

## Community Development Committee

For the Metropolitan Council meeting of April 26, 2017

**Subject:** Cottage Grove Ravine Regional Park Master Plan and Consent to Easement, Washington County

### Proposed Action

That the Metropolitan Council:

1. Approve the Cottage Grove Ravine Regional Park Master Plan.
2. Inform Washington County that a master plan amendment which includes the location and estimated development costs for the proposed adventure course must be approved by the Council prior to implementation of the project.
3. Require Washington County to submit to the Council the future forest restoration plan for the stormwater conveyance project area and erosion study of the east ravine that are referenced in the master plan, upon completion of these documents.
4. Consent to Washington County granting a drainage and stormwater ponding easement to the South Washington Watershed District as shown in Attachment 1, subject to the Council's receipt of an executed Operation and Maintenance Agreement between Washington County and the South Washington Watershed District.

### Summary of Committee Discussion/Questions

The Community Development Committee recommended approval of the proposed action as part of its consent agenda on April 17, 2017.

## Community Development Committee

Meeting date: April 17, 2017

For the Metropolitan Council meeting of April 26, 2017

**Subject:** Cottage Grove Ravine Regional Park Master Plan and Consent to Easement, Washington County

**District(s), Member(s):** District 12, Harry Melander

**Policy/Legal Reference:** MN Statutes 473.313; Planning Strategy 1 and System Protection Strategy 6, *2040 Regional Parks Policy Plan*

**Staff Prepared/Presented:** Jan Youngquist, AICP, Planning Analyst (651-602-1029)

**Division/Department:** Community Development/Regional Parks and Natural Resources

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### Background

Cottage Grove Ravine Regional Park is located north of Highway 61 and east of Keats Avenue in Cottage Grove and is owned and operated by Washington County. The regional park includes heavily wooded steep ravines and a small lake, which provide for activities such as picnicking, hiking, fishing, and cross-country skiing.

A primary reason for updating the master plan is related to the South Washington Watershed District's proposal to develop a stormwater conveyance system through the regional park. The project will provide a controlled emergency overflow outlet for runoff from 100-year flood events between Woodbury and the Mississippi River. The project will stabilize the ravine from erosion risks, stabilize the lake level, and reduce flooding downstream. Staff from the Council worked with Washington County and South Washington Watershed District staff over the course of five years, from the inception of the project's environmental review process through the development of the regional park master plan, to minimize the impact of the project on the natural resources of the park.

The master plan also proposes to establish a new park entrance, update the existing network of trails, and add new recreation features, including picnic facilities, play areas, a fishing pier, as well as a canoe and kayak launch.

## **Rationale**

The Cottage Grove Ravine Regional Park Master Plan and the easement consent request are consistent with the requirements of the *2040 Regional Parks Policy Plan*, including Planning Strategy 1, System Protection Strategy 6, and other Council policies.

## **Thrive Lens Analysis**

The Cottage Grove Ravine Regional Park Master Plan advances the Thrive outcome of livability through increasing access to nature and outdoor recreation, which enhances quality of life in the region. The Thrive outcomes of stewardship and sustainability are supported through addressing erosion issues to protect both recreational and natural resources within the regional park.

## **Funding**

The estimated costs to implement the master plan are \$15.9 million, which includes \$1.4 million for land acquisition and \$14.5 million for development. Estimated costs associated with a proposed adventure course are not included in the master plan and are thus not eligible for regional parks funding. The costs associated with the stormwater conveyance system will be borne by the South Washington Watershed District and are also not eligible for regional parks funding.

Approval of the master plan does not commit the Council to any funding at this time. The acquisition and development costs based on this master plan may be awarded through the Park Acquisition Opportunity Fund, the Regional Parks Capital Improvement Program (CIP) and the Parks and Trails Legacy Fund. Council action is required to approve the CIP, the Parks and Trails Legacy Fund project list, and specific grants to Washington County.

## **Known Support / Opposition**

The Metropolitan Parks and Open Space Commission unanimously recommended approval of the proposed action on April 4, 2017. The Washington County Board of Commissioners approved the master plan on June 28, 2016. There is no known opposition to the master plan or the easement consent request.

## Metropolitan Parks and Open Space Commission

Meeting date: April 4, 2017

For the Community Development Committee meeting of April 17, 2017

For the Metropolitan Council meeting of April 26, 2017

**Subject:** Cottage Grove Ravine Regional Park Master Plan and Consent to Easement, Washington County

**District(s), Member(s):** MPOSC District F, Sarah Hietpas

**Policy/Legal Reference:** MN Statutes 473.313; Planning Strategy 1 and System Protection Strategy 6, *2040 Regional Parks Policy Plan*

**Staff Prepared/Presented:** Jan Youngquist, AICP, Planning Analyst (651-602-1029)

**Division/Department:** Community Development/Regional Parks and Natural Resources

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## Analysis

Planning Strategy 1 of the *2040 Regional Parks Policy Plan* requires that master plans for regional parks address the eleven items listed below.

### **Boundaries and Acquisition**

The initial master plan for Cottage Grove Ravine Regional Park was developed in 1992, with an original park size of 515.3 acres. Several changes to the regional park boundaries have occurred over time, including a land exchange and the addition of inholding properties.

#### Land Exchange

In 2004, Washington County submitted a proposal to remove 38.5 acres of land on the west side of the regional park to be used for a joint public service center for the County and the City of Cottage Grove. The land proposed to be removed from the regional park was acquired with a grant from the Council. Since Metropolitan Council bonds were used for the acquisition, Washington County was required to record a restrictive covenant on the property that limits the use of the property to regional recreation open space purposes and requires Council approval for any sale or conveyance of the property.

The Council approved the County's proposal, subject to a land exchange for an equal amount of land northeast of the existing park boundary. Typically, a land exchange is required to be fulfilled at the time land is removed from a regional park. However, the Council approved an agreement which stated that the land would be replaced on an acre per acre basis; the replacement land would be adjacent to the park and have natural characteristics similar to the park; and the deadline for land replacement would be December 31, 2015. (Business Item 2004-162)

In December 2007, the Council approved an amendment to the Cottage Grove Ravine Regional Park Master Plan to add approximately 100 acres of inholding properties to the boundary of the park. Another master plan amendment was approved in 2011 to add 9.34 acres of inholding properties to the park boundary. Both Council actions made the inholding parcels eligible to be used as land exchange replacement properties. (Business Items [2007-222](#) and [2011-138](#))

The Council released the restrictive covenant on 17.7 acres of land for development of the Washington County Service Center in September 2005 and on 20.8 acres of land for Cottage Grove municipal facilities in December 2011, for a total of 38.5 acres. The South Washington County Service Center and Cottage Grove City Hall have been constructed and are now operational. The City of Cottage Grove is planning to develop a public safety training facility, known as the HERO (health and emergency response operations) Center, on the site in the future.

Washington County has purchased 17.7 acres of land to replace the land removed from the regional park for the County Service Center. Additionally, 7.44 acres of the 20.8 acres removed from the park for the City of Cottage Grove facilities have been replaced, resulting in a net total of 13.36 acres that are required to be replaced.

In December 2015, the Council approved an amendment to the Land Exchange Agreement between the Council and Washington County that:

- Allowed either an acre for acre land replacement or an equally valuable facility exchange within Cottage Grove Regional Park to fulfill the remaining obligations of replacing 13.36 acres.
- Provided a final extension of the expiration date to December 31, 2022, with consequences if the terms of the agreement are not met by that date. (Business Item [2015-275](#))

Recent conversations between staff from the Council, Washington County, and the City of Cottage Grove indicate that the terms of the land exchange agreement will likely be satisfied in the near future.

Proposed Master Plan Boundary

The master plan proposes an ultimate regional park boundary of approximately 597 acres, which takes into account the land removed from the park, the added inholdings described in the previous section, and the addition of two new inholding parcels on the east side of the park totaling approximately 9 acres. A summary of park acreage is shown in Figure 1.

Figure 1: Cottage Grove Ravine Regional Park Acreage Summary

Park Acreage Summary	Acres (approximate)
Original park acreage	515.3
Land removed from park for City and County buildings	38.5
Land replaced and inholdings	120
Current park acreage	507
Master plan park boundary	597

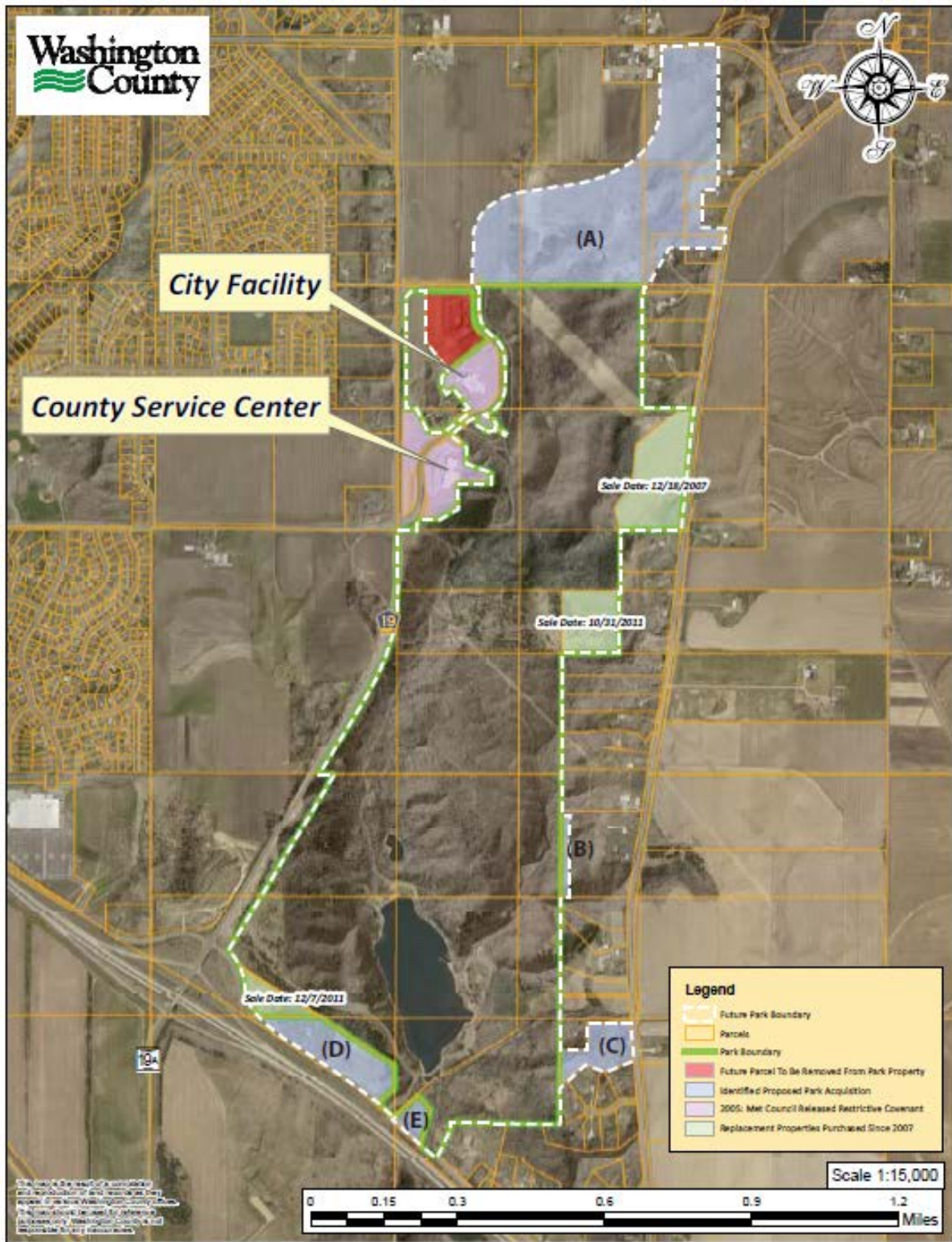
Figure 2 shows the status of properties associated with Cottage Grove Ravine Regional Park:

- The current park is outlined in green.
- The master plan boundary is shown by the dotted white line.
- The land removed from the park for the County Service Center and the City facilities is shown in pink and red.
- The land that Washington County replaced as part of the land exchange agreement is shown in light green.
- Inholdings proposed for future park acquisition are shown in light blue and labeled A-E.

The inholdings are comprised of four main areas:

- North side of park (A): this property, totaling approximately 64 acres, will enhance recreational opportunities within the park and will buffer the park from future development.
- East side of park (B): this property is a two-acre wooded outlot that will serve as a valuable buffer to the adjacent existing trail. The City of Cottage Grove intends to acquire the property through a subdivision process related to a future development and would dedicate the land to Washington County as part of the land exchange agreement.
- East side of park (C): this 7.22-acre property is owned by the City of Cottage Grove and would allow for protection of steep ravines with native oak forest. This parcel also allows for trail connections and pedestrian access to the park from the east.
- South side of park (D & E): these parcels are 13.95 and 2.57 acres, respectively. Acquisition of these parcels will expand the park boundary to Point Douglas Road and allow for new trails to be developed in the park.

Figure 2: Cottage Grove Ravine Regional Park Boundary and Property Status



The master plan boundary includes almost 90 acres of inholdings with estimated acquisition costs of approximately \$1,400,000, as shown in Figure 3. Washington County’s current policy position is to acquire land on a willing-seller basis. The timing and sequence of land acquisition for the regional park will be determined by availability of properties and the County’s ability to secure funding. The County’s 2030 *Comprehensive Plan* states that “highest priority acquisition and development is planned for areas



that would provide opportunities to restore or better manage the natural resource base and reduce fragmentation of county ownership.”

*Figure 3: Inholding Acreage and Estimated Acquisition Costs*

Inholdings	Acres (approximate)	Estimated Acquisition Costs
North side of park (A)	64.0	\$651,300
East side of park (B)*	2.0	\$20,353
East side of park (C)	7.22	\$175,300
South side of park (D)	13.95	\$338,800
South side of park (E)	2.57	\$217,900
<b>TOTAL</b>	<b>89.74</b>	<b>\$1,403,660</b>

*\*Estimated acquisition costs are shown, in case the land is not dedicated to Washington County*

**Demand Forecast**

The master plan states that population in the metropolitan region is forecast to grow by 647,000 people between 2015 and 2040, with an increase of 79,000 people in Washington County during that timeframe. This population growth will increase demand for near-home outdoor recreation opportunities. Outdoor recreation trends show that walking, boating, and swimming are popular activities in the metropolitan region.

Regionwide forecasts indicate a large growth in seniors and people of color by 2040. The Minnesota State Comprehensive Outdoor Recreation Plan 2014-2018 (SCORP) indicates that older adults have maintained a stable involvement in outdoor recreation. As this group ages, physical limitations may require them to change to low impact recreational activities such as walking and nature observation, which are accommodated by the regional parks system.

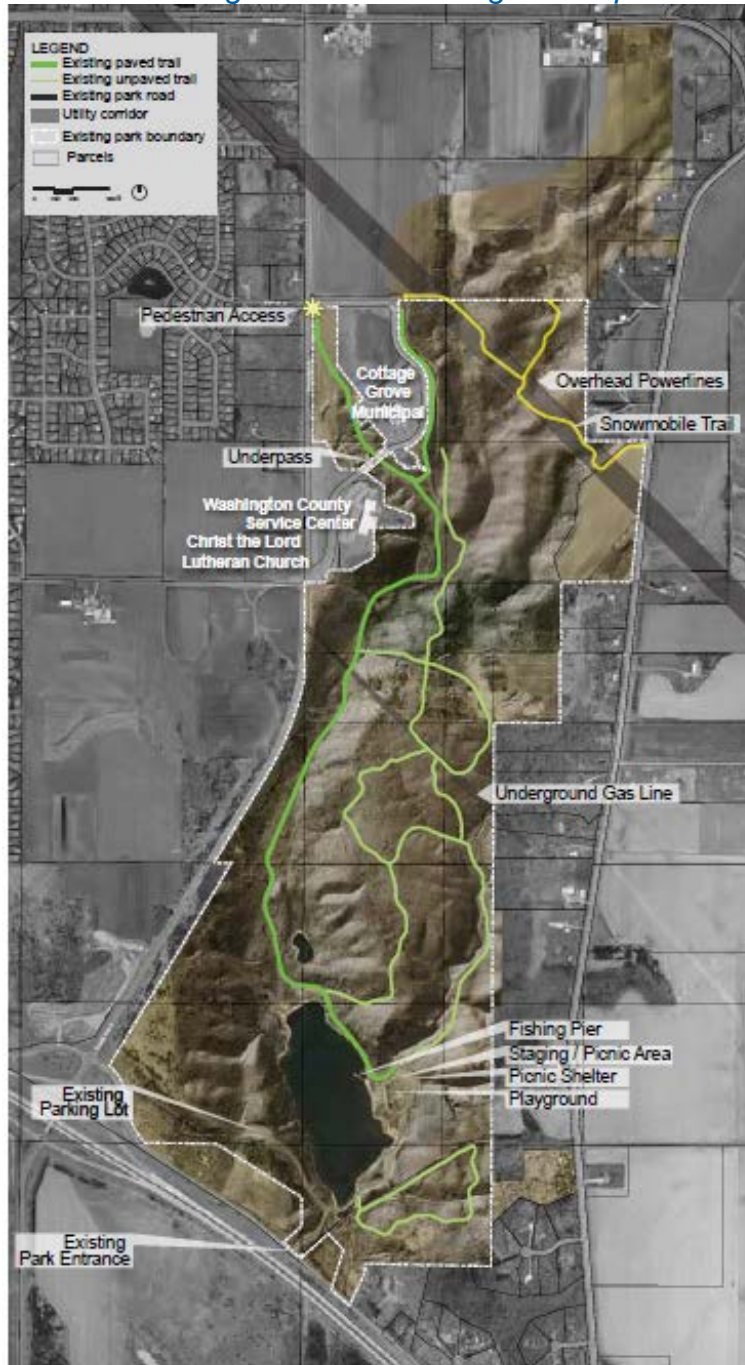
Research has shown, however, that regional park visitation does not represent the overall demographic makeup of the region, specifically for communities of color. By 2040, 40 percent of the region’s population will be people of color, which presents challenges and opportunities for Washington County to strengthen equitable use of its regional parks and trails.

The master plan discusses the importance that access to parks and trails plays in supporting active living, increasing physical activity, preventing obesity, and improving mental health.

**Development Concept**

Existing development within the regional park is focused on approximately 15 acres at the south and east sides of Ravine Lake. The park road enters from Point Douglas Road at the south end of the park. Existing facilities include a picnic shelter with restrooms, a playground, two parking lots, and a fishing pier. Trails within the park include soft-surface trails for hiking and cross country skiing that travel through the park northeast of Ravine Lake, a snowshoe loop on the southeast side of the lake, and a paved trail that travels from the picnic area north through the park to the County Service Center and 85<sup>th</sup> Avenue. Existing park development is shown in Figure 4.

Figure 4: Cottage Grove Ravine Regional Park Existing Development



The master plan proposes to develop a new park entrance road, increase recreational facilities on the south side of the park and expand the trail system throughout the park. The development plan for the regional park is shown in Figure 5.

### New Park Entrance Road

The new park road will enter from County Road 19 at the southwest end of the park, and will provide a much more visible entrance than the current entrance from Point Douglas Road. A contact station will be developed near the new entrance, where park staff can collect user fees and respond to park visitor questions. The existing park entrance will be removed and the existing road within the park will be moved further south around the lake shore and raised several feet to bring it out of the flood zone. The

park road will extend from the new entrance on the west, to a parking area proposed on the east side of Ravine Lake. Estimated costs for park road and parking improvements are \$3,209,000.

Figure 5: Cottage Grove Ravine Regional Park Proposed Development Plan

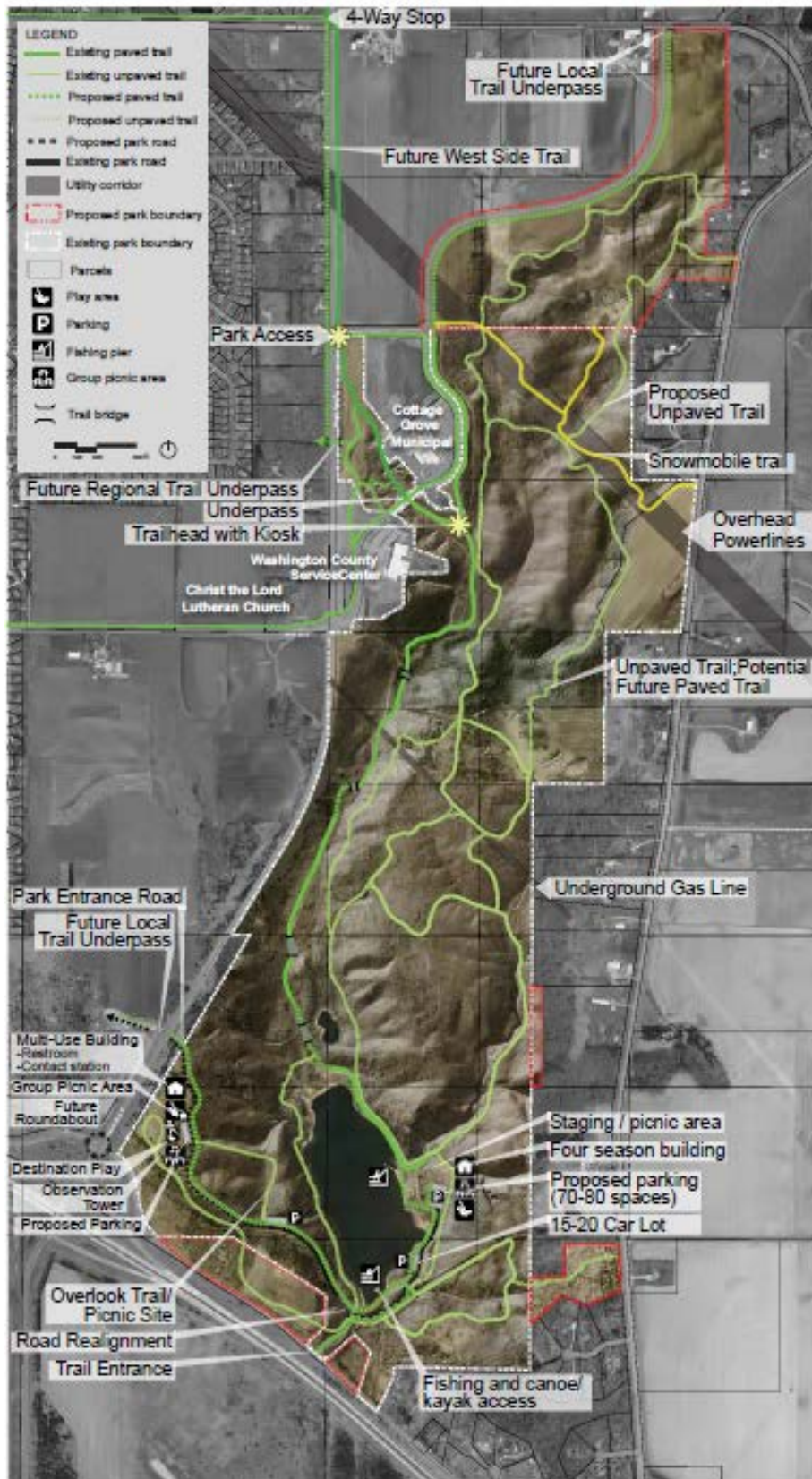


Figure 6: Overlook Development Area Plan



### Overlook Development Area

The overlook development area is located near the new park entrance contact station on the west side of the park. This upper meadow provides sweeping views south toward the Mississippi River. The master plan proposes to add a destination playground with a climbing wall, a picnic area, overlook structure, and parking. Paved and soft-surface trails will connect this portion of the park with the trailhead building planned for the east side of Ravine Lake. The Overlook Development Area Plan is shown in Figure 6. Estimated development costs for this area, including the park contact station and landscaping, are \$2,123,000.

## Lakeside Area

The lakeside area is located on the east side of Ravine Lake. The master plan proposes a new four-season trailhead building with an open room that will accommodate large groups and serve as a warming area for cross-country skiers during the winter. Other amenities proposed include a new playground, two small picnic shelters, and parking. The existing fishing pier is popular and will remain. A second fishing pier and non-motorized boat landing will also be added. The Lakeside Development Area Plan is shown in Figure 7. Estimated development costs for this area are \$3,876,000.

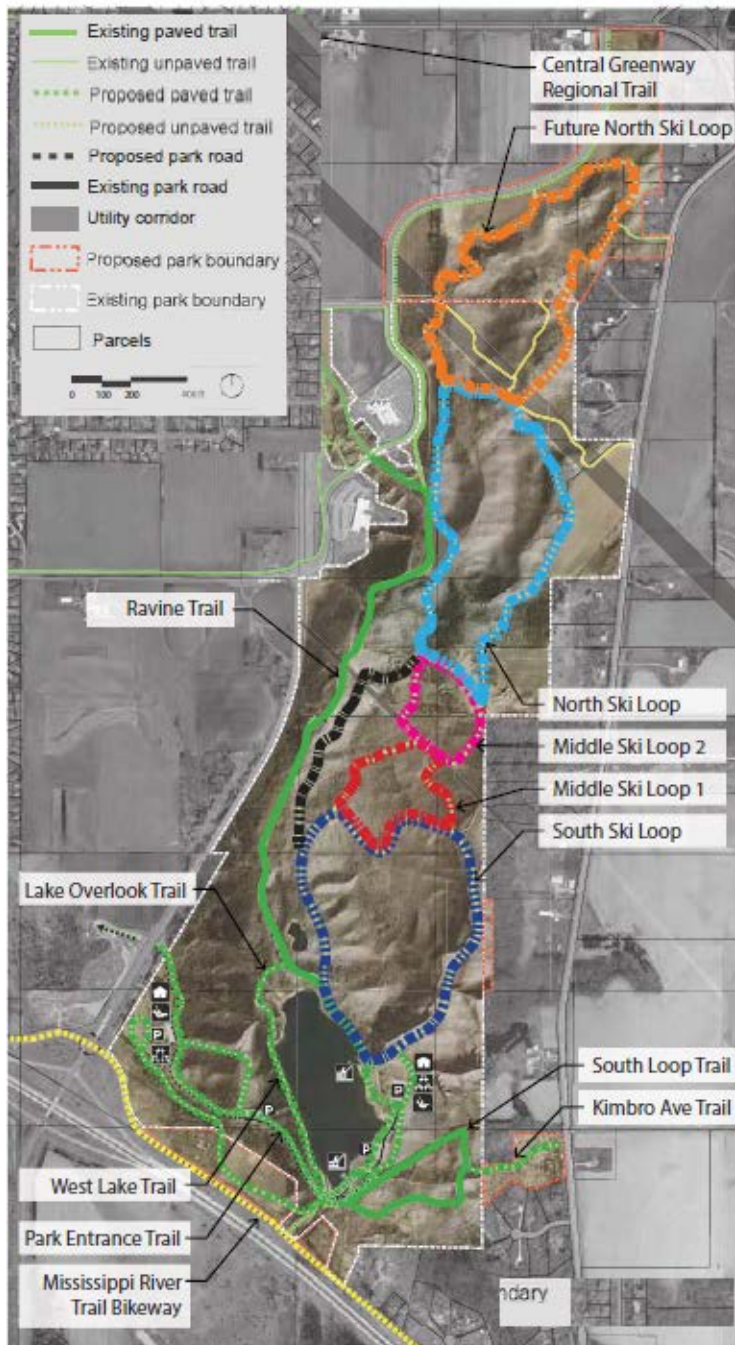
*Figure 7: Lakeside Development Area Plan*



## Trail System

The planned trail system includes a combination of paved, soft-surface, and cross-country ski trails, as shown in Figure 8.

Figure 8: Planned Trail System



Cross-country ski trails will be reconfigured to provide one-way loops of varying difficulty and distance. The updated trail system will be modified to separate skiers and hikers from the paved trail. Several kilometers of the ski trails will be lighted with low, bollard-style fixtures to extend skiing hours in the winter. During fall months, the trails could be lighted for walking and hiking. The lighted trails will include the South Ski Loop, Middle Ski Loops 1 and 2, North Loop, and the West Lake Trail.

Paved trails are planned from the new park entrance to the trailhead building area, providing connections to the existing trails in the park. A new trail connection from the south will follow the old park entrance road at Point Douglas Road, and a trail connection from Kimbro Avenue will allow non-motorized park access from the east. Figure 9 shows the types of and lengths of the planned trails.













*Figure 9: Trail System Composition*

Paved Trails		km
Ravine Trail		2.67
Park Entrance Trail		1.71

Hiking/Snowshoe Trails		km
West Lake Trail		0.79
Kimbro Ave Trail		0.3
South Loop Trail		0.84
Lake Overlook Trail		.038

Ski Trails		km
South Ski Loop	 	2.14
Middle Ski Loop 1	 	0.66
Middle Ski Loop 2	 	3.06
North Loop	 	2.32
Future North Loop	 	2.37
West Trail	 	.08

Wayfinding and interpretive signage throughout the regional park will include:

- Kiosks with maps and information signs, located at the main park entrance, trail entrance by the County Service Center, and at the trailhead building
- Wayfinding signs to identify destinations and distances, located at major trail intersections
- Interpretation panels to highlight natural features or systems
- Regulatory signage along trails and roadways to direct traffic and provide traffic control

The master plan discusses opportunities for adding camper cabins, but indicates that additional analysis would be needed to determine operations, maintenance, and staffing needs associated with initiating overnight use of the park.

Park-wide improvements including trails, trail lighting, camper cabins, and natural resource enhancements and restoration such as buckthorn removal, prairie enhancements and oak savanna restoration are estimated to cost \$5,279,000.

The master plan indicates that a desire for an adventure course, such as a ropes course or zip line, was expressed as part of public input during the master planning process, but that Washington County is not currently suited to operate an adventure course and may need to partner with a vendor to develop a facility in the park. The master plan conceptually describes an adventure course, but does not identify a planned location within the park or include estimated development costs.

Total development costs to implement the master plan are approximately \$14,487,000 in 2016 dollars. The cost estimates include contingencies for design, engineering, and construction.

### Central Draw Storage Facility System and Overflow Project

Non-recreational development proposed in the master plan involves a project led by the South Washington Watershed District. The Watershed District's boundary includes portions of 10 cities and townships in southern Washington County. Bailey Lake in Woodbury collects stormwater from the northern watersheds, but the lake previously had no controlled outlet. The increasing frequency of high intensity rain events combined with the amount of development that has occurred within the Watershed District has amplified the amount of runoff in the northern watersheds. Bailey Lake would not be able to contain all of the runoff from the watershed once the area is fully developed.

The Watershed District and its partners have been developing the Central Draw Storage Facility (CDSF) near the outlet of Bailey Lake to provide an outlet for stormwater from the northern watersheds. A lift station in Woodbury now pumps water from Bailey Lake to the CDSF. The CDSF should be adequate to retain the runoff from a 6.3 inch, 24-hour rainfall event. Because of uncertainty in the design, the recent trend of extreme precipitation events, and the need for safety in flooding situations, the Watershed District is developing a controlled overflow out of the CDSF to the Mississippi River. The CDSF Overflow Project consists of a series of underground pipes and the use of existing drainageways between Bailey Lake and the Mississippi River, including the drainageway at the bottom of the ravine through Cottage Grove Ravine Regional Park. The project will outlet a 72-inch diameter overflow pipe at the north end of the park to use the natural stream channel at the bottom of the ravine.

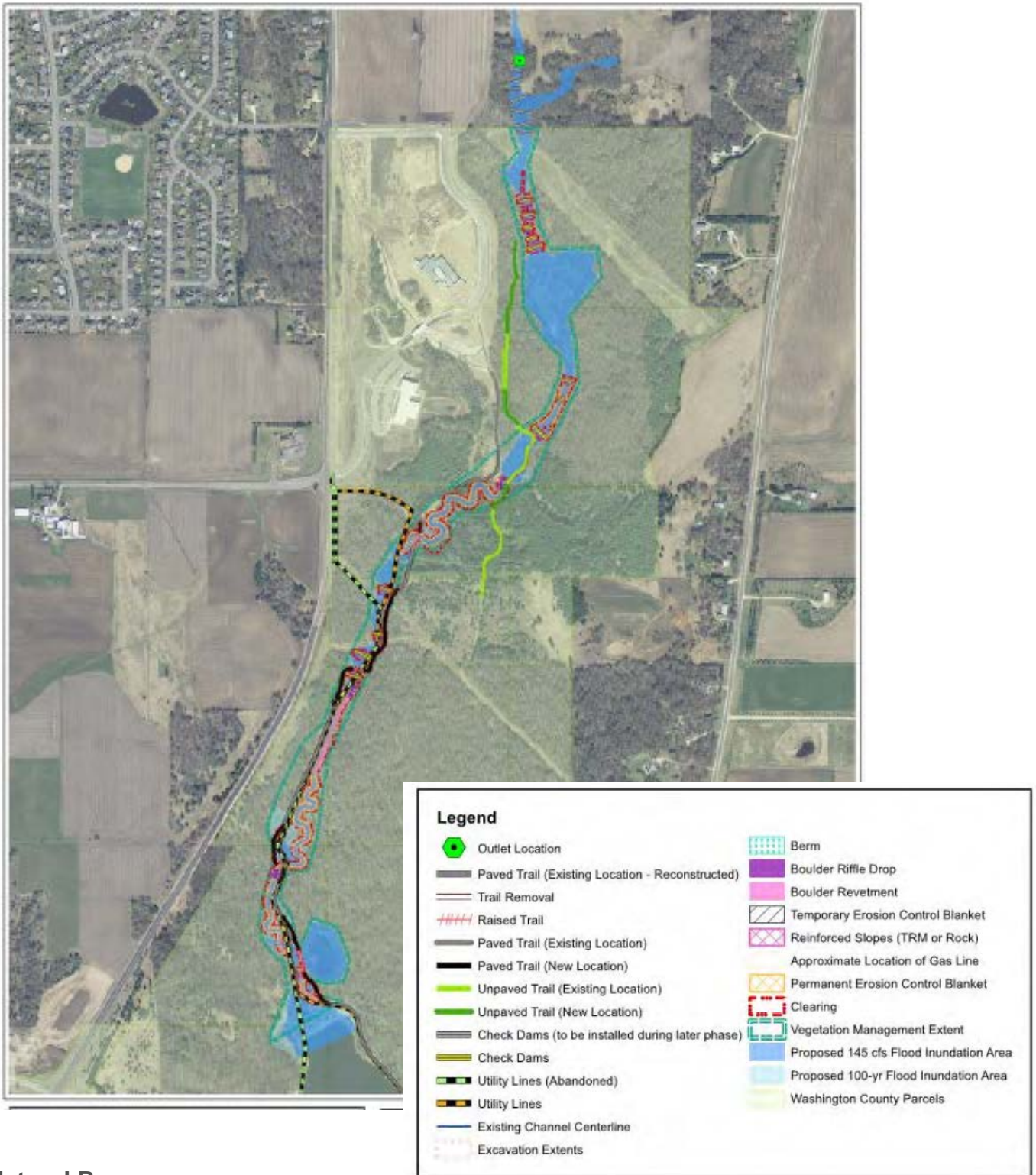
The CDSF Overflow Project within the regional park will consist of two main components: stabilizing the ravine running the length of the park, and constructing an outlet structure for Ravine Lake. The new outlet structure will be built at the south end of Ravine Lake to regulate the water levels and limit bounce on the lake during local flood and overflow events. The existing roadway currently experiences flooding issues. As described previously, the road will be moved further south away from the lake and will be raised several feet to avoid flooding.

Stabilization of the ravine will include a variety of structures and features to address impacts to side slopes and slow the velocity of water in the conveyance system through the park. The goal is to protect the ravine against erosion from flash flood and overflow events while maintaining recreational use of the park. The project design includes an excavated channel, check dams, boulder riffle drops, and raised trails and channel crossings. The route of the CDSF Overflow conveyance project through the regional park and the location of the structures and features are shown in Figure 10.

Preliminary estimated costs for the CDSF Overflow project through the park are approximately \$2.8 million and will be borne by the South Washington Watershed District.



Figure 10: CDSF Overflow Project Location



## Natural Resources

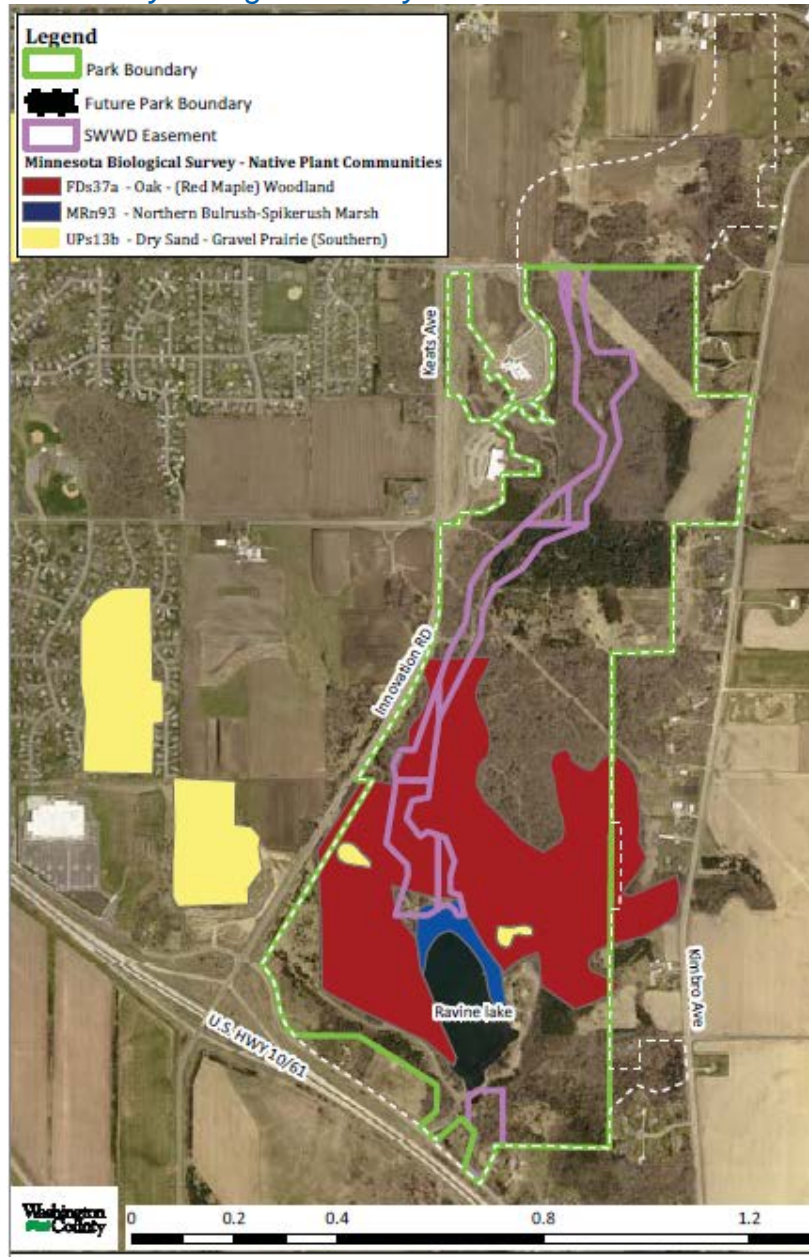
Cottage Grove Ravine Regional Park contains a unique landscape of steep ravines, rolling hills, mature oak forests, and a scenic lake. The steep ravines have evolved over time from natural forces, including erosion. The steep slopes and ravines all drain to Ravine Lake. The lake is 25 acres with a maximum depth of 15 feet. There are two primary inlets to the lake, including the north ravine, which drains a majority of the park and enters the lake at its north shore; and the east ravine, which runs along the

north side of the developed trailhead area and enters the lake on the northeast corner. The lake is currently impaired, but is improving. The Minnesota Department of Natural Resources manages the fish population and has identified several species in the lake, including bluegill, black crappie, largemouth bass, walleye, and bullhead.

There are two protected plant and wildlife species within the boundaries of Cottage Grove Ravine Regional Park. Kitten-tails are a threatened plant species that require a habitat of oak savanna communities but also occur in dry prairies and dry-mesic oak/maple woodlands. Blanding's turtles are a threatened species that require a wetland or riparian habitat in close proximity to sandy upland nesting habitat. Protection of these species requires protection of their habitat.

The park contains three unique and significant plant communities, including Oak (Red Maple) Woodland, Northern Bulrush-Spikerush Marsh, and Dry Sand-Gravel Prairie (Southern). These plant communities, as inventoried by the Minnesota County Biological Survey, are shown in Figure 11. The CDSF Overflow conveyance project area is outlined in purple on the map.

Figure 11: Minnesota County Biological Survey Native Plant Communities Map



### **Stewardship Plan**

Ecological stewardship within the regional park should be prioritized based on factors including the significance of the plant community resource and the probability of ecological degradation. The plant communities within the park that are shown in Figure 11 should be considered as high priorities for management as well as plant communities that provide for the varied habitat needs of the Blanding’s turtle. Due to the threat of invasive species, Washington County indicates that it will continue to prioritize invasive species mitigation in vegetation management plans.

The probability of ecological degradation in the park may occur as a result of erosion, invasive plant species, impacts from recreational development within the park, or inappropriate human use.

The master plan discusses partnering with stewardship groups such as Minnesota Conservation Corps, local school groups, Great River Greening, scouting groups, the “Sentenced to Serve” program, and

volunteers to help with invasive species removal, hand planting, and litter pickup. Washington County has worked with the non-profit group Friends of the Mississippi River since 2014 to remove almost 135 acres of invasive shrubs from the park. The County also piloted a project in 2016 that used grazing goats as a method to reduce invasive species.

Once invasive species have been controlled, the master plan recommends prairie restoration using pollinator-friendly plants, savanna restoration, forest enhancement and restoration, and wetland restoration. The use of stormwater best management practices such as rain gardens or bio-retention basins near the parking lot islands and treatment ditches incorporated into the new park road will help improve water quality in the regional park.

The natural features in the park pose challenges related to flooding and erosion, affecting both the east and north ravines. The east ravine has been impacted from runoff outside of the park, which has caused considerable erosion. As the area around the park develops in the future, additional runoff will impact the park. Washington County, in partnership with the South Washington Watershed District, will conduct a study to review existing conditions of the east ravine to identify causes and solutions for erosion. The master plan indicates that this study will be completed within six to eight years, prior to future development along the east side of the regional park. Runoff and erosion are of a more immediate concern in the north ravine, which is being addressed through the Watershed District's conveyance project.

#### Central Draw Storage Facility Overflow Project

The Central Draw Storage Facility (CDSF) Overflow project will help protect the park from existing erosion risks by designing the channel to control the flow of water during flood events, but will also result in physical changes to the park and impacts on the natural resources.

A tree inventory was conducted as part of the conveyance project's preliminary design. Construction of the project will require the removal of approximately 784 trees along the linear project area, many of which are between 3 and 12 inches in diameter. There are 30 fully mature oak trees (larger than 20 inches in diameter or larger) in the project area; tree protection strategies will be used during construction to protect these trees. Trail relocation as part of the project has been strategically located to minimize impact to these trees. The master plan indicates that the South Washington Watershed District will work to replant trees not identified for removal if it is determined that they have been impacted by the conveyance project. Impacts may include tree damage, disease, or loss.

After the CDSF overflow conveyance is operational, high precipitation occurrences carrying a large volume of water will overflow from the CDSF in Woodbury and travel through the overflow into the park. In extreme 100-year flood events, approximately 20 acres of the park may be flooded for up to four weeks. Park staff will monitor flood impacts during the high-water periods and afterwards. Based on the tree inventory, one percent of the trees in the project area are of a flood tolerant species. However, close to 90 percent have intermediate tolerance to flooding.

The master plan includes a plan and timeline for vegetation management related to the conveyance project area, which includes a commitment to develop a Forest Restoration Plan in 2019 so Washington County can observe how the forest responds after construction of the conveyance project. When tree replacement is initiated, new flood tolerant early colonizer species will be planted. The plan and timeframe is shown in Figure 12.

Figure 12: Vegetation Management Plan and Timeline for CDSF Project Area

Year	Task	Task Description	Deliverable
2016 - 2017	Forest Management, invasive shrub removal	40 acres of invasive shrubs were removed by the SWWD within the Vegetation Management area between 2016 and 2017, to prevent re-seeding and increase native groundcover.	Initial removal of invasive shrubs.
2017	Forest Management, follow-up invasive shrub control	Implement management practices to reduce invasive shrub presence, and promote native groundcover to stabilize slopes. Practices may include: selective foliar applications of invasive shrubs, basal bark herbicide stem treatments, controlled burn and targeted grazing.	Reduce invasive shrub presence to promote herbaceous native groundcover establishment.
2017	Construction of CDSF Overflow Project	Implement techniques to minimize vegetation impact. These techniques include trail design around large diameter oak trees, use of tree protection fence to minimize footprint of construction equipment and conducting removals in the dormant season.	Tree removal only in necessary locations
2017	Forest Management, Post Construction Tree Needs Assessment within 30' of trails	Post construction; in the fall of 2017 identify locations adjacent to trails (within 30') where tree planting and protection can occur in the spring of 2018.	Map of locations where trees can be planted.
2018	Forest Management, Flood tolerant tree planting and protection	In the spring of 2018, plant flood tolerant 18"-6' tall trees within the ravine corridor, within 30' on either side of the adjacent trails. Tree plantings will include a variety of trees from the recommended types the Master Plan, based on the Field Guide to the Native Plant Communities of Minnesota, Eastern Broadleaf Forest Province as a reference. Planting will be assessed both near the trail and further back in the management area. Planting densities will be determined based on Forest canopy goals which range from interrupted to continuous (50% to 100% in FDs37 & MHs37). Larger trees will be considered within 30' of the trail where forest canopy needs exist. As needed, Washington County and the South Washington Watershed District will work together to purchase and install trees. Following tree planting, protection and watering measures will be implemented.	Planting of flood tolerant trees and installation of tree protection tubes.
2019	Forest Management, Tree planting assessment	Assess condition of planted seedlings in 2019, determine if further planting is needed. A 3 - 5 year maintenance period on the planted trees will be required to ensure the health of the trees at the end of the maintenance contract period.	Assessment of planted trees living.
2019 - 2020	Forest Restoration Plan - Development	In the fall of 2019, develop a Forest Restoration Plan for the park area. This activity is scheduled for 2019 to ensure the land manager has a better idea of how the forest will respond post construction. The goal of the plan would be to develop site specific forest composition and identify management practices which can be implemented to prepare for future inundation once development accelerates within the region. Examples include selective timber harvests, tree seedling planting strategies, invasive shrub control, oak wilt monitoring and control, pine plantation management. The Metropolitan Council will be included in the development of this document.	Forest Restoration Plan for the area affected by SWWD project.
2020 to 2040	Forest Restoration Plan - Implementation	Implement strategies to increase the resiliency of the forest within the vegetation management area.	By 2040, forest is prepared for potential flood inundation.

## Conflicts

The master plan evaluated the impacts of the Central Draw Storage Facility (CDSF) Overflow project within the regional park and the County Road 19 at Highway 10 interchange improvement project southwest of the park. The CDSF Overflow project will impact the park's natural resources and recreation activities. Through ongoing discussions between staff from the Metropolitan Council, Washington County, and South Washington Watershed District, the conveyance system was designed to minimize impacts to the forest canopy. Tree protection strategies will be employed during construction to protect large diameter oak trees and a Forest Restoration Plan will be developed in 2019, once the County has an opportunity to understand how the forest responds after construction of

the conveyance system. Adjustments to the trail adjacent to the conveyance channel are proposed, including relocating trail segments that are within the flood zone and constructing culverts under the trail boardwalks to carry the trail over potential flood areas. In order to minimize conflicts with the conveyance system and the paved trails, ski trails and soft-surface trails will be relocated away from these areas. Additional discussion regarding the mitigation of impacts to natural resources in the park can be found in the Stewardship section of this business item.

In 2017, Washington County and the City of Cottage Grove are upgrading the interchange of County Road 19 and Highway 10 to provide safety improvements and address increased traffic volume. The roadway project is not anticipated to directly impact the park. However, it provides opportunities to incorporate the park entrance realignment project into the roadway project for cost efficiencies.

Cottage Grove Ravine Regional Park will be closed in 2017 for construction of the park entrance road and the CDSF Overflow project.

## **Public Services**

The master plan proposes to relocate the entrance road from County Road 19 and develop a new four-season contact station with restrooms on the west side of the park. It is anticipated that sanitary sewer service will be accessible from County Road 19. Either a new well or a water service extension from the road will be needed for the contact station and restrooms. The four-season trailhead building that is planned on the east side of the park will also include restrooms. The distance from the building to County Road 19 makes it economically infeasible to extend a sewer line; therefore, a septic tank and drain field will be needed to accommodate the effluent produced. Water for the trailhead building will be provided by the existing well that currently serves the picnic shelter building.

## **Operations**

Washington County Ordinance No. 174 establishes rules and regulations for park use and management. The ordinance addresses: public use; general conduct; parkland operation; protection of property, structures, and natural resources; and recreational activities, motorized vehicles, traffic, and parking.

The Washington County Sheriff and City of Cottage Grove Police Department provide patrolling and security for the park and respond to emergencies. The Washington County South Service Center and Cottage Grove Police Department are located adjacent to the regional park.

The County manages and operates its regional parks and trails with internal staff, including 19 permanent employees. Approximately 100 seasonal employees each year serve as life guards, maintenance workers, and gate attendants throughout the County. Maintenance and operations for the Cottage Grove Regional Park are conducted by staff operating out of St. Croix Bluffs Regional Park.

Annual operations and maintenance expenditures for Cottage Grove Regional Park were \$11,102 in 2015. As development outlined in the master plan is implemented, additional staff will be needed to manage the park gate and maintain trails, buildings, and other park facilities. Estimated annual operations and maintenance costs upon full build-out are \$30,000 in 2016 dollars. Operations and maintenance funding comes from vehicle passes and campground reservations, the County levy, and the State Operations and Maintenance Fund allocation administered by the Metropolitan Council.

The master plan indicates that new facilities such as the trailhead building, picnic shelters, and camper cabins will be designed and constructed using energy conservation technologies and may include solar

panels, in-floor radiant heating, and energy-conserving materials that will reduce operating costs. LED lights will be used for walkways, trail, parking lots, and park roads. The County provides recycling bins next to trash receptacles, with regular collection.

The South Washington Watershed District will operate and maintain the CDSF Overflow Project through the regional park. Maintenance will include vegetation management along the channel corridor and long-term monitoring of vegetation within the project area. An Operation and Maintenance Agreement will be executed between Washington County and the Watershed District.

## **Public Engagement and Participation**

The public engagement process for development of the master plan included meetings with a technical advisory committee, updates to the Washington County Parks Commission, public open houses and pop-up meetings, and presentations at local government meetings.

The technical advisory committee included representatives from the following stakeholders: City of Woodbury, City of Cottage Grove, Washington County, and the South Washington Watershed District. The committee was responsible for coordinating with respective governing bodies, assisting in implementing the public participation opportunities, providing information to identify natural and recreational features, and helping with the governmental agency approval processes. The committee met six times between May 2015 and January 2016.

The Washington County Park Commission discussed the park plans at four meetings between September 2015-March 2016 and presentations were made to the Cottage Grove Parks and Recreation Committee and City Council as well as to the Woodbury Park, Planning, and Economic Development staff and City Council.

Four public open houses were held between July 2015 and December 2015 to present information and get feedback. Three of the open houses were held at the Washington County South Service Center, which is adjacent to the regional park. Another open house was held at an affordable housing apartment complex in Cottage Grove that is owned by Washington County Community Development Agency. Feedback from the open houses indicated a need for updated recreation facilities and trails in the park.

Supplemental public engagement was conducted in January 2017 through pop-up meetings at Park Grove Library in Cottage Grove and at the Lake Elmo Park Reserve Nordic Center. These meetings allowed for more in depth, one on one conversations than at the open houses. The County received positive feedback on the pop-up meetings, with participants indicating that they felt comfortable participating in that setting, but would not typically attend an open house. Feedback from the pop-up meetings included the desire for picnic facilities, fishing opportunities, lighted cross-country ski trails, and native tree planting as part of the conveyance system restoration. A summary of comments and responses was included in the master plan.

## **Public Awareness**

Washington County promotes its parks and trails through the use of public relations, marketing, and media tools, including a website, event planning, press releases, and promotional materials. The County works with a variety of community, business, and government organizations to promote its facilities, programs, and services and to educate the public about the available resources.

Washington County's website provides information on its parks and trails, including programs and events, permits and reservations, and opportunities to donate or volunteer. Facebook and Twitter are also used to share news and information.

## **Accessibility**

The master plan indicates that Washington County is committed to providing access and recreational opportunities to all people, including persons with disabilities, minorities, and other special-population groups. All regional park development described in the master plan will be designed in accordance with Americans with Disabilities (ADA) standards and guidelines. Facility design will adhere to the Minnesota Bikeway Facility Design Manual (MnDOT 2007); Trail Planning, Design, and Development Guidelines (MnDNR 2007); ADA Accessibility Guidelines for Outdoor Developed Areas (US Access Board); and ADA and ABA Accessibility Guidelines for Buildings and Facilities (US Access Board), unless more current guidelines or standards exist at the time of future development.

All new and reconstructed facilities within the park, including parking, restrooms, water access, trails, boardwalks, fishing piers, camper cabins, and playgrounds will be designed to accommodate persons with disabilities. Paved trails will be designed with maximum slopes of eight percent whenever possible. In areas where grades are steeper than ADA standards allow, signs will be added to warn users of steep slopes.

Washington County charges a vehicle entrance fee to the park. Park access fees are not charged for visitors who walk or bike into the park. The County Service Center, which is adjacent to the northwest side of the park, has free public parking and direct trail access into the park. Vehicle fees in the park are waived on the first Tuesday of each month. Washington County coordinates programming for users, including campfire talks, fitness hikes, and bird walks on free Tuesdays.

## ***Consent to Easement***

System Protection Strategy 6 of the *2040 Regional Parks Policy Plan* acknowledges that it may be necessary to place utilities on regional parkland and requires that impacts to the regional park's natural resources and on its existing and planned recreational facilities should be minimized, while providing reasonable access to the utility for maintenance and repair.

The Central Draw Storage Facility (CDSF) Overflow project will require Washington County to provide an easement to the South Washington County Watershed District. Metropolitan Council bonds helped fund acquisition of the land on which the easement will lie. As such, there are restrictive covenants between the Metropolitan Council and Washington County recorded on the property that do not allow any easements to be granted without consent of the Council.

Staff from the Council worked with Washington County and South Washington Watershed District staff over the course of five years from the inception of the CDSF project's environmental review process through the development of the regional park master plan to minimize the impact of the project on the park. Revisions were made to avoid large oak trees and relocate existing trails to higher ground. The project will inevitably impact vegetation within the park, however. Washington County and the Watershed District have agreed to work together to respond to these impacts with restoration efforts. As mentioned previously, a Forest Restoration Plan will be developed in 2019, which will allow the County to assess how the forest will respond after construction of the conveyance project. The goal of the plan will be to develop a site-specific forest composition plan and identify management practices that can be implemented to prepare for future inundation.



Washington County and the South Washington Watershed District are currently in the process of developing an Operation and Maintenance Agreement that will identify construction access and operation and maintenance responsibilities within the project area. The agreement will also lay out response procedures to monitor park and vegetation changes following any regional flow event and specify the vegetation response as part of ongoing vegetation management. Council staff recommends that the Council consent to the easement shown in Attachment A, subject to the receipt of a copy of the executed agreement.

### *Review by Other Council Divisions*

**Community Development – Environment and Surface Water Management** (Jim Larsen 651-602-1159) – Council staff worked diligently with South Washington Watershed District staff during the multi-year environmental review process of their planned Central Draw Storage Facility Overflow Project in an effort to modify it to avoid park impacts from the project’s routing of future stormwater flows through the park. When it became clear that we would be unable to convince the Watershed District to reroute their watershed outlet flows following extreme runoff events within the City of Woodbury around the park, we refocused our efforts on minimizing impacts to the park during and following construction of the channel to accommodate overland stormwater flow.

Initial direct impacts will involve the removal of a significant swath of vegetation to construct a stable armored channel that will be able to accommodate the modeled future stormwater flows without erosive damage. Additional impacts will occur when the trails are reconstructed on higher ground, outside of their existing location in the center of the west runoff channel, where they will not be impacted by future flow events. Long-term indirect impacts can be expected during future month-long periods of inundation of the channel and areas adjacent to the channel and Ravine Lake following extreme runoff events in the upstream watershed. Runoff in the upstream watershed is directed through a series of lakes and impoundments in the City of Woodbury which will ultimately be pumped via the 72” project pipe that will daylight at the north boundary of the park and flow overland to the Mississippi River. The City of Cottage Grove also plans to route all stormwater runoff from future urbanization north of the park through the project pipe.

It will also be necessary to redesign the entrance road and outlet structure of Ravine Lake to accommodate future planned stormwater flows, and the frequency and extent of expected water level rise within the lake. Much of the existing natural vegetation along the existing west ravine surface runoff channel, trail, and Ravine Lake perimeter will be unable to survive the increased frequency and increase by several feet of inundation events that will occur in the future, and can be expected to die off and be replaced with more tolerant but less desirable species. The Watershed District and the County are aware of this inevitable situation and have agreed to work together to respond to future cumulative impacts to the park’s natural resources with restoration efforts as necessary. It will also be incumbent upon the County to be sensitive to the observations and concerns expressed by frequent park users regarding their perceived experiences within the park, and to consider revisions to the Forest Restoration Plan as necessary to address developing restoration needs as the vegetation in the park adapts to future changes in park hydrology.

**Environmental Services – Sewers** (Roger Janzig 651-602-1119) – No comments.

**Transportation Planning** (Russ Owen 612-349-1724) –No comments.

**PERMANENT DRAINAGE AND STORMWATER PONDING EASEMENT**

This Drainage and Stormwater Ponding Easement is made, granted and conveyed this \_\_\_\_ day of \_\_\_\_\_, 2017, by and between Washington County, a body politic and corporate, of the State of Minnesota, (hereinafter referred to as the "County") and South Washington Watershed District (hereinafter referred to as "District").

The County owns the real property situated within Washington County, Minnesota as described on the attached Exhibit A (hereinafter "County Property").

The County, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby grant and convey unto the District, its successors and assigns, forever, a permanent easement for:

- 1) stormwater conveyancing and drainage, stormwater ponding;
- 2) stormwater collection;
- 3) stormwater control improvements and for purposes and uses incident and related thereto, including, without limitation, the construction, maintenance, repair and replacement of stormwater ponding, drainage, collection and control facilities and structure;
- 4) together with the right of access to said Easement Area across County Property for the purposes of exercising the rights of inspecting, repairing, maintaining, replacing and resizing the property of the District located within the Easement Area. Access to the Easement Area will be coordinated with Washington County each time for any operation beyond routine inspection so as to create a route least disruptive to the Easement Area being maintained;
- 5) the right to excavate, refill, grade, and to remove trees, brush and undergrowth and other obstructions interfering in the location, construction and maintenance of the District within the Easement Area and any work contained in

the Operation and Maintenance Plan developed with the County (hereinafter collectively referred to as "Maintenance") under, over, across, through and upon the following described premises (the Easement Area) situated in Washington County, Minnesota, to-wit:

See the attached Exhibit B, incorporated herein by reference;

6) the District shall after installation of the drainage way or after the exercise of any rights granted herein, restore the lands to as near their original condition as is reasonably possible to remove therefrom all debris, spoils and equipment resulting from or used in connection with said installation, maintenance and repair.

The rights granted to the District under this Easement include the rights of the District, its contractors, agents and servants, to perform work at the sole cost of the District:

The County, for itself and its successors and assigns, does hereby warrant to and covenant with the District, its successors and assigns, that they are well seized in fee of the County's property described on Exhibit A and the Easement Area described on Exhibit B and have good right to grant and convey the permanent Easement herein to the District.

This Easement shall run with the County's Property and shall inure to the benefit of the County and the District and shall bind County and the successors and assigns of County and shall be binding upon the County and the successors and assigns of the County. This Easement shall also be binding upon any right, title, or interest of the parties to the County's Property acquired after the date of this Easement or acquired after the date of recording of this Easement.

**IN TESTIMONY WHEREOF**, the County and the District have caused this Easement to be executed as of the day and year first above written.

**SOUTH WASHINGTON WATERSHED DISTRICT**

By: \_\_\_\_\_  
Jack Lavold  
Its President

By: \_\_\_\_\_  
Donald L. Pereira  
Its Secretary

STATE OF MINNESOTA            )  
  )ss.  
COUNTY OF WASHINGTON        )

On this \_\_\_\_ day of \_\_\_\_\_, 2017, before me a notary public within and for said County, personally appeared Jack Lavold and Donald L. Pereira, to me personally known, and by me duly sworn, did say that they are the President and Secretary of the South Washington Watershed District, a municipal corporation named in the foregoing instrument and that he has executed the same as their free act and deed on behalf of the municipal corporation.

\_\_\_\_\_  
Notary Public

**WASHINGTON COUNTY, a body politic and corporate:**

By: \_\_\_\_\_

Its Board Chair

By: \_\_\_\_\_

Its County Administrator

Approved as to form:

\_\_\_\_\_  
Assistant County Attorney

STATE OF MINNESOTA            )  
  )ss.  
COUNTY OF WASHINGTON        )

On this \_\_\_\_ day of \_\_\_\_\_, 2017, before me a notary public within and for said County, personally appeared \_\_\_\_\_ and \_\_\_\_\_, to me personally known and by me duly sworn, did say that they are the Chairperson and County Administrator of Washington County, a body politic and corporate named in the foregoing instrument and that they have executed the same as their free act and deed on behalf of the County.

\_\_\_\_\_  
Notary Public

This Instrument was Drafted by:  
Jack W. Clinton (#17413)  
JOHNSON/TURNER LEGAL  
7377 Currell Boulevard, Suite 101  
Woodbury, MN 55125  
(651) 464-7262

EXHIBIT A  
LEGAL DESCRIPTION OF COUNTY'S PROPERTY

Real Property located in the City of Cottage Grove, Washington County, Minnesota, described as follows:

Part of Outlot C, Cottage Grove Ravine Addition, according to the plat thereof, on file and of record in the Office of Recorder, Washington County, Minnesota,

Together with part of the East Half of the Southwest Quarter of Section 14, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota,

Together with part of Outlot B, South Service Center Addition, according to the plat thereof, on file and of record in the Office of Recorder, Washington County, Minnesota,

Together with part of the Northwest Quarter of Section 23, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota,

Together with part of the Northeast Quarter of Section 22, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota,

Together with part of the Southeast Quarter of Section 22, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota,

Together with part of the Southwest Quarter of Section 23, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota,

Together with part of the Northwest Quarter of Section 26, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota.

EXHIBIT B  
LEGAL DESCRIPTION OF EASEMENT AREA

A permanent easement for the purposes described herein, over, across, through and upon the following described real property in Washington County, Minnesota:

Commencing at the northwest corner of said Cottage Grove Ravine Addition, said point also being the northwest corner of the Southwest Quarter of said Section 14; thence North 89°59'09" East, along the northerly line of said Cottage Grove Ravine Addition, for a distance of 1252.03 feet to the true point of beginning; thence North 89°59'09" East, along the northerly line of said Outlot C, for a distance of 73.93 feet to the northeast corner of said Outlot C; thence South 00°05'13" West, along the easterly line of said Outlot C, for a distance of 537.17 feet; thence North 15°32'04" West for a distance of 272.75 feet; thence North 00°00'51" West for a distance of 274.36 feet to the true point of beginning.

Said tract contains 0.69 acres, more or less.

AND

Commencing at the northwest corner of the Southwest Quarter of said Section 14; thence North 89°59'09" East, along the northerly line of said Southwest Quarter, for a distance of 1325.96 feet to the northwest corner of the East Half of said Southwest Quarter and the true point of beginning; thence South 00°05'13" West, along the westerly line of the East Half of said Southwest Quarter, for a distance of 537.17 feet; thence South 15°32'04" East for a distance of 342.54 feet; thence South 02°40'05" West for a distance of 518.73 feet; thence South 41°22'49" East for a distance of 457.64 feet; thence South 12°03'34" West for a distance of 305.40 feet; thence South 54°32'35" West for a distance of 379.24 feet to a point of intersection with the westerly line of the East Half of said Southwest Quarter; thence South 00°05'13" West, along the westerly line of the East Half of said Southwest Quarter, for a distance of 391.79 feet to the southwest corner of the East Half of said Southwest Quarter; thence North 89°55'04" East, along the southerly line of the East Half of said Southwest Quarter, for a distance of 185.87 feet; thence North 00°32'42" East for a distance of 222.71 feet; thence North 43°13'40" East for a distance of 143.06 feet; thence North 25°05'36" East for a distance of 572.65 feet; thence North 11°00'53" West for a distance of 411.57 feet; thence North 40°01'31" East for a distance of 373.61 feet; thence North 09°57'47" West for a distance of 238.15 feet; thence South 88°47'17" West for a distance of 358.62 feet; thence North 34°28'05" West for a distance of 105.04 feet; thence North 09°05'27" West for a distance of 499.27 feet; thence North 10°55'58" East for a distance of 302.25 feet to a point of intersection with the northerly line of the East Half of said Southwest Quarter; thence South 89°59'09" West, along the northerly line of the East Half of said Southwest Quarter, for a distance of 205.71 feet to the true point of beginning.

Said tract contains 15.83 acres, more or less.

AND



Commencing at the southwest corner of said Section 14; thence North 89°55'04" East, along the southerly line of said Southwest Quarter and along the southerly line of said South Service Center Addition, for a distance of 872.80 feet to the true point of beginning; thence North 89°55'04" East, along the southerly line of said Outlot B, for a distance of 447.97 feet to the southeast corner of said Outlot B; thence North 00°05'13" East, along the easterly line of said Outlot B, for a distance of 391.79 feet; thence South 54°32'35" West for a distance of 133.53 feet; thence South 47°10'14" West for a distance of 463.32 feet to the true point of beginning.

Said tract contains 2.11 acres, more or less.

AND

Commencing at the southwest corner of the Northwest Quarter of said Section 23; thence North 00°09'48" East, along the westerly line of said Northwest Quarter, for a distance of 639.84 feet to the true point of beginning; thence North 00°09'48" East, along the westerly line of said Northwest Quarter, for a distance of 387.53 feet; thence North 19°43'43" East for a distance of 346.13 feet; thence North 29°52'58" East for a distance of 310.98 feet; thence North 07°34'32" East for a distance of 382.88 feet; thence North 31°10'29" East for a distance of 305.47 feet; thence North 47°10'14" East for a distance of 541.32 feet to a point of intersection with the northerly line of said Northwest Quarter; thence North 89°55'04" East, along the northerly line of said Northwest Quarter, for a distance of 633.84 feet; thence South 00°32'42" West for a distance of 10.03 feet; thence South 68°40'02" West for a distance of 493.88 feet; thence South 36°43'53" West for a distance of 327.38 feet; thence South 56°52'58" West for a distance of 338.99 feet; thence South 25°43'41" West for a distance of 275.13 feet; thence South 06°14'41" West for a distance of 270.62 feet; thence South 26°47'54" West for a distance of 939.52 feet to the true point of beginning.

Said tract contains 11.68 acres, more or less.

AND

Commencing at the southeast corner of the Northeast Quarter of said Section 22; thence North 00°09'48" East, along the easterly line of said Northeast Quarter, for a distance of 639.84 feet to the true point of beginning; thence North 00°09'48" East, along the easterly line of said Northeast Quarter, for a distance of 387.53 feet; thence South 19°43'43" West for a distance of 758.08 feet; thence North 87°30'39" West for a distance of 142.03 feet; thence South 25°30'36" West for a distance of 176.68 feet; thence South 11°20'26" East for a distance of 161.11 feet to a point of intersection with the southerly line of said Northeast Quarter; thence South 89°40'08" East, along the southerly line of said Northeast Quarter, for a distance of 355.46 feet; thence North 07°37'46" East for a distance of 645.07 feet to the true point of beginning.

Said tract contains 4.67 acres, more or less.

AND

Commencing at the northeast corner of the Southeast Quarter of said Section 22; thence South 00°22'51" West, along the easterly line of said Southeast Quarter, for a distance of 560.42 feet to the true point of beginning; thence North 70°18'28" West for a distance of 118.70 feet; thence South 54°41'55" West for a distance of 93.59 feet; thence North 36°17'42" West for a distance of 236.35 feet; thence North 17°51'36" East for a distance of 190.49 feet; thence North 80°33'28" East for a distance of 168.29 feet; thence North 07°37'46" East for a distance of 177.13 feet to a point of intersection with the northerly line of said Southeast Quarter; thence North 89°40'08" West, along the northerly line of said Southeast Quarter, for a distance of 355.46 feet; thence South 08°40'26" West for a distance of 655.80 feet; thence South 44°54'23" East for a distance of 306.97 feet; thence South 04°13'32" East for a distance of 102.64 feet; thence South 17°33'04" West for a distance of 435.09 feet; thence South 90°00'00" East for a distance of 332 feet, more or less, to a point of intersection with the northerly shoreline of Ravine Lake; thence northeasterly, along the northerly shoreline of said Ravine Lake, for a distance of 122 feet, more or less, to a point of intersection with the easterly line of said Southeast Quarter; thence North 00°22'51" East, along the easterly line of said Southeast Quarter, for a distance of 756 feet, more or less, to the true point of beginning.

Said tract contains 10.80 acres, more or less.

AND

Commencing at the northwest corner of the Southwest Quarter of said Section 23; thence South 00°22'51" West, along the westerly line of said Southwest Quarter, for a distance of 560.42 feet to the true point of beginning; thence South 70°18'28" East for a distance of 75.05 feet; thence South 21°29'06" East for a distance of 258.15 feet; thence South 15°31'11" West for a distance of 161.63 feet; thence South 00°00'00" West for a distance of 161.30 feet; thence South 73°12'11" East for a distance of 102.51 feet; thence South 12°05'51" East for a distance of 212.50 feet; thence South 90°00'00" West for a distance of 75 feet, more or less, to a point of intersection with the northerly shore of Ravine Lake; thence northerly and westerly, along the northerly shoreline of said Ravine Lake, for a distance of 255 feet, more or less, to a point of intersection with the westerly line of said Southwest Quarter; thence North 00°22'51" East, along the westerly line of said Southwest Quarter, for a distance of 756 feet, more or less, to the true point of beginning.

Said tract contains 2.56 acres, more or less.

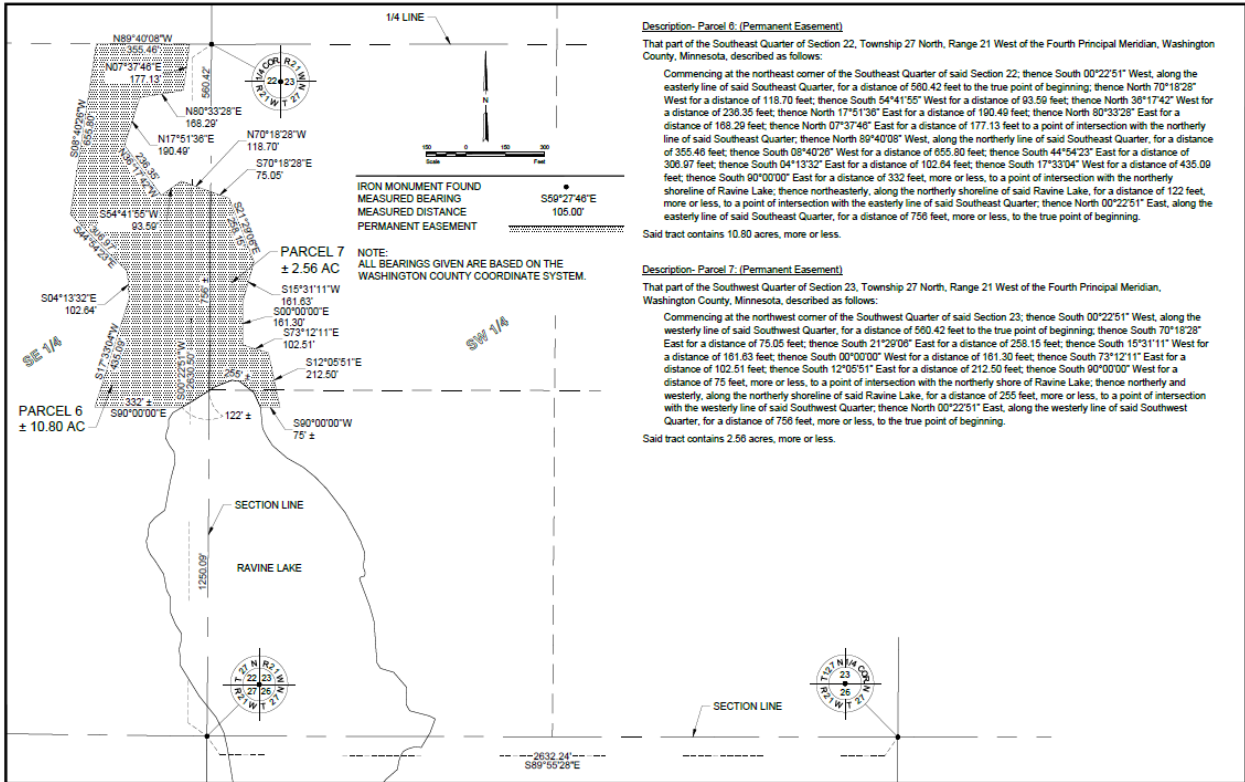
AND

Commencing at the northwest corner of said Section 26; thence South 00°15'21" West, along the westerly line of said Northwest Quarter, for a distance of 1069.74 feet to a point of intersection with the northwesterly extension of the southwesterly line of Lot 1, Block 1, Eagle Ridge, said plat being on file at the Washington County Recorder's Office; thence South 48°46'00" East, along the northwesterly extension of the southwesterly line of said Lot 1, for a distance of 382.44 feet to a point of intersection with the southeasterly line of a tract of land described in a deed recorded as Document No. 537533 in the Office of the Washington County Recorder, and the true point of beginning; thence South 48°46'00" East, along the northwesterly

extension of the southwesterly line of said Lot 1, for a distance of 232.23 feet to the southwest corner of said Lot 1; thence North 25°14'28" East, along the westerly line of said Lot 1, for a distance of 209.90 feet to an angle point along the westerly line of said Lot 1; thence North 25°33'20" East, along the westerly line of said Lot 1, for a distance of 104.21 feet to an angle point along the westerly line of said Lot 1; thence North 00°34'56" West, along the westerly line of said Lot 1, for a distance of 78.31 feet to the northwest corner of said Lot 1; thence South 88°45'43" East, along the northerly line of said Lot 1, for a distance of 83.75 feet; thence North 00°00'00" East for a distance of 564.00 feet; thence North 90°00'00" West for a distance of 273 feet, more or less, to a point of intersection with the southerly shoreline of Ravine Lake; thence westerly along the southerly shoreline of said Ravine Lake, for a distance of 106 feet, more or less; thence South 00°00'00" East for a distance of 326 feet, more or less, to a point of intersection with the northeasterly line of said parcel described in deed recorded as Document No. 537533; thence South 42°47'09" East, along the northeasterly line of said parcel, for a distance of 102.27 feet to the most easterly corner of said parcel; thence South 17°04'06" West, along the southeasterly line of said parcel, for a distance of 354.93 feet to the true point of beginning.

Said tract contains 0.60 acres, more or less.





**Description- Parcel 6: (Permanent Easement)**

That part of the Southeast Quarter of Section 22, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota, described as follows:

Commencing at the northeast corner of the Southeast Quarter of said Section 22; thence South 00°22'51" West, along the easterly line of said Southeast Quarter, for a distance of 560.42 feet to the true point of beginning; thence North 70°18'28" West for a distance of 118.70 feet; thence South 04°41'55" West for a distance of 93.59 feet; thence North 30°17'42" West for a distance of 236.35 feet; thence North 17°51'38" East for a distance of 100.49 feet; thence North 80°33'28" East for a distance of 168.29 feet; thence North 07°37'46" East for a distance of 177.13 feet to a point of intersection with the northerly line of said Southeast Quarter; thence North 80°40'08" West, along the northerly line of said Southeast Quarter, for a distance of 355.46 feet; thence South 08°40'28" West for a distance of 655.80 feet; thence South 44°54'23" East for a distance of 435.09 feet; thence South 04°13'32" East for a distance of 102.64 feet; thence South 17°33'04" West for a distance of 435.09 feet; thence South 00°00'00" East for a distance of 332 feet, more or less, to a point of intersection with the northerly shoreline of Ravine Lake; thence northeasterly, along the northerly shoreline of said Ravine Lake, for a distance of 122 feet, more or less, to a point of intersection with the easterly line of said Southeast Quarter; thence North 00°22'51" East, along the easterly line of said Southeast Quarter, for a distance of 756 feet, more or less, to the true point of beginning.

Said tract contains 10.80 acres, more or less.

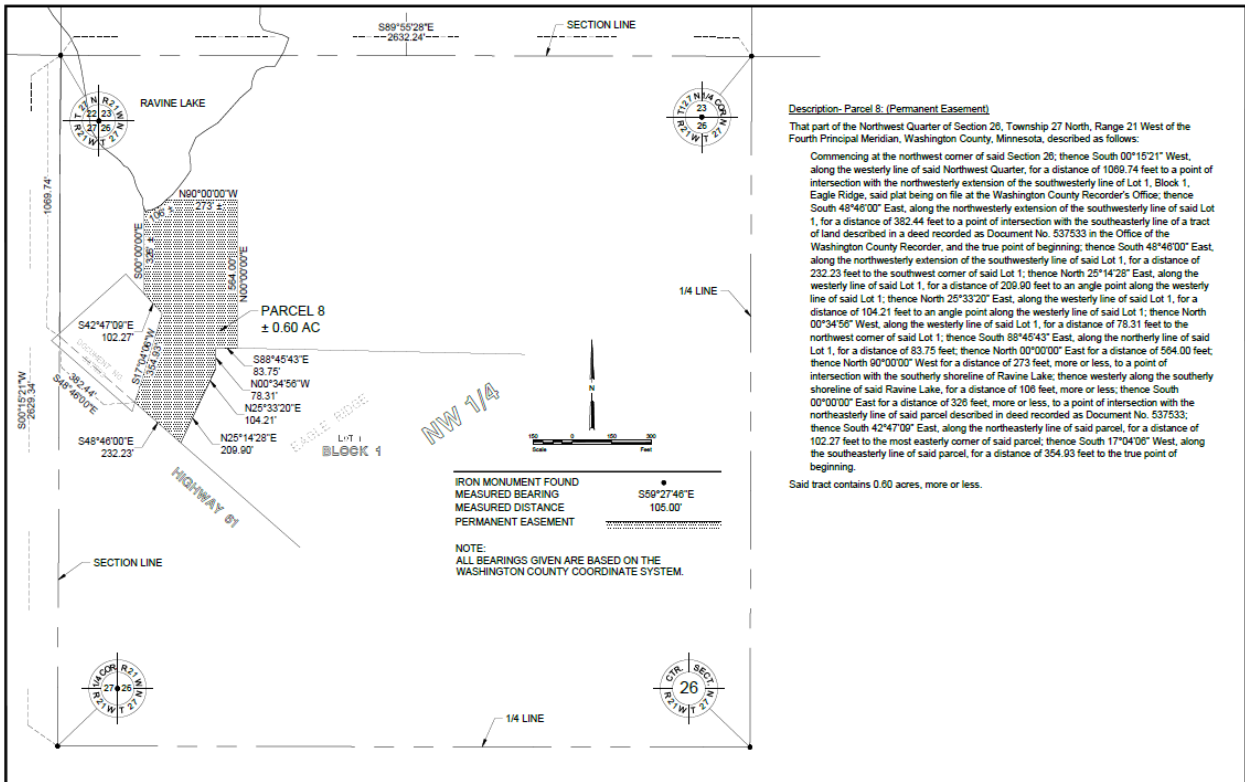
**Description- Parcel 7: (Permanent Easement)**

That part of the Southwest Quarter of Section 23, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota, described as follows:

Commencing at the northwest corner of the Southwest Quarter of said Section 23; thence South 00°22'51" West, along the westerly line of said Southwest Quarter, for a distance of 560.42 feet to the true point of beginning; thence South 70°18'28" East for a distance of 75.05 feet; thence South 21°29'08" East for a distance of 258.15 feet; thence South 15°31'11" West for a distance of 161.83 feet; thence South 00°00'00" West for a distance of 161.30 feet; thence South 73°12'11" East for a distance of 102.51 feet; thence South 12°00'51" East for a distance of 212.50 feet; thence South 00°00'00" West for a distance of 75 feet, more or less, to a point of intersection with the northerly shore of Ravine Lake; thence northerly and westerly, along the northerly shoreline of said Ravine Lake, for a distance of 255 feet, more or less, to a point of intersection with the westerly line of said Southwest Quarter; thence North 00°22'51" East, along the westerly line of said Southwest Quarter, for a distance of 756 feet, more or less, to the true point of beginning.

Said tract contains 2.56 acres, more or less.

<p>1. I, the undersigned, being a duly licensed and sworn Professional Engineer, do hereby certify that I am the author of the foregoing plat and that it is a true and correct copy of the original as the same appears in my files.</p> <p>Date: 1-30-17</p>			<p>Fargo</p> <p>Drawn by: KNS</p> <p>Checked by: JAS</p> <p>Date: 1-30-17</p> <p>Scale: AS SHOWN</p>	<p>RAVINE PARK STABILIZATION EASEMENTS</p> <p>SOUTH WASHINGTON WATERSHED DISTRICT</p> <p>COTTAGE GROVE, MINNESOTA</p>	<p>CERTIFICATE OF SURVEY</p> <p>PROJECT NO. 4876-029</p>	<p>SHEET</p> <p>3 of 4</p>
<p>No. Revision</p> <p>Date</p> <p>By</p>	<p>Date</p> <p>By</p>		<p>Scale</p> <p>AS SHOWN</p>	<p>Scale</p> <p>AS SHOWN</p>	<p>Scale</p> <p>AS SHOWN</p>	<p>Scale</p> <p>AS SHOWN</p>



**Description- Parcel 8: (Permanent Easement)**

That part of the Northwest Quarter of Section 26, Township 27 North, Range 21 West of the Fourth Principal Meridian, Washington County, Minnesota, described as follows:

Commencing at the northwest corner of said Section 26; thence South 00°15'21" West, along the westerly line of said Northwest Quarter, for a distance of 1069.74 feet to a point of intersection with the northwesterly extension of the southwesterly line of Lot 1, Block 1, Eagle Ridge, said plat being on file at the Washington County Recorder's Office; thence South 48°46'00" East, along the northwesterly extension of the southwesterly line of said Lot 1, for a distance of 352.44 feet to a point of intersection with the southeasterly line of a tract of land described in a deed recorded as Document No. 537533 in the Office of the Washington County Recorder, and the true point of beginning; thence South 48°46'00" East, along the northwesterly extension of the southwesterly line of said Lot 1, for a distance of 232.23 feet to the southwest corner of said Lot 1; thence North 25°14'28" East, along the westerly line of said Lot 1, for a distance of 209.90 feet to an angle point along the westerly line of said Lot 1; thence North 25°33'20" East, along the westerly line of said Lot 1, for a distance of 104.21 feet to an angle point along the westerly line of said Lot 1; thence North 00°34'56" West, along the westerly line of said Lot 1, for a distance of 78.31 feet to the northwest corner of said Lot 1; thence South 88°45'43" East, along the northerly line of said Lot 1, for a distance of 83.75 feet; thence North 00°00'00" East for a distance of 564.00 feet; thence North 90°00'00" West for a distance of 272 feet, more or less, to a point of intersection with the southerly shoreline of Ravine Lake; thence westerly along the southerly shoreline of said Ravine Lake, for a distance of 106 feet, more or less; thence South 00°00'00" East for a distance of 326 feet, more or less, to a point of intersection with the northeasterly line of said parcel described in deed recorded as Document No. 537533; thence South 42°47'09" East, along the northeasterly line of said parcel, for a distance of 102.27 feet to the most easterly corner of said parcel; thence South 17°04'09" West, along the southeasterly line of said parcel, for a distance of 354.93 feet to the true point of beginning.

Said tract contains 0.60 acres, more or less.

<p>1. I, the undersigned, being a duly licensed and sworn Professional Engineer, do hereby certify that I am the author of the foregoing plat and that it is a true and correct copy of the original as the same appears in my files.</p> <p>Date: 1-30-17</p>			<p>Fargo</p> <p>Drawn by: KNS</p> <p>Checked by: JAS</p> <p>Date: 1-30-17</p> <p>Scale: AS SHOWN</p>	<p>RAVINE PARK STABILIZATION EASEMENTS</p> <p>SOUTH WASHINGTON WATERSHED DISTRICT</p> <p>COTTAGE GROVE, MINNESOTA</p>	<p>CERTIFICATE OF SURVEY</p> <p>PROJECT NO. 4876-029</p>	<p>SHEET</p> <p>4 of 4</p>
<p>No. Revision</p> <p>Date</p> <p>By</p>	<p>Date</p> <p>By</p>		<p>Scale</p> <p>AS SHOWN</p>	<p>Scale</p> <p>AS SHOWN</p>	<p>Scale</p> <p>AS SHOWN</p>	<p>Scale</p> <p>AS SHOWN</p>