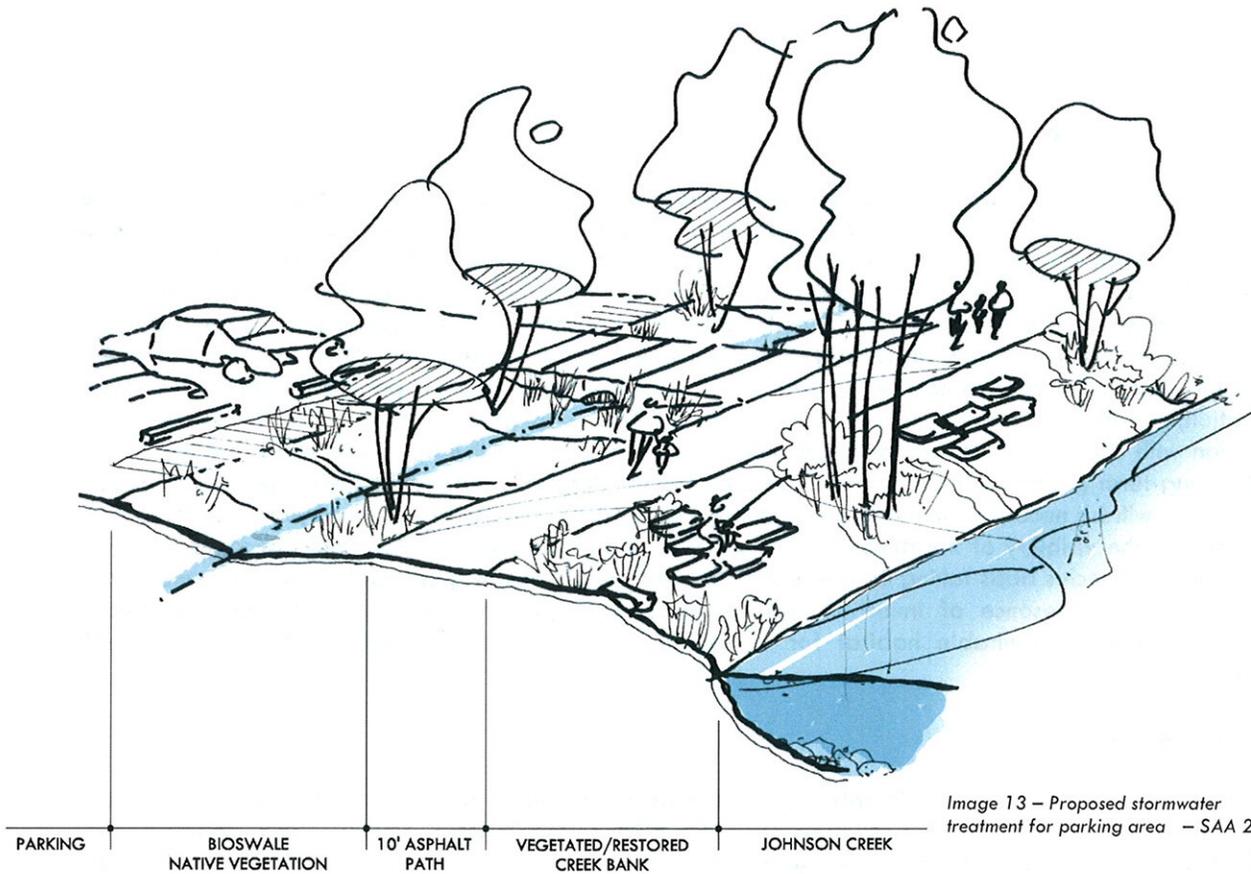


Image 13 – Proposed stormwater treatment for parking area – SAA 2010

Wildlife Observation Areas

The project area currently supports a large range of wildlife species and is projected to increase biodiversity once the recommendations are implemented. Currently there is no easy way for visitors to observe these natural areas and inhabitants without intruding into the habitat. The installation of observation platforms and overlooks will offer park patrons more intimate access to quietly observe without the disruption. These areas are often constructed at the end of a boardwalk section and provide seating opportunities in the form of integrated benches and lean railings. All approaches and platforms must be designed to meet ADA standards.



Image 14 – Observation areas allow for passive interaction with nature – SAA 2009

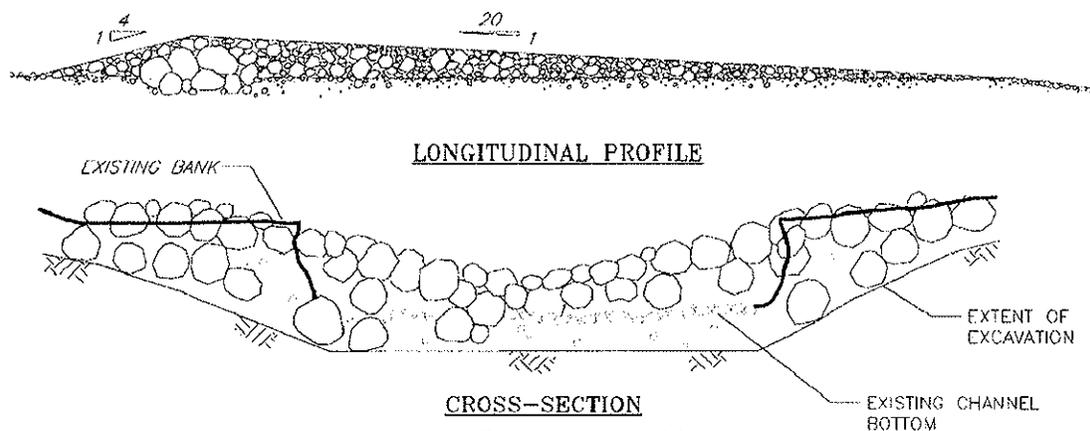
Ecological Summary

These recommendations and their locations are displayed on **Image 3**. Invasive species control will be necessary if the Village intends to improve biodiversity and the general quality of plant communities and habitats located at this site. Due to the extent of species distribution across the site, control efforts should be focused on the species and areas where it will be most effective. Some of the species of imminent concern are reed canary grass, garlic mustard, buckthorn, and honeysuckle. Depending on the extent of the final stream restoration design agreed upon by the Village, some intensive efforts to control invasive species may be undertaken in conjunction with those construction and site preparation efforts. Herbicide application, grading, excavation, native species seeding, and supplemental planting can be completed in conjunction with construction of stream restoration efforts. Aside from this opportunity, the Village should consider long-term goals and management commitments for this site to ensure cost-effective management. Tree removal will be necessary in many areas during construction and can also be incorporated to improve aesthetics and the visibility of the stream from the street and parking area. This should be done however on a species by species basis taking care to leave some of the old willow, pine, and oak trees found on the site. Despite the presence of invasive exotic species, the riparian corridor, creek, and its habitat complexes do provide suitable habitat for a variety of fish, birds, amphibians, reptiles, and small mammals.

Walleye Spawning Area

Conversations with local residents describe how in the past walleye populations were observed spawning at the upstream extent of the project area near the bridge. Restoration efforts within Johnson Creek should strive to allow walleyes to return to this spawning area. Between mid-April and early May, walleye migrate upstream to areas with gravel bottoms to spawn. Males are usually the first to arrive at the spawning grounds, outnumbering the females by as much as 7 to 1. Mature females then enter the area, usually less than 3-4 feet deep and will lay an average of 50,000 eggs in one night.

Most of the stream in the project area is covered by at least a foot of fine sediment, much of which has come from bank erosion, storm sewers, and upstream sources. In order to provide suitable gravel substrate for walleyes to spawn, a walleye spawning area could be constructed (see **Image 15** below). This would allow walleyes traveling upstream to reach a place to spawn after the site restoration is completed



Culvert Replacement

The existing culvert between a tributary (Spring Brook) on the northeast side of the project area and Johnson Creek is currently acting as a barrier to aquatic organism passage. Replacing this culvert using

the stream simulation method is recommended. This technique is an ecosystem-based approach for designing a culvert to mimic a natural channel through a crossing structure in a way that reestablishes physical and ecological continuity along the stream corridor. The premise of stream simulation is that if the design channel simulates the dimensions and characteristics of the adjacent natural channel, fish and other aquatic organisms can move through the structure more easily. Water depths, flow velocities, and flow paths in the channel through the structure are designed to be as complex and diverse as those encountered in the adjacent natural channel. Stream simulation integrates fluvial geomorphology with engineering principles to design a structure that contains a natural and dynamic channel. This approach requires measurements of site specific channel characteristics in the adjacent natural reach can be identified. Identifying a reference reach is a key concept and component of stream simulation as it provides the natural template for designing a channel through the crossing and determining the size and embedment depth of the replacement structure. A pipe arch or buried squash pipe at this site would be installed to provide unimpeded fish/aquatic organism passage through the structure, restore natural channel characteristics, fluvial processes through the structure, and maximize the long-term stability of the structure.



Image 16 – Existing culvert, raised in channel due to erosion

of site specific channel characteristics in the adjacent natural reach can be identified. Identifying a reference reach is a



Image 17 – Example of a squash pipe in channel

Rootwad Composite Streambank Stabilization

Severe bank erosion has caused many of the trees lining the banks to collapse into the channel redirecting flows towards the banks further accelerating bank erosion. Many other trees are near collapse due to erosion yet these trees can be used to control erosion while restoring the stream. During construction trees that need to be removed can be used in rootwad composites see **Images 18, 19 & 20**.

This type of erosion control has been used successfully in other urban areas to mitigate against the high peak flows caused by large volumes of stormwater runoff from impervious areas in the watershed. Rootwad



Image 18 – Existing tree root have been exposed by prolonged erosion & decay

composites increase habitat complexity, small spaces within the rootwad by creating composites which provide cover for small fish, as well as reptiles and small mammals found in the riparian habitat. They also add structural diversity to the system creating a variety of micro-flow conditions, this enhances aquatic invertebrate diversity by allowing benthic organisms to select specific positions with the geometry of the local flow conditions.

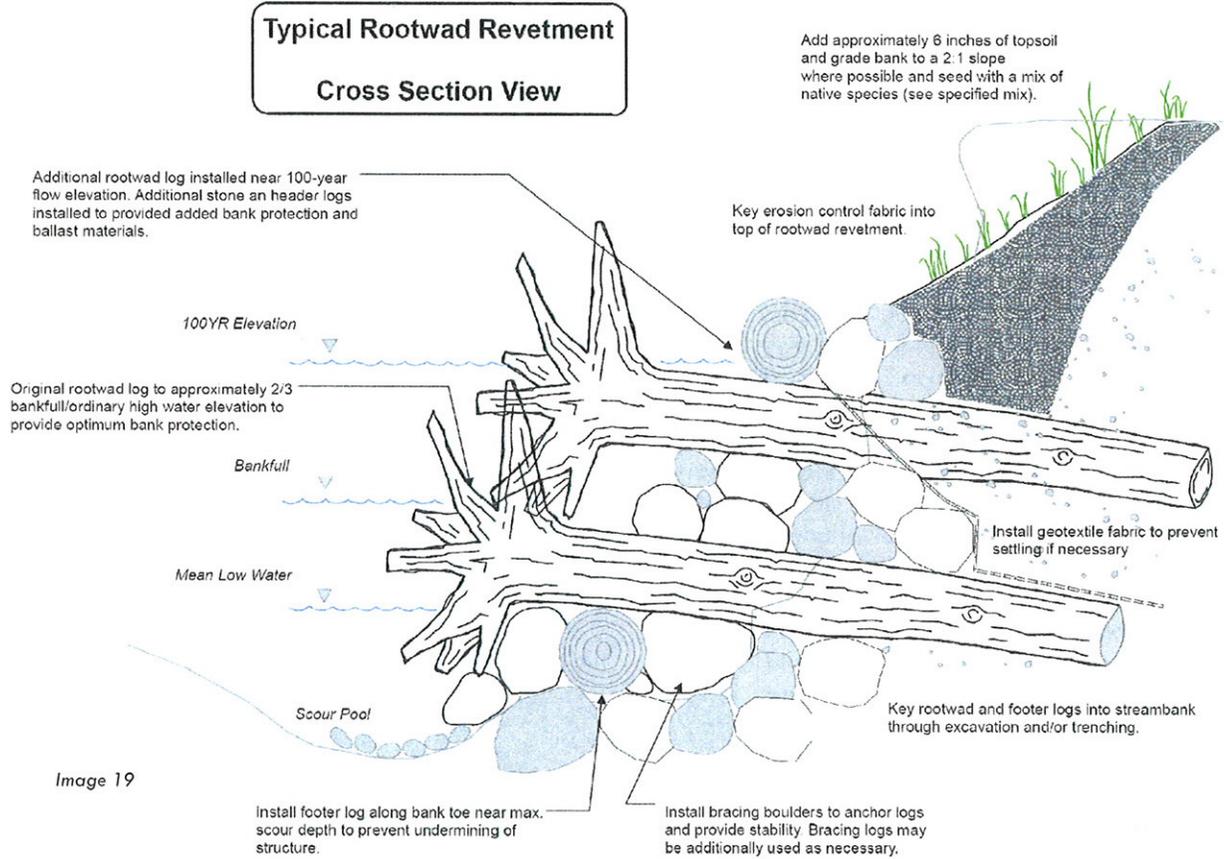


Image 19



Image 20 – Rootwad composite installed by JFNew on Pheasant Branch Creek in the City of Middleton - 2008

Berm Removal Area and Bank Grading

A berm on the north side of Johnson Creek (clearly shown in the 1955 Aerial photo) is impeding flows above bankfull from getting into the oxbow area. Removal or grading this berm in order to allow these flows to access the floodplain will restore the oxbow area's connection with the creek at greater frequencies throughout the year. The floodway is illustrated in **Exhibit D**.

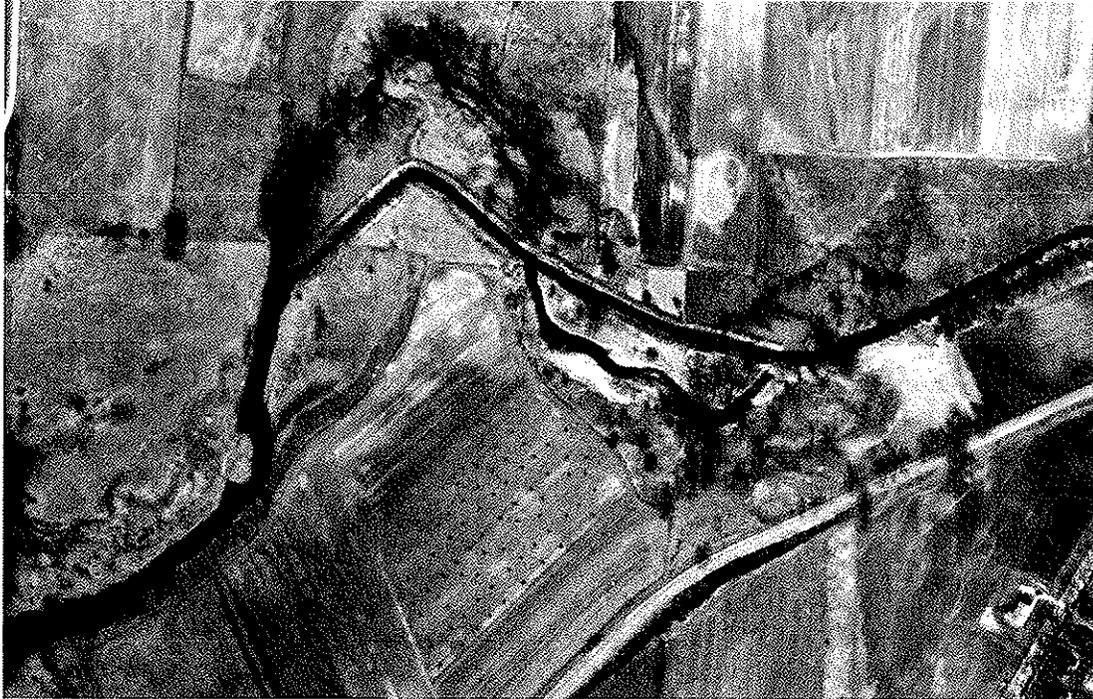


Image 21 Aerial Photo ~1955

Once graded, the streambanks should be planted with a native seed mix full of species endemic to southern Wisconsin with deep extensive rooting systems. Once established, the dense roots of these native grasses and forbs will trap and hold bank material in place, further reducing erosion of bank sediments while increasing the biotic diversity of the riparian corridor. This area also lends itself to multiple opportunities to improve in-stream fish habitat by using flow re-direction to produce and enhance pools that have been silted in with bank sediments from years of bank erosion. Typical structures that can produce this habitat include log vanes and cross-vanes that focus flows toward the center of the channel creating a scour pool, while dissipating energy that would otherwise contribute to further bank erosion downstream.

Reed Canary Grass Control

Reed canary grass (*Phalaris arundinacea*) is a cool-season, Eurasian perennial grass that reproduces both by seed and creeping rhizomes. Control, therefore involves preventing the plant from setting viable seed and also killing the root systems of the plant. While controlling reed canary grass is very difficult, there are both chemical and mechanical treatment options. This plan recommends Integrated Pest Management techniques which involve a combination of multiple approaches to target invasive species throughout their life-cycle.

Mowing or cutting the plants before they set viable seed is crucial to preventing the reed canary grass from reproducing by seed. Because it has the potential to flower multiple times in one growing season, mowing or cutting the plants several times during the growing season (every time making the sure the plants do not have viable seed) is the only way to prevent it from setting seed. While this will not reduce the existing population, it will prevent it from spreading downstream.



Image 22 –The southern bank of the creek is predominantly reed canary grass - December, 2009

In situations where some earth-moving is a possibility, shallow excavations (12-18”) can be done to physically remove the roots in a sod form. This would ideally be preceded by an herbicide application to the reed canary grass population to ensure the excavator does not move around live roots. The bare soil will then need to be re-seeded with native species that are good-colonizers and competitors with reed canary grass.

Repeated burns over a span of several years may also help weaken reed canary grass, but it typically needs to be used in conjunction with other techniques to be effective. Burning that is timed right can clear the duff and expose the soil surface which helps warm the soil to potentially stimulate any native plants that may be present in the soil. Burning also aids in a more effective herbicide application on young reed canary grass seedlings. Because it remains green during the cool season, burning reed canary grass can sometimes be a challenge. An herbicide application in fall to brown the plants followed by a burn can be effective. If the fall burn is done early enough (and the seed bank is sufficient), reed canary grass will most likely germinate once more before winter. An herbicide application at this time would be very effective to reduce the population for the next year.

Reed canary grass can typically be killed using a 2-3% solution of glyphosate herbicide. Because it usually occurs in wet environments, an aquatic-approved glyphosate should be used. Because herbicide typically takes about 7-10 days to kill the target plant, reed canary grass should be treated with herbicide before it flowers to prevent it from setting seed.

Re-vegetating

Following a successful reed canary grass control regime, it is important to re-vegetate the area to re-establish the native plant community. This will help meet the goals of habitat improvement while also taking up voids left after reed canary grass populations are displaced by the control program. Without employing re-vegetation efforts, reed canary grass will very easily re-populate the site. It is important to start the re-vegetation process after reed canary grass populations have been sufficiently decreased through many control methods to ensure the installed species will have a chance to establish.

Certain native grass and forb species have a demonstrated ability to compete relatively well with reed canary grass. Some of those species are listed below:

Water Plantain (*Alisma subcordatum*)
 Great Angelica (*Angelica atropurpurea*)
 Swamp Milkweed (*Asclepias incarnata*)
 Saw-tooth Sunflower (*Helianthus grosseserratus*)
 Rice Cut Grass (*Leersia oryzoides*)

Wild Golden Glow (*Rudbeckia laciniata*)
 Cup Plant (*Silphium perfoliatum*)
 Prairie Cord Grass (*Spartina pectinata*)
 River Bulrush (*Scirpus fluviatilis*)

Multi-Methods Approach

No one *control* option is more successful than using an Integrated Pest Management (IPM) approach. An IPM approach uses a combination of the methods described above, and is more effective than using any one approach alone.

For example, an ideal reed canary grass control regime may transpire as follows. Apply herbicide to reed canary grass in early spring while the grass is still short. In areas where excavation is appropriate or allowed, make shallow excavations of the soil where the grass is growing and haul off-site (the herbicide application will ensure live roots are not being moved during the excavation). Allow the site to green-up and treat any reed canary grass seedlings that germinate. Continue spraying the reed canary grass throughout the growing season with a potential burn in the fall (if there is enough fuel present). Apply herbicide once more the following spring and install a native species comprised of some of the species described.

Reed canary grass seed remains in the seed bank for many years. It will most certainly be back after this initial treatment. It will be important to continue spot-spraying any populations that may appear during long-term site management.

Oxbow Restoration Area

The oxbow located in the project area has been neglected, partially due to being cut-off from flows that would have historically reached it by the berm on the north side of Johnson Creek. Oxbows are important habitat areas for wildlife including macro-invertebrates, amphibians, reptiles, waterfowl and small mammals such as herons, migratory song birds, wood ducks, frogs, turtles, raccoons and coyotes. Recent research completed on oxbows along the Wisconsin River and other waterways has shown that some oxbows can support a variety of threatened and endangered non-game fish species. Restoration of this area may help increase the biological potential of this riparian feature.

Restoration of the oxbow area may include removing the berm on the north side of Johnson Creek and re-establishing its connection with the waterway during above bankfull flow events. This special area could then be replanted with native vegetation and used as an interpretive area for many educational and public programs including summer camps, classes, and historical information about Native American peoples that may have originally occupied the area.

Pond Planting and Habitat Enhancement Area

The existing pond area holds many educational opportunities including being a great place for residents to learn about turtles and amphibians. During the site assessment numerous painted and snapping turtles were observed. This area could however be enhanced by providing additional habitat such as basking logs on the edges of the pond while improving the pond's vegetation through native species plantings.



Image 23 – Standing water in the oxbow area with RCG on the banks - April 2009



Image 24 – Installation by JFNew – 2008

Another addition to the Pond Planting and Habitat Enhancement Area would be construction of a reptile hibernaculum on the south side of the pond. This structure can then easily be accessed by reptiles in the immediate area, and used as a place to over-winter. Image 24 shows the construction of a hibernaculum by JFNew as part of another stream restoration project in Southern Wisconsin.

Outlet Protection Area

A stormwater outlet on the east side of the existing compost storage site enters the south side of Johnson Creek in the project area and is severely eroded. The material washed out from this stormwater pipe is currently entering Johnson Creek along with any other contaminants found within the stormwater. Redesign of this outflow to eliminate erosion and allow some of the coarse particles carried in the stormwater to settle out before entering Johnson Creek is recommended. This can be accomplished through a combination of grading, planting, and creating a sediment fore bay to treat stormwater and reduce currently eroding sediments before entering the creek.



Image 25 – Severe erosion from the outfall – April 2008

Master Plan

A conceptual Master Plan (**Exhibit C**) was prepared to build on the project goals, themes, and recommendations established by Village and consultant team to provide a clear direction for future development of this parcel. The Master Plan includes the following features:

- Enhancement and mitigation of the existing pond and wetlands to promote wildlife and natural ecosystems.
- A recreational trail system that connects residential areas, public open spaces, adjacent land uses and community destinations.
- Preservation and enhancement of existing wooded areas, slopes, and drainage ways to establish a strong natural resource character and identity.
- Trailhead facility that offers multiple trail (terrestrial and aquatic) connections to a variety of existing systems including: Glacial Drumlin Trail, Rock River Water Trail, and other community-wide pedestrian and bicycle facilities.
- Passive use community gathering spaces accommodating to users of all abilities.
- Educational opportunities to learn about natural ecosystems and wildlife habitat.

Preliminary Budget

A preliminary budget was prepared for the Master Plan as part of this process. This budget reflects 2010 materials and labor estimates and should be verified based on detailed design and engineering when development occurs. Refer to **Image 26** for an estimate of probably construction costs.

Johnson Creek Conservancy Park

Johnson Creek, Wisconsin

Masterplan

Description	Qty	Unit	Unit Cost	Extended	Remarks
A Mobilization/Demolition					
Clearing & Grubbing	1	LS	15,000.00	\$15,000	approx. 2% of project cost
			SUB-TOTAL	\$15,000	
Earthwork					
Rough Grading	1	LS	10,000.00	\$10,000	grading around Trail Head area
			SUB-TOTAL	\$10,000	
River Restoration*					
Walleye Spawning Area	1	LS	20,000.00	\$20,000	removal of Creek sedimentation and installation of rock bottom
Culvert Replacement	1	LS	15,000.00	\$15,000	utilize the stream simulation method for aquatic passage
Berm Removal & Bank Grading	1	LS	20,000.00	\$20,000	remove existing berm, grade bank and revegetate
Reed Canary Grass Control	1	LS	25,000.00	\$25,000	integrated pest management technique involving multiple approaches
Oxbow Restoration Area	1	LS	30,000.00	\$30,000	area north of Creek at bend
Pond Planting & Habitat Area	1	LS	22,000.00	\$22,000	pond south of Creek near Sewer Utility Facility
Outlet Protection Area	1	LS	13,000.00	\$13,000	use of natural techniques to slow and cool discharge - allow sediment settling
Detailed Design & Permitting	1	LS	45,000.00	\$45,000	fees to produce necessary PS&E, permitting applications, various projects
			SUB-TOTAL	\$190,000	
B Softscape / Restoration					
Invasive Species Removal	1	LS	10,000.00	\$10,000	selective clearing as determined by plant specialist
Native Seeding	42,000	SF	1.25	\$52,500	perennial prairie seed mix, bioswale area and parking lot rain gardens
Lawn Seeding	9,000	SF	0.50	\$4,500	fescue blend lawn
Lawn Seeding	1	LS	6,000.00	\$6,000	trees and shrubs around Trail head
			SUB-TOTAL	\$73,000	
C Pavement / Pathways					
10' Wide Asphalt Path	1,825	LF	35.00	\$63,875	3" depth with 8" base course
10' Wide Crushed Limestone Path	4,500	LF	17.00	\$76,500	6" depth with tapered edges
10' Wide Boardwalk	1,052	LF	100.00	\$105,200	wood or composite
8' Wide Mulch Path	650	LF	10.00	\$6,500	shredded hardwood mulch
Bituminous Parking Area	5,333	SY	7.00	\$37,331	4" depth, reuse existing gravel as base course
Pedestrian Bridge	1	LS	68,000.00	\$68,000	Creek crossing at Trail Head (80')
			SUB-TOTAL	\$357,406	
D Park Elements					
Interpretive Signage	11	EA	2,000.00	\$22,000	post mounted signage elements at located points along paths
Lighting	1	LS	15,000.00	\$15,000	Trail head location (not along pathways or Creek)
Shelter	1	LS	22,000.00	\$22,000	pre-fab structure, post construction
Observation Platform	5	EA	3,500.00	\$17,500	wood construction with built in seating, hand and leaning rails
Park Sign	1	LS	12,000.00	\$12,000	wood cut sign or similar (match existing park signage?)
Bench Seating	8	EA	1,000.00	\$8,000	backed benches at Trail Head area
Trash Receptacles	4	EA	500.00	\$2,000	Village standard style
Picnic Tables	6	EA	800.00	\$4,800	Village standard style
Detailed Design & Permitting	1	LS	30,000.00	\$30,000	fees to produce necessary PS&E, permitting applications, various projects
			SUB-TOTAL	\$133,300	
			TOTAL	\$778,706	
20% Contingency				\$155,741	
			GRAND TOTAL	\$934,447	
*NOTE: Projects can be completed to varying degrees depending on budget (i.e. To what extent are invasives managed, etc)					

Image 26 - Estimate of Probably Construction Costs - 2010

Implementation

The preparation of the Master Plan is the first step in the process of implementing the Conservancy Park. Additional steps that should occur prior to Phase 1 construction include:

- Master Plan Adoption
- Friends Group Establishment
- Funding Procurement
- Others

With a population of approximately 2,261 (2008 DOA), funding a public project of this type can be very difficult utilizing capitol funds. The planning team has identified several opportunities for external funding sources which are outlined in this report. Strategies for funding include grant opportunities from various agencies, private monetary donation, organization of volunteer efforts, utilizing existing park development funds as leverage, etc.... Identified grant programs are listed in the following below.

Funding Opportunities

There are currently numerous State and Federal funding sources eligible for Conservancy Park. The attached **Image 27** matrix denotes the funding authority, program type, match (if necessary) and contact person. Many of these programs require master plans and/or comprehensive plans to demonstrate a regional consistency for planning projects. This report will assist in securing funding opportunities for projects within Conservancy Park. Private donations allow the private sector to participate in funding important public projects with small and large gifts. Improving the creek is an important community project that could be the focus of fundraising campaign.

GRANT PROGRAM	Funding as of 2006	Fee Simple Purchase	Easements	Facilities	Land Practice	Habitat Restoration	Bike/Pedestrian Safety	Transit-related Facilities	Administrative Agency	Local Government	Local NCD	Match	Comp. Plan Required	Contact
Wisconsin Stewardship Program														
Acquisition and Development of Local Parks (ADLP)	\$4.0	X		X		X			WDNR	X	X	50%	YES	Pat Sheahan, South Central District 608-275-3315
Urban Rivers	\$1.6	X		X		X			WDNR	X	X	50%	YES	Pat Sheahan, South Central District 608-275-3315
Urban Greenspace	\$1.6	X		X					WDNR			50%	YES	Pat Sheahan, South Central District 608-275-3315
Acquisition of Development Rights	\$70 Ok		X						WDNR	X	X	50%	YES	Pat Sheahan, South Central District 608-275-3315
Federal Programs														
Land and Water Conservation Fund	\$25 Ok	X		X					WDNR	X		50%	YES	Community Services Specialist, South Central District 608-275-3218
Recreational Trails Act	\$1.0	X	X	X					WDNR	X		50%	NO	Community Services Specialist, South Central District 608-75-3218

Statewide Multi-Modal Improvement Program													
Transportation Enhancements Program								X	WisDOT			20%	Central Office, John Duffe, 608-264-8723
Surface Discretionary Grant Program								X	WisDOT			20%	Paul Wydeven, 608-266-1535
Safe Routes to School Program SRTS								X	WISDOT				Renee Calloway 608-266-3973
Federal Transit Administration Grants													
Section 5309 (old Section 3 discretionary funds)								X	WisDOT			20%	Jerry Smith, 608-266-0420
CMAQ Improvement Program								X	USDOT			20%	Central Office, John Duffe, 608-264-8723
Section 402 Highway Safety Funds													
Community Programs Empowerment Programs Enforcement Programs							X	X	WisDOT			20%	Jerry Smith, 608-266-0420
Highway Safety Programs (Section 403)							X	X	WisDOT			20% - 50%	Jerry Smith, 608-266-0420
Research Projects								X	WisDOT			20%	Jerry Smith, 608-266-0420
Other Programs													
Wisconsin Main Street Community Program									National Main Street Center	X			Wisconsin Dept. of Commerce, Bureau of Downtown Development
Surface Transportation-Environment Cooperative Research Program							X		FHWA			20%	U.S. Dept. of Transportation
Other State Programs Urban Forestry		\$1K to \$25 K				X			WDNR	X		50%	NO Urban Forester South Central District Jeff Roe 608-275-3256
Home Depot Community Improvement (Environmental) Grants						X			Home Depot Com. Affairs				Local Home Depot Store Manager
Recreational Boating Facilities and Sport Fish Grants				X						X		50%	NO Larry Freidig 608-266-5897

Image 27 – Funding Opportunities – 2010

Appendix

Exhibit A – Area Context Map
Exhibit B – Site Analysis
Exhibit C – Master Plan
Exhibit D – Floodway

A-1: Visual Preference Survey Results: Shelters & Parking
A-2: Visual Preference Survey Results: Recreation
A-3: Visual Preference Survey Results: Pathways

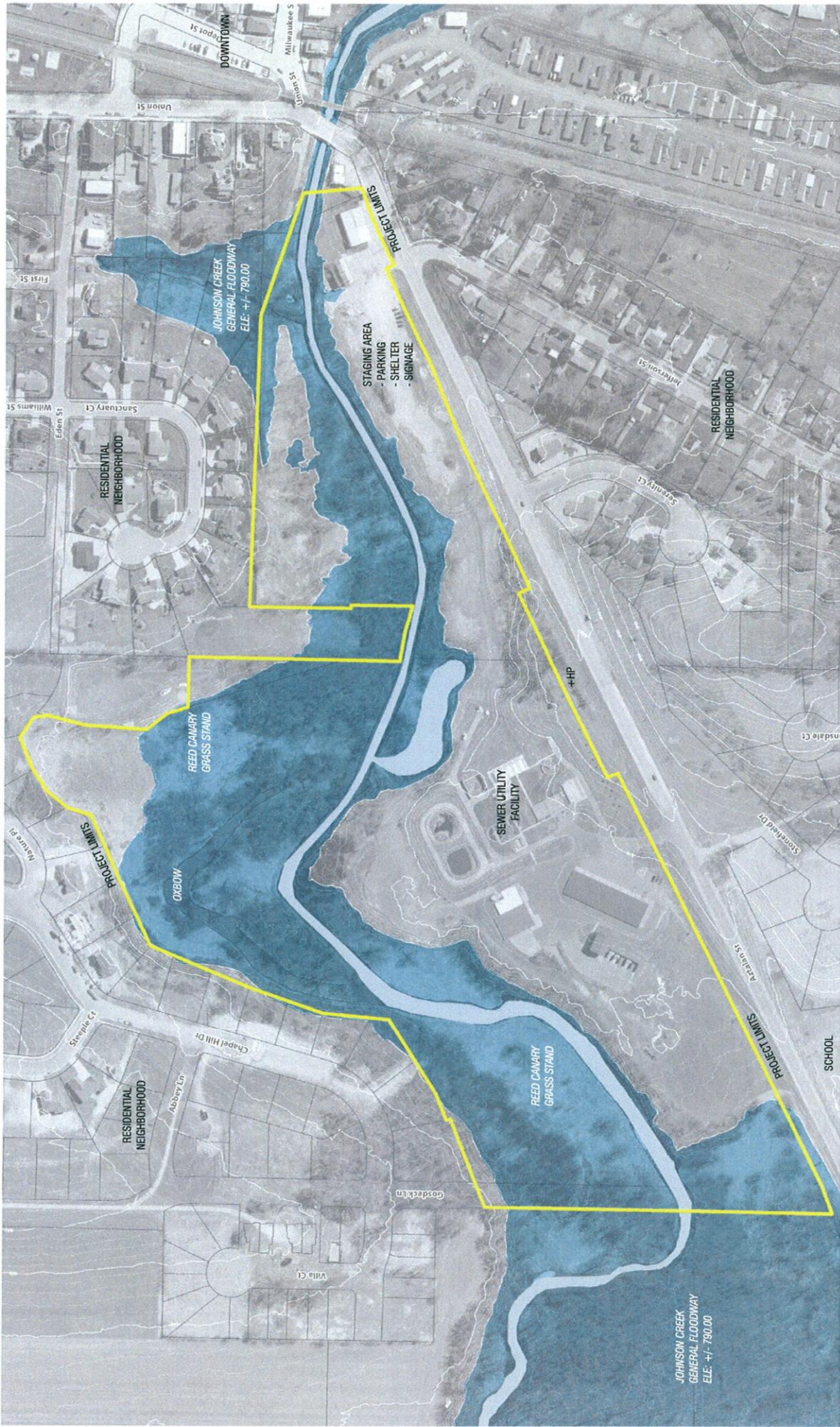
A-4: Public Information Meeting Comments

A-5: Attendee Lists

A-6: Oblique Aerial Photographs

References:

Brodzinski, D., Congdon, J., Galvin, T., Graham, S., Heim, D., Joseph, S., et al. (2002). *Upper Rock River Watershed*. Wisconsin Department of Natural Resources.



JFNew
0 100 200
EXHIBIT D

Johnson Creek Conservancy Park - Floodway

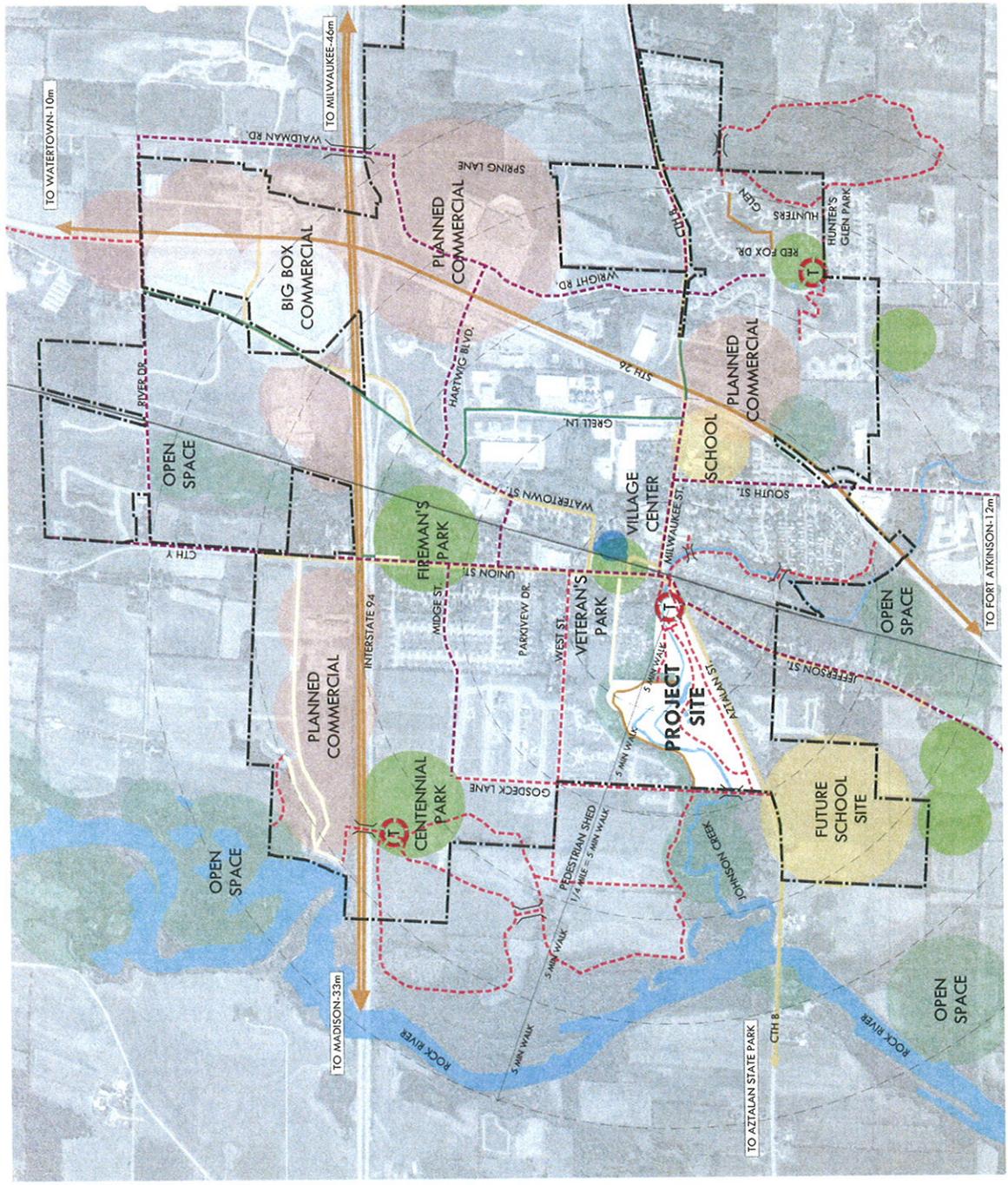
Johnson Creek, Wisconsin ID | 2396 0618 | 2010



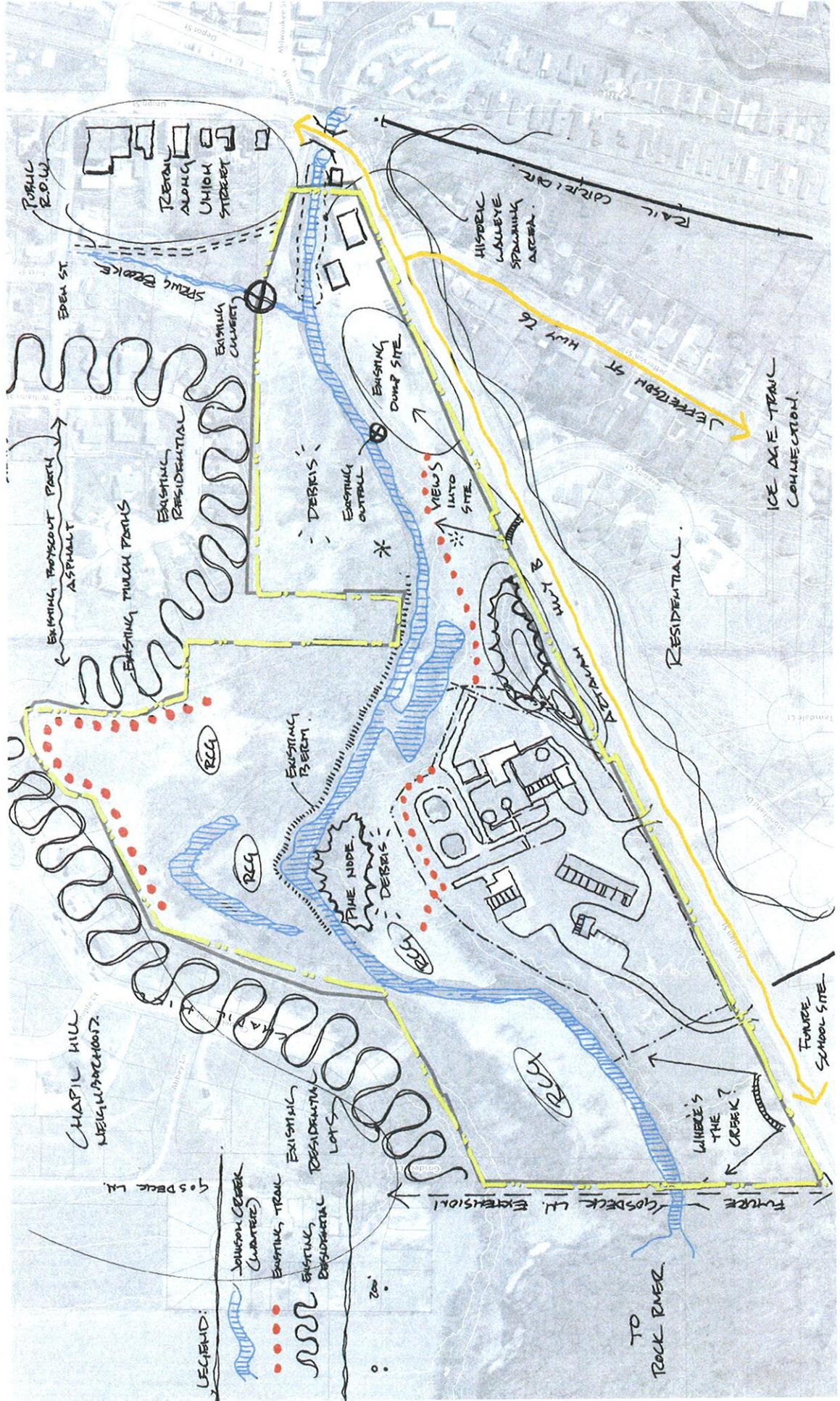
- LEGEND**
- PARK SPACE (ACTIVE/PASSIVE REC.)
 - OPEN SPACE (NATURAL)
 - VILLAGE CENTER CIVIC DISTRICT
 - PLANNED COMMERCIAL
 - EXISTING/PROPOSED SCHOOL
 - EXISTING WOODCHIP TRAIL
 - EXISTING PAVED TRAIL
 - EXISTING STRIPED SHOULDER
 - PROPOSED ON-ROAD BIKE ROUTE
 - PROPOSED TRAIL
 - VILLAGE LIMITS
 - PROPOSED TRAIL HEAD
- NOTE: Trail locations proposed/existing per the 2002 Brewery & Pedestrian Trail System Plan



EXHIBIT A

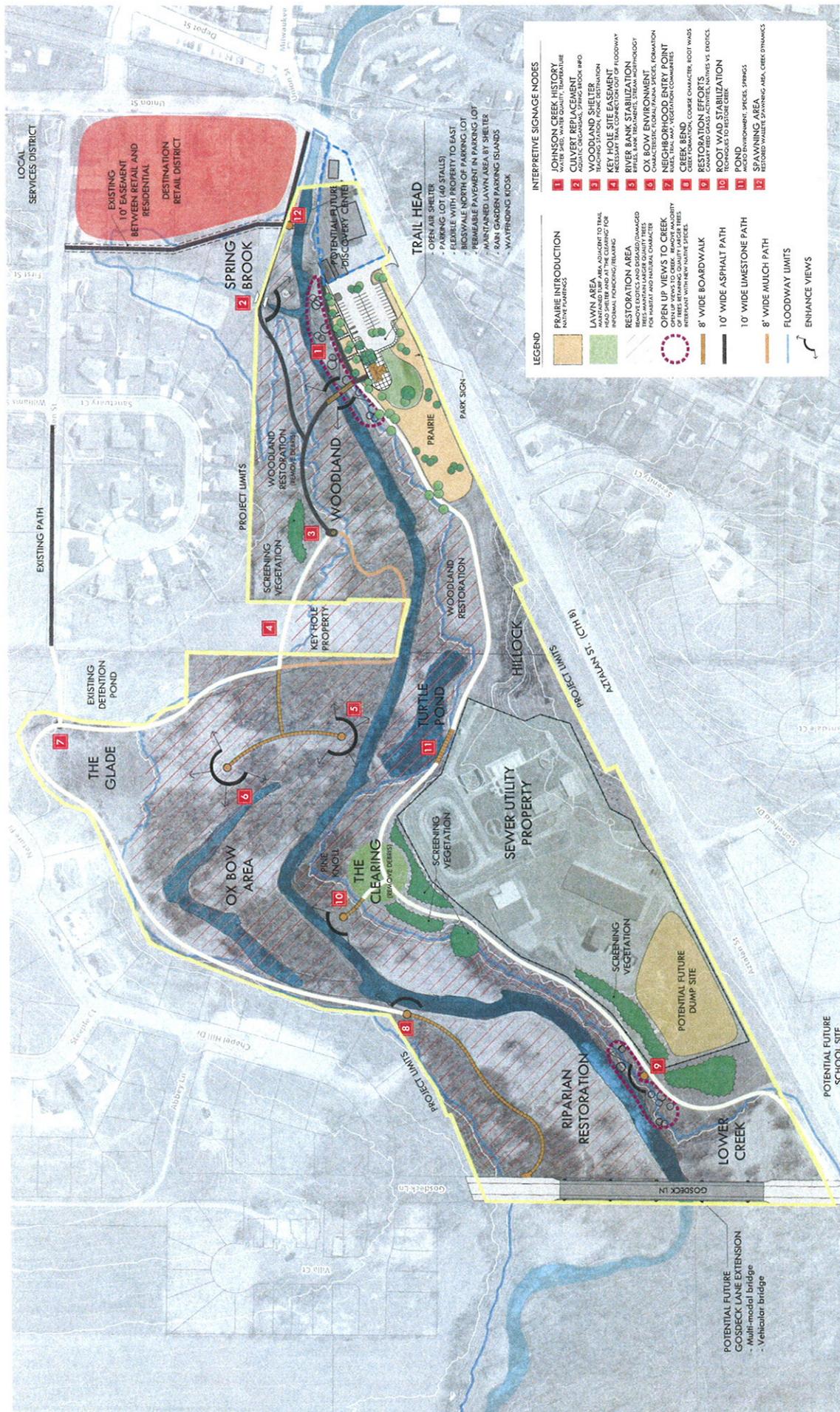


Johnson Creek Conservancy Park - Area Context Map



Johnson Creek Conservancy Park - Site Analysis

Johnson Creek, Wisconsin ID | 2396 06.18 | 2010



- LEGEND**
- PRairie INTRODUCTION
 - LAWN AREA
 - RESTORATION AREA
 - OPEN UP VIEWS TO CREEK
 - 8" WIDE BOARDWALK
 - 10' WIDE ASPHALT PATH
 - 10' WIDE LIMESTONE PATH
 - 8" WIDE MULCH PATH
 - FLOODWAY LIMITS
 - ENHANCE VIEWS
- INTERPRETIVE SIGNAGE NODES**
- JOHNSON CREEK HISTORY
 - WOODLAND RESTORATION
 - WOODLAND SHELTER
 - RIVER BANK STABILIZATION
 - OX BOW ENVIRONMENT
 - NEIGHBORHOOD ENTRY POINT
 - CREEK BEND
 - RESTORATION EFFORTS
 - ROOT WAD STABILIZATION
 - SPAWNING AREA
 - JOHNSON CREEK HISTORY
 - WOODLAND RESTORATION
 - WOODLAND SHELTER
 - RIVER BANK STABILIZATION
 - OX BOW ENVIRONMENT
 - NEIGHBORHOOD ENTRY POINT
 - CREEK BEND
 - RESTORATION EFFORTS
 - ROOT WAD STABILIZATION
 - SPAWNING AREA

Johnson Creek Conservancy Park - Master Plan

Johnson Creek, Wisconsin ID | 2396 0528 | 2010



EXHIBIT C

Metal Shelter w/Restrooms



Traditional Timber Shelter



Shelter w/Restrooms - Gathering Facility



Artful Shelter



Fabric Shelter



Feature Shelter



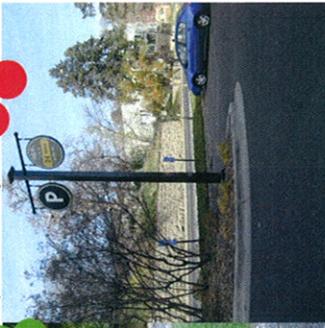
Permeable Paver Parking Lot



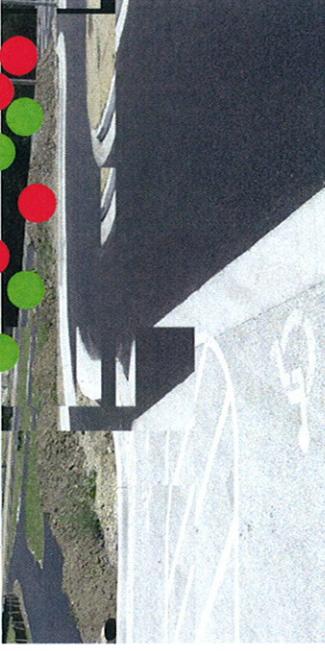
Gravel Parking Lot



Asphalt Parking Lot



Porous Asphalt & Concrete Parking Lot



Johnson Creek Conservancy Park - Shelters and Parking

Bird/Wildlife Viewing



Restored Grassland



Multi-season Trail Use



Overlooks



Fishing - Ability to Touch Water



Interpretive Signage



Fitness Circuit Path



Natural Environment Quality - Botanical



Informal Gathering - Picnicking - Relaxing



Johnson Creek Conservancy Park - Recreation



Mulch Pathway



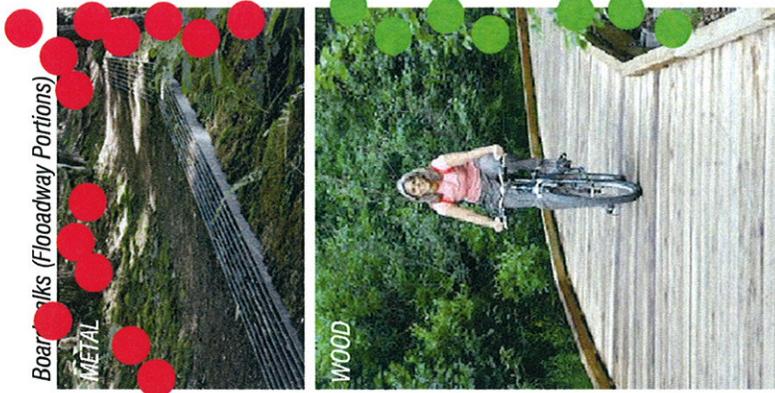
Mown Pathway



Gravel Pathway



Asphalt Pathway



Boardwalks (Floodway Portions)

METAL

WOOD



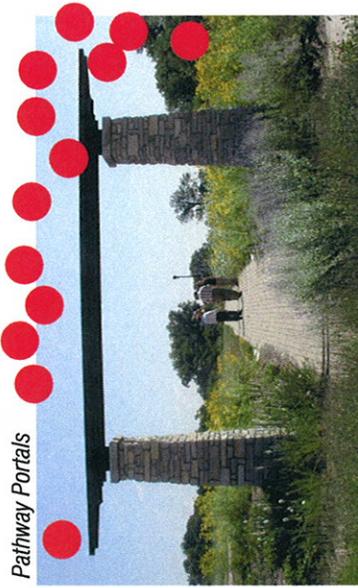
Artistic Bridge



Rustic Bridge



Metal Bridge



Pathway Portals

Johnson Creek Conservancy Park - Pathways

Johnson Creek, Wisconsin

ID | 2396

0618 | 2010



Appendix A-3

APPENDIX A-4:

Johnson Creek

Drop In #1

Comments:

- Potential land on corner of West and Union for future development
- Connection to Glacial Drumiin Trail
- Preserve areas
- Sedimentation problem from existing Village dump site
- No play ground
- Native vegetation, footpaths, bridge
- Path to back of retail along Union Street
- Restore natural ecosystem
- Thielemann family interested in helping with clean-up
- Ned trail and bridge crossing for school children from North Neighborhood (Glacier Edge?)
- Major bank erosion east of bridge (outside scope of project-Village is aware)
- Potential dumpsite relocation could be west of power plant
- Wildlife preserve-similar to Horicon Marsh
- Concerned about any intrusions on site and chasing wildlife away
- There will be property trespass issues onto Chapel Hill sites if trails are too convenient
- Move dump somewhere else
- The current boy scout trail is not well maintained – also very close to residential properties
- Have seen: cranes, turkey, deer, heron, many bird species, king fisher, green heron, beaver
- Opportunities for fishing
- Do not need to make entire dump site a parking lot-keep it Village scale in destination
- Rock River Coalition / Robert Frost organic gardening
- Do nothing – I like it the way it is
- Present the final solution as a natural area owned by the community
- Create a connector bridge north south along Gosdeck Lane extension
- People are people – understand the issues attributes with a community venue and access
- Prevent interference between biking, hiking, and looking folks
- Very concerned with cost – introductions must fit the budget requirements
- Create a 'discovery center' similar to Sheboygan Falls – Kohler sponsored building
- Annual festival site – Walleye Days?
- RV camping potential?
- No trails – leave natural

Drop In #2

Comments:

- Trails are good to access area
- Shelter for gathering
- Remove invasive species
- Could run trail upstream – coordination with trailer park parcel?
- High School science program involved in eco-restoration and habitat rehabilitation
- Open views from HWY B (this is the first impression of Johnson Creek)
- Community volunteer organization (Friends Group)
- Does it pay to spend much attention to Creek at this lower segment when rest of Creek is unmanaged and poor in quality?

- Walkway or boardwalk on north side of Creek through flood area
- Native plantings
- Park/Shelter at triangle site
- Easement exists between residential Chapel Hill properties and retail along Union Street
- Key hole development is key to accessing north side of Creek
- Concerned with property trespass
- Keep natural

Public Informational Meeting/Design Charrette

Exercise #1

What makes this site special – what should be preserved/enhanced?

- Birds, animals (less deer), the pond
- Make is accessible for foot traffic, footbridge, picnic area, footpath
- Boat launch, bicycle path, lights
- Bridge to cross over
- Wildlife
- Walkways
- Fishing
- Lots of small trees getting started by Waster Water plant
- Seems like a remote/secluded spot although in town
- We have a nice variety of birds – although bluebirds disappeared when Tanner Ridge built
- Pond enhanced
- Creek preservation
- Public access enhanced
- Variety of plants and animals
- Water flowing
- Wilderness in Village
- No comment
- Do not know, I've never seen it
- Creek banks
- Trails & banks
- Native species
- Birds
- Water control
- Pond/Creek
- Unique plants
- Unique features to Jefferson Co.
- Springs/seeps/water wildlife
- Somewhat centrally located in Village and owned by public
- The native trees and plants that are left
- Creek bank preservation
- Clean up creek (dredging?)
- Plant life-quality
- Keep as much nature as possible
- Make banks accessible to fishing

List three concerns that you have about the area/site that should be addressed?

- Traffic through my yard, noise
- Damage to the existing wildlife
- Getting started (trees, plant life, control walkways)
- Not to be a place for partying
- Not to intrude on neighborhood to north
- Summer sulfur smell from Waste Water plant would detract from Park use
- Too much grass (and too much mowing) by Waste Water plant
- Do we really need a 'retention pond' for every housing development.
- Bank erosion
- Public perception
- Cost
- Preserving 'Wilderness'
- Cost & Schedule
- Future growth
- Cost, how much is this going to cost
- Nothing but an eyesore
- Creek banks
- Woodchucks
- No more development
- Erosion
- Invasive species
- Cost to maintain
- Impact on neighbors
- Who will maintain
- Public vs. private lands
- Fill around and in the area/compost site
- Bank erodibility
- Flooding
- Flooding
- Parking
- Handicap Accessibility
- Too many people = people issues
- No nighttime lighting in this area

Exercise #2

What improvement should be made in terms of:

Land Use & Activities?

- Walking paths, overlooks, path to future school site
- Waking trail
- Nature trail (bike, walk, cross country ski)
- Some undisturbed area for wildlife (we have a fox family behind us)
- Contribution box (honor system) like the dog park
- Tourist center?
- Rename it to include "Sponsor's Name"
- Adequate parking
- Walking
- Picnics

- Sightseeing
- Canoe launch
- Landscaping points of interest (minimal, cost effective)
- Wildlife refuge
- Pavilion
- Nature center & educational destination
- Water study
- Fishing place
- Trails connecting throughout (Educational use)
- Native habitat restoration – canoe launch
- Fishing
- Picnicking
- Fishing
- Picnicking
- Nature trails
- Keeping “wild” natural feel
- Cleaning it up (remove physical debris)
- Canoe Launch
- Adequate parking (not too much)
- Remove/Relocate dump site
- Land use of sewer plant (is this the best use of the site?)
- Sewer plant odor (10+ days a year or more) – Biofilter potential to limit odor?
- Removal of old sewer facility
- Connectivity to region and local amenities
- Historic references
- Interpretive signage
- Environmental education center (donor?)

Educational or ‘Other’ opportunities?

- School programming
- Get younger students to plant the area
- Plant life – school projects
- Water need, use, value
- Effect of humans on the Creek & how to prevent detrimental impact
- No comment
- Fishing areas
- Exercise stops (circuit)
- Plants animals
- Landscaping
- Nature center or river education center tied in with Glacial Heritage area
- Fishing classes
- Place the one room school house on current dump site
- Historic bridge over creek
- Species ID tags

Look & Feel?

- Quiet, private feel, low noise

- Quiet place to walk with wildlife
- Rustic
- Natural
- Bird-friendly
- Keep undeveloped feel (Muir Woods in CA)
- Prevent property from becoming dated or looking like an old project
- Should look as natural as possible while providing enough development to make a fun recreational/pastime
- Many species of plants and trees
- Quiet place
- Natural, open up the views with woody weed removal
- Wild
- Informal natural seating
- Private feel
- Rustic
- Day use only-no lighting to promote nighttime use
- Maintainable

**Johnson Creek Conservancy Park
Public Drop-In Session #1**

10_0518

<u>Name</u>	<u>Affiliation</u>	<u>Phone #</u>	<u>Email</u>
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Johnson Creek Conservancy Park
Public Drop-In Session #2

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Johnson Creek Conservancy Park
Public Informational Meeting/Design Charrette

<u>Name</u>	<u>Affiliation</u>	<u>Phone #</u>	<u>Email</u>
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BANDALL J HAHMANN	HOMEOWNER	699-4760	
Pat Grese	committee	699-3711	patandbob@tds.net
Nathan Vaughn	committee	699-2447	
Bob Glaser		699-4307	
Joan Glaser			
Judane Kuppinger	Homeowner	699-2317	Peppy 2 + charter, 9th
Steven & Debra Brown	Homeowner	699-2325	
STEVEN WOLLEN	HOMEOWNER	820-888-4850	stswollen@tds.net
Robert A Kasper	home owner	920 699 2995	
Peter Hartz	Resident Home owner	920-699-3936	peterhartz@tds.net
Steve Dama	Home owner	699-5056	
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Tim Sear	133 Chapter Circle		
LeAnn Gzminkowski	home owner	699-2224	
LAURA Christian	131 Ecken	699-4903	

Oblique Aerial Photo Composite of Site:



View South - High Water Condition (Note Berm)



View West - Staging Area



Johnson Creek Conservancy Park - Existing Site

Johnson Creek, Wisconsin

ID | 2396

0618 | 2010

Appendix A-6



