



*Our Mission is to Provide Quality Public
Services in a Fiscally Responsible Manner in
Partnership with our Community.*

NOTICE OF MEETING

**City of Lake Elmo Parks Commission
3880 Laverne Avenue North
August 21st 2023
6:30 p.m.**

AGENDA

1. Call to Order
2. Pledge of Allegiance
3. Approve Agenda
4. Approve Minutes
 - a) June 21st 2023
5. Public Comment
6. Invasive Species Management
7. Neighborhood Trail Connections
8. Communication
9. Adjourn

****Note: Every effort will be made to accommodate person or persons that need special considerations to attend this meeting due to a health condition or disability. Please contact the Lake Elmo City Clerk if you are in need of special accommodations.*

City of Lake Elmo Parks Commission Minutes
June 21, 2023

Members Present: Commissioners Kastler, Rivera-Reyes, Hoelscher, Elam, and Esch

Absent: Commissioners Barrett and Bloyer

Staff Present: Assistant Public Works Director Swanepoel

The meeting was called to order by Kastler at 6:30 PM.

Approval of Agenda

Esch motioned to approve the agenda as presented, Hoelscher provided a second; no discussion. Unanimously approved 5-0.

Approval of Minutes

Rivera-Reyes motioned to approve the May 15, 2023 Parks Commission Minutes, Kastler provided a second; no comments. Motion passed unanimously 5-0.

Public Comments

Susan Dunn at 11018 Upper 33rd St N, a previous parks commission member, commented about positive activity at Lions Park and addressed some safety concerns.

Sunfish Buckthorn update

Assistant Public Works Director Swanepoel introduced George Johnson, 3070 Lake Elmo Ave., who presented a portion of the buckthorn update. Mr. Johnson commented on all of the work involved with buckthorn removal, granting, and the vision for the park. Larissa Mottl M.S., ecologist with Stantec, presented next in relation to the goal for natural resources in the park. The commission had follow up questions.

Public comments were provided by Tony Manzara, 5050 Kirkwood Ave. N, in regards to the restoration project.

Kastler motioned to recommend that Council direct the continuance of removal of buckthorn and native species and nonnative species using the high intensity method, work with Stantec to identify appropriate native species identified in the Forest Management Plan as climate change resilient and spare those trees in areas of the park where feasible and appropriate, use medium intensity methods, adjust trail signs and/or layout in areas at trail intersections where there identified safety concerns, but do not keep invasive species as trail barriers, Hoelscher provided a second; discussion held. Motion passed unanimously 5-0.

Communications

- a) 4th of July Parade
- b) Council tabled baseball to the workshop meeting.

Kastler adjourned the meeting at 7:51 PM

Respectfully Submitted
Rebecca McGuire, Deputy Clerk



STAFF REPORT

DATE: 08/21/2023

Discussion

TO: Parks Commission
AGENDA ITEM: Invasive Species Management
FROM: Adam Swanepoel, Assistant Public Works Director
REVIEWED BY: Marty Powers, Public Works Director
Kristina Handt City Administrator

BACKGROUND:

Part of the Parks Commission work plan is to manage invasive species and protect biodiversity within our city parks. Invasive species are an organism that causes ecological or economic harm to the environment where it is not native. The best way to control invasive plants is to eliminate their populations before the spread and multiply.

One of the most common types of invasive species within the city is buckthorn; however, Canada thistle, wild parsnip, poison ivy, musk thistle and emerald ash bore are also several other invasive species seen throughout the city. One could find these within the community in city parks, ditches, agriculture fields and storm water retention areas.

Currently the city has no policy in controlling or removing any invasive species. The city is working the Friends of Sunfish Lake Park to help manage invasive species in Sunfish Lake Park. The Friends group along with Stantec have received a grant to remove buckthorn and other invasive species from the park. Other parks within the city are managed by city staff and the public works department. Each year the public works department mows undeveloped parks and ditches to reduce the spread of invasive species. Storm water retention ponds are mowed approximately every four years.

ISSUE BEFORE THE COMMISSION:

How would the parks commission like to see invasive species managed within our parks system?

PROPOSAL DETAILS/ANALYSIS:

Currently the city does not have a policy for managing invasive species throughout its park system. Due to the current work load and staff numbers, the city would struggle to manage the spread of certain types of invasive species within our community. For example:

Emerald Ash Borer was discovered in Minnesota in 2009, it has now been identified in over 40 different counties throughout the state. Once infected, trees quickly die and are often cut down and disposed of. Ash trees can be treated with an insecticide to prevent emerald ash borer infestation. To be effective, treatment needs to occur prior to infestation and must be repeated every two to three years for the entire life of the tree. It is less effective on trees over 50 inches in diameter.

Buckthorn can be identified in many of the cities dense forest areas including, Pebble Park, Reid Park, Ridge Park, Demontreville Park and Sunfish Lake. Removal of buckthorn is done by cutting or pulling of the tree or plant and treating the remaining stump. Since seeds from these plants can remain viable up to five years, these areas should be monitored for new emerging plants during this time. These sites would benefit from replanting of new species of trees to aide in preventing the return of any species of buckthorn.

FISCAL IMPACT:

The cost of managing certain invasive species within our community would be unattainable with the current parks budget. The overall cost to manage either of these is unknown at this time.

ATTACHMENTS:

- MN DNR Noxious Weed List

Minnesota and Federal Prohibited and Noxious Plants by Scientific Name

(Compiled by the Minnesota DNR's Invasive Species Program 02-06-2023)

Key:

- **FN – Federal noxious weed (USDA–Animal Plant Health Inspection Service) – all aquatic plants listed as federal noxious weeds (except *Ipomoea aquatica*) are also listed as prohibited invasive species by the Minnesota Department of Natural Resources**
- **SN – State noxious weed (Minnesota Department of Agriculture)**
- **RN – Restricted noxious weed (Minnesota Department of Agriculture)**
- **PI – Prohibited invasive species (Minnesota Department of Natural Resources)**
- **PS – State prohibited weed seed (Minnesota Department of Agriculture)**
- **RS – State restricted weed seed (Minnesota Department of Agriculture)**
- (See explanations of these classifications below the lists of species)

Table 1. Aquatic plants in alphabetical order by scientific name.

Scientific Name	Common Name	Regulatory Classification
<i>Azolla pinnata</i> R. Brown	mosquito fern, water velvet	FN
<i>Butomus umbellatus</i> L.	flowering rush	PI
<i>Caulerpa taxifolia</i> (Vahl) C. Agardh	Mediterranean strain (killer algae)	FN
<i>Crassula helmsii</i> (Kirk) Cockayne	Australian stonecrop	PI
<i>Eichornia azurea</i> (Swartz) Kunth	anchored water hyacinth, rooted water hyacinth	FN
<i>Hydrilla verticillata</i> (L. f.) Royle	hydrilla	FN, PI
<i>Hydrocharis morsus-ranae</i> L.	European frog-bit	PI
<i>Hygrophila polysperma</i> (Roxburgh) T. Anders	Indian swampweed, Miramar weed	FN, PI
<i>Ipomoea aquatica</i> Forsskal	water-spinach, swamp morning-glory	FN
<i>Lagarosiphon major</i> (Ridley) Moss ex Wagner	African oxygen weed	FN, PI
<i>Limnophila sessiliflora</i> (Vahl) Blume	ambulia	FN
<i>Lythrum salicaria</i> L., <i>Lythrum virgatum</i> L., (or any variety, hybrid or cultivar thereof)	purple loosestrife	PI, SN
<i>Melaleuca quinquinervia</i> (Cav.) Blake	broadleaf paper bank tree	FN
<i>Monochoria hastata</i> (L.) Solms-Laubach	arrowleaf false pickerelweed	FN
<i>Monochoria vaginalis</i> (Burman f.) C. Presl	heart-shaped false pickerelweed	FN
<i>Myriophyllum spicatum</i> L.	Eurasian watermifol	PI
<i>Najas minor</i> All.	brittle naiad	PI
<i>Nitellopsis obtusa</i> L.	starry stonewort	PI
<i>Ottelia alismoides</i> (L.) Pers.	Ducklettuce	FN
<i>Potamogeton crispus</i> L.	curly-leaf pondweed	PI
<i>Sagittaria sagittifolia</i> L.	arrowhead	FN
<i>Salvinia auriculata</i> Aublet	giant salvinia	FN
<i>Salvinia biloba</i> Raddi	giant salvinia	FN
<i>Salvinia herzogii</i> de la Sota	giant salvinia	FN
<i>Salvinia molesta</i> D.S. Mitchell	aquarium watermoss, giant salvinia	FN, PI
<i>Solanum tampicense</i> Dunal	wetland nightshade	FN
<i>Sparganium erectum</i> L.	exotic bur-reed	FN
<i>Stratiotes aloides</i> L.	water aloe or water soldiers	PI
<i>Trapa natans</i> L.	water chestnut	PI

Table 2. Parasitic weeds in alphabetical order by scientific name.

Scientific Name	Common Name	Regulatory Classification
<i>Aeginetia</i> spp.		FN
<i>Alectra</i> spp.		FN
<i>Cuscuta</i> spp. (dodders), other than following species:	Dodder	FN
<i>Cuscuta americana</i> L.		
<i>Cuscuta appianata</i> Engelm		
<i>Cuscuta approximata</i> Babington		
<i>Cuscuta attenuata</i> Waterfall		
<i>Cuscuta boldinghii</i> Urban		
<i>Cuscuta brachycalyx</i> (Yuncker) Yuncker		
<i>Cuscuta californica</i> Hooker & Arnott		
<i>Cuscuta campestris</i> Yuncker		
<i>Cuscuta cassytoides</i> Nees ex Engelm		
<i>Cuscuta ceanothii</i> Behr		
<i>Cuscuta cephalanthii</i> Engelm		
<i>Cuscuta compacta</i> Jussieu		
<i>Cuscuta corylii</i> Engelm		
<i>Cuscuta cuspidata</i> Engelm		
<i>Cuscuta decipiens</i> Yuncker		
<i>Cuscuta dentatasquamata</i> Yuncker		
<i>Cuscuta denticulata</i> Engelm		
<i>Cuscuta epilinum</i> Weihe		
<i>Cuscuta epithymum</i> (L.) L.		
<i>Cuscuta erosa</i> Yuncker		
<i>Cuscuta europaea</i> L.		
<i>Cuscuta exaltata</i> Engelm		
<i>Cuscuta fasciculata</i> Yuncker		
<i>Cuscuta glabrior</i> (Engelm) Yuncker		
<i>Cuscuta globulosa</i> Bentham		
<i>Cuscuta glomerata</i> Choisy		
<i>Cuscuta gronovii</i> Willdenow		
<i>Cuscuta harperi</i> Small		
<i>Cuscuta howelliana</i> Rubtsoff		
<i>Cuscuta indecora</i> Choisy		
<i>Cuscuta leptantha</i> Engelm		
<i>Cuscuta mitriiformis</i> Engelm		
<i>Cuscuta obtusiflora</i> Humboldt, Bonpland, & Kunth		
<i>Cuscuta odontolepis</i> Engelm		
<i>Cuscuta pentagona</i> Engelm		
<i>Cuscuta planiflora</i> Tenore		
<i>Cuscuta plattensis</i> A. Nelson		
<i>Cuscuta polygonorum</i> Engelm		
<i>Cuscuta rostrata</i> Shuttleworth ex Engelm		
<i>Cuscuta runyonii</i> Yuncker		
<i>Cuscuta salina</i> Engelm		
<i>Cuscuta sandwichiana</i> Choisy		

Scientific Name	Common Name	Regulatory Classification
<i>Cuscuta squamata</i> Engelman		
<i>Cuscuta suaveolens</i> Seringe		
<i>Cuscuta suksdorfii</i> Yuncker		
<i>Cuscuta tuberculata</i> Brandegee		
<i>Cuscuta umbellata</i> Humboldt, Bonpland, & Kunth		
<i>Cuscuta umbrosa</i> Beyrich ex Hooker		
<i>Cuscuta veatchii</i> Brandegee		
<i>Cuscuta warneri</i> Yuncker		
<i>Orobanche</i> spp. (broomrapes), other than the following species:	Broomrapes	FN
<i>Orobanche californica</i> Schlechtendal & Chamisso		
<i>Orobanche cooperi</i> (Gray) Heller		
<i>Orobanche corymbosa</i> (Rydberg) Ferris		
<i>Orobanche dugesii</i> (S. Watson) Munz		
<i>Orobanche fasciculata</i> Nuttall		
<i>Orobanche ludoviciana</i> Nuttall		
<i>Orobanche multicaulis</i> Brandegee		
<i>Orobanche parishii</i> (Jepson) Heckard		
<i>Orobanche pinorum</i> Geyer ex Hooker		
<i>Orobanche uniflora</i> L.		
<i>Orobanche valida</i> Jepson		
<i>Orobanche vallicola</i> (Jepson) Heckard		
<i>Striga</i> spp.	witchweeds	FN

Table 3. Terrestrial weeds in alphabetical order by scientific name.

Scientific Name	Common Name	Regulatory Classification
<i>Acacia nilotica</i> (L.) Wildenow ex Delile	gum Arabic tree, thorny acacia	FN
<i>Acer platanoides</i> L.	Norway maple	SN – specially regulated
<i>Acer tataricum</i> L.	Tatarian maple	SN – specially regulated
<i>Ageratina adenophora</i> (Sprengel) King & Robinson	crofton weed	FN
<i>Ageratina riparia</i> (Regel) R.M. King and H. Robinson	creeping croftonweed	FN
<i>Agropyron repens</i> L.	quackgrass	RS
<i>Ailanthus altissima</i> (Mill.) Swingle	tree of heaven	SN
<i>Alliaria petiolata</i> (M. Bieb.) Cavara & Grande	garlic mustard	RN
<i>Alnus glutinosa</i> (L.) Gaertn.	European alder	RN
<i>Alternanthera sessilis</i> (L.) R. Brown ex de Candolle	sessile joyweed	FN
<i>Amaranthus palmeri</i> S. Watson	Palmer amaranth	SN, PS
<i>Ampelopsis brevipedunculata</i> (Maxim.) Trautv.	porcelain berry	RN
<i>Arctotheca calendula</i> (L.) Levyns	cape weed	FN
<i>Asphodelus fistulosus</i> L.	onionweed	FN
<i>Avena sterilis</i> L., (including <i>Avena ludoviciana</i> Durieu)	animated oat, wild oat	FN
<i>Berberis thunbergii</i> DC, specific cultivars listed on MDA noxious weed list	Japanese barberry, specific cultivars	RN
<i>Berberis vulgaris</i> L.	common barberry	SN
<i>Berteroa incana</i> D.C.	hoary alyssum	RS

Scientific Name	Common Name	Regulatory Classification
<i>Brassica arvensis</i> L.	wild mustard	RS
<i>Cannabis sativa</i> L.	hemp	PS
<i>Caragana arborescens</i> Lam. (exemption for Green Spires® <i>Caragana</i> - <i>Caragana</i> 'Jefarb')	Siberian peashrub	RN
<i>Cardamine impatiens</i> L.	narrowleaf bittercress	SN
<i>Carduus acanthoides</i>	plumeless thistle	SN, PS
<i>Carduus nutans</i>	musk thistle	PS
<i>Carthamus oxyacantha</i> M. Bieberstein	wild safflower	FN
<i>Celastrus orbiculatus</i> Thunb.	round leaf bittersweet	SN
<i>Centaurea diffusa</i> Lam.	diffuse knapweed	SN
<i>Centaurea jacea</i> L.	brown knapweed	SN
<i>Centaurea stoebe</i> L. ssp. <i>micranthos</i> (Gugler) Hayek	spotted knapweed	SN
<i>Centaurea repens</i> L.	Russian knapweed	PS
<i>Centaurea solstitialis</i> L.	yellow starthistle	SN
<i>Centaurea x moncktonii</i> C.E. Britton	meadow knapweed	SN
<i>Cirsium arvense</i> (L.) Scop	Canada thistle	SN, PS
<i>Cirsium vulgare</i> (Savi) Ten.	bull thistle	PS
<i>Chrysopogon aciculatus</i> (Retzius) Trinius	pillpiliula	FN
<i>Commelina benghalensis</i> L.	Benghal dayflower	FN
<i>Conium maculatum</i> L.	poison hemlock	SN
<i>Convolvulus arvensis</i> L.	field bindweed	PS
<i>Crupina vulgaris</i> Cassini	common crupina	FN
<i>Cuscuta</i> spp.	dodder	RS
<i>Cynanchum louiseae</i> Kartesz & Gandhi	black swallow-wort	SN
<i>Cynanchum rossicum</i> Kleopow	pale swallow-wort	SN
<i>Daucus carota</i> L.	Queen Anne's Lace	RN
<i>Digitalis lanata</i> Ehrh.	Grecian foxglove	SN
<i>Digitaria velutina</i> (Forsskal) Palisot de Beauvois	velvet fingergrass, annual conchgrass	FN
<i>Dipsacus fullonum</i> (L.)	common teasel	SN
<i>Dipsacus laciniatus</i> L.	cut-leaved teasel	SN
<i>Drymaria arenarioides</i> Humboldt & Bonpland ex Roemer & Schultes	lightning weed	FN
<i>Emex australis</i> Steinhell	three-cornered jack	FN
<i>Emex spinosa</i> (L.) Campdera	devil's thorn	FN
<i>Euonymus alatus</i> Thunb.	winged burning bush	SN – specially regulated
<i>Euphorbia esula</i> L.	leafy spurge	SN, PS
<i>Euphorbia terracina</i> L.	false caper	FN
<i>Ficaria verna</i> L.	lesser celandine	RN
<i>Fragula alnus</i> Mill. (<i>columnaris</i> , <i>tallcole</i> , <i>asplenifolia</i> and all other cultivars)	glossy buckthorn, including all cultivars	RN
<i>Galega officinalis</i> L.	goatsrue	FN
<i>Heracleum mantegazzianum</i> Sommier & Levier	giant hogweed	FN, SN
<i>Humulus japonicus</i> Siebold & Zucc.	Japanese hops	SN
<i>Imperata brasiliensis</i> Trinius	Brazilian satintail	FN
<i>Inperata cylindrica</i> (L.) Raeuschel	cogongrass	FN
<i>Inula britannica</i> L.	British elecampane, British yellowhead	FN
<i>Ischaemum rugosum</i> Salisbury	murainograss	FN
<i>Lepidium draba</i> L.	perennial peppergrass	PS
<i>Leptochloa chinensis</i> (L.) Nees	Asian sprangletop	FN
<i>Lonicera japonica</i> Thunb.	Japanese honeysuckle	SN
<i>Linaria dalmatica</i> (L.) Mill.	Dalmatian toadflax	SN
<i>Lonicera maackii</i> (Rupr.) Herder	Amur honeysuckle	RN
<i>Lonicera morrowii</i> (A. Gray)	Morrow's honeysuckle	RN

Scientific Name	Common Name	Regulatory Classification
<i>Lonicera tartarica</i> L.	Tatarian honeysuckle	RN
<i>Lonicera x. bella</i> Zabel	Bell's honeysuckle	RN
<i>Lycium ferocissimum</i> Miers	African boxthorn	FN
<i>Lygodium flexuosum</i> (L.) Sw.	maidenhair creeper	FN
<i>Lygodium microphyllum</i> (Cav.) R. Br.	old world climbing fern	FN
<i>Lythrum salicaria, virgatum</i> , or any combination	purple loosestrife	SN
<i>Melastoma malabathricum</i> L.	Malabar melostome	FN
<i>Mikania cordata</i> (Burman f.) B. L. Robinson	mile-a-minute	FN
<i>Mikania micrantha</i> Humboldt, Bonpland, & Kunth	bittervine	FN
<i>Mimosa diplotricha</i> C. Wright	giant sensitive plant	FN
<i>Mimosa pigra</i> L. var. <i>pigra</i>	catclaw mimosa	FN
<i>Miscanthus sacchariflorus</i> (Maxim.) Franch.	Amur silvergrass	RN
<i>Moraea collina</i> Thunberg	apricot Cape-tulip	FN
<i>Moraea faccida</i> (Sweet) Steudel	one-leaf Cape-tulip	FN
<i>Moraea miniata</i> Andrews	two-leaf Cape-tulip	FN
<i>Moraea ochroleuca</i> (Salisbury) Drapiez	red Cape-tulip	FN
<i>Moraea pallida</i> (Baker) Goldblatt	yellow Cape-tulip	FN
<i>Nassella trichotoma</i> (Nees) Hackel ex Arechavaleta	serrated tussock	FN
<i>Onopordum acaulon</i> L.	stemless thistle	FN
<i>Onopordum illyricum</i> L.	Illyrian thistle	FN
<i>Opuntia aurantiaca</i> Lindley	jointed prickly pear	FN
<i>Oryza longistaminata</i> A. Chevalier & Roehrich	red rice	FN
<i>Oryza punctata</i> Kotschy ex Steudel	red rice	FN
<i>Oryza rufipogon</i> Griffith	red rice	FN
<i>Paspalum scrobiculatum</i> L.	Kodo-millet	FN
<i>Pastinaca sativa</i> L.	wild parsnip	SN
<i>Pennisetum clandestinum</i> Hochstetter ex Chiovenda	kikuyugrass	FN
<i>Pennisetum macrourum</i> Trinius	African feathergrass	FN
<i>Pennisetum pedicellatum</i> Trinius	kyasumagrass	FN
<i>Pennisetum polystachion</i> (L.) Schultes	missiongrass, thin napiergrass	FN
<i>Phellodendron amurense</i> Rupr.	Amur corktree	SN – specially regulated
<i>Phragmites australis</i> (Cav.) Trin. Ex Steud subsp. <i>australis</i>	common reed – non-native subspecies	RN
<i>Plantago lanceolata</i> L.	buckhorn plantain	RS
<i>Polygonum x bohemicum</i> (J. Chrtek & Chrtkova) Zika & Jacobson	Bohemian knotweed	SN
<i>Polygonum cuspidatum</i> Seib. & Zucc.	Japanese knotweed	SN
<i>Polygonum sachalinense</i> F. Schmidt ex Maxim	giant knotweed	SN
<i>Prosopis alata</i> R. A. Philippi		FN
<i>Prosopis argentina</i> Burkart		FN
<i>Prosopis articulata</i> S. Watson		FN
<i>Prosopis burkartii</i> Munoz		FN
<i>Prosopis caldenia</i> Burkart		FN
<i>Prosopis calingastana</i> Burkart		FN
<i>Prosopis campestris</i> Griseback		FN
<i>Prosopis castellanosi</i> Burkart		FN
<i>Prosopis denudans</i> Benth		FN
<i>Prosopis elata</i> (Burkart) Burkart		FN
<i>Prosopis farcta</i> (Solander ex Russell) Macbride	Syrian mesquite	FN
<i>Prosopis ferox</i> Grisebach		FN
<i>Prosopis fiebrigii</i> Harms		FN
<i>Prosopis hassleri</i> Harms		FN

Scientific Name	Common Name	Regulatory Classification
<i>Prosopis humillis</i> Gilles ex Hooker & Arnott		FN
<i>Prosopis kuntzei</i> Harms		FN
<i>Prosopis pallida</i> (Humb. & Bonpl. Ex Willd.) Kunth		FN
<i>Prosopis palmeri</i> S. Watson		FN
<i>Prosopis reptans</i> Bentham var. reptans		FN
<i>Prosopis rojasiana</i> Burkart		FN
<i>Prosopis ruizlealii</i> Burkart		FN
<i>Prosopis ruscifolia</i> Grisebach		FN
<i>Prosopis sericantha</i> Gillies ex Hooker & Arnott		FN
<i>Prosopis strombulifera</i> (Lamarck) Bentham		FN
<i>Prosopis torquata</i> (Cavanilles ex Lagasca y Segura) de Candolle		FN
<i>Pyrus calleryana</i> Decne.	Callery pear	SN – specially regulated
<i>Raphanus raphanistrum</i> L.	wild radish	RS
<i>Rhamnus cathartica</i> L.	common or European buckthorn	RN
<i>Robinia pseudoacacia</i> L.	black locust	RN
<i>Rosa multiflora</i> Thunb.	multiflora rose	RN
<i>Rottboellia cochinchinensis</i> (Lour.) W. Clayton	itchgrass	FN
<i>Rubus fruticosus</i> L. (complex)	wild blackberry	FN
<i>Rubus moluccanus</i> L.	wild raspberry	FN
<i>Saccharum spontaneum</i> L.	wild sugarcane	FN
<i>Salsola vermiculata</i> L.	wormleaf salsola	FN
<i>Securigera varia</i> (L.) Lassen	crown vetch	RN
<i>Senecio inaequidens</i> DC	South African ragwort	FN
<i>Senecio madagascariensis</i> Poir	Madagascar ragwort	FN
<i>Setaria faberii</i> Herrm.	giant foxtail	RS
<i>Setaria pumila</i> (Poir.) Roem. & Schult. subsp. pallidifusca (Schumach.) B.K. Simon	cattail grass	FN
<i>Solanum carolinense</i> L.	horse nettle	RS
<i>Solanum ptycanthum</i> Dun	Eastern black nightshade	RS
<i>Solanum torvum</i> Swartz	turkeyberry	FN
<i>Solanum viarum</i> Dunal	tropical soda apple	FN
<i>Sonchus arvensis</i> L.	perennial sowthistle	PS
<i>Sorghum halepense</i> L.	Johnsongrass	SN
<i>Spermacoce alata</i> Aublet	winged false buttonweed	FN
<i>Tamarix ramoissima</i> Ledeb.	saltcedar	RN
<i>Tanacetum vulgare</i> L.	tansy	SN
<i>Thladiantha dubia</i> Bunge	red hailstone	SN
<i>Thlaspi arvense</i> L.	Frenchweed	RS
<i>Toxicodendron radicans</i> * (L.) Kuntze	poison ivy (formerly <i>Rhus radicans</i>)	SN – specially regulated
<i>Tridax procumbens</i> L.	coat buttons	FN
<i>Urochloa panicoides</i> Beauvois	liverseed grass	FN

*Native species to Minnesota

Definitions

FEDERAL NOXIOUS WEED LIST (FN)

Federal Noxious Weeds are listed in the Code of Federal Regulations, title 7, section 360.200. According to the Federal Noxious Weed Act, Title 7, Chapter 61, section 2803, federal noxious weeds may not be imported into or through the United States, unless in accordance with conditions allowed by the

sale, purchase, exchange, or receipt of federal noxious weeds is illegal. For more information contact: Erin Stiers, USDA, Animal and Plant Health Inspection Service (APHIS), at 952-814-1071 or Erin.N.Stiers@aphis.usda.gov.

STATE PROHIBITED NOXIOUS WEEDS (SN)

The Minnesota Noxious Weed Law ([MN Statutes 18.75-18.91](#)) defines a noxious weed as an annual, biennial, or perennial plant that the Commissioner of Agriculture designates to be injurious to public health, the environment, public roads, crops, livestock or other property. Prohibited noxious weeds must be controlled or eradicated as required in [Minnesota Statutes, section 18.78](#). See [Noxious Weed List](#) website for description of categories including prohibited eradicate noxious weed, prohibited control noxious weed, and specially regulated plant. For more information contact: Anthony Cortilet, Minnesota Department of Agriculture, at 651-201-6538 or Anthony.Cortilet@state.mn.us. ****Note that Minnesota counties may also list species as noxious weeds within their county.** See [MDA county noxious weed website](#) for most current lists.

RESTRICTED NOXIOUS WEEDS (RN)

Species are designated [restricted noxious weeds](#) to prevent their spread by prohibiting the importation, sale, and transportation of their propagating parts in the state except as allowed by [Minnesota Statutes, Section 18.82](#). For more information contact: Anthony Cortilet, Minnesota Department of Agriculture, at 651-201-6538 or Anthony.Cortilet@state.mn.us.

PROHIBITED INVASIVE SPECIES (PI)

These species and any hybrids, cultivars, or varieties of the species are designated by the Department of Natural Resources in [M.R. 6216.0250](#) as prohibited invasive species. It is illegal to possess, import, purchase, sell, propagate, transport, or introduce prohibited invasive species, except as allowed by statute. The statutes and rules that apply to these species are M.S. 84D.05, 84D.08, 84D.10, 84D.11, 84D.13, M.R. 6216.0265, and M.R. 6216.0280. For more information contact: Kelly Pennington, Minnesota Department of Natural Resources at 651-259-5131 or Kelly.Pennington@state.mn.us, or visit the [DNR invasive species laws](#) website.

PROHIBITED WEED SEEDS (PS)

Prohibited weed seeds are prohibited from being present in agricultural, vegetable, flower, tree, and shrub seeds sold in Minnesota in accordance with [Minnesota Statutes, section 21.86](#), subdivision 1, paragraph (d). The plants listed in [M.R. 1510.0271](#) are prohibited weed seeds. For more information contact: Denise Thiede, Minnesota Department of Agriculture, at 651-201-6531 or Denise.Thiede@state.mn.us.

RESTRICTED WEED SEEDS (RS)

Minnesota's *restricted weed seeds* are those weed seeds which, if present in agricultural, vegetable, flower, tree, and shrub seed, must be named on the label together with the number per ounce or pound of seed specified and which may not exceed the legal limit. They are seeds of weeds which are objectionable in fields, lawns, and gardens of this state and which can be controlled by good cultural practice and use of herbicides. Restricted weed seeds are listed in [M.R. 1510.0320](#). For more information contact: Denise Thiede, Minnesota Department of Agriculture, at 651-201-6531 or Denise.Thiede@state.mn.us.

Minnesota and Federal Prohibited and Noxious Plants by Common Name

(Compiled by the Minnesota DNR's Invasive Species Program 10-12-2020)

Key:

- **FN – Federal noxious weed (USDA–Animal Plant Health Inspection Service)** – all aquatic plants listed as federal noxious weeds (except *Ipomoea aquatica*) are also listed as prohibited invasive species by the Minnesota Department of Natural Resources
- **SN – State noxious weed (Minnesota Department of Agriculture)**
- **RN – Restricted noxious weed (Minnesota Department of Agriculture)**
- **PI – Prohibited invasive species (Minnesota Department of Natural Resources)**
- **PS – State prohibited weed seed (Minnesota Department of Agriculture)**
- **RS – State restricted weed seed (Minnesota Department of Agriculture)**
- (See explanations of these classifications below the lists of species)

Table 4. Aquatic plants in alphabetical order by common name.

Common Name	Scientific Name	Regulatory Classification
African oxygen weed	<i>Lagarosiphon major</i> (Ridley) Moss ex Wagner	FN, PI
ambulia	<i>Limnophila sessiliflora</i> (Vahl) Blume	FN
anchored or rooted water hyacinth	<i>Eichornia azurea</i> (Swartz) Kunth	FN
aquarium watermoss, giant salvinia	<i>Salvinia molesta</i> D.S. Mitchell	FN, PI
arrowhead	<i>Sagittaria sagittifolia</i> L.	FN
arrowleaf false pickerelweed	<i>Monochoria hastata</i> (L.) Solms-Laubach	FN
Australian stonecrop	<i>Crassula helmsii</i> (Kirk) Cockayne	PI
brittle naiad	<i>Najas minor</i> All.	PI
broadleaf paper bark tree	<i>Melaleuca quinquinervia</i> (Cav.) Blake	FN
curly-leaf pondweed	<i>Potamogeton crispus</i> L.	PI
ducklettuce	<i>Ottelia alismoides</i> (L.) Pers.	FN
European frog-bit	<i>Hydrocharis morsus-ranae</i> L.	PI
Eurasian watermilfoil	<i>Myriophyllum spicatum</i> L.	PI
exotic bur-reed	<i>Sparganium erectum</i> L.	FN
flowering rush	<i>Butomus umbellatus</i> L.	PI
giant salvinia	<i>Salvinia auriculata</i> Aublet	FN
giant salvinia	<i>Salvinia biloba</i> Raddi	FN
giant salvinia	<i>Salvinia herzogii</i> de la Sota	FN
heart-shaped false pickerelweed	<i>Monochoria vaginalis</i> (Burman f.) C. Presl	FN
hydrilla	<i>Hydrilla verticillata</i> (L. f.) Royle	FN, PI
Indian swampweed, Miramar weed	<i>Hygrophila polysperma</i> (Roxburgh) T. Anders	FN, PI
Mediterranean strain (killer algae)	<i>Caulerpa taxifolia</i> (Vahl) C. Agardh	FN
mosquito fern, water velvet	<i>Azolla pinnata</i> R. Brown	FN
purple loosestrife	<i>Lythrum salicaria</i> , <i>Lythrum virgatum</i> , or any variety, hybrid, or cultivar thereof) L.	PI, SN
starry stonewort	<i>Nitellopsis obtusa</i> L.	PI
water aloe or water soldiers	<i>Stratiotes aloides</i> L.	PI
water chestnut	<i>Trapa natans</i> L.	PI
water-spinach, swamp morning-glory	<i>Ipomoea aquatica</i> Forsskal	FN
wetland nightshade	<i>Solanum tampicense</i> Dunal	FN

Table 5. Parasitic weeds in alphabetical order by common name.

Common Name	Scientific Name	Regulatory Classification
None	<i>Aeginetia</i> spp.	FN
None	<i>Alectra</i> spp.	FN
Broomrapes	<i>Orobanche</i> spp. other than the following species:	FN
	<i>Orobanche bulbosa</i> (Gray) G. Beck	
	<i>Orobanche californica</i> Schechtendal & Chamisso	
	<i>Orobanche cooperi</i> (Gray) Heller	
	<i>Orobanche corymbosa</i> (Rydberg) Ferris	
	<i>Orobanche dugesii</i> (S. Watson) Munz	
	<i>Orobanche fasciculata</i> Nuttall	
	<i>Orobanche ludoviciana</i> Nuttall	
	<i>Orobanche multicaulis</i> Brandegees	
	<i>Orobanche parishii</i> (Jepson) Heckard	
	<i>Orobanche pinorum</i> Geyer ex Heckard	
	<i>Orobanche uniflora</i> L.	
	<i>Orobanche valida</i> Jepson	
	<i>Orobanche vallicola</i> (Jepson) Heckard	
Dodders	<i>Cuscuta</i> spp. (dodders), other than following species:	FN
	<i>Cuscuta americana</i> L.	
	<i>Cuscuta appplanata</i> Engelman	
	<i>Cuscuta approximata</i> Babington	
	<i>Cuscuta attenuata</i> Waterfall	
	<i>Cuscuta boldinghii</i> Urban	
	<i>Cuscuta brachycalyx</i> (Yuncker) Yuncker	
	<i>Cuscuta californica</i> Hooker & Arnott	
	<i>Cuscuta campestris</i> Yuncker	
	<i>Cuscuta cassyoides</i> Nees ex Engelman	
	<i>Cuscuta ceanothii</i> Behr	
	<i>Cuscuta cephalanthii</i> Engelman	
	<i>Cuscuta compacta</i> Jussieu	
	<i>Cuscuta corylii</i> Engelman	
	<i>Cuscuta cuspidata</i> Engelman	
	<i>Cuscuta decipiens</i> Yuncker	
	<i>Cuscuta dentatasquamata</i> Yuncker	
	<i>Cuscuta denticulata</i> Engelman	
	<i>Cuscuta epilinum</i> Weihe	
	<i>Cuscuta epithymum</i> (L.) L.	
	<i>Cuscuta erosa</i> Yuncker	
	<i>Cuscuta europaea</i> L.	
	<i>Cuscuta exaltata</i> Engelman	
	<i>Cuscuta fasciculata</i> Yuncker	
	<i>Cuscuta glabrior</i> (Engelman) Yuncker	
	<i>Cuscuta globulosa</i> Bentham	
	<i>Cuscuta glomerata</i> Choisy	
	<i>Cuscuta gronovii</i> Willdenow	
	<i>Cuscuta harperi</i> Small	
	<i>Cuscuta howelliana</i> Rubtzoff	
	<i>Cuscuta indecora</i> Choisy	
	<i>Cuscuta leptantha</i> Engelman	
	<i>Cuscuta mitriiformis</i> Engelman	
	<i>Cuscuta obtusiflora</i> Humboldt, Bonpland, & Kunth	

Common Name	Scientific Name	Regulatory Classification
	<i>Cuscuta odontolepis</i> Engelman	
	<i>Cuscuta pentagona</i> Engelman	
	<i>Cuscuta planiflora</i> Tenore	
	<i>Cuscuta plattensis</i> A. Nelson	
	<i>Cuscuta polygonorum</i> Engelman	
	<i>Cuscuta rostrata</i> Shuttleworth ex Engelman	
	<i>Cuscuta runyonii</i> Yuncker	
	<i>Cuscuta salina</i> Engelman	
	<i>Cuscuta sandwichiana</i> Choisy	
	<i>Cuscuta squamata</i> Engelman	
	<i>Cuscuta suaveolens</i> Seringe	
	<i>Cuscuta suksdorfii</i> Yuncker	
	<i>Cuscuta tuberculata</i> Brandegee	
	<i>Cuscuta umbellata</i> Humboldt, Bonpland, & Kunth	
	<i>Cuscuta umbrosa</i> Beyrich ex Hooker	
	<i>Cuscuta veatchii</i> Brandegee	
	<i>Cuscuta warneri</i> Yuncker	
Witchweeds	<i>Striga</i> spp.	FN

Table 6. Terrestrial weeds in alphabetical order by common name.

Common Name	Scientific Name	Regulatory Classification
	<i>Prosopis alata</i> R. A. Philippi	FN
	<i>Prosopis articulata</i> S. Watson	FN
	<i>Prosopis burkartii</i> Munoz	FN
	<i>Prosopis caldenia</i> Burkart	FN
	<i>Prosopis calingastana</i> Burkart	FN
	<i>Prosopis campestris</i> Grisebach	FN
	<i>Prosopis castellanosi</i> Burkart	FN
	<i>Prosopis denudans</i> Benth	FN
	<i>Prosopis elata</i> (Burkart) Burkart	FN
	<i>Prosopis ferox</i> Grisebach	FN
	<i>Prosopis fiebrigii</i> Harms	FN
	<i>Prosopis hassleri</i> Harms	FN
	<i>Prosopis humillis</i> Gillies ex Hooker & Arnott	FN
	<i>Prosopis kuntzei</i> Harms	FN
	<i>Prosopis pallida</i> (Humboldt & Bonpland ex Willdenow) Humboldt, Bonpland & Kunth	FN
	<i>Prosopis palmeri</i> S. Watson	FN
	<i>Prosopis reptans</i> Benth var. <i>reptans</i>	FN
	<i>Prosopis rojasiana</i> Burkart	FN
	<i>Prosopis ruizlealii</i> Burkart	FN
	<i>Prosopis ruscifolia</i> Grisebach	FN
	<i>Prosopis sericantha</i> Gillies ex Hooker & Arnott	FN
	<i>Prosopis strombulifera</i> (Lamarck) Benth	FN
	<i>Prosopis torquata</i> (Cavanilles ex Lagasca y Segura) de Candolle	FN
African feathergrass	<i>Pennisetum macrourum</i> Trinius	FN
African boxthorn	<i>Lycium ferocissimum</i> Miers	FN
Amur corktree	<i>Phellodendron amurense</i> Rupr.	SN – specially regulated
Amur honeysuckle	<i>Lonicera maackii</i> (Rupr.) Herder	RN
Amur silvergrass	<i>Miscanthus sacchariflorus</i> (Maxim.) Franch.	RN

Common Name	Scientific Name	Regulatory Classification
animated oat, wild oat	<i>Avena sterilis</i> L. (including <i>Avena ludoviciana</i> Durieu)	FN
Asian sprangletop	<i>Leptochloa chinensis</i> (L.) Nees	FN
Bell's honeysuckle	<i>Lonicera x bella</i> Zabel	RN
Benghal dayflower	<i>Commelina benghalensis</i> L.	FN
bittervine	<i>Mikania micrantha</i> Humboldt, Bonpland, & Kunth	FN
black locust	<i>Robinia pseudoacacia</i> (L.)	RN
black swallow-wort	<i>Cynanchum louiseae</i> Kartsch & Gandhi	SN
Bohemian knotweed	<i>Polygonum x bohemicum</i> (J. Chrtek & Chrtkova) Zika & Jacobson	SN
Brazilian satintail	<i>Imperata brasiliensis</i> Trinius	FN
British elecampane, British yellowhead	<i>Inula britannica</i> L.	FN
brown knapweed	<i>Centaurea jacea</i> L.	SN
buckhorn plantain	<i>Plantago lanceolata</i> L.	RS
bull thistle	<i>Cirsium vulgare</i> L.	PS
Callery pear	<i>Pyrus calleryana</i> Decne.	SN – specially regulated
Canada thistle	<i>Cirsium arvense</i> (L.) Scop.	SN, PS
Cape-tulip, apricot	<i>Moraea collina</i> Thunberg	FN
Cape-tulip, one-leaf	<i>Moraea faccida</i> (Sweet) Steudel	FN
Cape-tulip red	<i>Moraea ochroleuca</i> (Salisbury) Drapiez	FN
Cape-tulip, two-leaf	<i>Moraea miniata</i> Andrews	FN
Cape-tulip, yellow	<i>Moraea pallida</i> (Baker) Goldblatt	FN
Cape weed	<i>Arctotheca calendula</i> (L.) Levyns	FN
catclaw mimosa	<i>Mimosa pigra</i> L. var. <i>pigra</i>	FN
cattail grass	<i>Setaria pumila</i> (Poir.) Roem. & Schult. subsp. <i>pallidifusca</i> (Schumacher) B.K. Simon	FN
coat buttons	<i>Tridax procumbens</i> L.	FN
cogongrass	<i>Imperata cylindrica</i> (L.) Raeuschel	FN
common barberry	<i>Berberis vulgaris</i> (L.)	SN
common crupina	<i>Crupina vulgaris</i> Cassini	FN
common or European buckthorn	<i>Rhamnus cathartica</i> L.	RN
common reed – non-native subspecies	<i>Phragmites australis</i> (Cav.) Trin. Ex Steud subsp. <i>australis</i>	RN
common teasel	<i>Dipsacus fullonum</i> L.	SN
creeping crofton weed	<i>Ageratina riparia</i> (Regel) R.M. King and H. Robinson	FN
crofton weed	<i>Ageratina adenophora</i> (Sprengel) King & Robinson	FN
crown vetch	<i>Securigera varia</i> (L.) Lassen	RN
Cut-leaved teasel	<i>Dipsacus laciniatus</i> L.	SN
Dalmatian toadflax	<i>Linaria dalmatica</i> (L.) Mill.	SN
devil's thorn	<i>Emex spinosa</i> (L.) Campdera	FN
diffuse knapweed	<i>Centaurea diffusa</i> (Lam.)	SN
dodder	<i>Cuscuta</i> spp.	RS
Eastern black nightshade	<i>Solanum ptycanthum</i> Dun	RS
European alder	<i>Alnus glutinosa</i> (L.) Gaertn.	RN
false caper	<i>Euphorbia terracina</i> L.	FN
field bindweed	<i>Convolvulus arvensis</i> L.	PS
Frenchweed	<i>Thlaspi arvense</i> L.	RS
garlic mustard	<i>Alliaria petiolata</i> (M. Bieb.) Cavara & Grande	RN
giant foxtail	<i>Setaria faberii</i> Herrm.	RS
giant hogweed	<i>Heracleum mantegazzianum</i> Sommier & Levier	FN, SN
giant knotweed	<i>Polygonum cuspidatum</i> Seib. & Zucc.	SN – specially regulated
giant sensitive plant	<i>Mimosa diplotricha</i> C. Wright	FN
glossy buckthorn, including all cultivars	<i>Frangula alnus</i> Mill. <i>columnaris</i> , <i>tallcole</i> , <i>asplenifolia</i>	RN

Common Name	Scientific Name	Regulatory Classification
	and all cultivars	
goatsrue	<i>Galega officinalis</i> L.	FN
Grecian foxglove	<i>Digitalis lanata</i> Ehrh.	SP
gum Arabic tree, thorny acacia	<i>Acacia nilotica</i> (L.) Wildenow ex Delile	FN
hemp	<i>Cannabis sativa</i> L.	PS
hoary alyssum	<i>Berteroa incana</i> D.C.	RS
horse nettle	<i>Solanum carolinense</i> L.	RS
Illyrian thistle	<i>Onopordum illyricum</i> L.	FN
itchgrass	<i>Rottboellia cochinchinensis</i> (Lour.) W. Clayton	FN
Japanese barberry	<i>Berberis thunbergi</i> DC	RN
Japanese honeysuckle	<i>Lonicera japonica</i> Thunb.	SN
Japanese hops	<i>Humulus japonicus</i> Siebold & Zucc.	SN
Japanese knotweed	<i>Polygonum cuspidatum</i> Seib. & Zucc.	SN – specially regulated
Johnsongrass	<i>Sorghum halepense</i> L.	SN
jointed prickly pear	<i>Opuntia aurantiaca</i> Lindley	FN
kikuyugrass	<i>Pennisetum clandestinum</i> Hochsletter ex Chiovenda	FN
kodo-millet	<i>Paspalum scrobiculatum</i> L.	FN
kyasumagrass	<i>Pennisetum pedicellatum</i> Trinius	FN
leafy spurge	<i>Euphorbia esula</i> L.	SN, PS
lesser celandine	<i>Ficaria verna</i> L.	RN
lightning weed	<i>Drymaria arenariodes</i> Humboldt & Bonpland Ex Roerner & Schultes	FN
liverseed grass	<i>Urochloa panicoides</i> L.	FN
Madagascar ragwort	<i>Senecio madagascariensis</i> Poir	FN
Malabar melostome	<i>Melastoma malabathricum</i> L.	FN
maidenhair creeper	<i>Lygodium flexuosum</i> (L.) Sw.	FN
meadow knapweed	<i>Centaurea x moncktonii</i> C.E. Britton	SN
mile-a-minute	<i>Mikania cordata</i> (Burman f.) B. L. Robinson	FN
missiongrass, thin napiergrass	<i>Pennisetum polystachion</i> (L.) Schultes	FN
Morrow's honeysuckle	<i>Lonicera morrowii</i> A. Gray	RN
multiflora rose	<i>Rosa multiflora</i> Thunb.	RN
murainograss	<i>Ischaemum rugosum</i> Salisbury	FN
musk thistle	<i>Carduus nutans</i> L.	PS
narrowleaf bittercress	<i>Cardamine impatiens</i> L.	SN
Norway maple	<i>Acer platanoides</i> L.	SN – specially regulated
old world climbing fern	<i>Lygodium microphyllum</i> (Cav.) R. Br.	FN
onionweed	<i>Asphodelus fistulosus</i> L.	FN
pale swallow-wort	<i>Cynanchum rossicum</i> Kleopow	SN
Palmer amaranth	<i>Amaranthus palmeri</i> S. Watson	SN, PS
perennial sowthistle	<i>Sonchus arvensis</i> L.	PS
perennial peppergrass	<i>Lepidium draba</i> L.	PS
pilipiliula	<i>Chrysopogon aciculatus</i> (Retzius) Trinius	FN
plumeless thistle	<i>Carduus acanthoides</i> L.	SN, PS
poison hemlock	<i>Conium maculatum</i> L.	SN
poison ivy*	<i>Toxicodendron radicans</i> * (L.) Kuntze (formerly <i>Rhus radicans</i>)	SN – specially regulated
porcelain berry	<i>Ampelopsis brevipedunculata</i> (Maxim.) Trautv.	RN
purple loosestrife	<i>Lythrum salicaria, virgatum, or any combination</i>	SN
quackgrass	<i>Agropyron repens</i> L.	RS
Queen Anne's lace	<i>Daucus carota</i> L.	RN
red hailstone	<i>Thladiantha dubia</i> Bunge	SN
red rice	<i>Oryza punctata</i> Kotschy ex Steudel	FN

Common Name	Scientific Name	Regulatory Classification
red rice	<i>Oryza longistaminata</i> A. Chevalier & Roehrich	FN
red rice	<i>Oryza rufipogon</i> Griffith	FN
round leaf bittersweet	<i>Celastrus orbiculatus</i> Thunb.	SN
Russian knapweed	<i>Centaurea repens</i> L.	PS
saltcedar	<i>Tamarix ramoissima</i> Ledeb.	RN
serrated tussock	<i>Nassella trichotoma</i> (Nees) Hackel ex Arechavaleta	FN
sessile joyweed	<i>Alternanthera sessilis</i> (L.) R. Brown ex de Candolle	FN
Siberian peashrub	<i>Caragana arborescens</i> Lam. (exemption for Green Spires® Caragana - Caragana 'Jefarb')	RN
South African ragwort	<i>Senecio inaequidens</i> DC	FN
spotted knapweed	<i>Centaurea stoebe</i> L. ssp. micranthos (Gugler) Hayek	SN
stemless thistle	<i>Onopordum acaulon</i> L.	FN
Syrian mesquite	<i>Prosopis farcta</i> (Solander ex Russell) Macbride	FN
tansy	<i>Tanacetum vulgare</i> L.	SN
Tatarian honeysuckle	<i>Lonicera tartarica</i> L.	RN
Tatarian maple	<i>Acer tataricum</i> L.	SN – specially regulated
three-cornered jack	<i>Emex australis</i> Steinhell	FN
tree of heaven	<i>Ailanthus altissima</i> (Mill.) Swingle	SN
tropical soda apple	<i>Solanum viarum</i> Dunal	FN
turkeyberry	<i>Solanum torvum</i> Swartz	FN
velvet fingergrass, annual conchgrass	<i>Digitaria velutina</i> (Forsskal) Palisot de Beauvois	FN
wild blackberry	<i>Rubus fruticosus</i> L. (complex)	FN
wild mustard	<i>Brassica kaber</i> L.	RS
wild parsnip	<i>Pastinaca sativa</i> L.	SN
wild radish	<i>Raphanus raphanistrum</i> L.	RS
wild raspberry	<i>Rubus moluccanus</i> L.	FN
wild safflower	<i>Carthamus oxyacantha</i> M. Bieberstein	FN
wild sugarcane	<i>Saccharum spontaneum</i> L.	FN
winged burning bush	<i>Euonymus alatus</i> Thunb.	SN – specially regulated
winged false buttonweed	<i>Spermacoce alata</i> Aublet	FN
wormleaf salsola	<i>Salsola vermiculata</i> L.	FN
yellow starthistle	<i>Centaurea solstitialis</i> L.	SN

***Native species to Minnesota**

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regulated plant. For more information contact: Anthony Cortilet, Minnesota Department of Agriculture, at 651-201-6538 or Anthony.Cortilet@state.mn.us, ****Note that Minnesota counties may also list species as noxious weeds within their county.** See [MDA county noxious weed website](#) for most current lists.

RESTRICTED NOXIOUS WEEDS (RN)

Species are designated [restricted noxious weeds](#) to prevent their spread by prohibiting the importation, sale, and transportation of their propagating parts in the state except as allowed by [Minnesota Statutes, Section 18.82](#). For more information contact: Anthony Cortilet, Minnesota Department of Agriculture, at 651-201-6538 or Anthony.Cortilet@state.mn.us.

PROHIBITED INVASIVE SPECIES (PI)

These species and any hybrids, cultivars, or varieties of the species are designated by the Department of Natural Resources in [M.R. 6216.0250](#) as prohibited invasive species. It is illegal to possess, import, purchase, sell, propagate, transport, or introduce prohibited invasive species, except as allowed by statute. The statutes and rules that apply to these species are M.S. 84D.05, 84D.08, 84D.10, 84D.11, 84D.13, M.R. 6216.0265, and M.R. 6216.0280. For more information contact: Kelly Pennington, Minnesota Department of Natural Resources at 651-259-5131 or Kelly.Pennington@state.mn.us, or visit the [DNR invasive species laws](#) website.

PROHIBITED WEED SEEDS (PS)

Prohibited weed seeds are prohibited from being present in agricultural, vegetable, flower, tree, and shrub seeds sold in Minnesota in accordance with [Minnesota Statutes, section 21.86](#), subdivision 1, paragraph (d). The plants listed in [M.R. 1510.0271](#) are prohibited weed seeds. For more information contact: Denise Thiede, Minnesota Department of Agriculture, at 651-201-6531 or Denise.Thiede@state.mn.us.

RESTRICTED WEED SEEDS (RS)

Minnesota's *restricted weed seeds* are those weed seeds which, if present in agricultural, vegetable, flower, tree, and shrub seed, must be named on the label together with the number per ounce or pound of seed specified and which may not exceed the legal limit. They are seeds of weeds which are objectionable in fields, lawns, and gardens of this state and which can be controlled by good cultural practice and use of herbicides. Restricted weed seeds are listed in [M.R. 1510.0320](#). For more information contact: Denise Thiede, Minnesota Department of Agriculture, at 651-201-6531 or Denise.Thiede@state.mn.us.



STAFF REPORT

DATE: 08/21/2023

DISCUSSION

TO: Parks Commission
AGENDA ITEM: Neighborhood Trail Connections
FROM: Adam Swanepoel, Assistant Public Works Director
SUBMITTED BY: Marty Powers, Public Works Director
Kristina Handt, City Administrator

BACKGROUND:

Staff has continued to search for potential trail connections between residential communities in the city. The purpose is to improve the cities trail system as well as getting trail users to get from one part of the city to the next. This year two new trail segment are being built; the first between Tapestry and Hamlet on Sunfish Lake communities and the second between Stonegate and Inwood communities.

Washington County is still considering a Central Greenway Regional Trail that will connect the Lake Elmo Park Reserve to downtown Lake Elmo and extend to HWY 36 along HWY 15. Although this trail was not included in Washington County's most recent CIP there is still potential this would be considered in 2028-29 if road improvements in those areas occur.

ISSUE BEFORE THE COMMISSION:

Are there any additional trail connections the city should consider in the next ten years?

PROPOSAL DETAILS/ANALYSIS:

Staff has reviewed several areas for potential trail improvements within the city.

1. 43rd St. N to Lake Elmo Ave.

An additional trail connection between Sunfish Ponds and Lake Elmo Ave. would allow for users from the Tapestry and Hamlet communities to gain access to the Lake Elmo Ave. trail as well as connections with the Wildflower and Village Preserve areas.

2. Keats Ave. N

Adding a trail connection from Tapestry to 59th St. N. This 1.5 mile trail would allow users from the areas of Hidden Meadows, Prairie Hamlet, Rolling Hills Est., Lake Elmo Hills, Arabian Hills, and Meyers Pineridge all a trial access along Keats Ave.

FISCAL IMPACT:

The current cost of these projects are TBD. At this point these areas are only being considered.

ATTACHMENT:

- Central Greenway Master Plan
- Keats Ave. Map
- 43rd St. Map

CENTRAL GREENWAY REGIONAL TRAIL MASTER PLAN AMENDMENT

LAKE ELMO SEGMENT: I-94 TO MN 36



June 2019

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CENTRAL GREENWAY REGIONAL TRAIL

LAKE ELMO SEGMENT: INTERSTATE 94 TO MINNESOTA HIGHWAY 36
MASTER PLAN AMENDMENT

ADOPTED BY THE METROPOLITAN COUNCIL ON JUNE 12, 2019

PREPARED FOR:



PREPARED BY:



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ACKNOWLEDGMENTS

The Central Greenway Regional Trail Master Plan Amendment has been a team effort led by a dedicated group consisting of Washington County staff, along with local city and agency staff.

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- » Connor Schaefer, Washington County
- » Abbi Wittman, City of Stillwater
- » Eric Johnson, City of Oak Park Heights
- » John Hanson, Valley Branch Watershed Organization
- » Mark Prchal, Washington County
- » Ben Prchal, City of Lake Elmo
- » Kevin Peterson, Washington County
- » Michael Peterka, Metropolitan Council
- » Dan MacSwain, Washington County
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- » Tony Willger, Manager of Operations for ISD #384
- » Calvin Jones, SASCA & Stillwater High School Bike Team
- » Stephen Ebner, West Lakeland Township
- » Sarah Hietpas, Metropolitan Council Park and Open Space Commission
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EXECUTIVE SUMMARY

The Central Greenway Regional Trail will enhance the region’s multi-modal transportation and recreation system by providing a safe and accessible trail connection between three of the region’s premier regional park facilities, Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. The Lake Elmo Segment of the Central Greenway Regional Trail will provide direct connections for people living in the suburban communities of Lake Elmo, Baytown Township, and Oak Park Heights to vital employment, retail, and recreational sites in the east metropolitan area – providing safety, economic development, mobility, and environmental benefits.

TRAIL LOCATION

This trail master plan amendment will cover segments of existing and proposed trail between Keats Avenue/County Road 19 and I-94 and Manning Avenue/County Road 15 and MN 36. The approximately 2.9 mile long trail segment starting at I-94 and extending along Keats Avenue/County Road 19 the majority of the way through Lake Elmo Park Reserve is developed. In addition, 0.2 miles of existing trail segments are located near the County Road 15 and County Road 14 intersection. There is also a 0.05 mile long existing trail segment near Stillwater High School along 58th Street. This plan includes designating these segments as a regional trail. In addition to the existing trail segments being designated to regional trail, this plan also proposes developing 5.25 miles of unbuilt trail along Stillwater Boulevard and a short unbuilt segment along Keats Avenue near the Lake Elmo Park Reserve pay station. When complete, the Lake Elmo Segment of the Central Greenway Regional Trail will connect to the existing South Segment of the Central Greenway Regional Trail, Lake Elmo Park Reserve, Downtown Lake Elmo, and Stillwater High School.

NATURAL RESOURCE DESCRIPTION

The Lake Elmo Segment of the Central Greenway Regional Trail corridor is located in the suburban community of Lake Elmo. The corridor makes a direct connection to Lake Elmo Park Reserve and extends adjacent to Sunfish Lake Park. Outside the park reserve, the topography of the corridor is mostly flat and is dominated by farmland and residential development.



Figure I: Central Greenway Regional Trail Location

Central Greenway Regional Trail Lake Elmo Segments				
Segment	From	To	Along	Length
R1	I-94	County Road 10	County Road 19/Keats Avenue	1.1 Miles
R2	County Road 10	Park Maintenance Area Access Road	Lake Elmo Park Reserve Access Road	2.2 Miles
R3	Park Maintenance Area Access Road	Stillwater Lane North	Lake Elmo Park Reserve Access Road	1.0 Miles
R3A	Park Maintenance Area Access Road	Stillwater Lane North	Lake Elmo Park Reserve Access Road	0.5 Miles
R4	Stillwater Lane North	County Road 15/Manning Avenue	County Road 14/Stillwater Boulevard	1.7 Miles
R5	County Road 15/Manning Avenue	58th Street North	County Road 15/Stillwater Boulevard	1.9 Miles
R6	58th Street North	MN 36	58th Street North and future road	0.7 Miles
B1	County Road 14 & County Road 17	39th Street N & County Road 14	County Road 17 and 39th Street N	0.8 Miles
B2	County Road 14 & Stillwater Way	Stillwater Way & County Road 15	Stillwater Way	0.7 Miles

Figure II: Central Greenway Regional Trail Lake Elmo Segment Proposed Alignment

The Central Greenway Regional Trail provides access to high quality natural resources in Lake Elmo Park Reserve. The park includes oak forest, oak savanna, and prairie. The trail corridor also extends through a Rusty Patch Bumble Bee Habitat and Outdoor Heritage Fund Work Area.

The Minnesota Land Cover Classification System (MLCCS) identifies the Lake Elmo Segment of the Central Greenway Regional Trail as three main land cover types. Between I-94 and County Road 10, the landscape is primarily classified as agricultural land. An agricultural land classification is also assigned for the majority of the landscape from downtown Lake Elmo to the MN 36. Through Lake Elmo Park Reserve, a mixture of forest and prairie land cover types are assigned. As one would expect, the majority of the area in downtown Lake Elmo is classified as impervious.

DEVELOPMENT CONCEPT

A fully developed Central Greenway Regional Trail will be a linking regional trail. The Lake Elmo Segment of the Central Greenway Regional Trail is an important link in the Washington County’s trail network. When fully developed, the Central Greenway Regional Trail will provide residents of Washington County with direct access to a regional trail that connects three premier regional park facilities: Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. In addition, the regional trail will provide a separated, off-road facility for recreation and transportation purposes that will connect with adjacent local trails and other destinations, such

as Lake Elmo Park Reserve, downtown Lake Elmo, and Stillwater High School.

Trail Segments

The Lake Elmo Segment of the Central Greenway Regional Trail covered in this master plan amendment has been divided into six segments that are composed of developed and undeveloped trail (Figure III). The trail segments generally follow County Road 19/Keats Avenue alignment through Lake Elmo Park Reserve and Stillwater Boulevard (County Road 14 and County Road 15) to MN 36.

The preferred trail alignment has one trail alternate. The alternate alignment identified is located in Lake Elmo Park Reserve where the trail crosses the Union Pacific Railroad. The preferred trail alignment shown utilizes the existing at-grade crossing or implementing a new grade separated crossing. The alternate trail Segment R3A crosses the railroad using a proposed underpass to avoid conflicts with the railroad traffic. Washington County will determine which alignment is best suited for trail development during trail design and implementation.

In addition to the alternate trail alignment, two interim trail alignments are proposed. The first interim alignment, Segment B1, acts as a bypass to the proposed trail segment through downtown Lake Elmo. The existing right-of-way and current road width would make fitting a trail through downtown Lake Elmo using County Road 14 challenging. It is unlikely that the

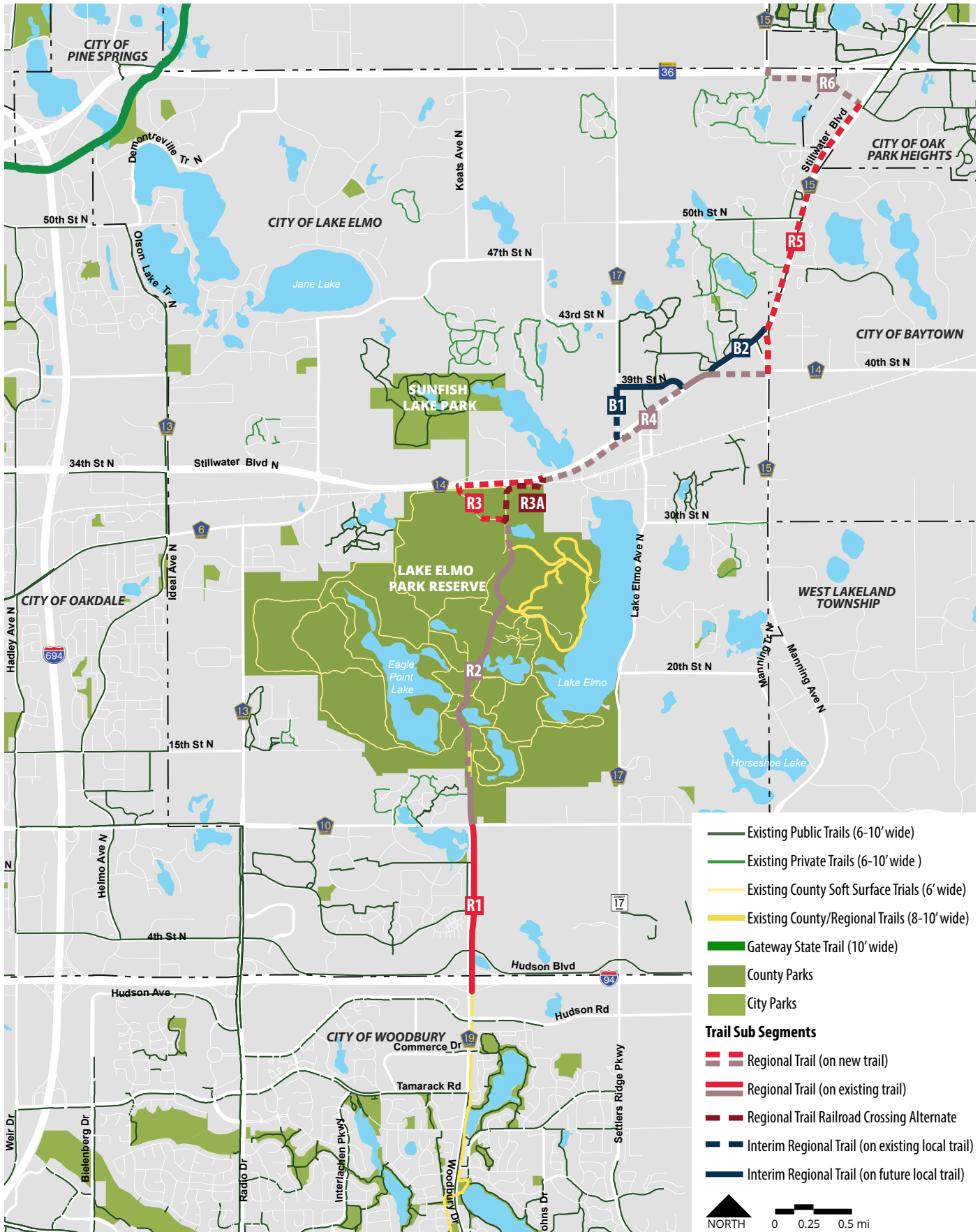


Figure III: Central Greenway Regional Trail Lake Elmo Segment Map.

trail through downtown Lake Elmo will be constructed until the County widens County Road 14. County Road 14 is currently not included in the County's 5-year capital improvement plan (CIP). Therefore, an interim alignment that utilizes existing trail on 39th Street is proposed. Likewise, the second interim alignment, Segment B2, was proposed because the unbuilt regional trail segment extending along County Road 14 between Stillwater Way and County Road 15 was recently constructed. Therefore, an opportunity to construct this trail segment with roadway reconstruction project synergy is unlikely in the near future.

Implementation

It is anticipated that the regional trail will be implemented in stages, with the construction of various stages driven by available funding and local factors, such as timing of adjacent roadway improvements, and public desire to expand the regional trail system. Until the corridor is fully developed, gaps in the regional trail will exist. However, the ultimate trail geometry will consist of a 10-foot-wide (minimum) paved surface where possible, separate from any adjacent roadway, so that trail users will not share the roadway with motorized vehicles.

Development Costs

Regional trail development includes the cost to prepare the site; reconfigure roadways as required; modify drainage patterns where necessary; pave the trail; and install signage, striping, and landscaping. In total, the estimated development cost for the Central Greenway Regional Trail is \$6,873,359. The cost includes rest stops, signage, grade-separated crossings, pedestrian crossing upgrades, and contingencies. The total cost for acquisitions within the proposed corridor is \$1,417,000.

INTRODUCTION

The Central Greenway Regional Trail will enhance the region’s multi-modal transportation and recreation system by providing a safe and accessible trail connection between three of the region’s premier regional park facilities, Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. The Central Greenway Regional Trail will provide direct connections for people living in central Washington County to vital employment, retail, and recreational sites in the east metropolitan area – providing safety, economic development, mobility, and environmental benefits.

When completed, the trail route will measure approximately 25 miles from Big Marine Park Reserve at the north end of the

corridor to Cottage Grove Ravine Regional Park at the south end of the corridor. The Lake Elmo Segment covered in this master plan amendment measures approximately 8.6 miles. Opportunities for local trail connections will exist along the proposed trail route, and there will be connections to other local attractions including community parks.

METRO REGIONAL PARK SYSTEM

A system of Regional Trail Search Corridors was developed by the Metropolitan Council as part of the 2040 Regional Parks Policy Plan. The Metropolitan Council identified the Central Greenway Regional trail as one of several Regional Trail Search Corridors in Washington County (Figure 1).

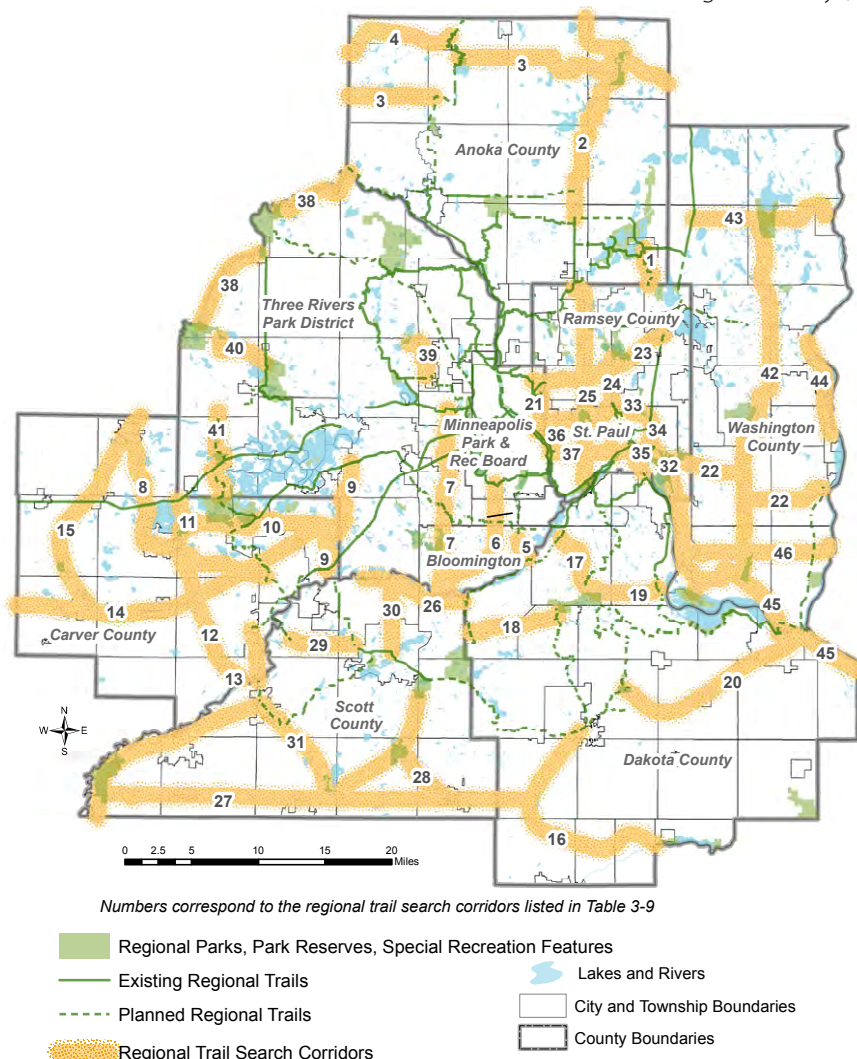


Figure 1: Regional Trail Search Corridors

Source: Metropolitan Council Regional Trail Search Corridors - 2040 Regional Parks Policy Plan

REGIONAL BICYCLE TRANSPORTATION NETWORK

Washington County trails and the local trail network are further supported and enhanced by the Regional Bicycle Transportation Network (RBTN), which is identified as part of the 2040 Transportation Policy Plan (TPP). The RBTN helps define the region's on-street bikeways and off-street trail connections, and how they work together to serve regional transportation trips by bicycle. The RBTN is also used to identify corridors and alignments for future trail development and infrastructure investments. These corridors and alignments provide transportation connectivity to outlying regional destinations within and beyond the urban/suburban areas and serve to connect priority regional bicycle transportation corridors/alignments. County Road 19/Keats Avenue from County Road 14 to the Cottage Grove Ravine Regional Park entrance is recognized as a Tier 2 Corridor and assigned the second tier priority for regional transportation funding. County Road 15 and County Road 14 is also recognized as a Tier 2 Corridor. (Figure 2). Thus, the proposed alignment for the Lake Elmo Segment of the Central Greenway Regional Trail should be considered for inclusion as a Tier 2 alignment in the TPP update (2018), making it a priority for federal funds distributed via Metropolitan Council's Regional Solicitation.

WASHINGTON COUNTY PARKS OVERVIEW

Washington County Parks Division is responsible for planning, building, and maintaining over 4,400 acres of regional and county park land. Furthermore, the County provides over 75 miles of turf and paved trails that offer recreational opportunities and non-motorized transportation options. The Parks Division also programs activities and events throughout the year.

RELATIONSHIP TO OTHER PLANS

The Central Greenway Regional Trail's proposed route through Lake Elmo does not conflict with the Lake Elmo Park Reserve master plan, as the route utilizes an existing trail.

The Central Greenway Regional Trail proposed route is also compliant with Washington County's Comprehensive Plan and the comprehensive plans of the local cities.

INVOLVED PUBLIC AGENCIES

Washington County engaged multiple public agencies as part of the master planning process. These agencies participated as part of the Technical Advisory Committee (refer to the Public Engagement chapter for more information). Furthermore, the County met with these agencies one-on-one as needed throughout the process.

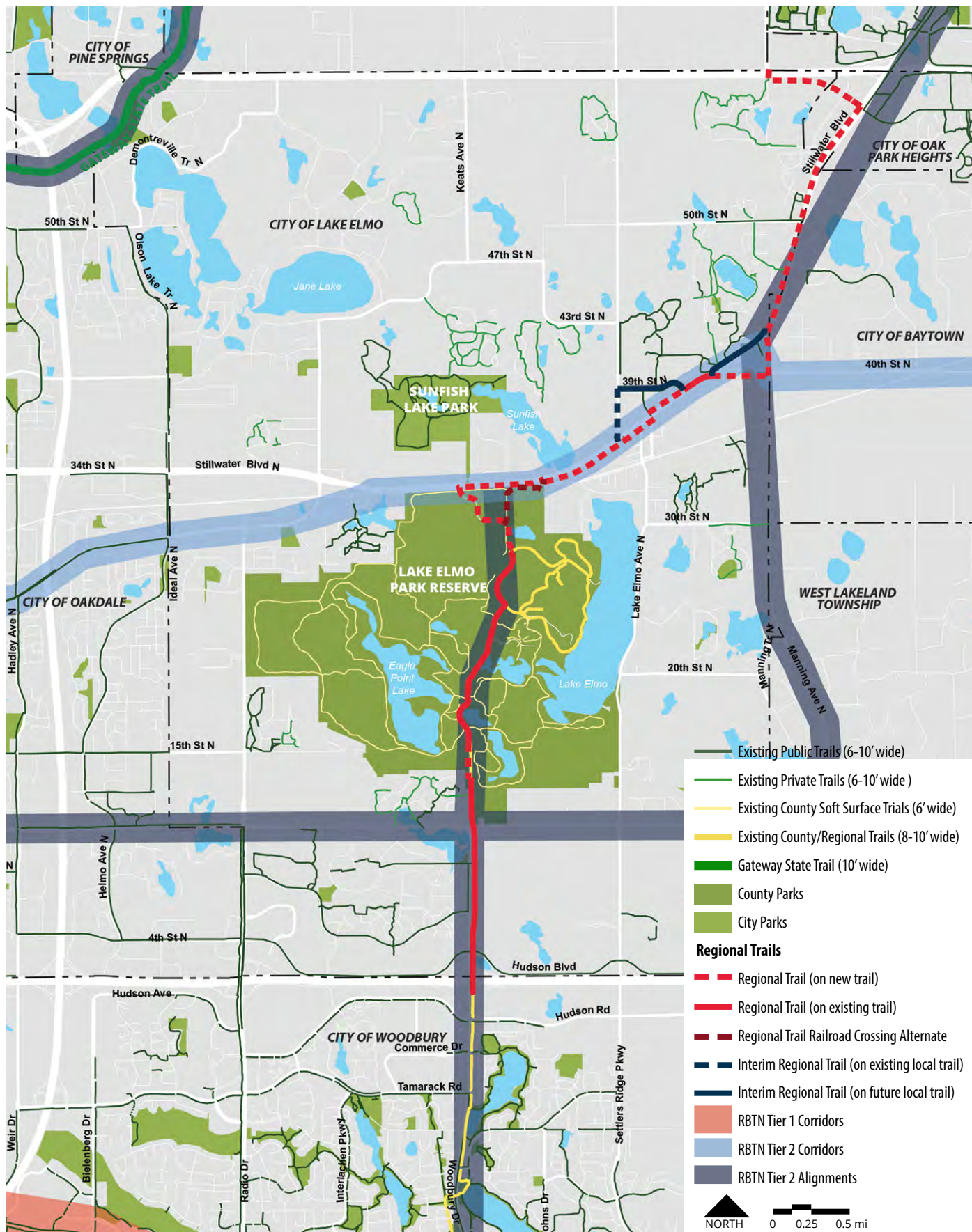


Figure 2: RBTN Corridors

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SECTION I: BOUNDARIES & ACQUISITIONS

LOCATION AND CONTEXTUAL RELATIONSHIP

The Central Greenway Regional Trail will extend from Big Marine Park Reserve in May Township south to Cottage Grove Ravine Regional Park in the City of Cottage Grove. The trail will be a Regional Linking Trail, as defined by the Metropolitan Council. Linking trails are intended to provide connections between regional parks or park reserves. The Central Greenway Regional Trail will provide a connection between Big Marine Park Reserve and Cottage Grove Ravine Regional Park, generally along the County Road 19/Keats Avenue corridor south of Lake Elmo Park Reserve and generally along County Road 14 and County Road 15 north of Lake Elmo Park Reserve.

This trail master plan amendment will cover the segment of the Central Greenway Regional Trail that extends from I-94 to MN 36. In this plan, this portion of the corridor will be referred to as the Lake Elmo Segment of the Central Greenway Regional Trail. The Lake Elmo Segment of the Central Greenway Regional Trail consists of 5.25 miles of unbuilt trail primarily along Stillwater Boulevard with small unbuilt segments inside Lake Elmo Park Reserve and 3.35 miles of existing trail primarily between Lake Elmo Park Reserve and I-94.

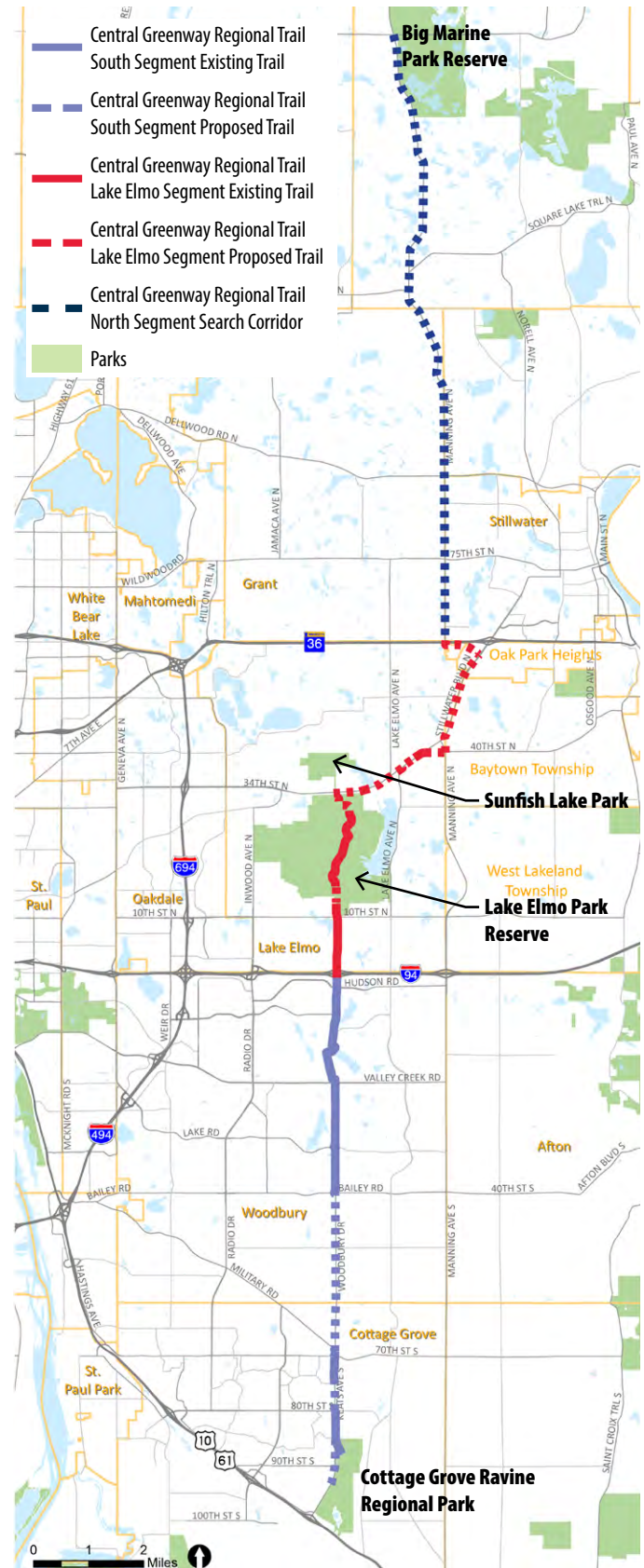


Figure 3: Central Greenway Regional Trail Location

NATURAL RESOURCES

The Central Greenway Regional Trail corridor is located in a suburban edge area with connections to local and regional trails and parks in both the City of Woodbury and the City of Cottage Grove. The trail corridor is mostly flat.

The Lake Elmo Segment of the Central Greenway Regional Trail corridor is located primarily in the suburban community of Lake Elmo. The corridor makes a direct connection to Lake Elmo Park Reserve and extends near Sunfish Lake Park. Both of these parks contain native plant communities which harbor rare and unique wildlife. The topography of the corridor is mostly flat and winds through residential development, a park reserve, and agricultural areas. The Central Greenway Regional Trail provides direct access to high quality natural resources in Lake Elmo Park Reserve. A few of the land cover classifications found within Lake Elmo Park Reserve are Oak savanna, prairie, aspen glade, and mixed deciduous forest (Figure 5). These native plant communities provide great habitat for species such as the Rusty Patch Bumblebee which has been found close to the trail corridor and is illustrated in Figure 5. During design and construction of the trail, extra measures will be taken to ensure high quality habitat or grant work areas are not impacted.

The Minnesota Department of Natural Resources (DNR) has documented several rare species and high-quality plant communities near the Lake Elmo Segment of the Central Greenway Regional Trail corridor. A one-mile buffer surrounding the project limits was evaluated for the presence of rare plants, animals, native plant communities, and other rare features using Geographical Information Systems (GIS) in conjunction with the MnDNR's Natural Heritage Information System (NHIS) (Copyright 2016 State of Minnesota, Department of Natural Resources). The Natural Heritage data is provided by the Division of Ecological Resources, Minnesota DNR, and was current as of February 2016 (license agreement 625). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

All documented observances are not directly adjacent to the regional trail and are not anticipated to be impacted by the

regional trail. There were seven species identified within one-mile of the Central Greenway Regional Trail. A complete list of species is provided in "Appendix D: Rare Species List" on page 75.

No specialized maintenance or construction is proposed for the regional trail corridor to manage any wildlife adapted to urbanized conditions.

Native Plantings & Pollinator Habitats

Washington County is committed to providing healthy habitat for wildlife. This includes pollinators, such as bees, birds, bats, and other insects, who play a crucial role in flowering plant reproduction and in the production of most fruits and vegetables. Providing habitat for pollinators has a number of benefits:

- » Native flowers and the wildlife they attract will add visual interest to the corridor.
- » Habitat corridors provide the connectivity of habitats that are important for species migration, dispersal, and mixing.
- » Prairie plants help infiltrate water, one acre of established prairie can absorb 9" of rainfall per hour before runoff occurs - capturing stormwater pollutants and increasing groundwater recharge.
- » Cost savings from a reduction in mowing area and frequency.
- » Reduced noise for trail users adjacent to the roadway.
- » Reduce heat from adjacent roadway, and reduce exposure to car emissions.
- » Increases food production for neighborhood gardens and farms.
- » Habitat offers opportunities for people to connect to the land via education, volunteering and community involvement.

In the development of the Central Greenway Regional Trail, the County will consider planting pollinator-friendly vegetation along the trail buffer, outside a 2-foot mowed shoulder. The

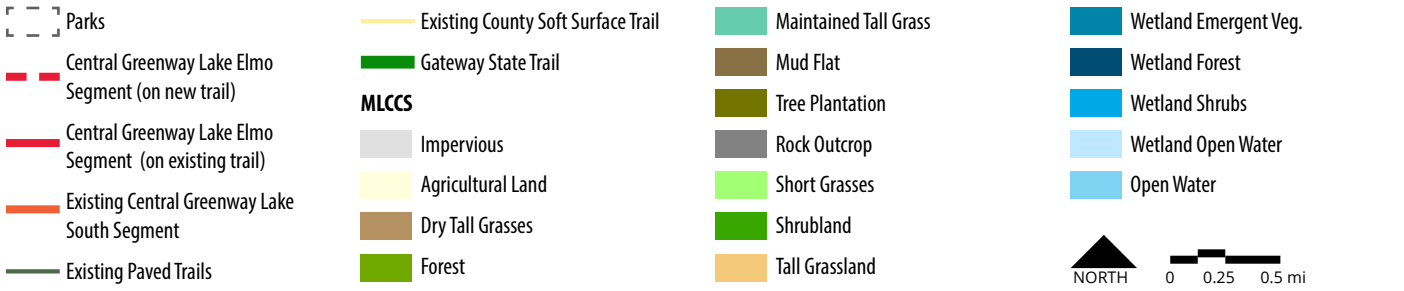


Figure 4: MLCCS Map

vegetation will be planted where appropriate, as to match the aesthetic of the adjacent landscape. Specific locations will be determined during the design and development phase. In particular, the portion of the trail through Lake Elmo Park Reserve will be considered because it is surrounded by and inside a high quality natural resource. A diverse native seed mixes designed by the Minnesota Board of Water and Soil Resources which are comprised of native grasses and flowers would likely be used.

Where pollinator-friendly vegetation is planted, Washington County will coordinate the necessary maintenance. This will include annual mowing during the first one to two years of establishment to provide sunlight and to decrease competition for seedlings. Once established, the following maintenance activities will be used; controlled burns, haying and mowing, and noxious weed control on an as-needed basis, based on yearly staff assessments.

Site Suitability

The preferred corridor is well suited for a regional trail. The topography is gentle and little wetland impacts are anticipated.

Special Assessments

None anticipated.

Contamination

No contamination in the proposed corridor is known at this time.

Other Conditions that Affect Boundaries

None anticipated.

ACQUISITION STATUS

The Central Greenway Regional Trail consists of developed and undeveloped segments in the corridor between Interstate 94 and MN 36. Existing local trails used throughout the preferred regional trail alignment will be identified as segments of the regional trail. No land acquisitions are needed for these segments of trail.

The Central Greenway Regional Trail north of Lake Elmo Park Reserve is mostly undeveloped. As a general guideline, Washington County Parks will attempt to work within the established right-of-way along County Roads. Washington County will coordinate with the local municipalities and other potentially affected agencies, including MnDOT, as needed if additional right-of-way is necessary for trail development. The proposed trail alignments along Stillwater Boulevard have been identified with the understanding that future roadway improvements, such as widening the road to four lanes, would require additional right-of-way. If, in the future, the County expands the roadway and additional land is acquired, it is assumed that the proposed roadway plans will include trails in the design. As such, additional right-of-way acquisitions, if needed for incorporating the regional trail adjacent to a future county road widening project, was not studied as part the this master plan amendment.

In the event Washington County does not expand Stillwater Boulevard or trail development precedes roadway improvements, additional right-of-way will be required to develop the proposed trail. The amount of right-of-way required depends on the existing conditions. There are nine locations identified in this master plan amendment where additional right-of-way may be required to develop or improve the proposed regional trail. These segments and the right-of-way needed are identified in more detail below and in Figure 6.

BOUNDARIES & ACQUISITION COSTS

The Central Greenway Regional Trail corridor is planned for development within the public right-of-way. Several segments of the proposed regional trail exist and need little or no improvement. Nine locations may need additional right-of-way for development (Figure 6). The first eight parcels that potentially require acquisition are located along County Road 14 between Lake Elmo Park Reserve and Downtown Lake Elmo. It is anticipated that parcel 1 will require 75 feet of additional right-of-way for a total width of 225 feet. Parcel 2 will require an additional 50 feet of additional right-of-way for a total of 116 feet (Figure 9). Parcels 3 through eight will require an additional 20 feet of right-of-way for a total of 110 feet (Figure 10). The ninth parcel requiring additional right-of-way acquisition is located

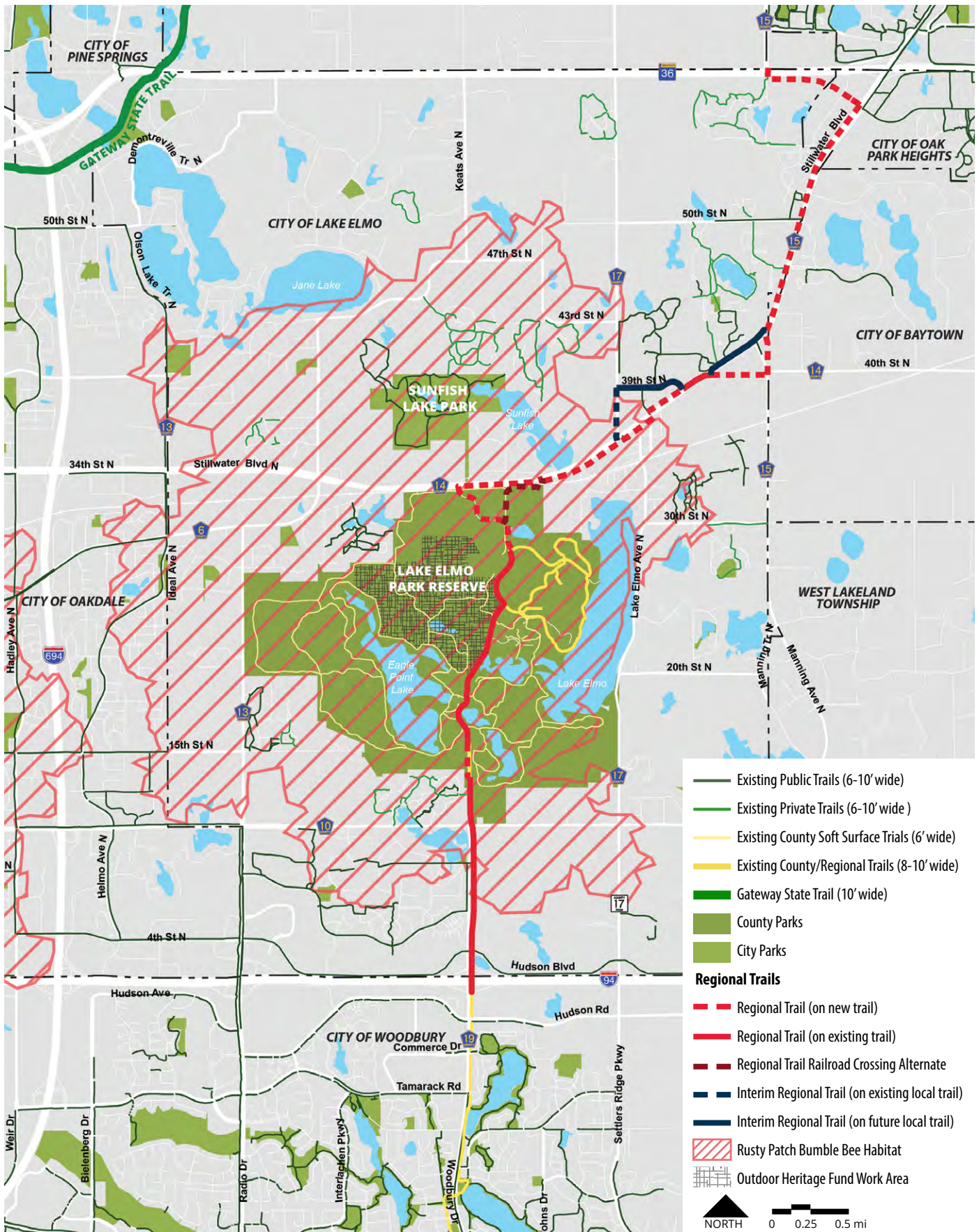


Figure 5: Habitat Areas

along County Road 15. It is anticipated that an additional 20 feet of right-of-way is required to construct the regional trail at this location to widen the road right-of-way to 150 feet (Figure 11).

The anticipated cost to acquire the necessary right-of-way for these segments is approximately \$1,417,000, as shown in Figure 7.

Willing Seller Policy

The regional trail acquisition process is typically a “willing-seller” approach. This means parcel acquisition typically occurs when a property owner is willing and ready to sell, and several acquisition alternatives are often evaluated to best meet the needs of the property owner and the implementing agency. In addition, it is also common for an implementing agency to closely coordinate with local and regional agencies to partner on other opportunities that may assist in securing the required trail right-of-way. At this time, it is difficult to determine when an

acquisition will occur and when the trail construction will begin. Acquisition alternatives may include the following:

- »Route the regional trail to use portions of the property with marginal development potential. This could include land adjacent to wetland or flood fringes.
- »Acquire regional trail easements for the trail route through owner/developer negotiations that may include redevelopment incentives.
- »Work with the city and owner/developer to secure park dedication lands for the regional trail in advance of the actual development as applicable.
- »Coordinate with city initiatives that may result in the acquisition of the entire property/parcel, with the intent to resell the property subject to easements for the regional trail.
- »Acquire the development rights to the property. Development areas would then be negotiated with the developer.
- »Accept donations for portions of the property for the regional trail corridor.
- »Acquire a portion of the property through purchase.

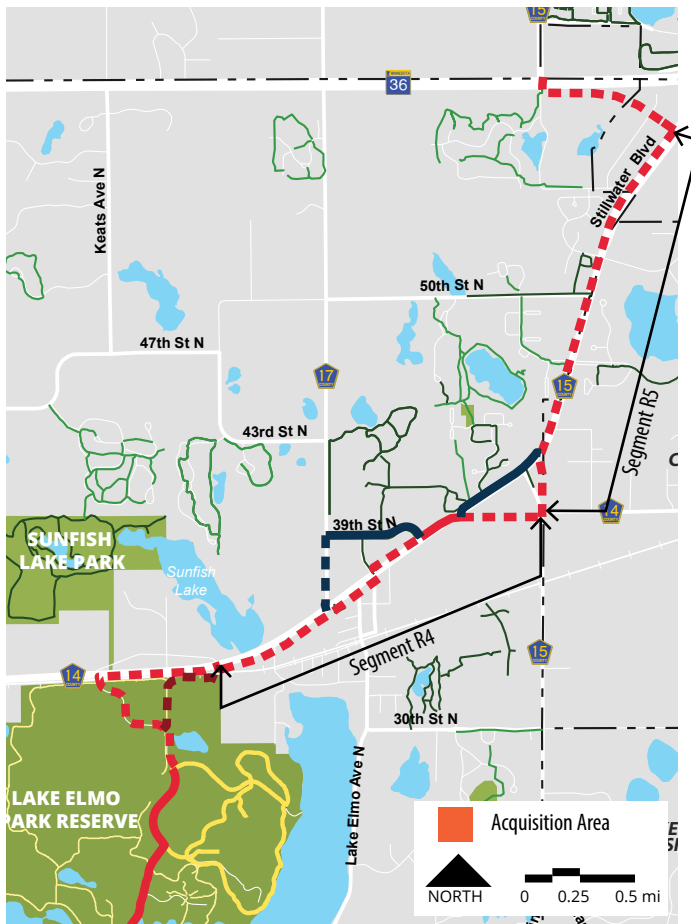


Figure 6: Land Acquisition Map

Segment	Acres	Total Cost*
Segment R4 Subtotal	3.40	\$1,102,000
Segment R5 Subtotal	0.31	\$315,000
Total	3.71	\$1,417,000

*Estimated costs reflect 2019 tax assessed values only for the portion of parcel needed.

Figure 7: Land Acquisition and Acreage Summary

Segment	Parcel ID
R4	14.029.21.42.0003
R4	14.029.21.41.0002
R4	13.029.21.23.0071
R4	13.029.21.23.0067
R4	13.029.21.23.0`042
R4	13.029.21.23.0043
R4	13.029.21.23.0044
R4	13.029.21.23.0077
R5	06.029.20.34.0009

Figure 8: Segment Parcels for Acquisition

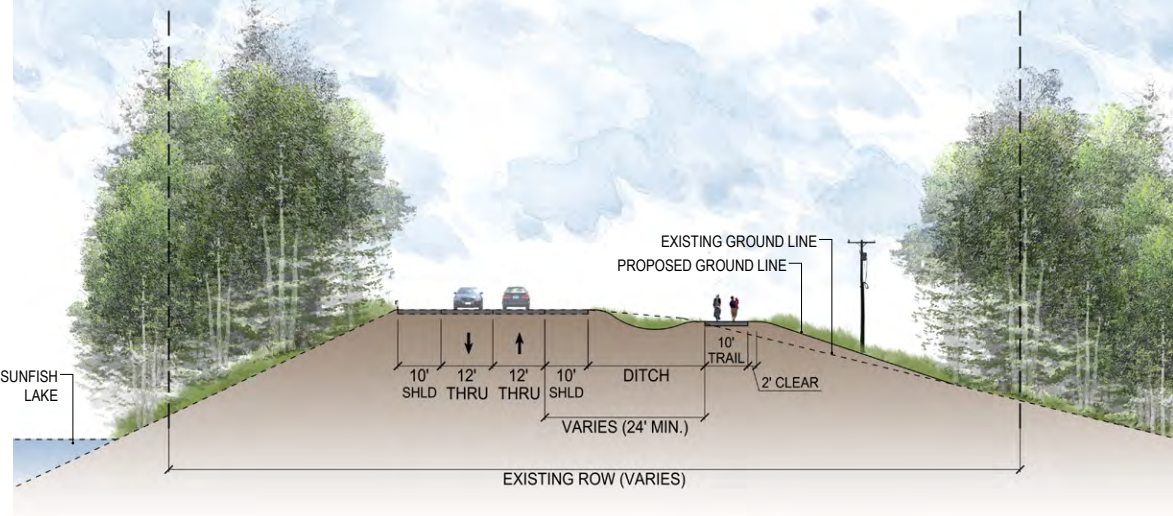


Figure 9: Typical Section for the Proposed Trail along CR 14 West of Lake Elmo Avenue

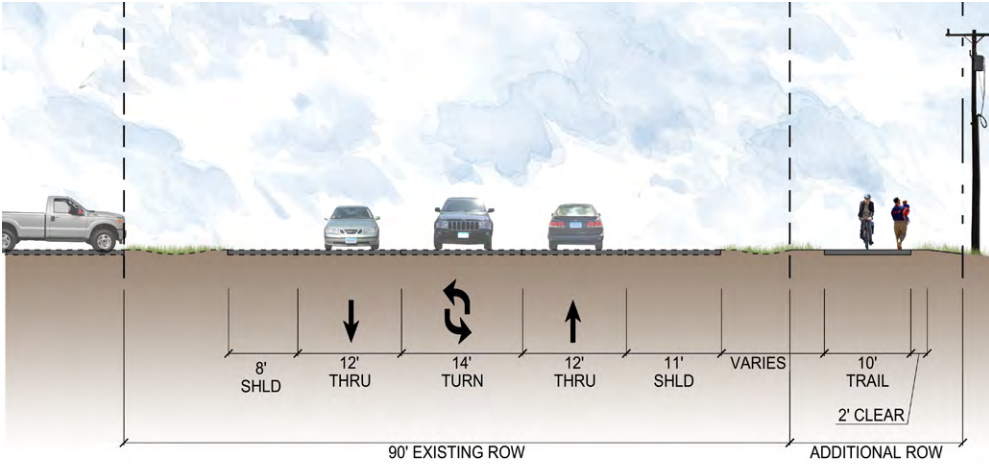


Figure 10: Typical Section for the Proposed Trail along CR 14 East of Lake Elmo Avenue

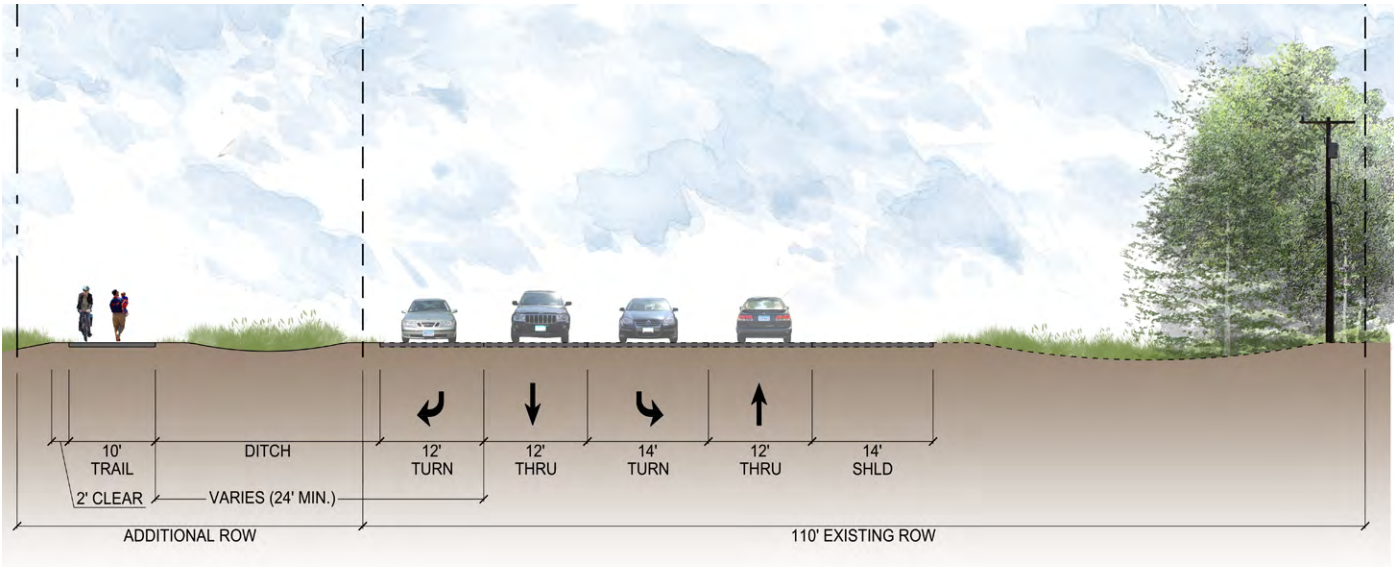


Figure 11: Typical Section for the Proposed Trail along CR 15

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SECTION II: DEMAND FORECAST

DEMOGRAPHIC OVERVIEW

In general, recreation use trends are affected by demographic trends. By analyzing statewide and regional data, Washington County can begin to assess how the Central Greenway Regional Trail will function within the larger trail network.

STATEWIDE AND REGIONAL TRENDS

The 2014-2018 State Comprehensive Outdoor Recreation Plan (SCORP), published by the Minnesota DNR, gives outdoor recreation decision-makers and managers a focused set of priorities and suggested actions to guide them as they make decisions about outdoor recreation. The SCORP outlines outdoor recreation trends, challenges, and issues, including protecting existing natural resources, sustaining existing facilities, promoting healthy lifestyles, connecting people with nature, and an increasing demand for a diverse range of recreation opportunities based upon population changes.

The Metropolitan Council's 2040 Regional Parks Policy Plan notes that, according to SCORP, several studies show that involvement in nature-based outdoor recreation among young adults and their children had decreased since the 1990s. SCORP also notes that location plays an important role because many users of the regional trail system live within three miles of the park or trail that they utilize. Regional trails play an important role because they provide healthful forms of exercise for people of all age groups that can be carried out by families, groups, or individuals.

According to SCORP, Minnesota's growth rate has increased since 2000, but at a slower rate than in the 1990s. Although population growth in the state has slowed, the geographic pattern of growth remained largely the same with the high growth areas centered on the Twin Cities metropolitan area. This new growth will fuel demands for near-home recreation opportunities in these areas. The Metropolitan Council's Thrive 2040 MSP forecasted growth rate for the Central Greenway Trail's primary service area is anticipated to increase by close to 30,000 people from 2020 to 2040 (Figure 12). Outside factors such as gas prices, trail infrastructure improvements, and increased local sidewalk and

trail network connectivity, may also promote increased use as trail users look for more recreation opportunities closer to home and use of the regional trail system as part of their transportation network. Within fully developed areas where population levels are expected to remain relatively stable, trail visitation levels and type of use will also reflect shifting demographics of those areas.

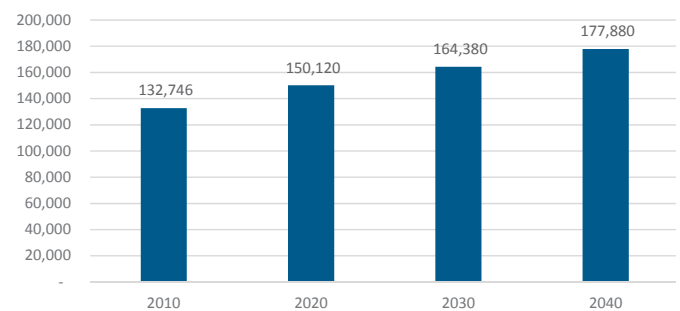


Figure 12: Primary Service Area Population Forecast

Source: Metropolitan Council Thrive 2040 MSP Forecast As of January 1, 2018

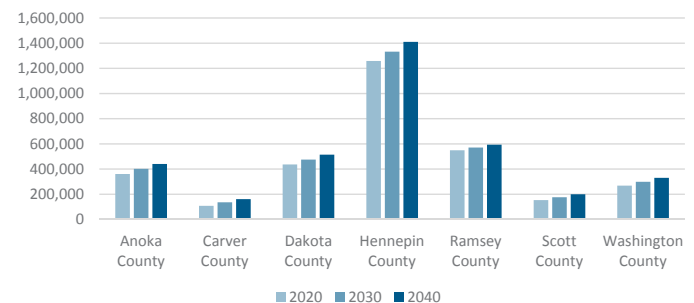


Figure 13: Regional Population Forecast

Source: Metropolitan Council Thrive 2040 MSP Forecast As of January 1, 2018

METHODOLOGY

To analyze demographics specific to the Central Greenway Regional Trail, Washington County used a quantitative measuring methodology that identifies a primary service area that is three miles on all sides of the proposed trail corridor (Figure 14). This methodology provides detail specific to the primary service area for the proposed trail corridor, which is defined as users within three miles of the trail corridor. The demographic data on the following pages is based on the primary service area.

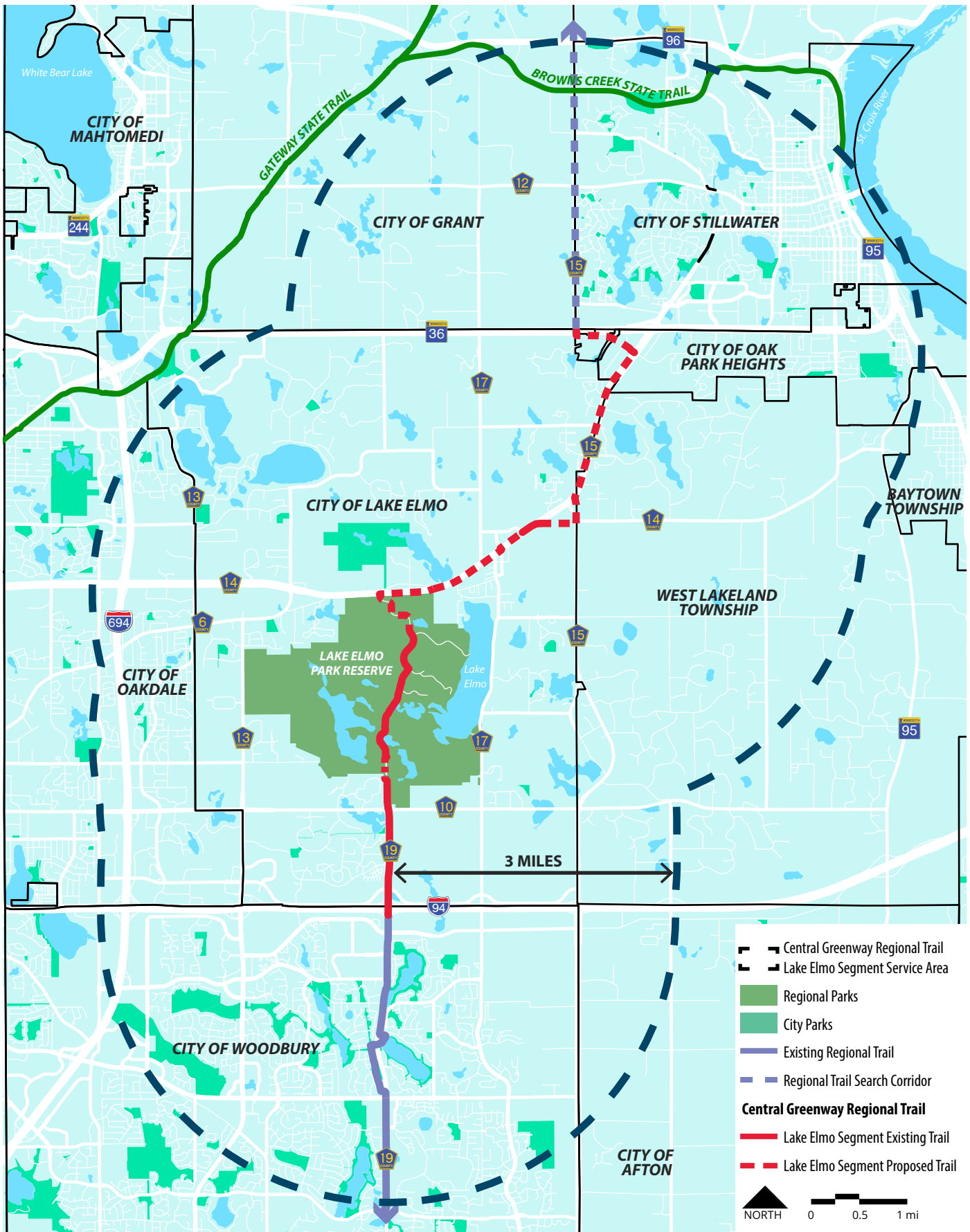


Figure 14: Trail Primary Service Area Map

AGING POPULATION

While the trend of young adults and their children shows a reduction in their involvement in nature-based recreation, SCORP notes that older adults have maintained a more stable involvement in outdoor recreation. Older adult recreation habits are well established and demand for their preferred activities will continue to be strong. However, as this group ages, physical limitations will require some park and trail visitors to change their recreational activities from higher intensity activities such as running, in-line skating, and biking to lower-impact recreational activities such as walking, nature observation, and educational opportunities. Many of these activities are accommodated by the regional trail system. The Central Greenway Regional Trail provides a recreational opportunity for older residents. A continuous, wide, and separated trail with limited elevation changes will serve this population well. Figure 17 shows that approximately 24 percent of the residents in the primary service area are currently between the ages of 40 and 54.

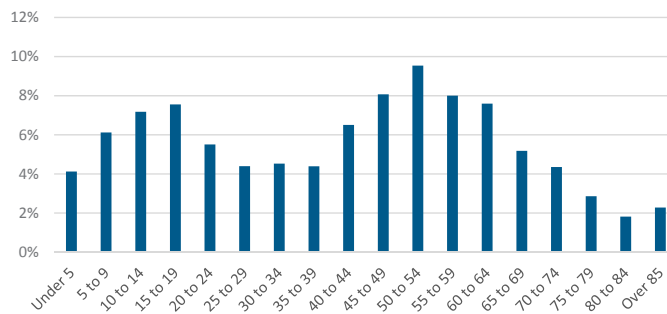


Figure 17: Primary Service Area Age Distribution

Source: American Community Survey, 2016

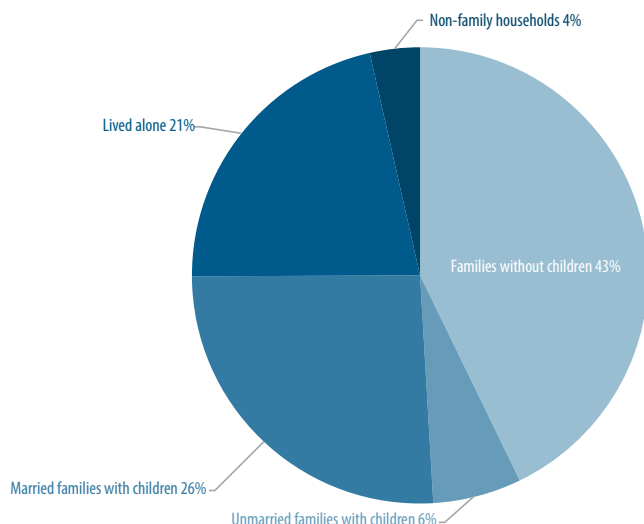


Figure 16: Primary Service Area Household Description

Source: American Community Survey, 2016

MINORITY POPULATIONS

Metropolitan Council demographers anticipate that by 2040, 40 percent of the region’s population will be people of color, compared with 24 percent in 2010. Within the region, there are three prevalent immigrant groups: Asians, Hispanic/Latino, and Black or African Americans. Within the primary service area, 11 percent of the population are non-white (Figure 15). Washington County will look to provide trail amenities to accommodate trail users of all backgrounds. One strategy that will be explored is providing multi-lingual signage.

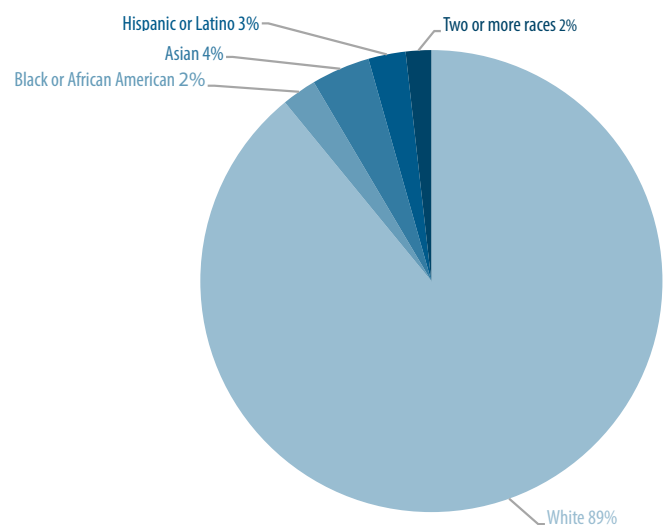


Figure 15: Primary Service Area Race

Source: American Community Survey, 2016

OTHER TRENDS AFFECTING RECREATION

A 2017 study by the Minnesota Department of Health found that statewide 28.4 percent of adults were obese and 36.5 percent were overweight. Obesity is a key predictor for many future health problems, including diabetes. Lack of adequate exercise – partially resulting from inadequate outdoor recreation facilities or opportunities – is often cited as a contributor to obesity. Many young people are not getting enough exercise and face future health risks as a result. The economic health of the state relies on continued use and enjoyment of our outdoor recreation resources. Availability of a wide range of outdoor recreation opportunities is one of the factors most often cited as contributing to the state’s perceived high quality of life. Participation in outdoor recreation may correspond to a greater

interest in and support for measures to protect land, facilities, and resources necessary to ensure those same activities are available for future generations.

Population growth in the region and the primary service area will lead to an increase in the demand for recreational opportunities within Washington County. New trails, such as the Central Greenway Regional Trail, will be needed to accommodate the increase in demand.

ACTIVE LIVING BY DESIGN – A COMPLEMENTARY VISION

The “active living by design” movement gaining momentum across the country complements the vision for the regional trail. As stated by one of the initiators of the movement, active living by design “is a way of life that integrates physical activity into daily routines.” Key principles of this movement as it pertains to this plan include:

- » Physical activity is a behavior that can favorably improve health and quality of life.
- » Everyone, regardless of age, gender, language, ethnicity, economic status or ability, should have safe, convenient and affordable choices for physical activity.
- » Parks and trails, should be safe, accessible and part of a transportation network that connects destinations of interest, such as other parks, housing, schools, work sites, transit, community services and businesses.
- » Municipalities and other governing bodies should plan for ongoing interdisciplinary collaboration, promotion of facilities, behavioral supports, policies that support the vision of active living, and routine maintenance that ensures continued safety, quality and attractiveness of the physical infrastructure and the natural environment.

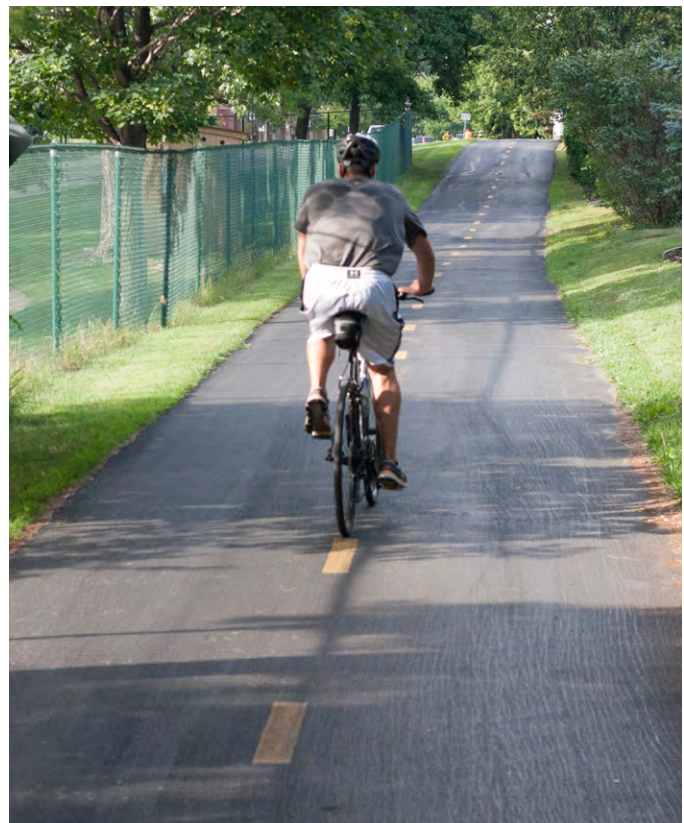
The following provides an overview of pertinent findings from research that supports the active living movement and development of this regional trail.

PHYSICAL ACTIVITY/PREVENTING OBESITY

Physical inactivity causes numerous physical and mental health problems, is responsible for an estimated 200,000 deaths per year in the United States, and contributes to the obesity epidemic. The design of communities and the presence or absence of parks, trails, and other quality public recreational facilities affects people’s ability to reach the recommended 30 minutes each day of moderately intense physical activity. A growing number of studies show that people in activity-friendly environments are more likely to be physically active in their leisure time.

For example, research findings clearly indicate that better access to facilities, pleasant surroundings, safe places, walkable neighborhoods, and activity-friendly environments all encourage higher levels of active recreation. Proximity, connectivity, and design quality of trails can be added to this list to encourage more active lifestyles.

This is especially the case with children, where better access to healthy choices is vital to reducing the rate of obesity. Since the 1970s the percentage of obese children 6 to 11 years old has tripled. Obesity has doubled among preschool children and



adolescents. Turning these statistics around means increasing children's physical activity and improving what they eat.

the Washington County 2040 comprehensive plan can be found in "Appendix F: Park and Trail Visitation data" on page 79.

CONNECTIVITY AND ACCESSIBILITY

Being able to reach or access a variety of destinations (e.g., parks, retail areas, tourist site, workplaces, health services, grocery stores) via trails is critical to many dimensions of a healthy community and healthy personal lifestyle. Ensuring that trails meet ADA standards is important to accommodate the broadest cross-section of user groups.

MENTAL HEALTH

A number of studies have demonstrated how being outdoors and in direct contact with nature leads to improved mental health and psychological development. Recent data show that mental health disorders will account for some of the world's largest health problems in upcoming decades. People do not have to actively use nature to benefit from it; rather, visual exposure is enough. The outdoor experience offered along the Central Greenway Regional Trail will, at some level, contribute positively to the collective well-being of the communities along the trail corridor.

STATEWIDE HEALTH IMPROVEMENT PROGRAM (SHIP)

Washington County, through the SHIP program, has developed the Living Healthy in Washington County initiative in order to implement policies and practices that create active communities by increasing opportunities for non-motorized transportation and access to community resources and recreation facilities.

EXISTING WASHINGTON COUNTY USE DATA

Washington County and the Metropolitan Council collect data and produce reports on who visits regional parks and trails, and how they are being used. These reports allow Washington County to track visitation and usage data overtime, and assess performance. Determining the types of users and their needs is an important step when evaluating future park and trail needs. Ultimately, this information helps Washington County make informed decisions for planning, building, and maintaining the parks and trails system. Park and trail visitation data developed in

SECTION III: DEVELOPMENT CONCEPT

When fully developed, the Central Greenway Regional Trail will provide residents of Washington County with direct access to a regional trail that connects three premier regional park facilities: Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. In addition, the regional trail will provide a separated, off-road facility for recreation and transportation purposes that will connect with adjacent local trails and other amenities, such as Stillwater High School and Downtown Lake Elmo.

DEVELOPMENT PLAN

Permitted Regional Trail Uses

The regional trail will be open to the general public. Its intended uses include walking, jogging, in-line skating, bicycling, and other uses mandated by state law including, but not limited to, non-motor electric personal assisted devices. Motorized vehicle and equestrian uses will be prohibited, except for motorized vehicles used by the Washington County and partner cities for maintenance or law enforcement activities or otherwise permitted for ADA access.

Adjacent Uses

Along the west side of County Road 15, north of 43rd Street, the Star Trail Snowmobile Association maintains a snowmobile trail. During implementation, Washington County will work with the snowmobile community to accommodate snowmobile

use parallel to the paved trail, where possible, or to identify alternative routes that would meet their needs. Washington has demonstrated successful coordination of snowmobile use adjacent to regional trails with Hardwood Creek Regional Trail.

Regional Trail Design Guidelines

The trail design for the Central Greenway Regional Trail is a 10-foot-wide paved surface separated from vehicular traffic (Figure 18). There may be instances that require the trail to be temporarily reduced in width for short segments until funding is available to improve sections that do not meet typical regional trail design guidelines (Figure 19). A bituminous trail surface is preferred because it is cost-effective, less prone to erosion than aggregate surfaces, provides for a more desirable trail user experience.

From	To	Along	Length
Interstate 94	Boat launch Access Road	Keats Avenue/ CR 19	2.9 Miles
County Road 17*	County Road 14*	39th Street	0.5 Miles*
39th Street	Stillwater Way	County Road 14	0.2 Miles
County Road 14*	County Road 15*	Stillwater Way	0.5 Miles*
County Road 15	Minnesota Avenue	58th Street	0.05 Miles

*Interim alignment

Figure 19: Existing Eight-Foot Wide Trail Segments



Typical 10-foot regional trail.

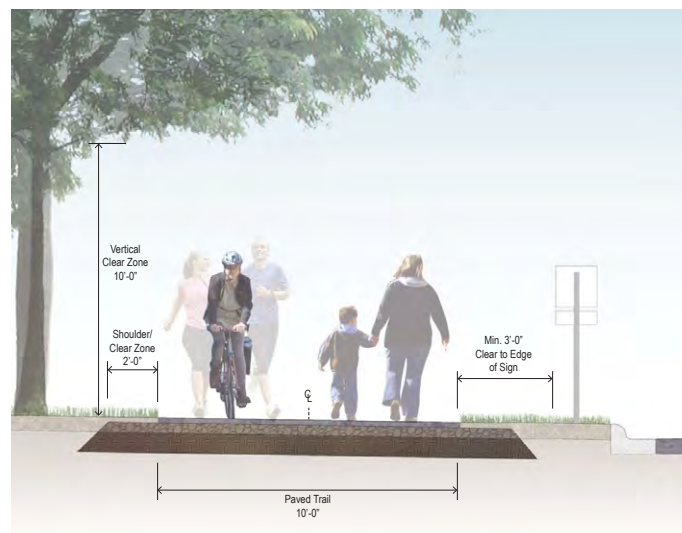


Figure 18: Typical Trail Cross-Section

A number of factors will be taken into consideration as final designs for unconstructed segments are implemented, such as:

- » Right-of-way width
- » Topography and drainage impacts
- » Existing vegetation
- » Curb cuts and driveway crossings
- » Overhead and subsurface utilities
- » Intersection crossings
- » Proximity to adjacent structures and properties



16-foot regional trail with bicycle and pedestrian zone.



10-foot regional trail with limestone shoulder.

In circumstances with limited right-of-way, trails will still be located off-road, but with less boulevard between the trail edge and back of curb. In these locations, the trail will be separated from the road by a minimum paved two-foot-wide clear zone. This paved clear zone between the back of curb and trail edge provides a buffer between the trail users and motorists and will be striped to delineate the edge of the trail. Curb ramps will be used at all roadways. Regional trails should have a maximum of five percent grade and a cross slope of two percent for drainage. In addition, where right-of-way allows, final trail design will attempt to maximize the boulevard width to account for sign placement and snow storage.

A regional trail may be wider than 10 feet if forecasted user volumes warrant an increased width and space is available for the trail. For example, the potential for bike and pedestrian conflicts was mentioned during the community engagement process. This master plan addresses this concern in several ways. The plan proposed widening the trail to 12 feet, where possible, allowing more space for trail users. The plan also states that the appropriate type of trail crossing treatments for each crossing location will be designed in accordance with industry best practices, in order to minimize conflicts between trail users and roadway traffic. Also, the regional trail segment extending through Lake Elmo Park Reserve may include additional limestone and/or bituminous shoulders to accommodate the higher pedestrian and cyclist usage. Finally, Washington County will consider stripping and signage to help minimize trail user conflicts.

Regional trail segments will be designed in accordance with all applicable federal, state, and local codes. In addition, the following sources will be referred and adhered to when preparing the design and construction plans as appropriate:

- » Guide for the Development of Bicycle Facilities, prepared by the American Association of State Highway and Transportation Officials (AASHTO), 2012
- » MnDOT Bikeway Facility Design Manual, Minnesota Department of Transportation (MnDOT), March 2007

- » State Aid Rule 8820.9995 Minimum Bicycle Path Standards, State Aid for Local Transportation
- » Trail Planning, Design, and Development Guidelines, Minnesota Department of Natural Resources (MnDNR)
- » Manual on Uniform Traffic Control Devices (MUTCD), MnDOT, 2014
- » Public Right-of-Way Access Guidelines (PROWAG)
- » Best Practices for Traffic Control at Regional Trail Crossings, A collaborative effort of Twin Cities road and trail managing agencies, July 2011
- » Selecting Roadway Design Treatments to Accommodate Bicycles, Federal Highway Administration, January 1994
- » Bicycle and Pedestrian Wayfinding, Metropolitan Council, October 2011

PRIMARY TRAIL DESIGN ELEMENTS

Trail Crossings

The suburban setting for the Lake Elmo Segment of the Central Greenway Regional Trail requires that it coexist with higher volume roadways. There are numerous locations where the regional trail crosses such roadways, including:

- » County Road 10
- » County Road 14
- » 50th Street
- » 58th Street

The types of trail crossing treatments appropriate for each crossing location will be designed in accordance with industry best practices, in order to minimize conflicts between trail users and roadway traffic.

In all cases, existing roadway configuration, infrastructure elements, vegetation, and other potential visual obstructions will be evaluated so sight lines can be maintained. Special provisions, such as mirrors, may be added to improve trail visibility from driveways if deemed appropriate. As vehicular traffic fluctuates, there may be a need for additional traffic

signals or modifications to existing signalized intersections. These type of design considerations and trail enhancements will be addressed during the trail design development phase.

Trail Underpasses/Overpasses

It may be appropriate to install a grade-separated trail underpass or overpass in some situations where the regional trail crosses higher volume roadways or railroads. The benefit of a trail underpass/overpass is that it provides safe access to the other side of a high-volume roadway or the Union Pacific Railroad without interaction with vehicular or train traffic. Several factors need to be considered when planning the location for underpasses/overpasses. Groundwater levels, existing grades and sufficient right-of-way are all important considerations to assess when locating underpasses. These types of design considerations and trail enhancements will be addressed during the trail design development phase.

SUPPORTING TRAIL ELEMENTS

Trail wayfinding signage, traffic signage and devices, rest stops, and drainage are important elements of regional trails. Their

Trailheads
Eagle Point Trailhead
Lake Elmo Elementary School/Lake Elmo City Hall
Stillwater High School
Rest Stops
Keats Avenue/County Road 19 and 5th Street
Lake Elmo Park Reserve Access Road and Boat Launch Access Road
50th Street and Stillwater Boulevard
Directional Signs
Keats Avenue/County Road 19 and County Road 10
Lake Elmo Park Reserve Access Road and Swim Pond Access Road
Lake Elmo Park Reserve Access Road and Boat Launch Access Road
Lake Elmo Park Reserve Access Road and County Road 14
County Road 14 and County Road 17
County Road 14 and Laverne Avenue
County Road 14 and Stillwater Way
County Road 14 and County Road 15
County Road 15 and 50th Street
County Road 15 and 58th Street

Figure 20: Wayfinding Signage Locations

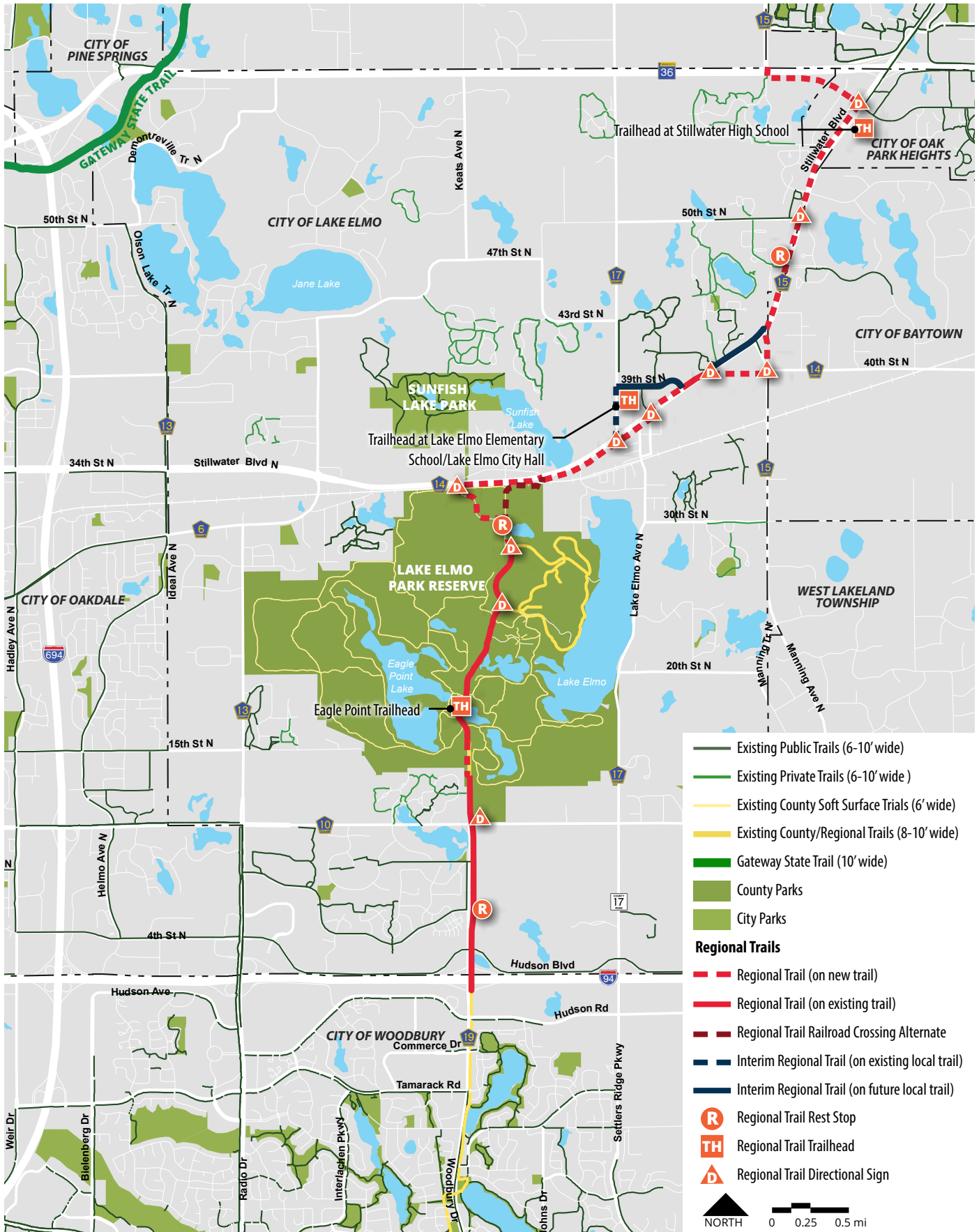


Figure 21: Trailhead and Rest Stop Locations

proper design and placement add both aesthetic and functional value to the trail.

Wayfinding Signage

Regional trail wayfinding signage provides trail users with orientation and location information for amenities and services.

Wayfinding signage may provide:

- » An overview map of the regional trail network in Washington County, and the specific regional trail.
- » Directions and distances to major destinations and points of interest along the regional trail.
- » Directions for long-term detours or interim routes when there are gaps within the regional trail.
- » Location information for nearby amenities such as local parks and local trails.
- » Location information for nearby services, such as drinking water, public restrooms, and public parking.
- » Visual identification of the regional trail network through physical kiosk/signage structures.

The suburban nature of the Central Greenway Regional Trail requires wayfinding signage at strategic delineated points (Figure 20 & Figure 21). These typically include major roadway intersections with other trails, trailheads, parks or other adjacent public facilities. The exact location and content of wayfinding signage will be determined in conjunction with local community input and is often dictated by available public right-of-way.

Washington County Parks uses kiosks in their parks as wayfinding signage to identify trail routes and system amenities. Developing directional signage for the Central Greenway Regional Trail that includes visual indication of direction and location of points of interest along the trail will benefit trail users along the trail route. The design of the directional sign can include arrow blades and/or text to identify features. Descriptions of each are as follows:

Kiosks: A free-standing structure that provides trail users with a map of the park or trail system, the park or trail rules, and general information about the park or trail.



Example of kiosk concept and signage for Washington County trails. (Artwork provided by Washington County)

Directional Signage: A post structure depicting the direction, the name, and the distance to major destinations and points of interest on the trail.

Rest Stops

Rest stops are located at key locations and provide places for trail users to stop and rest along the trail and an area for amenities such as benches, and bicycle racks. These simple but important amenities can serve to reinforce the identity of the regional trail route. Comments received from the public during the open house at Stillwater High School informed which amenities were included at rest stops. Locations for rest stops are shown in Figure 20. All rest stops will be further evaluated and incorporated into Central Greenway Regional Trail as appropriate during design and implementation. The cost per rest stop is approximately \$7,000 each (2018 dollars).



Hardwood Creek kiosk and rest stop. (Photo provided by Washington County)

Trailheads

Trailheads are located at key locations along the trail and provide a place for trail users to access the trail using their car. The proposed trailhead locations utilize existing parking lots. Besides parking, other amenities such as drinking fountains, portable toilets, bike repair stations, and wayfinding kiosks are also included at trailheads. These amenities were selected based off of public comments received during the open house at Stillwater High School.

Traffic Signage and Devices

In addition to wayfinding signage, the regional trail will incorporate traffic control signs and devices, such as trail stop signs and trail crossing signage. These signs and devices will reflect the physical characteristics and usability of individual trail segments and the system as a whole. Therefore, as trail segments are developed (or reconstructed), trail signs and devices may require modification. The cost to add traffic control signs and devices, to a regional trail is approximately \$1.50 per linear foot.



Typical trail stop sign at road intersection.

Drainage

In many locations, the drainage of the regional trail is similar to that of a typical sidewalk. Stormwater sheet flows over the trail pavement and onto the adjacent roadway, where it is collected and conveyed by the roadway stormwater drainage system. In areas where the regional trail is on an independent route, such as through parks or other green spaces, alternative stormwater best management practices, such as rain gardens and infiltration swales, may be explored during the design phase of the regional trail. Stormwater must shed rapidly from the surface of the trail to prevent hazardous situations for the users, such as water pooling on the trail surface.

ROUTE ASSESSMENT

The section of the Central Greenway Regional Trail covered in this master plan amendment has been divided into six segments that are composed of developed and undeveloped trail (Figure 22 & Figure 23). To preserve and protect the longevity of the trail and rights and responsibilities associated with owning, operating, and maintaining a regional trail, public trail easements are recommended for the entire corridor, regardless of the compliance of existing segments with the design standards of the governing agency. Securing easements to bring non-compliant trail segments into compliance is important, but it is less important than securing easements for trail sections that currently do not exist.

The trail segments are described on the following page.

Central Greenway Regional Trail Lake Elmo Segments				
Segment	From	To	Along	Length
R1	I-94	County Road 10	County Road 19/Keats Avenue	1.1 Miles
R2	County Road 10	Park Maintenance Area Access Road	Lake Elmo Park Reserve Access Road	2.2 Miles
R3	Park Maintenance Area Access Road	Stillwater Lane North	Lake Elmo Park Reserve Access Road	1.0 Miles
R3A	Park Maintenance Area Access Road	Stillwater Lane North	Lake Elmo Park Reserve Access Road	0.5 Miles
R4	Stillwater Lane North	County Road 15/Manning Avenue	County Road 14/Stillwater Boulevard	1.7 Miles
R5	County Road 15/Manning Avenue	58th Street North	County Road 15/Stillwater Boulevard	1.9 Miles
R6	58th Street North	MN 36	58th Street North and future road	0.7 Miles
B1	County Road 14 & County Road 17	39th Street N & County Road 14	County Road 17 and 39th Street N	0.8 Miles
B2	County Road 14 & Stillwater Way	Stillwater Way & County Road 15	Stillwater Way	0.7 Miles

Figure 22: Central Greenway Regional Trail Lake Elmo Segment Proposed Alignment

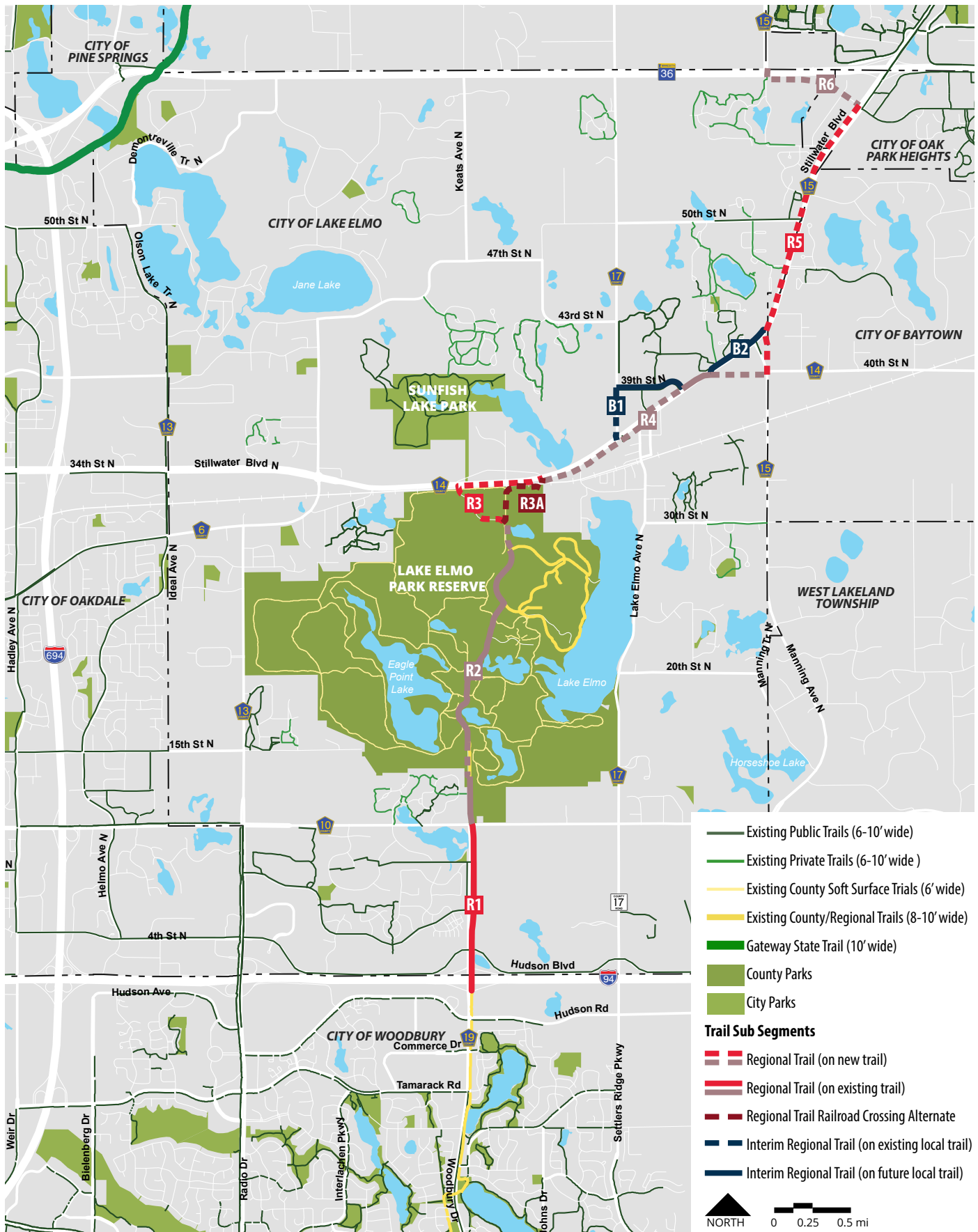


Figure 23: Central Greenway Regional Trail Lake Elmo Segment Map.



Figure 24: Central Greenway Regional Trail Lake Elmo Segment R1

Segment R1

Segment R1 measures approximately 1.1 miles long and extends from I-94 to County Road 10. This trail segment of the Central Greenway Regional Trail will utilize the existing trail along the east side of County Road 19/Keats Avenue. This existing trail also connects to the existing south segment of the Central Greenway Regional Trail located south of I-94. Trail Segment R1 extends through the signalized intersection at the I-94 off ramp at County Road 19/Keats Avenue. The existing trail then extends across I-94 on an eight foot wide trail. It is anticipated that the trail will be upgraded to 10-foot wide at the time the I-94 bridge is reconstructed in the future. After crossing I-94, the existing trail continues through another signalized intersection at the I-94 off ramp at County Road 19/Keats Avenue. Both pedestrian walks extending through the two I-94 off ramps includes Americans with Disabilities (ADA) compliant pedestrian ramps with raised truncated domes and trail crossing push buttons. From this point north, the trail will continue on the east side of County Road 19/Keats Avenue to County Road 10 on the existing eight foot trail. The existing eight foot trail will be widened to 10 feet at a future date in conjunction with roadway improvements.



Existing trail across I-94.

Segment R2

Segment R2 measures approximately 2.2 miles long and extends from County Road 10 to Lake Elmo Park Reserve Maintenance Area Access Road. The majority of Segment R2 utilizes an existing eight foot paved trail that extends through Lake Elmo Park Reserve. The existing eight foot trail will eventually be widened to at least 10 feet at a future date. The existing trail extending through the park may be widened to 12 feet to accommodate additional paved and/or gravel shoulders for pedestrians.

Trail Segment R2 starts at the existing four-way stop intersection at County Road 19/Keats Avenue and continues north on the existing trail on the east side of Keats Avenue. The pedestrian ramps extending through County Road 10 includes ADA compliant pedestrian ramps with raised truncated domes. Trail Segment R2 continues on the east side of Keats Avenue until it crosses Keats Avenue to an approximately 0.25 mile long unbuilt trail segment on the west side of Keats Avenue south of the Lake Elmo Park Reserve entrance pay station. The proposed

regional trail alignment crosses Keats Avenue south of the pay station rather than following the existing trail to the pay station in effort to reduce trail user conflicts with vehicles paying to enter the park. During busy days, vehicles often get backed up at the pay station and pullover/parking area on the east side of the road. The backed up vehicles create potential for trail users running into car doors as they swing open.

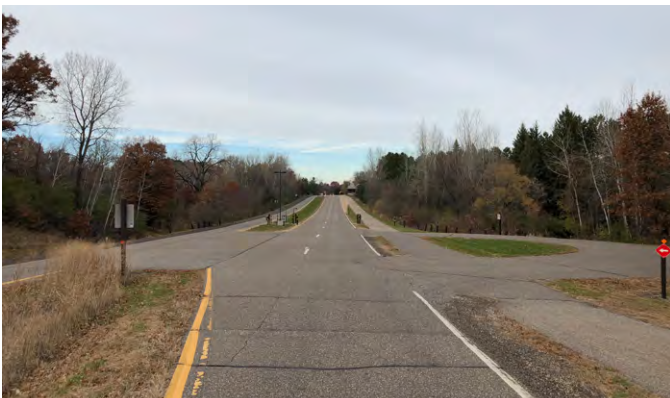
The unbuilt trail segment on the west side of Keats Avenue south of the pay station connects to the existing trail on the west side of Keats Avenue at the pay station. Keats Avenue becomes a park access road as it moves north into Lake Elmo Park Reserve. From the pay station, the trail continues north on the existing paved trail along the Park Access Road on the west side of the road until reaching the Boat Launch Access Road. From the Boat Launch Access Road, Segment R2 will extend north, along the existing Park Maintenance Area Access Road. This part of Segment R2 will require a new paved trail. Key destinations this trail segment passes are the Eagle Point Trailhead and the Lake Elmo Nordic Center.



Existing trail on east side of Keats Avenue in Lake Elmo Park Reserve.



Eagle Point Trailhead parking lot.



Trail crossing of Keats Avenue at Lake Elmo Park Reserve



Existing trail on west side of Park Access Road in Lake Elmo Park Reserve.

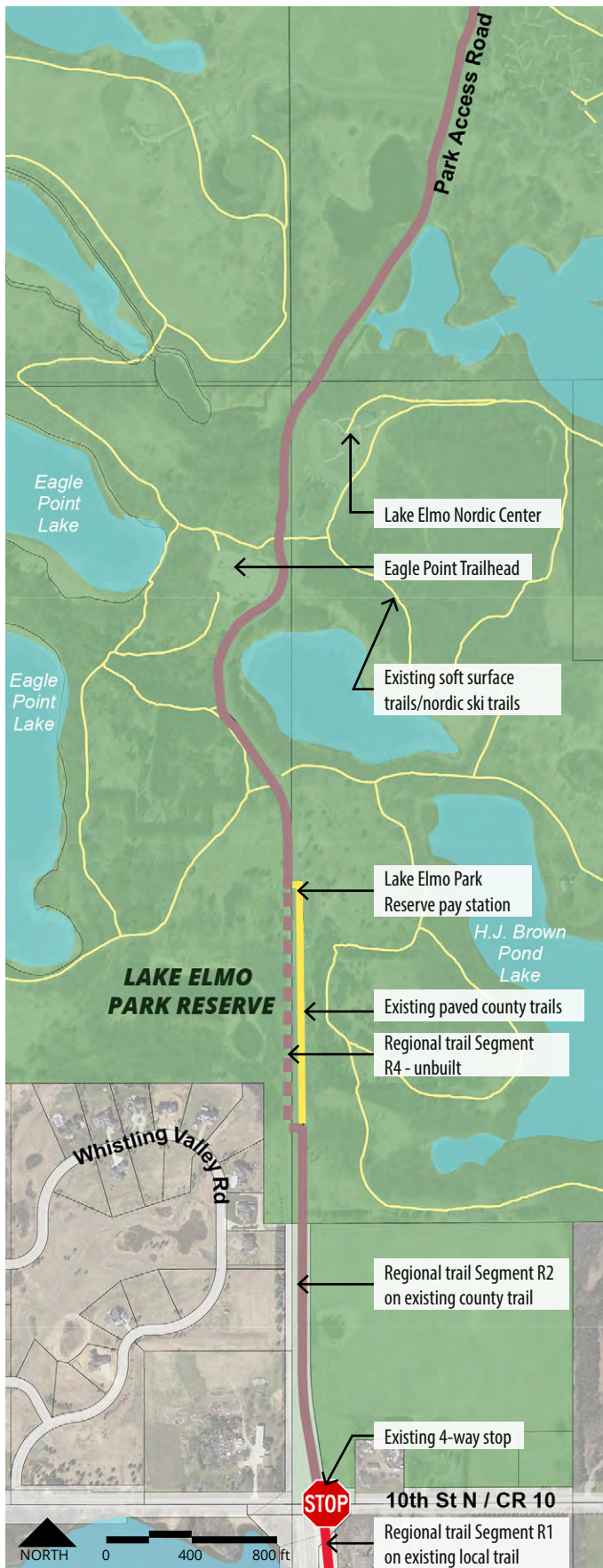


Figure 25: Central Greenway Regional Trail Lake Elmo Segment R2

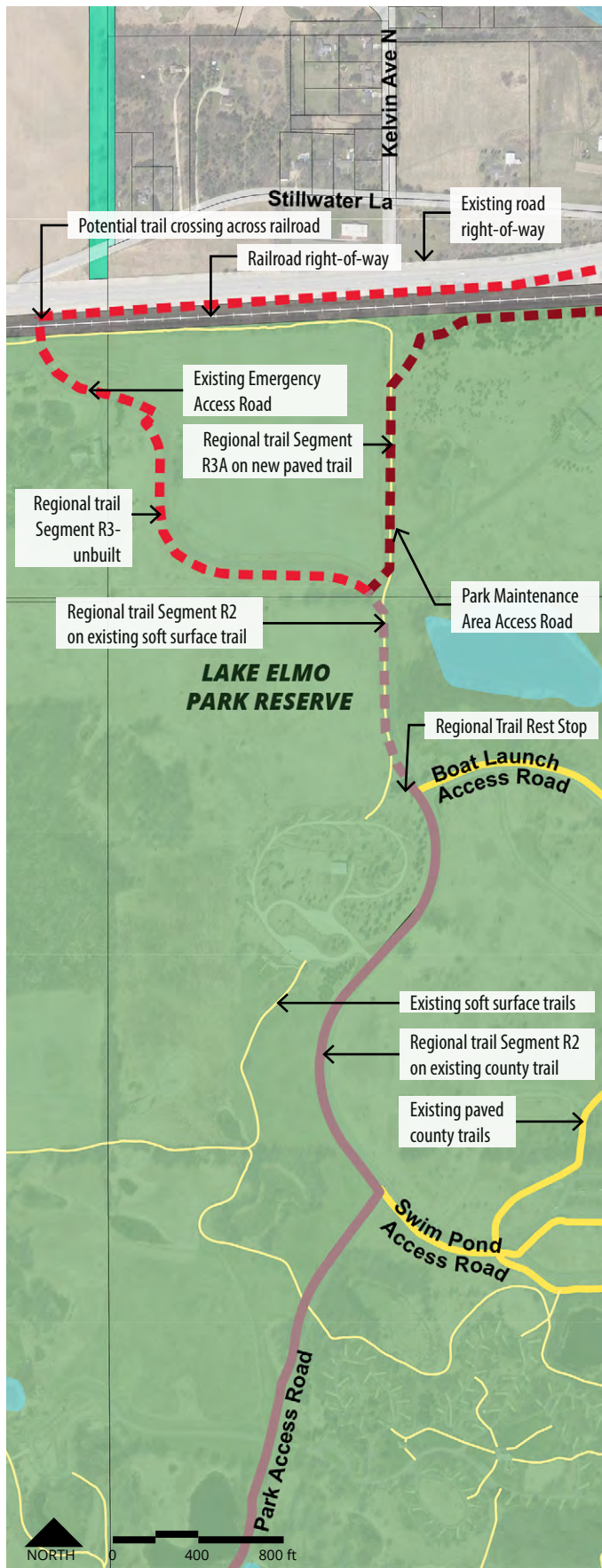


Figure 26: Central Greenway Regional Trail Lake Elmo Segment R2

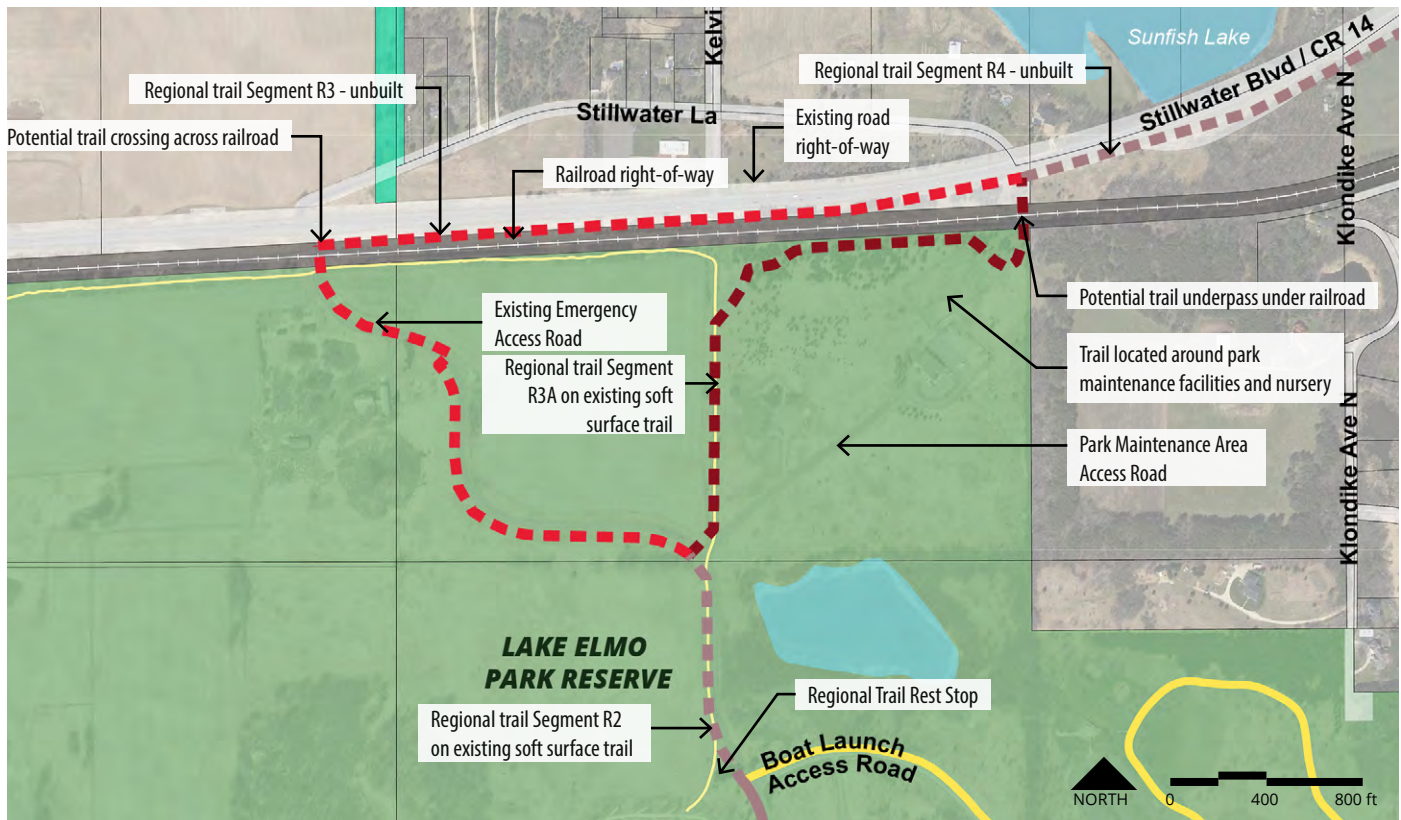


Figure 27: Central Greenway Regional Trail Lake Elmo Segment R3 and R3A

Segment R3

Segment R3 measures approximately 1.0 miles long. The trail extends along Lake Elmo Park Reserve Emergency Access Road from the Lake Elmo Park Reserve Maintenance Area Access Road to County Road 14/Stillwater Boulevard. Trail Segment R3 continues east along the south side of Stillwater Boulevard to Stillwater Lane.

Trail Segment R3 begins by extending along the west side of the Emergency Access Road until it crosses the Emergency Access Road to the east side of the road at the existing farm driveway. From the farm driveway, the trail will continue on the east side



Existing at-grade railroad crossing in Lake Elmo Park Reserve.

of the Emergency Access Road across the existing railroad crossing. A trail overpass could be constructed at a natural highpoint just west of the existing at-grade railroad crossing. Washington County will determine how to cross the railroad at a later date. Once across the railroad, the trail will continue east on the south side of Stillwater Boulevard in the public right-of-way.

Segment R3A

Segment R3A measures approximately 0.5 miles long. The trail extends along the existing soft surface trail that extends north south from the Lake Elmo Park Reserve Maintenance Area Access Road to the Union Pacific Railroad right-of-way. Near the Union Pacific Railroad and park boundary, the trail alignment extends east through the sparsely distributed coniferous trees. The trail then crosses the railroad using a trail underpass at an existing low point.

The three options for crossing the railroad (at grade, overpass, or underpass) will be further evaluated during design development.

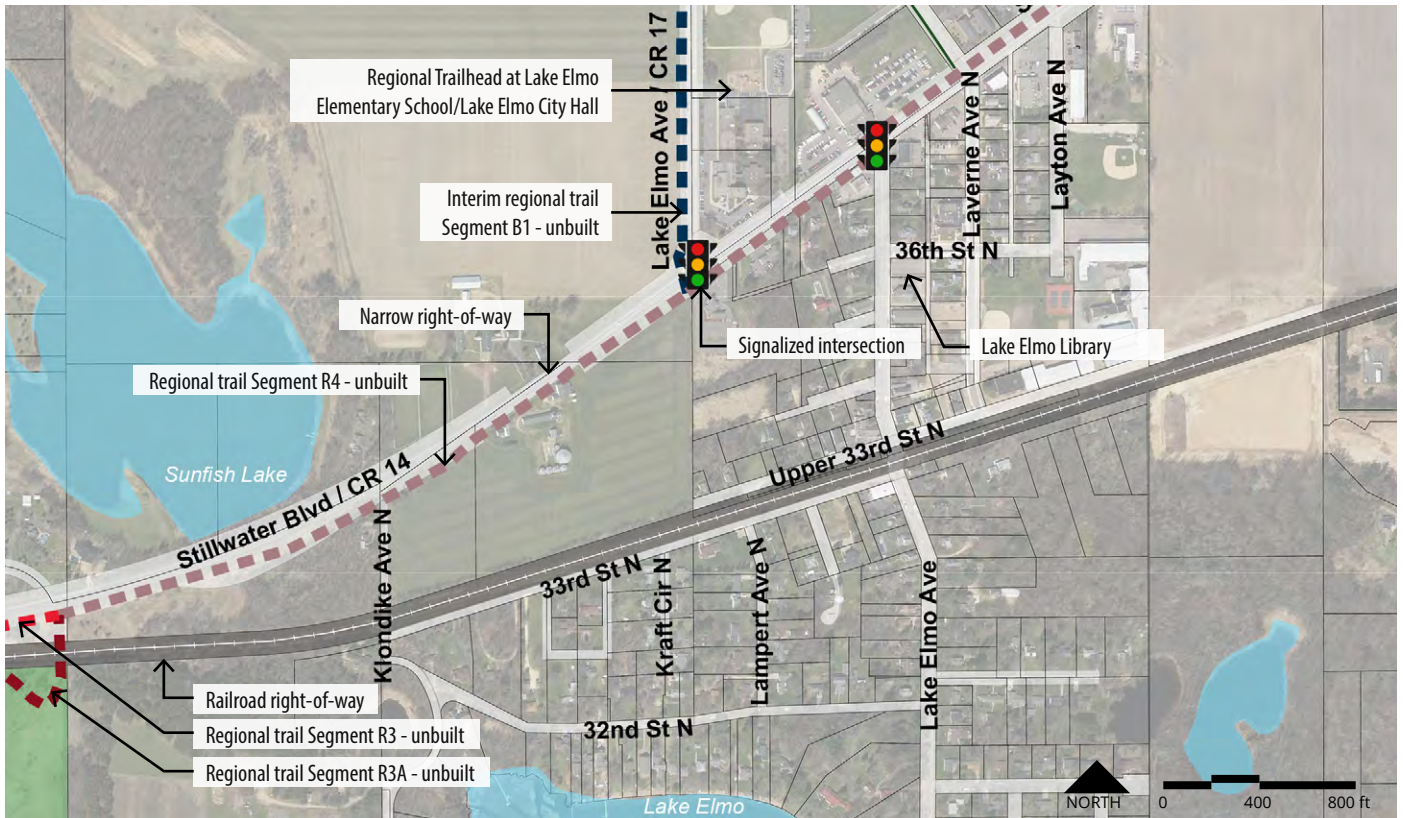


Figure 28: Central Greenway Regional Trail Lake Elmo Segment R4

Segment R4

Segment R4 measures approximately 1.7 miles long and extends along Stillwater Boulevard/County Road 14 from Stillwater Lane to County Road 15/Manning Avenue. Segment R4 begins by extending along the south side of Stillwater Boulevard/County Road 14 from Stillwater Lane to Lake Elmo Avenue. The trail extends through the signalized intersection at County Road 17 on the south side of Stillwater Boulevard

Segment R4 will require additional design to develop a trail given the narrow right-of-way located near the farm building along County Road 14 through downtown Lake Elmo. Given the narrow right-of-way, one design option may be to locate the trail directly adjacent to the roadway with a physical separation from the travel lane, such as a curb or jersey barrier. The Lake Elmo Library should be identified with signage from the trail to alert trail users to its location, two blocks south of Stillwater Boulevard.



Narrow right-of-way along County Road 14 near existing farm building.



Signalized intersection at County Road 14 and County Road 17.

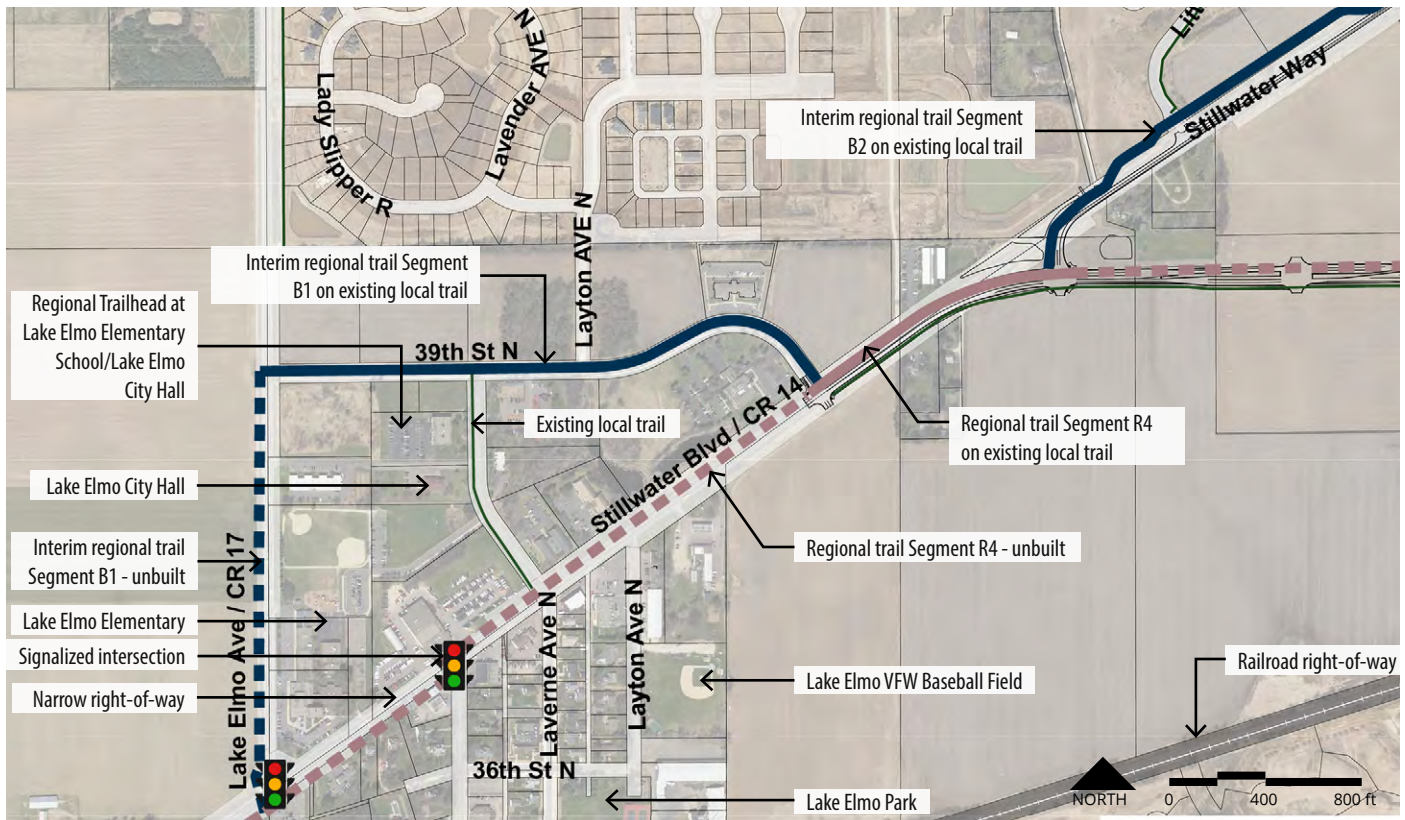


Figure 29: Central Greenway Regional Trail Lake Elmo Segment R4 and B1

Segment R4

Trail Segment R4 continues east along the south side of Stillwater Boulevard from County Road 17. Trail Segment R4 crosses Stillwater Boulevard to the north side at the signalized intersection at Lake Elmo Avenue. The existing pedestrian facilities at Lake Elmo Avenue have push button signals and truncated domes. From Lake Elmo Avenue, trail Segment R4 continues along the north side of Stillwater Boulevard/County Road 14 through downtown Lake Elmo to the recently constructed trail along the north/east side of Stillwater Boulevard extending from 39th Street to Stillwater Way. From Stillwater Way, trail Segment R4 continues east on the unbuilt trail segment along the recently realigned County Road 14 to the signalized intersection at County Road 15.

Segment B1

Building a trail through downtown Lake Elmo will require adjusting the road geometry and potential acquisition of additional right-of-way. Construction of a trail through downtown Lake Elmo will likely not occur until Stillwater



Narrow right-of-way through downtown Lake Elmo.



Existing interim trail alignment along 39th Street.

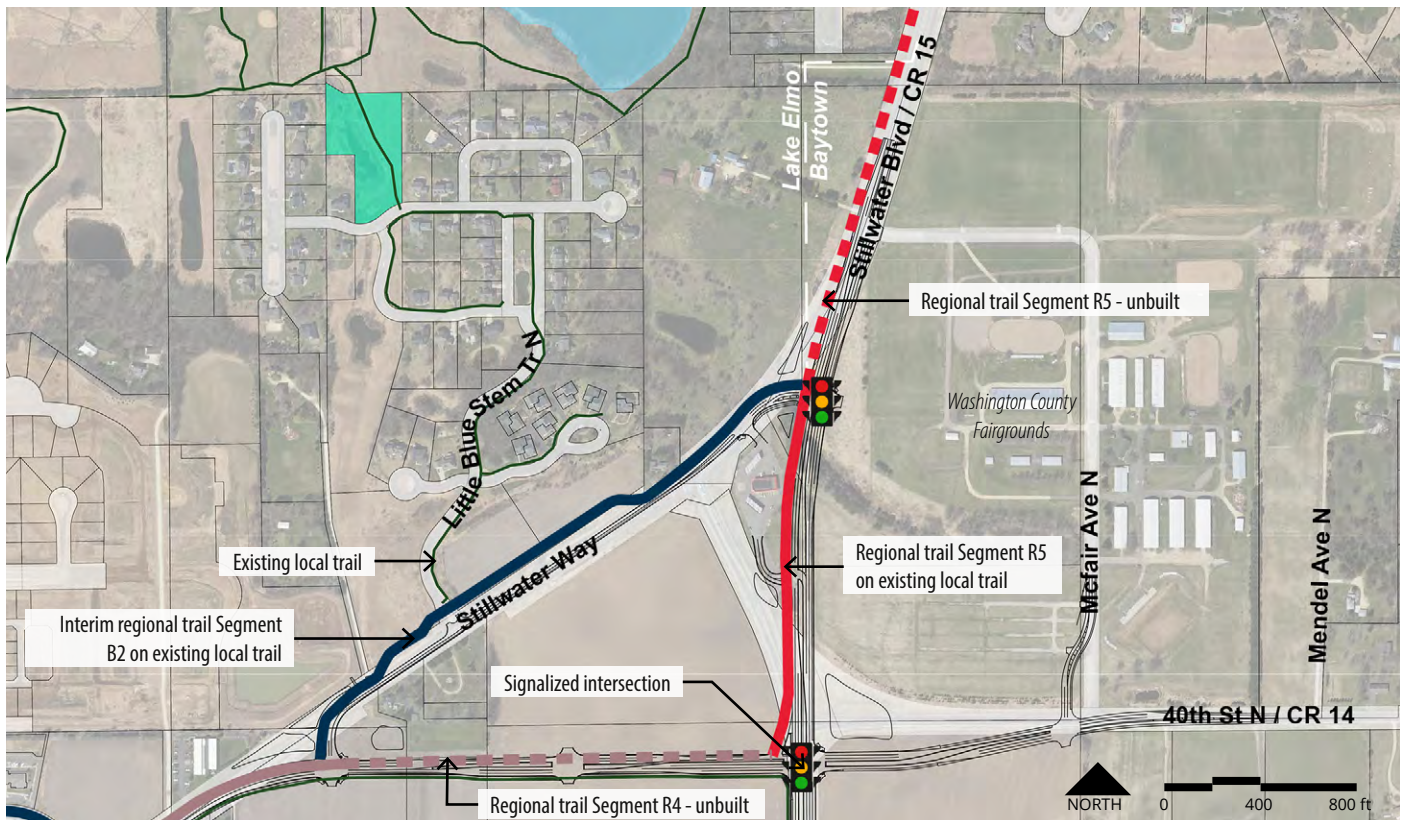


Figure 30: Central Greenway Regional Trail Lake Elmo Segment R5 and B2

Boulevard/County Road 14 is widened by the County. Given the unknown timeframe before a trail through downtown Lake Elmo can be built, an interim trail alignment is proposed that wraps around downtown Lake Elmo.

Segment B1, the interim alignment around downtown Lake Elmo, measures approximately 0.8 miles long. The interim trail segment extends north south along Lake Elmo Avenue / County Road 17 from Stillwater Boulevard to the existing trail along 39th Street. The interim trail alignment continues by extending along the existing 39th Street trail to the recently constructed trail along Stillwater Boulevard. The unbuilt trail segment along County Road 17 will likely be constructed when the adjacent farmland is developed.

Segment B2

Trail Segment B2 extends approximately 0.7 miles along the existing trail on the north side of Stillwater Way from County Road 14 to County Road 15. Trail Segment B2 serves as an interim trail alignment for the unbuilt trail segment of Segment R4 extending along County Road 14 between Stillwater Way

and County Road 15. This unbuilt trail segment of Segment R4 extends along the recently constructed roadway and thus may not be reconstructed for some time.

Segment R5

Segment R5 measures approximately 1.9 miles long and extends along the west side of County Road 15/Stillwater Boulevard from County Road 14 to 58th Street. Segment R5 extends along the eight foot wide trail recently constructed in conjunction with the roadway realignment project of County Road 15 and 14. The existing trail segment extends along County Road 15 between the signalized intersection located at County Road 14 and the signalized intersection at Stillwater Way. The trail will eventually be widened to preferred regional trail width of 10 feet wide. The remaining unbuilt portion of trail Segment R5 continues on the east side County Road 15/Stillwater Boulevard to 58th Street.

Segment R5 continues along the west side of County Road 15/Stillwater Boulevard. Few obstacles exist to construct the unbuilt portion of Segment R5. The trail segment along County Road 15 has adequate right-of-way to construct the trail without additional acquisition. Furthermore, the majority of the overhead utilities are located on the east side of County Road 15 reducing the likelihood of costs associated with relocating utilities.

There are two signalized intersections along Segment R5. The first signalized intersection is located at 50th Street. This signalized intersection is furnished with truncated domes and pedestrian push buttons. The second signalized intersection is located at 58th Street. This intersection lacks truncated domes and has outdated pedestrian push buttons. In addition to updating pedestrian ramps and signals to meet current ADA design standards, a trail overpass is proposed at 58th Street to provide a safe crossing from the regional trail to Stillwater High School.

Segment R5 also features a proposed rest stop near an existing bus stop located at Linden Trail. This trail rest stop was selected to provide trail users who chose to use the trail to access the MetroTransit bus stop a space to park their bicycle. Several other bus stops are located throughout Segment R5 including near the proposed trailhead at Stillwater High School.



Figure 31: Central Greenway Regional Trail Lake Elmo Segment R5

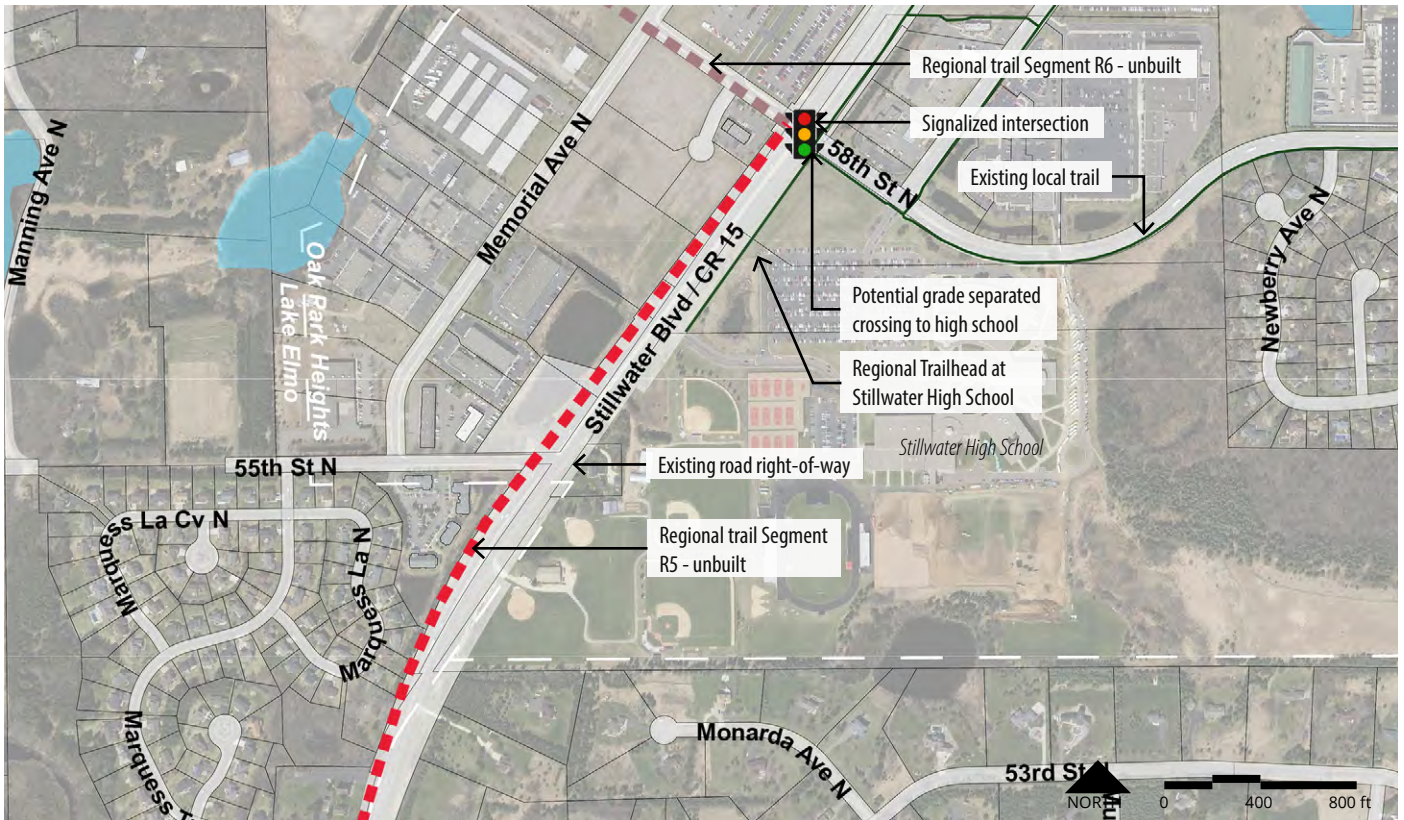


Figure 32: Central Greenway Regional Trail Lake Elmo Segment R5



Signalized intersection at County Road 15 and 50th Street.



Signalized intersection at County Road 15 and 58th Street.



Typical road section of County Road 15 looking south.

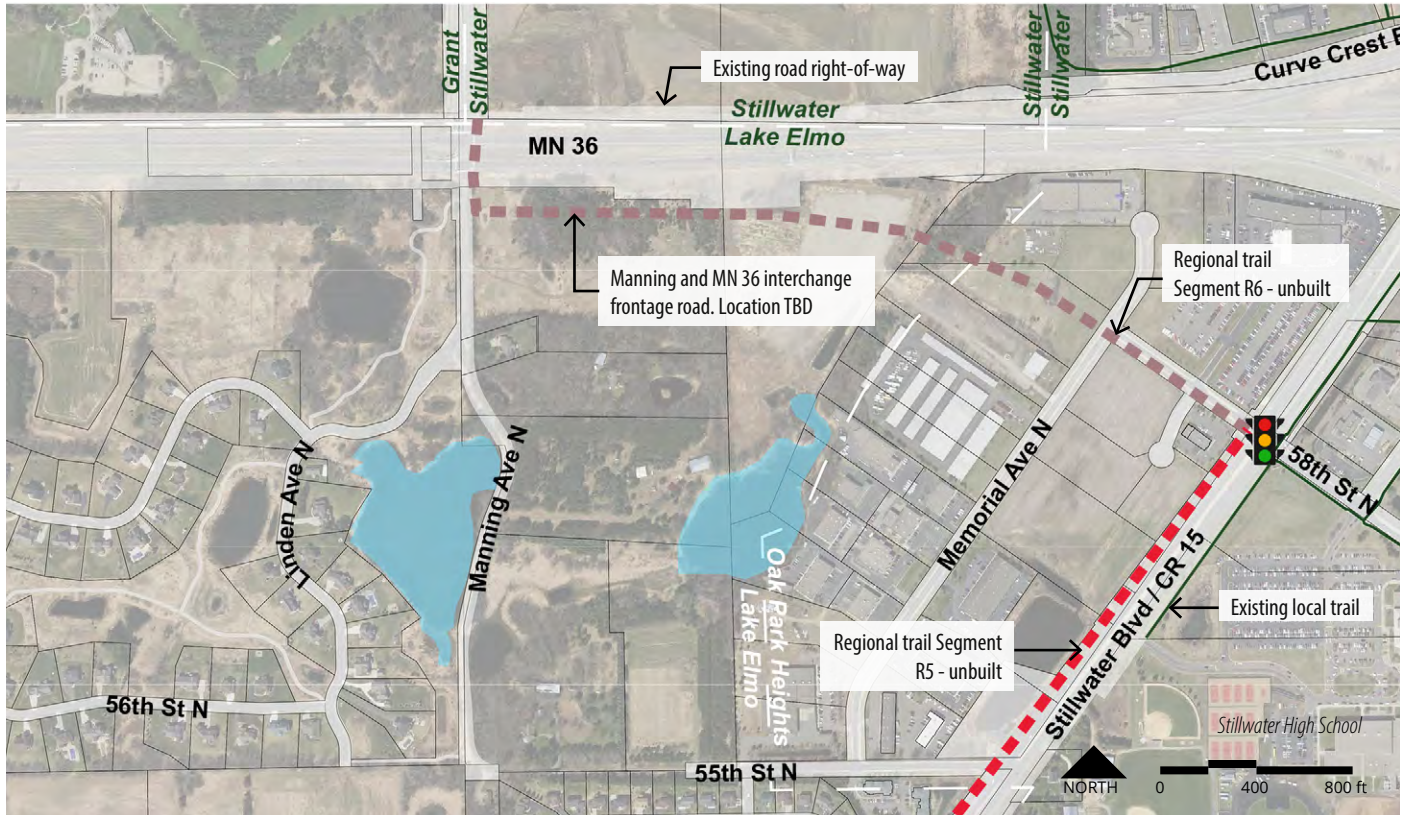


Figure 33: Central Greenway Regional Trail Lake Elmo Segment R5

Segment R6

Segment R6 measures approximately 0.7 miles long and extends from County Road 15 to County Road 15 and MN 36. Trail Segment R6 may extend along 58th Street and the proposed frontage road alignment developed as part of the Manning and 36 Interchange Study currently being conducted by Washington County. A small existing trail segment exists along 58th Street along the gas station property near County Road 15 and 58th Street. However, this small existing segment may not be incorporated into the regional trail system if the Manning and MN 36 Interchange Study designates the trail on the other side of the road or along a different alignment. This study will help determine the road and trail network alternations that will be needed as part of any interchange project. Washington County Engineering Division is coordinating with the Parks Division to ensure the trail connection will be up to the regional standard.



Existing Trail along 58th Street near gas station.



Existing Manning and MN 36 intersection.

IMPLEMENTATION

It is anticipated that the regional trail will be implemented in stages, with the construction of various stages driven by available funding and local factors, such as timing of adjacent roadway improvements, and public desire to expand the regional trail system. Until the corridor is fully developed, gaps in the regional trail will exist. However, the ultimate trail geometry will consist of a 10-foot-wide (minimum) paved surface, separate from any adjacent roadway, so that trail users will not share the roadway with motorized vehicles.

The development and implementation of unconstructed trail segments and upgrading of certain trail segments to regional trail standards will require additional activities beyond the master plan amendment phase. These activities typically include the preparation of final construction documents, additional property and natural resource analysis, final cost estimates, city staff review, trail-way cooperative agreements, and public approval meetings (such as City Council and Park Commission and County Board meetings).

ESTIMATED COSTS

Regional trail implementation has both initial costs (acquisition and development) and on-going costs (operations and maintenance). Trail development will occur as opportunities to coordinate with other agencies/projects occur, funding becomes available, and at the discretion of the Washington County Board of Commissioners. Individual development projects may move ahead of schedule to coincide with development adjacent to the trail corridor that can result in cost savings.

Development Costs

Regional trail development includes the cost to prepare the site; reconfigure roadways as required; modify drainage patterns where necessary; pave the trail; and install signage, striping, and landscaping. In total, the estimated development cost for the Lake Elmo Segment of the Central Greenway Regional Trail is \$6,873,359. See Appendix A. Detailed Cost Estimate for further information.

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SECTION IV: CONFLICTS AND COORDINATION WITH ADJACENT PUBLIC SERVICES

The Lake Elmo Segment of the Central Greenway Regional Trail is proposed to be developed within public right-of-way. Additional right-of-way may be needed to develop some segments of the trail along County Road 14. Final determination of right-of-way needs will be identified when trails are proposed, which may coincide with road widening projects or adjacent property development. The total estimated cost of additional right-of-way is \$1,417,000 in 2018 dollars.

There are buried utilities, including gas and sanitary sewer in the right-of-way along portions of the regional trail. High-voltage overhead power are located near the location of the new frontage road being designed as part of the Manning and MN 36 interchange project. Coordination with utilities will be required during design development to ensure that the trail is

constructed without imposing on utility easements or otherwise impacting the utility corridors.



Existing High-voltage overhead power lines near proposed frontage road of Manning and MN 36.

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SECTION V: OPERATIONS AND MAINTENANCE

Washington County manages and operates its park and trail system with internal staff including seasonal and full-time employees. The Parks Division has an annual operations and maintenance budget of approximately \$4,000,000 to operate and maintain the County's park and trail system.

The Central Greenway Regional Trail Lake Elmo Segment will be overseen by professional public safety, operations and maintenance staff operating out of Lake Elmo Park Reserve.

This trail will add new mileage to the Washington County's regional trail system and operations and maintenance costs will increase because of the expansion of the system. Additional staff time and equipment will be needed to maintain the new trail segments. No new equipment will be needed as the County will utilize existing trucks and mowers to maintain the trail. It is anticipated that the annual cost to maintain the trail upon full build out will be \$5,500, including additional staff and time and resources. An additional \$10,000 annually will be needed for the five years prairie maintenance plan to establish the prairie and

pollinator plantings along the trail, as proposed in the natural resources section of the master plan amendment.

PROPOSED MAINTENANCE ACTIVITIES

Washington County, through joint powers agreements with the City of Lake Elmo and relevant public jurisdictions, will provide maintenance services for the regional trail. Maintenance operations will include seasonal condition assessments and periodic inspections, followed by necessary maintenance actions. Inspections will address possible safety issues, vandalism, and non-routine maintenance concerns. Washington County will also respond to maintenance issues identified by the public, on a timely basis, as funding permits. Extraordinary maintenance may be required to respond to storm damage, vandalism and other unplanned circumstances.

The Central Greenway Regional Trail will receive scheduled seal coating and reconstruction in accordance with Washington County standards, and as funding permits.



Mowing turf trail shoulders.



Regular trail maintenance including pavement repair will be scheduled by Washington County to keep the trail functional and operational.

Washington County will provide routine maintenance as identified below.

- » Sign inventory and replacement, spring cleanup, trail sweeping, trash pickup, erosion repair, fence repair, bituminous patching, and striping replacement, as needed.
- » Mowing adjacent to the trails will be coordinated by Washington County.
- » Washington County will coordinate snow removal maintenance with the city of Lake Elmo.

PUBLIC SAFETY

Washington County Sheriff's Office will provide public safety services on Central Greenway Regional Trail.

SOURCES OF REVENUE

Washington County budgets annually for operating the park and trail system. The budget includes maintenance of recreation facilities and management of natural resources within the parks. Revenue for these expenditures originates from three primary sources:

- » Vehicle passes and campground reservations at County parks
- » County levy
- » Operations and maintenance grants consisting of State general funds and lottery in-lieu sales tax funds that are disbursed through the Metropolitan Council

- » State and Metropolitan Council Bonding
- » Parks and Trails Legacy Fund Grants

Washington County does not charge for trail use.

ORDINANCES

Washington County has adopted Ordinance No. 174 which establishes rules and regulations for park and trail use and management under its jurisdiction. The ordinance incorporates Minnesota statutes that address regulations for:

- » Public Use
- » General Conduct
- » General Parkland Operation
- » Protection of Property, Structures and Natural Resources
- » Recreational Activities
- » Motorized Vehicles, Traffic and Parking

A copy of the ordinance is available for review through Washington County.

Rules and regulations are posted, as needed, throughout Washington County park properties and facilities. Posted information includes park hours, permitted and prohibited activities, fees, map of the parks and trails, and who to contact in case of an emergency.



SECTION VI: PUBLIC ENGAGEMENT AND PARTICIPATION

OVERVIEW

Washington County strives to provide an inclusive public engagement process for its trail planning efforts. To reach a diverse cross-section of the community and to engage people of diverse races, ethnicities, classes, ages, abilities and national origin, Washington County staff developed a plan to provide information to the public in multiple ways with an emphasis on trying to make it easy and accessible for all interested citizens to participate in the planning process. The public engagement process included the following meeting types.

- » Technical Advisory Committee (TAC)
- » Community Advisory Committee (CAC)
- » Pop-up Events
- » Public Open Houses
- » One-on-one listening sessions
- » Wikimapping website
- » Updates to the Washington County Parks Commission on the plan development progress
- » Presentation to County Board, Lake Elmo Parks Commission, and Lake Elmo City Council

The general public, including park and trail users and Washington County residents are important stakeholders in the master planning process and their input is highly valued. Comments received have been addressed in revisions to the master plan amendment.

REGIONAL TRAIL PLANNING

Planning for the Central Greenway Regional Trail is in response to expressed demand for recreational and non-motorized transportation options in suburban edge communities. The Central Greenway Regional Trail is identified as a Regional Trail

Search Corridor in the Metropolitan Council 2040 Regional Parks Policy Plan. As such, the Central Greenway Regional Trail needs an approved master plan amendment to become eligible for Metropolitan Council regional parks system funding for development.

CENTRAL GREENWAY REGIONAL TRAIL TECHNICAL ADVISORY COMMITTEE

A Central Greenway Regional Trail Technical Advisory Committee (TAC) and Community Advisory Committee (CAC) were established to guide the trail master plan amendment and coordinated planning efforts within the local communities and greater region. Members of the TAC included public agency staff from the following stakeholders: City of Lake Elmo, Lake Elmo Park Reserve, City of Stillwater, Valley Branch Watershed Organization, Metropolitan Council, Brown's Creek Watershed. Members of the CAC included community stakeholders from the City of Lake Elmo, City of West Lakeland Township, Lakeview Hospital, Stillwater High School Bike Team, ISD #384, Parks and Open Space Commission, Washington County, and community advocates.

The responsibilities of the TAC and CAC included:

- » Coordinating with respective groups and governing bodies, such as City Councils, Planning Commissions, Park Commissions and other staff/departments within the respective city/agency.
- » Assisting in implementing public participation opportunities.
- » Providing information and support necessary to identify feasible trail routes and review/complete the trail master plan amendment that meets city and applicable agency goals.
- » Assisting Washington County in local municipality/agency approval processes.

The TAC met three times:

- » February 13, 2018
- » June 16, 2018
- » October 1, 2018

The CAC also met three times:

- » March 8, 2018
- » June 21, 2018
- » October 4, 2018

Throughout the master planning process, Washington County staff met with TAC and CAC members to identify opportunities and address and resolve their issues and concerns. These meetings often involved other individuals, groups, and organizations as detailed route information was exchanged.

WASHINGTON COUNTY PARK COMMISSION

The Washington County Park Commission reviewed planning updates and the final draft master plan amendment two times throughout the planning process, including:

- » July 12, 2018
- » November 15, 2018

ONE-ON-ONE LISTENING SESSIONS

Washington County staff presented updates on the master plan amendment process to local city planners and Lake Elmo Park Reserve staff several times throughout the master plan amendment process to keep local authorities updated and to solicit additional input about the master plan amendment. Meetings were held on the following dates:

- » Lake Elmo Park Reserve staff meeting - May 2, 2018
- » City of Lake Elmo staff - May 23, 2018

Washington County staff also met with local businesses and community groups in Lake Elmo. For example, Washington County reached out to STAR Snowmobile Club, FamilyMeans, Lake Elmo Inn, and Common Ground Church on several

occasions to share project information and to invite them (and their partners/members) to the master plan public engagement events. It was identified early in the planning process that contacting these groups directly would be an effective way to engage with them. Comments from these groups were captured in engagement event comment/question tables.

CENTRAL GREENWAY REGIONAL TRAIL LAKE ELMO SEGMENT MASTER PLAN OPEN HOUSE

10.30.18
5 - 7PM AT
STILLWATER AREA
HIGH SCHOOL
CAFETERIA

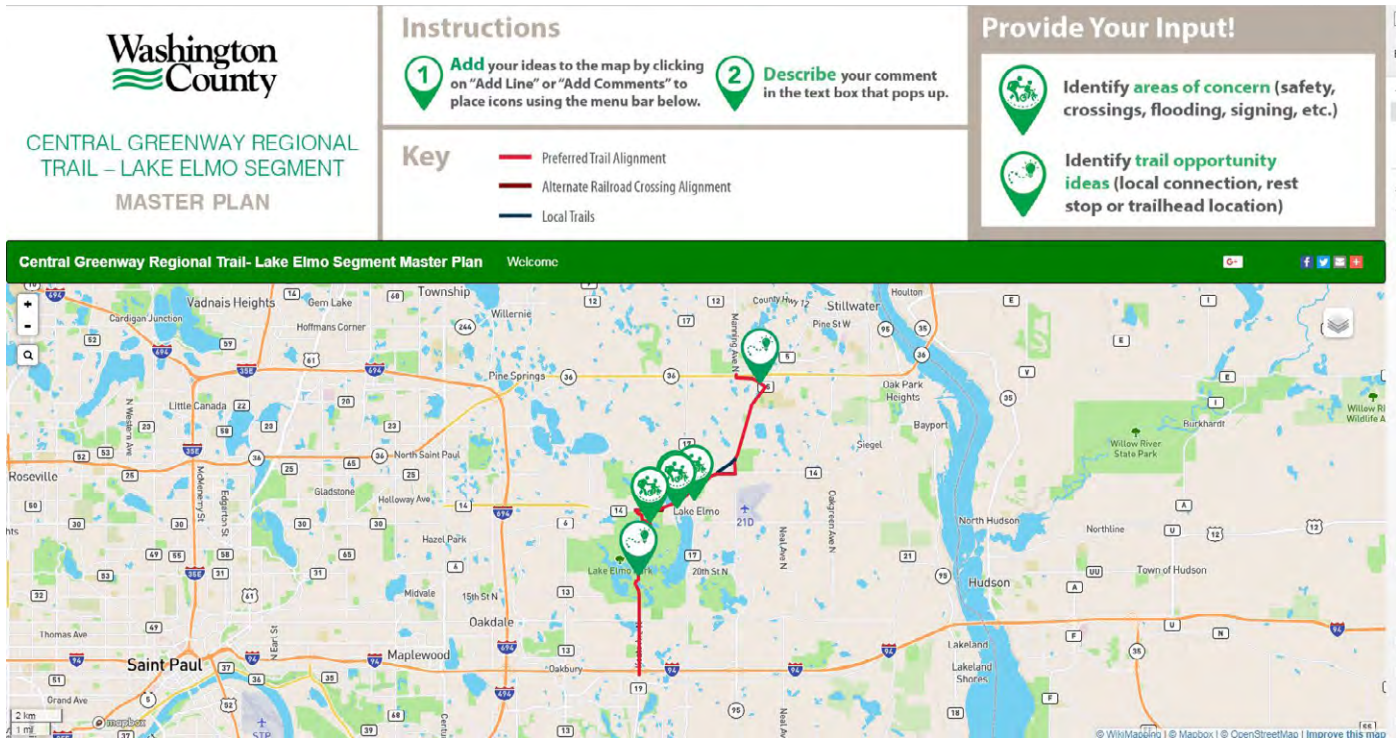
Come review the preferred multi-use trail route and provide feedback on the design and facilities. Refreshments will be provided and attendees can come and go as they please.

More information can be found by searching “Central Greenway” at:
www.co.washington.mn.us

Open house 2 flier

PUBLIC COMMUNICATIONS/ SOCIAL MEDIA

Online and social media tools were identified as alternative ways to get information and updates to the public. The Washington County website was the primary on-line portal for meeting information and for posting draft plans for public review. All open houses and pop-up meetings were listed on the County’s website. The County utilized its Facebook and Twitter accounts to promote the pop-up events. In addition, fliers were printed and posted at County facilities, libraries, coffee shops, post



Central Greenway Regional Trail WikiMap

offices, parks, city halls, and schools to promote the pop-up events and open houses.

A WikiMap site was developed for the master plan amendment to provide the public an opportunity to provide input on the regional trail alignment without attending a public engagement meeting in person. A total of 6 comments were received. These comments are included in “Appendix E: WikiMap Results” on page 77

PUBLIC OPEN HOUSES

Washington County, with the support and assistance of select Technical Advisory Committee members presented the Central Greenway Regional Trail planning efforts and held two public open house engagement events where the public had an opportunity to review the status of planning efforts and provide comments. In an effort to reach out to a variety of Washington County residents, Washington County held meetings at public buildings accessible to the public. Washington County also sent out press releases to advertise each open house, and stories were posted in local newspapers. Public open house meetings were held on the following dates:

- » August 28, 2018 Open House at Lake Elmo Christ Lutheran Church
- » October 30, 2018 Open House at the Stillwater High School cafeteria

Open House #1 Approach & Findings

The first public open house was held on August 28, 2018 at Lake Elmo Christ Lutheran Church. Lake Elmo Lutheran Church is located near the proposed trail corridor in downtown Lake



Open house 1 at Lake Elmo Christ Lutheran Church.

Elmo. The church is easily accessible to the public with ample parking. Attendance at the open house included 32 members of the public and representatives from Washington County. Several proposed alternate trail alignments with detailed analysis for each alternate alignment were presented at the meeting. Feedback from the first open house was positive with interest in developing a linking regional trail along through downtown Lake Elmo with connections to Lake Elmo Park Reserve. Specific comments from the open house are listed in Figure 34.

Open House #2 Approach & Findings

A second open house was held on October 30, 2018 at the Stillwater High School cafeteria. Attendance at the open house included 25 members of the public and representatives from Washington County. The preferred trail alignment developed based on comments received from previous public engagement was presented at the second open house. Those in attendance provided valuable input on the proposed preferred alignment. Overall, positive feedback was given about the proposed regional trail. A complete list of comments from the public meetings is included in Figure 34.



Open house 2 at Stillwater High School cafeteria.

POP-UP MEETINGS

Washington County also initiated two public pop-up events to seek more public input about the master plan amendment update. The 2040 Regional Parks Policy Plan requires that the public engagement process seek to mitigate existing racial, ethnic, cultural, or linguistic barriers and include people of diverse races, ethnicities, classes, ages, abilities and national origin. In order to reach out to populations that may not feel

comfortable attending open houses or public meetings, the County set up two pop-up events designed to “meet people where they are already located.” Staff set up tables at strategic locations and times that are frequented by Washington County residents of all backgrounds. Pop-up style tabling allowed for more in-depth, one-on-one conversations. The County received positive feedback on conducting this type of engagement, as several members of the public mentioned they would not typically attend an open house, but were happy they were given the opportunity to provide feedback in this setting. The pop-up meetings were held on the following dates:

- » February 26, 2018 Lake Elmo Nordic Center
- » August 8, 2018 Washington County Fair

Pop-Up Event #1 Approach & Findings

In an effort to obtain more input from the public about the Central Greenway Regional Trail Master Plan Amendment, Washington County held two pop-up meetings. The first pop-up event was held at the Lake Elmo Nordic Center on February 26, 2018. 28 people provided input during the pop-up event. This pop-up event was strategically located here because this is a popular destination for many community members who actively invest in active living and would be potential trail users. The Lake Elmo Nordic Center is also located adjacent to the trail corridor. Positive feedback was received with many desiring the trail to connect to downtown Lake Elmo while not disrupting the cross country ski trails located in Lake Elmo Park Reserve.



Pop-up meeting at Lake Elmo Nordic Center.

A complete list of comments from this pop-up meeting is included in Figure 34.

Pop-up Event #2 Approach & Findings

The second pop-up event was held at the Washington County Fair Grounds on August 8, 2018. The event was held in the Washington County booth during the afternoon to provide an alternative to evening meeting times. In addition, the fairgrounds is located adjacent to the preferred trail corridor.

Forty people stopped by the pop-up event to provide comments and/or ask questions about the trail master plan amendment. A board with site issues and opportunities as well as a board of the different trail alternates was presented at the open house. Many people who stopped by were excited to see more trails in Lake Elmo and Washington County. A complete list of comments from the public meetings is included in Figure 34.

COMMUNITY ENGAGEMENT RESULTS

The various meetings and public outreach events that were conducted as part of the Central Greenway Regional Trail Master Plan Amendment process provided the project team with beneficial input about what the public wants for the Lake Elmo

Segment of the Central Greenway Regional Trail. The comments received in the community engagement process supported the County's sentiment to expand the regional trail system and develop the trail in a safe and thoughtful way. Several themes and ideas came out during the public process. These included:

- » The regional trail should connect to Lake Elmo Park Reserve, downtown Lake Elmo, and Stillwater High School.
- » Avoid impacts to other existing recreation uses. In particular, the ones found in Lake Elmo Park Reserve.
- » Additional local trail connections should be a priority.
- » Provide safe route with least amount of driveway crossings, utility poles, etc.
- » Minimize adjacent property impacts.
- » Provide preferred trail route that is politically palatable.

SUMMARY OF PUBLIC ENGAGEMENT COMMENTS

The following table summarizes the comments that were received at the open houses and pop-up meetings throughout the master planning process. Several of the comments were repeated at multiple events but are listed only once for clarity.



Open House Meeting #1	
Public Comment/Question	Response
The blue segment located on the existing soft surface trail through Lake Elmo Park Reserve is a popular mountain biking trail.	The preferred route did not interfere with mountain bike trails.
I have a concern with a parking lot near the future west side Lake Elmo Park Reserve entrance. The high speeds at this location along Inwood Ave is a concern if traffic will be turning into the proposed west park parking lot. Lower speed or keep park access in its present location (current unofficial entrance closer to 26 Street N.)	The Lake Elmo Park Reserve west entrance design is outside the scope of this master plan amendment.
Like red route through Lake Elmo Park Reserve but I am concerned because it is a highly-used trail for walkers.	The plan addressed this comment by proposing a wider trail through the park that will include additional space for walkers.
Add winter maintenance to provide bike/pedestrian access through Lake Elmo Park Reserve.	Winter maintenance will be covered in the master plan amendment.
I like the red and orange options because they are most direct.	The plan addresses this comment.
Klondike Avenue is an unsafe trail route. The road is gravel with tight curves and steep grades. There is also a 30 foot drop to a pond.	The plan addresses this comment.
Trails in the Kindred development are private.	The plan addresses this comment.
A safer crossing is needed at County Roads 14 at Lake Elmo Avenue.	The plan addresses this comment.
The Lake Elmo Elementary school needs a parking lot and their playground restored to accommodate more students. Roadway speeds on Lake Elmo Ave should be reduced for safety.	Improvements to Lake Elmo Elementary school are outside the scope of this master plan amendment.
I like the Lake Elmo Ave/CR17 to 50th street because it has less traffic and more scenic than following Lake Elmo Ave to MN 36.	The plan addresses this comment.
Lake Elmo Avenue/CR 17 and MN 36 is a dangerous intersection.	Intersection improvements to CR17 and MN 36 are outside the scope of this master plan amendment.
Comment received along Stillwater Blvd at Linden Trail: Concerned that this is turning into a very high traffic noisy route. What will be a safe crossing?	The plan addresses this comment.

Figure 34: Summary of public comments and responses

Open House Meeting #2	
Public Comment/Question	Response
The trail alignment proposed is the best option.	The plan addresses this comment.
I like the idea of a trail underpass of the railroad tracks north of Lake Elmo Park Reserve.	The method used to cross the railroad will be determined during design development.
The local trail northwest of the new CR 14 and CR 15 intersection should be made the regional trail because people will cut through on the shorter route.	The plan addresses this comment.
The preferred regional trail route will allow direct access to the Washington County Fair.	The plan addresses this comment.
Add trailheads in downtown Lake Elmo and Lake Elmo Park Reserve.	The plan addresses this comment.
Can a connection be made to Sunfish Lake Park?	A connection to Sunfish Lake Park would likely require a grade separated crossing across CR 14 and is outside the scope of this master plan amendment because the regional trail cannot go on the north side of CR 14 without lake impacts to Sunfish Lake given the proximity CR 14.
Liked the idea of an grade separated crossing of CR 15 at Lake Elmo High School.	The plan addresses this comment.
Lake Elmo Park Reserve has intense use. Overuse will degrade the park experience. The alignment should be on county roads, not through the middle of the park reserve.	The trail through the park primarily utilizes existing paved trails. Any development of new trail or upgrades to existing trails will utilize sustainable design practices.
Trails in the park reserve should follow existing roads and not be developed on soft-surface trails.	The plan addresses this comment.
There was support for the trail extending through downtown Lake Elmo along CR 14.	The plan addresses this comment.
Provide park access in the southeast corner along Lake Elmo Avenue.	The preferred trail alignment did not provide access in the southeast corner along Lake Elmo Avenue.
More local trails will be needed to connect to the proposed regional trail. Especially along Lake Elmo Avenue.	Development of local trails is outside the scope of this master plan amendment.
Concern was expressed for the amount of separation between high-speed traffic on CR 14 and the adjacent proposed trail.	The plan addresses this comment.
Plant materials that are planted next to roadways need to be salt tolerant. Most grasses will not survive.	Specific plant species will be selected during design development.
Create a "greenway" experience.	The plan addresses this comment.
User fees and enforcement were suggested.	Washington County currently does not charge for regional trail use.
Create a safe crossing to the Lake Elmo Elementary School.	The plan addresses this comment.
There will be a future fire department constructed along 39th Street east of Lake Elmo Avenue.	The plan addresses this comment.
Add snowmobile crossing signs where the Star Trail will cross the proposed trail.	The plan addresses this comment.
Install a box culvert under Highway 36 at Manning.	A interchange study is currently being conducted by the county.
Will snowmobiles be able to use the trail crossing of Highway 36?	A interchange study is currently being conducted by the county.
Develop a trailhead similar to Pine Point Regional Park.	The plan addresses this comment.
The cost of construction and maintenance are always a concern.	The plan addresses this comment.

"Figure 34: Summary of public comments and responses"

What Type of Information/Elements Would You Like at Trailheads?

Place dot on images you like most

- Bike Racks
- Drinking Fountain
- Bike Fix-it Station
- Mounted Bench
- Limestone Seating
- Portable Toilet + Enclosure
- Gravel Parking Lot + Benches
- Paved Parking Lot + Shelter
- Shelter with Tables
- Kiosk with Trail Map
- Interpretive Signage
- Wayfinding Signage

POTENTIAL TRAIL ELEMENTS
Central Greenway Regional Trail Master Plan: Lake Elmo Segment

Washington County
COUNTY OF 2016

"Figure 34: Summary of public comments and responses" (From Open House #2)

Pop-up Meeting #1	
Public Comment/Question	Response
A comment was made that the user wanted the trail to connect to the park because they trailer camp in the park and would like the opportunity to bike to downtown Lake Elmo.	The plan addresses this comment.
The trail should connect or pass through downtown Lake Elmo.	The plan addresses this comment.
The trail should connect with the Gateway State Trail.	This is out of the scope of this project and will be addressed in a future phase of trail planning
Cross-country ski trails should not be changed or impacted by adding a paved trail through the park.	The plan addresses this comment.
Add a west entrance to the park for pedestrians and bikes.	Lake Elmo Park Reserve has plans to develop a west entrance
Provide a safe crossing of CR-14 and the railroad.	The plan addresses this comment.
Establish better access to recreation areas of Lake Elmo Park Reserve.	The plan addresses this comment.
Connect with the trails in Sunfish Lake Park, but not to cut through the park.	The regional trail will not connect to Sunfish Lake Park.
Connect to Baytown Township.	The plan addresses this comment.
Avoid CR-17 south of CR-14.	The plan addresses this comment.
Several comments indicated a preference for a north entrance at Lake Elmo Park Reserve to provide bike and pedestrian access.	The plan addresses this comment.
Connect with single track mountain bike trails within Lake Elmo Park Reserve.	The plan addresses this comment.
Pop-up Meeting #2	
Public Comment/Question	Response
More trails in Lake Elmo will be nice. Many people commented on how they like and support the trail.	The plan addresses this comment.
Trail loops are preferred over out and back trails.	The regional trail will be a linear corridor but several existing local trails that connect to the Central Greenway will provide opportunities for looped routes.
Find ways to connect the regional trail to restaurant and bars so trail users have a destination to travel to.	The plan addresses this comment.
Extend the trail straight through the Lake Elmo Park Reserve on the existing paved trail to reduce the conflicts fast moving cyclist might have with other park uses.	The plan addresses this comment.
Leave unpaved trails in Lake Elmo Park Reserve as is.	The plan addresses this comment.
People love biking in Lake Elmo Park Reserve.	The plan addresses this comment.
The dark blue (far west) route through Lake Elmo Park Reserve is better because it offers a longer trail through the scenic park.	This route was not selected as the preferred route.
The orange route (far east) route through Lake Elmo Park Reserve is best because it would be very scenic by the lake and hillier for roller ski training. More people would use a trail that is near water.	This route was not selected as the preferred route.
No strong opinion on any of the options. They all look good.	The plan addresses this comment.

“Figure 34: Summary of public comments and responses”

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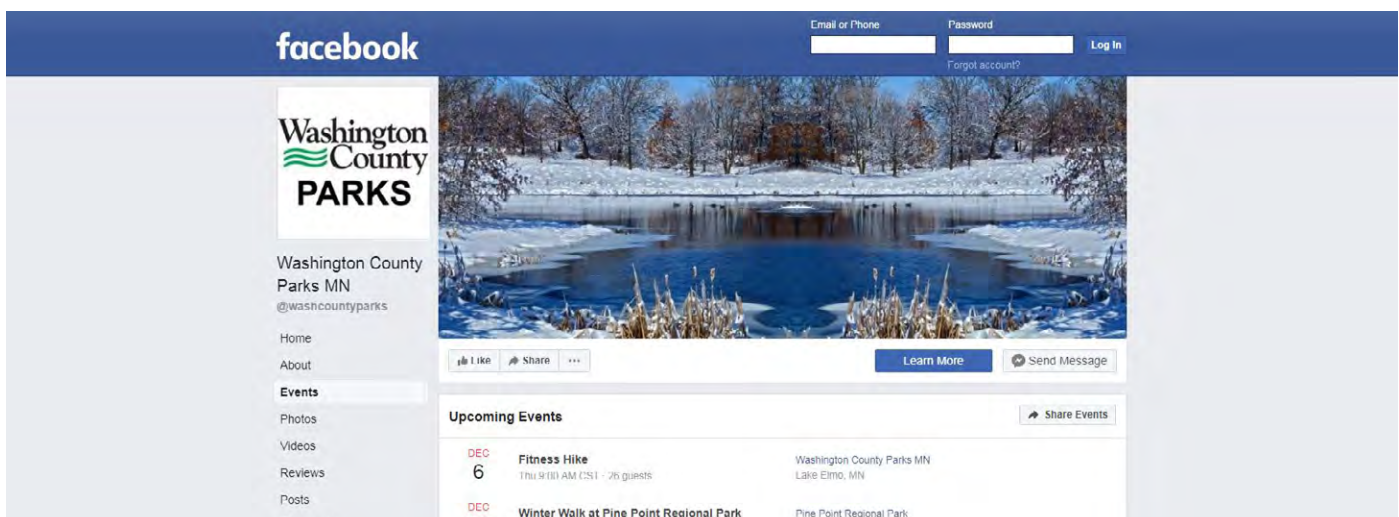
SECTION VII: PUBLIC AWARENESS

Washington County uses public relations, marketing, and media relations tools, such as a website, event planning, press releases, and promotional materials to promote their parks and trails. Washington County also collaborates with a wide array of community, business, and government organizations to promote their facilities, programs, and services and to educate the public about the available resources.

Washington County Parks engages the public through several on-line and social media tools. The County website has a page dedicated to parks and trails that provides information on the parks and trails across the county, lists information about programs and events, explains how individuals can support

the park system by donating or volunteering, and provides information and a link for reservations and permits. Washington County actively posts information on Twitter and Facebook to share news and information about the park system.

Opportunities for expanding social media and on-line resources for public awareness will likely expand in the future as new media tools and new platforms become available. Younger park users frequently access public service information on-line and will continue to seek additional ways to engage with the County about the park system through social media.



Washington County Parks Facebook page.



Washington County Parks Twitter page.

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SECTION VIII: ACCESSIBILITY

Washington County is committed to providing access and recreational opportunities to all people, including persons with disabilities, minorities, and other special-population groups. Washington County meets this commitment through appropriate facility design and programming considerations and by actively addressing potential barriers to participation.

All regional trail facilities described in the master plan amendment will be developed in accordance with Americans with Disabilities Act (ADA) standards and guidelines. More specifically, the Central Greenway Regional Trail will adhere to the Minnesota Bikeway Facility Design Manual (MnDOT 2007); Trail Planning, Design and Development Guidelines (MnDNR 2007); Designing Sidewalks and Trails for Access, Part I and II: Best Practices Design Guide (FHWA); ADA Accessibility Guidelines for Outdoor Developed Areas (United States Access Board); and ADA Accessibility Guidelines for Buildings and Facilities (U.S. Access Board) unless more current guidelines and standards exist at the time of development.

All unconstructed segments and those associated with regional trail reconstruction, associated trailheads and trail amenities, such as rest stops, parking, rest rooms and water access, will be designed to accommodate individuals with disabilities. In addition, the paved trail will safely accommodate two-way directional non-motor vehicle traffic and incorporate periodic rest stops to provide users an opportunity to rest, overlook the natural environment, and comfortably interact with other trail users.

Compliance with ADA standards is an important goal of trail design. Routing the trail within existing street right-of-way makes it a challenge to fully comply with ADA standards in certain areas. Washington County and local municipalities have made every attempt to identify a trail route that minimizes these occurrences. Parking is available at existing local parks, shopping centers, and regional parks on and along the trail. Regional and community parks function as trailheads for the proposed trail

in addition to other identified key orientation points along the trail.

Crossing major roadways is necessary because the trail passes through fully developed urban areas. Washington County will investigate opportunities to coordinate grade-separated pedestrian crossings with appropriate agencies, modify, or add traffic signal timing, crosswalks and signage to ensure the trail meets all relevant design guidelines. The trail has also been planned to provide access to important local community destinations such as parks, commercial areas, community facilities, and transit facilities. The regional trail passes through a variety of neighborhoods with varying demographics, providing access to people with a wide range of social and cultural backgrounds.

On a broader scale, the Central Greenway Regional Trail provides direct access to the metropolitan regional trail system for an area currently under served by regional trails. Communities adjacent to the trail will not only have access to the Central Greenway Regional Trail, but also gain direct access to three existing regional parks/park reserves. Local trail connections are anticipated at regular intervals along the trail to further increase access to neighboring communities.

AFFORDABILITY

Trails are free to use in Washington County, providing a recreational opportunity to residents of all income levels. The Central Greenway Regional Trail will also provide access to the Lake Elmo Park Reserve without purchase of a parking pass. Park access fees are not charged for patrons who walk or bicycle into parks. Trail users who access Washington County parks will have access to free programming for park users including campfire talks, fitness hikes, bird walks and other programs coordinated with free Tuesdays.

The Washington County Parks Division and Community Services is working to provide free park permits to individuals who receive financial assistance from the County.

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REFERENCES

- » Metropolitan Council, "2017 Regional Parks System Annual Use Estimate," Metropolitan Council, July 2018.
- » Metropolitan Council, "2040 Regional Parks Policy Plan," Metropolitan Council, February 11, 2015.
- » Minnesota Department of Natural Resources, "Minnesota's State Comprehensive Outdoor Recreation Plan 2014-2018". Minnesota Department of Natural Resources, Street. Paul, MN 2014.
- » Health and obesity data retrieved from Minnesota Department of Health website: https://apps.health.state.mn.us/mndata/obesity_basic#byage.

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APPENDIX A: RESOLUTIONS OF SUPPORT

WASHINGTON COUNTY PARKS AND OPEN SPACE COMMISSION

Central Greenway Regional Trail – Lake Elmo segment

December 14, 2018

TO:

Metropolitan Council Chair and Parks and Open Space Commission
390 North Robert Street
Saint Paul, MN 55101

FROM:

Meghan Bernard, Parks and Open Space Commission Chair, District 4 – on behalf of the Washington County Parks and Open Space Commission:

Ben Meyer, Vice Chair, District 1
Jyneen Thatcher, District 1
Glen Bearth, District 2
Michael Kraemer, District 2
James Kelly, District 3

Susan Lindoo, District 4
Andy Joyce, District 5
Corcoran Wicker, District 5
Tori Dupre, At-Large
Lisa Weik, County Commissioner District 5

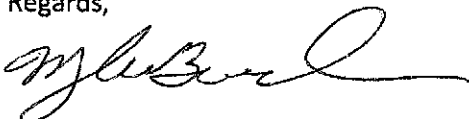
Greetings Chair Tchourumoff and Commission Members,

The Washington County Parks and Open Space Commission is pleased to provide this letter of support for the Central Greenway Regional Trail – Lake Elmo segment master plan. The proposed trail is an important part of the County's trail system, as it will fill an existing gap in the pedestrian and bicycle network.

The Central Greenway Regional Trail will benefit the surrounding communities. Locally, this trail alignment will strengthen multimodal transportation for community members and allow users to safely access Lake Elmo Park Reserve, local businesses, and schools. Ultimately, the full build-out of the trail will provide a needed link in the regional trail system that will connect Cottage Grove Ravine Regional Park, Lake Elmo Park Reserve, and Big Marine Park Reserve. The entire length of the Central Greenway Regional Trail will run 26 miles, with the Lake Elmo segment accounting for 8.6 miles.

Thank you for the opportunity to send our support. We look forward to working with our agency partners to plan, develop, and maintain the park and trail system in Washington County.

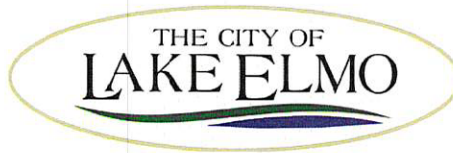
Regards,



Meghan Bernard, Parks and Open Space Commission Chair

CC:

Washington County Board of Commissioners



January 8, 2019

Metropolitan Council Chair and Parks and Open Space Commission
390 North Robert Street
Saint Paul, MN 55101

RE: Central Greenway Regional Trail – Lake Elmo Segment

Chair Tchourumoff and Commission Members,

The Lake Elmo City Council is excited to provide a letter of support for the Lake Elmo segment of the Washington County Central Greenway Regional Trail. The representatives of Lake Elmo strongly believe the proposed trail will play an important part of the City's and Washington County's trail system. The trail will fill an existing gap in the pedestrian and bicycle network both regionally and locally. The City is especially pleased with the idea of providing a road separated trail system for users to travel from the south end of the City to the north end without the worry of traveling on a roadway. The opportunity also hits one of the objectives of the City, which is to provide connectivity throughout. Though, connectivity without safety is not beneficial. An important aspect to this trail is safety, the City strives to build trails that provide safe connectivity for recreational users and school aged children, this trail has the ability to do.

Locally, this trail alignment will strengthen multimodal transportation for our community and allow users to safely access Lake Elmo Park Reserve, local businesses and schools. Regionally the City agrees that the Central Greenway Regional Trail will be a benefit by creating connectivity to other neighboring Cities. Connectivity has been a perused initiative for quite some time and the City will finally be able to provide a strong greenway to connect existing trails and build new trails into. Ultimately, the full build-out of this trail will provide a needed link in the regional trail system. Because of this and other listed reasons, the City is pleased to provide support for the Central Greenway Trail initiative.

Thank you for the opportunity to send our support. We look forward to working with all agency partners involved with the Central Greenway Regional Trail.

Sincerely,

Mike Pearson, City of Lake Elmo Mayor

3880 Laverne Avenue North • Lake Elmo • Minnesota 55042
Phone: (651) 747-3900 • Fax: (651) 747-3901 • www.lakeelmo.org

DATE February 19, 2019
MOTION
BY COMMISSIONER Kriesel

DEPARTMENT Public Works
SECONDED BY
COMMISSIONER Miron

**CENTRAL GREENWAY REGIONAL TRAIL - LAKE ELMO SEGMENT MASTER PLAN
AMENDMENT**

WHEREAS, a regional trail master plan is required to address the criteria set forth in the Metropolitan Council's 2040 Regional Park Policy Plan for regional linking trails and to become eligible for Metropolitan Council regional system designation and funding; and

WHEREAS, the proposed Central Greenway Regional Trail will eventually connect Cottage Grove Ravine Regional Park, Lake Elmo Park Reserve, and Big Marine Park Reserve; the Lake Elmo Segment of which goes between Interstate 94 and Trunk Highway (TH) 36; and

WHEREAS, the Washington County Board of Commissioners provided a resolution of support for the Central Greenway Regional Trail – south segment master plan on June 26, 2016; and

WHEREAS, the Metropolitan Council provided a resolution of support for the Central Greenway Regional Trail – south segment master plan on September 27, 2017; and

WHEREAS, the master planning process for the Central Greenway Regional Trail – Lake Elmo segment included public engagement events and meetings that provided the opportunity for input from partner agencies and public stakeholders; and

WHEREAS, the draft Central Greenway Regional Trail – Lake Elmo segment master plan amendment was reviewed by the Washington County Park and Open Space Commission (POSC) on December 14, 2018; and

WHEREAS, the draft Central Greenway Regional Trail – Lake Elmo segment master plan amendment was reviewed by the Lake Elmo City Council on January 8, 2019; and

WHEREAS, the Washington County Board of Commissioners heard a staff presentation on the Central Greenway Regional Trail – Lake Elmo segment master plan amendment on February 12, 2019.

NOW, THEREFORE, BE IT RESOLVED that the Washington County Board of Commissioners supports the Central Greenway Regional Trail – Lake Elmo segment master plan amendment.

BE IT FURTHER RESOLVED that the Central Greenway Regional Trail – Lake Elmo segment master plan amendment be submitted to the Metropolitan Council for review and approval without further action by the County Board.

ATTEST: 

COUNTY ADMINISTRATOR



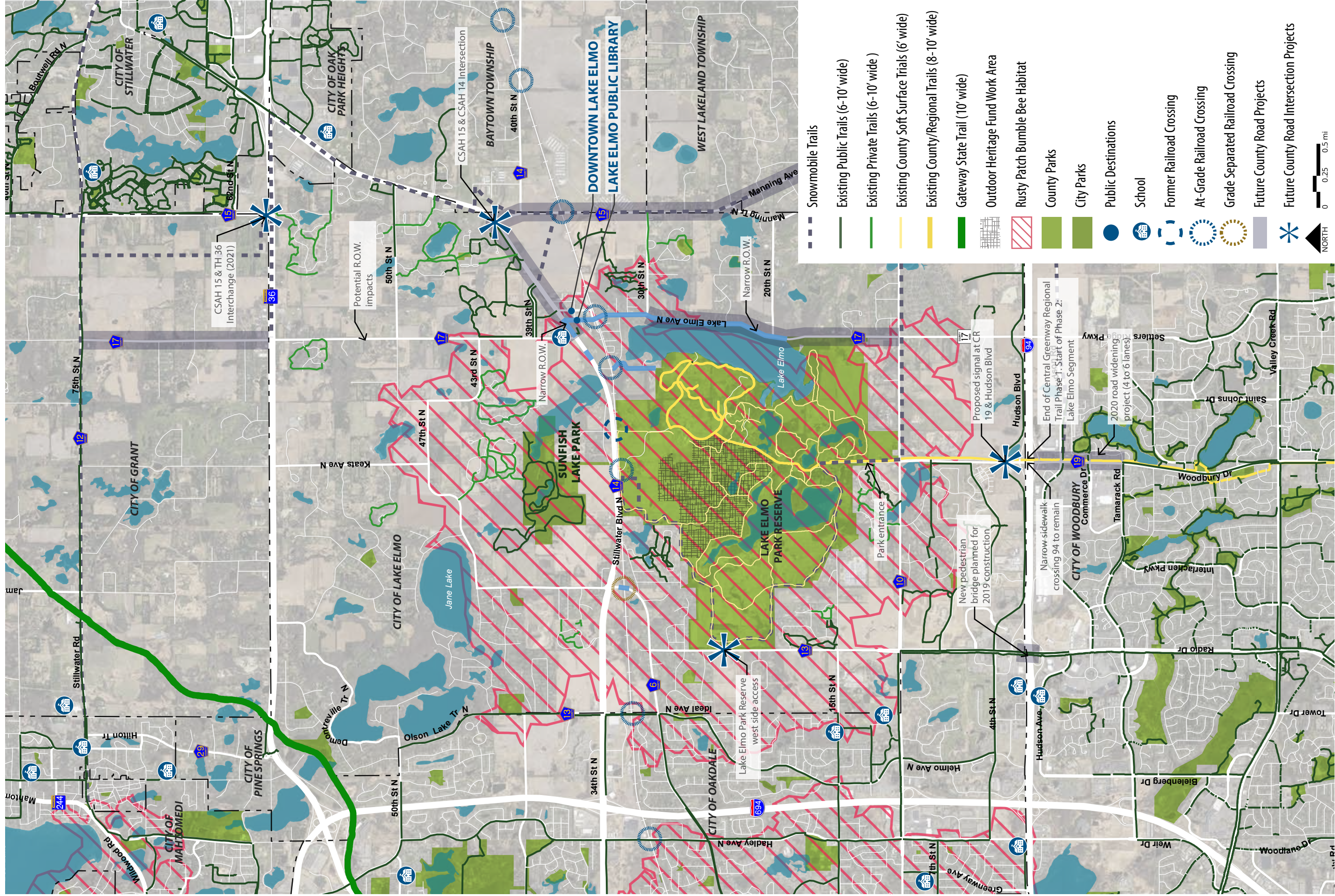
COUNTY BOARD CHAIR

	YES	NO
MIRON	<u>X</u>	___
KARWOSKI	<u>X</u>	___
KRIESEL	<u>X</u>	___
JOHNSON	<u>X</u>	___
WEIK	<u>X</u>	___

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APPENDIX B: TRAIL PLANS

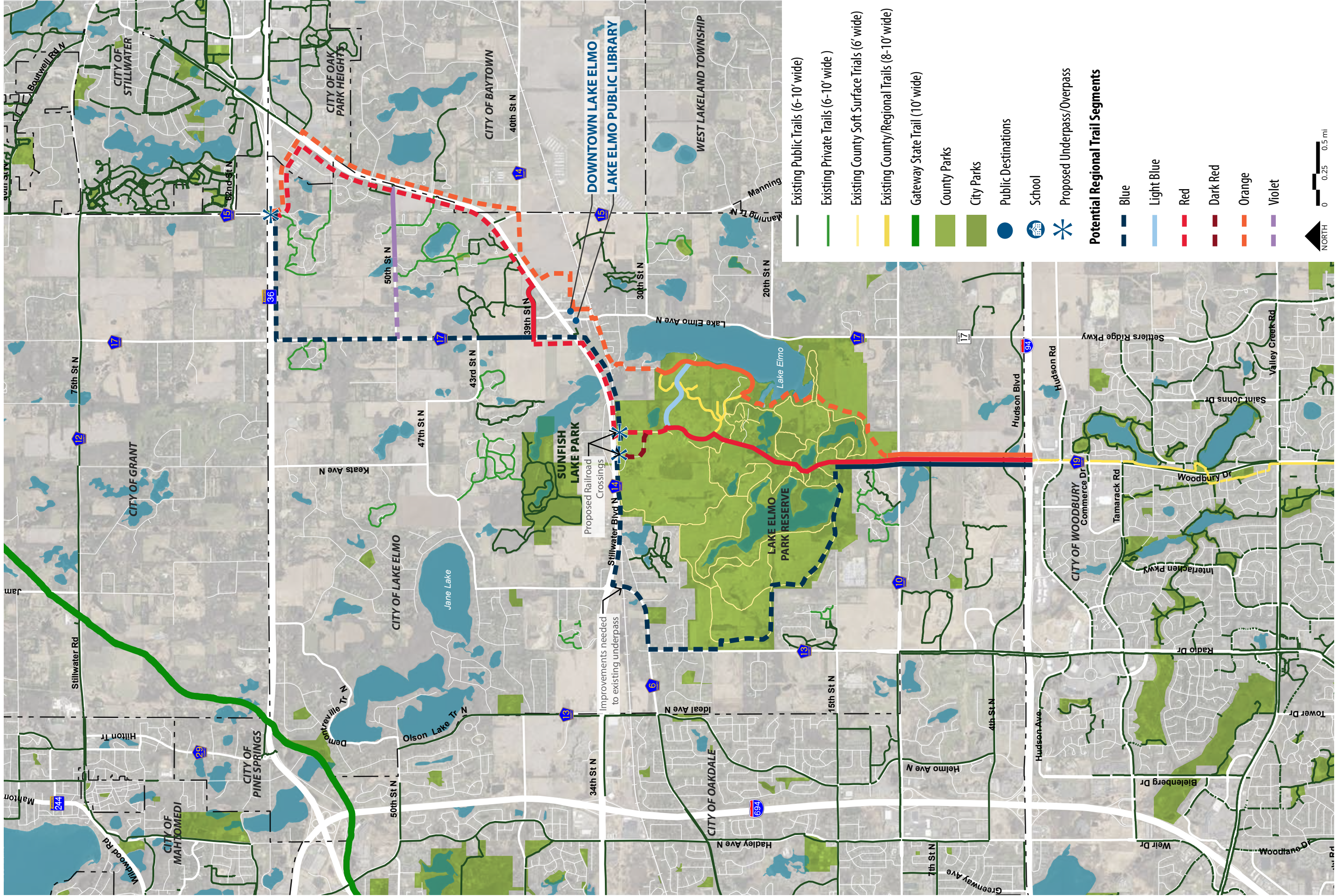
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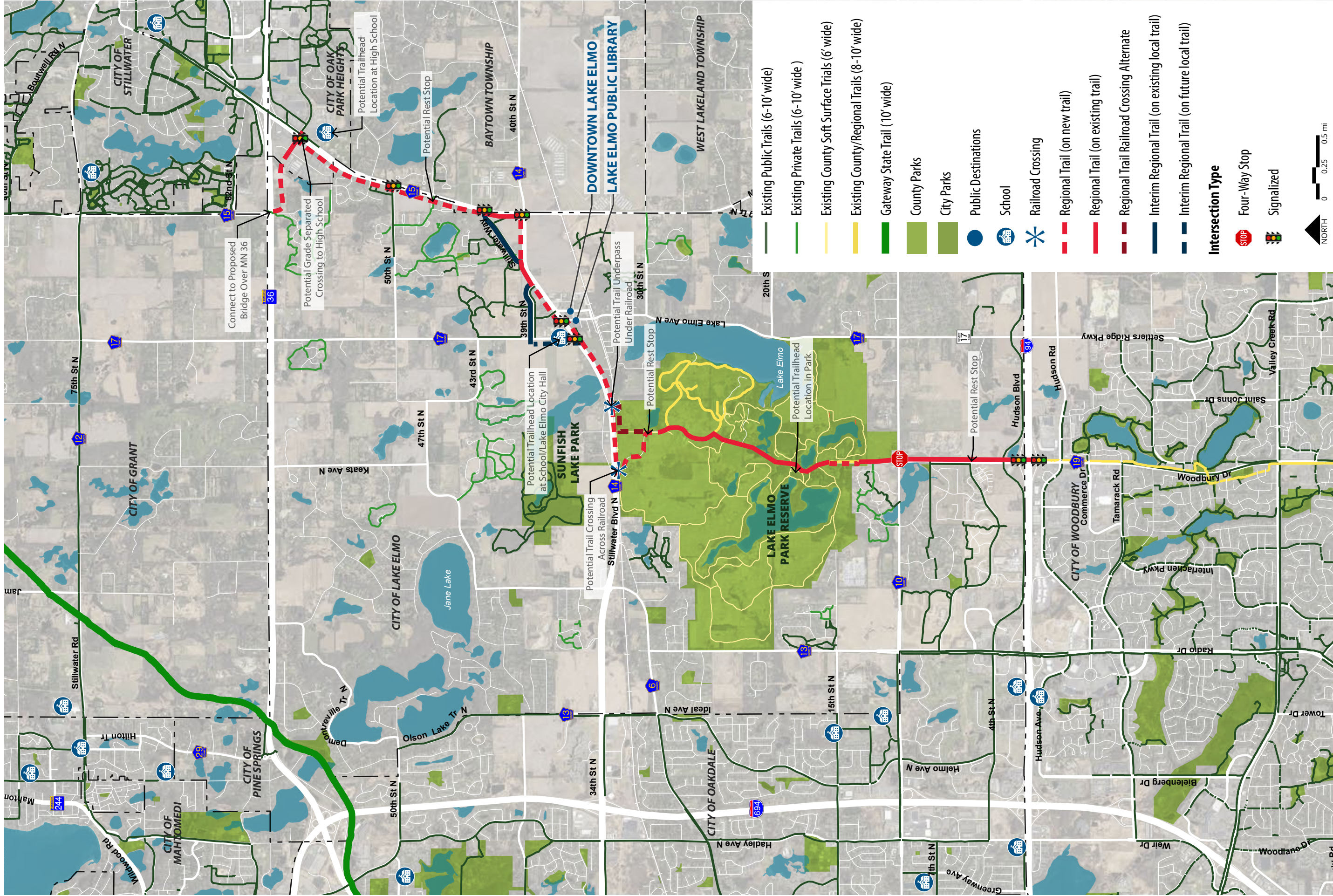
ISSUES AND OPPORTUNITIES

Central Greenway Regional Trail Master Plan: Lake Elmo Segment

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PREFERRED REGIONAL TRAIL ALIGNMENT

Central Greenway Regional Trail Master Plan: Lake Elmo Segment

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PREFERRED REGIONAL TRAIL ALIGNMENT - LAKE ELMO ENLARGEMENT

Central Greenway Regional Trail Master Plan: Lake Elmo Segment

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APPENDIX C: DETAILED COST ESTIMATE

Estimated Project Construction Cost	Estimated Quantity	Unit of Measurement	Estimated Unit Cost	Estimated Total Cost	Notes
Segment R1 (I-94 to County Road 10)					
Existing 8' Trail Removal	5,871	Lin Ft	\$17	\$99,807	5
10' Trail Construction on Existing Trail	5,871	Lin Ft	\$75	\$440,325	6
Pedestrian Ramps	11	Each	\$2,600	\$28,600	7
Wayfinding Directional Signage	1	Each	\$4,200	\$4,200	
Rest Stops	1	Each	\$6,500	\$6,500	8
Traffic Control Signs and Devices (includes MUTCD signage)	192	Sq Ft	\$80	\$15,360	9
				Segment R1 Total	\$594,792
Segment R2 (County Road 10 to Park Maintenance Access Road, Through Lake Elmo Park Reserve)					
Existing 8' Trail Removal	9,236	Lin Ft	\$17	\$157,012	5
12' Trail Construction on Existing Trail	9,236	Lin Ft	\$85	\$785,060	6
12' Trail Construction	2,289	Lin Ft	\$110	\$251,790	6
Pedestrian Ramps	15	Each	\$2,600	\$39,000	7
Wayfinding Directional Signage	2	Each	\$4,200	\$8,400	
Rest Stops	1	Each	\$6,500	\$6,500	8
Wayfinding Kiosk at Eagle Lake Trailhead	1	Each	\$25,000	\$25,000	
Traffic Control Signs and Devices (includes MUTCD signage)	160	Sq Ft	\$80	\$12,800	9
				Segment R2 Total	\$1,285,562
Segment R3 (Park Maintenance Access Road to Stillwater Lane North)					
10' Trail Construction	5,380	Lin Ft	\$95	\$511,100	6
Pedestrian Ramps	2	Each	\$2,600	\$5,200	7
At-grade Railroad Crossing Improvements	1	Each	\$50,000	\$50,000	11
Wayfinding Directional Signage	1	Each	\$4,200	\$4,200	
Traffic Control Signs and Devices (includes MUTCD signage)	32	Sq Ft	\$80	\$2,560	9
				Segment R3 Total	\$573,060
Segment R4 (Stillwater Lane North to County Road 15/Manning Avenue)					
Existing 8' Trail Removal	1,116	Lin Ft	\$17	\$18,972	5
10' Trail Construction on Existing Trail	1,116	Lin Ft	\$75	\$83,700	6
10' Trail Construction	7,957	Lin Ft	\$95	\$755,915	6
Pedestrian Ramps	24	Each	\$2,600	\$62,400	7
Wayfinding Directional Signage	4	Each	\$4,200	\$16,800	
Wayfinding Kiosk at Downtown Lake Elmo Trailhead	1	Each	\$25,000	\$25,000	
Traffic Control Signs and Devices (includes MUTCD signage)	256		\$80	\$20,480	9
Wetland Mitigation	12,000		\$2	\$24,000	10
				Segment R4 Total	\$1,007,267
Segment R5 (County Road 15/Manning Avenue to 58th Street North)					
10' Trail Construction	10,175	Lin Ft	\$95	\$966,625	6
Pedestrian Ramps	18	Each	\$2,600	\$46,800	7
Wayfinding Directional Signage	2	Each	\$4,200	\$8,400	
Rest Stops	1	Each	\$6,500	\$6,500	8
Wayfinding Kiosk at Stillwater Highschool Trailhead	1	Each	\$25,000	\$25,000	
Traffic Control Signs and Devices (includes MUTCD signage)	192		\$80	\$15,360	9
				Segment R5 Total	\$1,068,685
Segment R6 (58th Street North to MN 36)					
Existing 8' Trail Removal	238	Lin Ft	\$17	\$4,046	5
10' Trail Construction on Existing Trail	238	Lin Ft	\$75	\$17,850	6
10' Trail Construction	3,608	Lin Ft	\$95	\$342,760	6
Pedestrian Ramps	4	Each	\$2,600	\$10,400	7
Traffic Control Signs and Devices (includes MUTCD signage)	64		\$80	\$5,120	9
				Segment R6 Total	\$380,176
Subtotal Construction Cost Estimate				\$4,909,542	
20% Construction Contingency¹				\$981,908	
Subtotal Construction Cost Estimate with Construction Contingency				\$5,891,450	
20% Design and Engineering Contingency				\$981,908	
Total Estimated Construction Cost				\$6,873,359	

Future Property Acquisitions (2019 tax assessed values)		
Segment	Acres	Cost*
Segment R4 Subtotal	3.40	\$1,102,000
Segment R5 Subtotal	0.31	\$315,000
Total	3.71	\$1,417,000

*Estimated costs reflect 2019 tax assessed values only for the portion of parcel needed.

Estimated Trail Overpass and Underpass Alternates Construction Cost	Estimated Quantity	Unit of Measurement	Estimated Unit Cost	Estimated Total Cost	Notes
Segment R3A (Park Maintenance Access Road to Stillwater Lane North)					
Trail Underpass	1	LS	\$1,500,000	\$1,500,000	13
10' Trail Construction	2,789	Lin Ft	\$95	\$264,955	6
Modular Block Gravity Wall	4,000	SF	\$70	\$280,000	12
				Segment R3A Total	\$2,044,955
Pedestrian Bridge Across County Road 5 from Regional Trail to Stillwater High School					
Trail Overpass	1	Each	\$2,000,000	\$2,000,000	14
				Overpass Total	\$2,000,000

Estimated Annual Operations & Maintenance Costs	Estimated Cost	Notes
Annual trail maintenance	\$5,500	
Five year prairie establishment maintenance	\$10,000	
Total Estimated Annual Operations & Maintenance Costs	\$15,500	

ESTIMATE NOTES

1. Construction cost estimate includes a 20% design and administration fee and an additional 20% construction contingency factor for unforeseen costs.
2. Estimates are based on 2018 bid prices.
3. Cost participation between regional park implementing agencies and other agencies on improvements beyond construction of the actual trail, such as any roadway reconstruction to accommodate the regional trail, shall be reviewed as implementation is considered.
4. Estimate does not include any utility relocation costs.
5. Existing trail removal assumes 8' wide bituminous trail. Actual dimensions may vary.
6. Trail construction assumes 10' or 12' bituminous trail, turf establishment, and signage. Estimate does not include any retaining walls or streetscaping such as boulevard trees and decorative lighting.
7. Includes items such as removing and reinstalling curb and gutter, driveway aprons and storm sewer catch basins.
8. Includes concrete pad, bench, trash receptacle, and bike rack.
9. Assumes 32 Sq Ft of signage per roadway intersection. Also assumes crosswalk striping is included in signal improvements (by others).
10. Assumes 20 foot wide swath of wetland impacts.
11. Railroad crossing improvements include paved crossing surface and stop arms
12. Modular block wall for both sides of trail approach into underpass.
13. Trail underpass price includes contingency costs for utility relocation, traffic control, construction and contractor safety. Assumes 10'x14' concrete box culvert structure.
14. Trail overpass price includes contingency costs for utility relocation, traffic control, construction and contractor safety. Assumes prefabricated steel structure on concrete abutments.

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APPENDIX D: RARE SPECIES LIST

This appendix includes a complete list of rare species found within one mile of the Central Greenway Regional Trail.

A one-mile buffer surrounding the project limits was evaluated for the presence of rare plants, animals, native plant communities, and other rare features using Geographical Information Systems (GIS) in conjunction with the MnDNR's Natural Heritage Information System (NHIS)¹. The Natural Heritage data is provided by the MnDNR's Division of Ecological Resources and Water Resources, and was current as of February 2016 (License Agreement 625). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

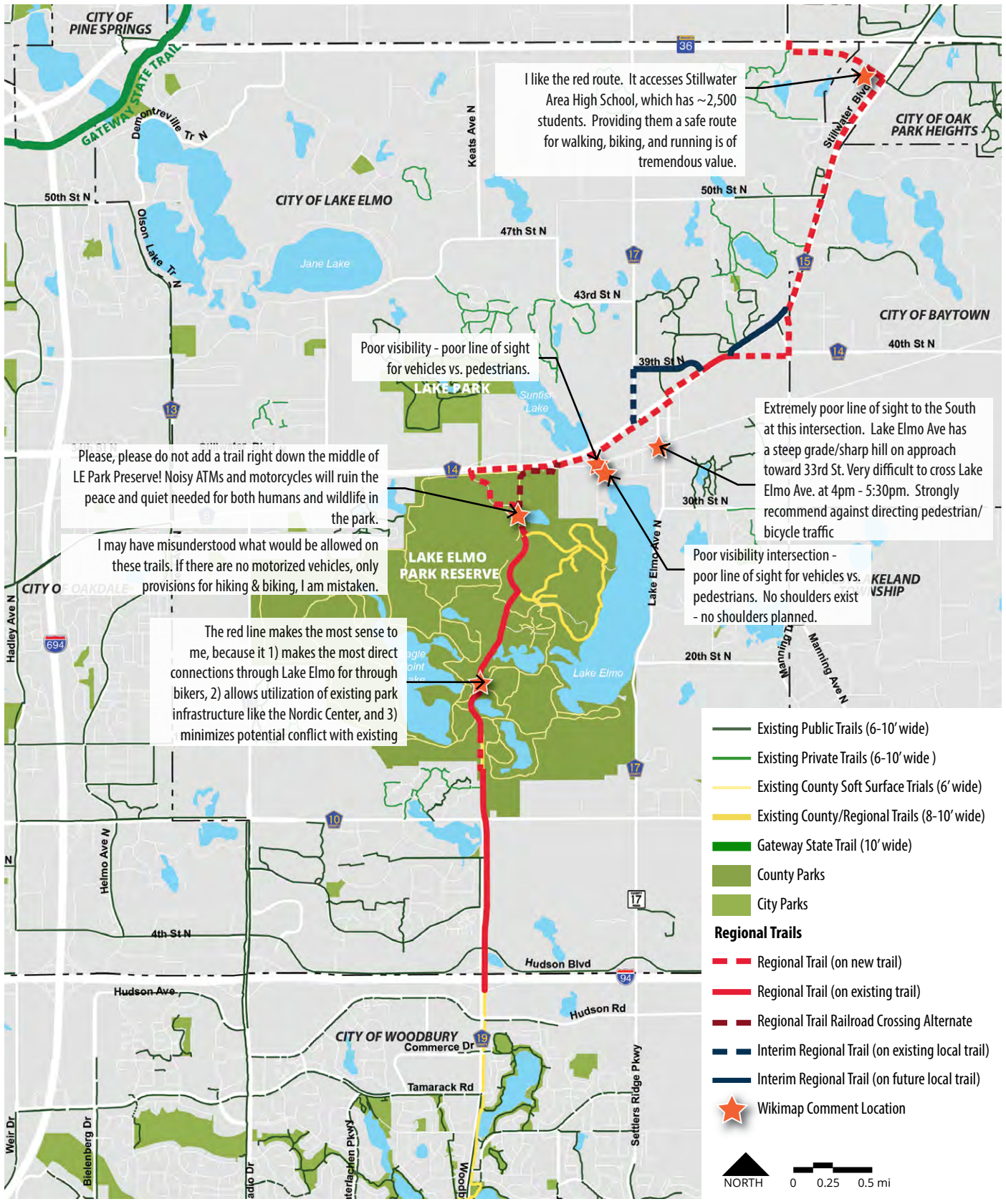
SPECIES:

- » A Jumping Spider
- » Bald Eagle
- » Blanding's Turtle
- » Lake Bed
- » Least Darter
- » Oak - (Red Maple) Woodland
- » Pugnose Shiner
- » Sand Beach (Inland Lake)
- » Rusty Patch Bumble Bee

¹ Copyright 2016 State of Minnesota, Department of Natural Resources.

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APPENDIX E: WIKIMAP RESULTS



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APPENDIX F: PARK AND TRAIL VISITATION DATA

PARKS, TRAILS AND OPEN SPACE

Park and Trail Visitation

Washington County and the Metropolitan Council collect data and produce reports on who visits regional parks and trails, and how they are being used. These reports allow Washington County to track visitation and usage data overtime, and assess performance. Determining the types of users and their needs is an important step when evaluating future park and trail needs. Ultimately, this information helps Washington County make informed decisions for planning, building, and maintaining the parks and trails system.

In this section, the following reports that evaluate Washington County park and trail visitation will be described:

- Annual Use Estimate of the Regional Parks System
- Regional Parks System Visitor Study
- Washington County Park Visitor Study
- Regional Park Use Among Select Communities of Color

Annual Use Estimate of the Regional Parks System (2016)

The Metropolitan Council annually produces the [Annual Use Estimate of the Regional Parks System](#). This report collects visitation data within each unit and extrapolates it to produce an annual estimate for every regional park and trail in the seven-county area. Key findings from the 2016 report included:

- Washington County parks received approximately 1.35 million visits in 2016, which accounts for 2.9 percent of visits in all regional parks and trails. The table below breaks down Washington County park and trail visitation by unit.
- An estimated 56.1 percent of park visitors were from Washington County, while the other 43.9 percent came from outside Washington County to visit.

Table 3: Total Park Visits in 2016

Park Unit	Total Visits (2016)
Big Marine Park Reserve	240,700
Cottage Grove Ravine Regional Park	70,800
Hardwood Creek Regional Trail	208,300
Lake Elmo Park Reserve	519,900
Pine Point Regional Park	95,500
Square Lake Special Recreation Feature	95,900
St. Croix Bluffs Regional Park	116,900
Totals	1,348,000

Regional Parks System Visitor Study (2016)

The Metropolitan Council also commissioned the [Regional Parks System Visitor Study \(2016\)](#) to provide benchmark data of park and trail visitor experiences at regional parks and trails. Key findings from the report included:

- When compared with other implementation agencies, Washington County park and trail users were more likely to:
 - Rate the quality of facilities, services, and recreation opportunities as very good (73 percent)
 - Visit a park closer to home (average of 9.5 miles to travel to park)
 - Arrive in an automobile (81 percent)
 - Look for information prior to visiting (18 percent)
 - Bring kids under age 10 (30 percent)
 - Report a larger average group size (average group size of 2.84)
 - Visit longer periods of time (average time spent of 3.01 hours)
 - Say that lack of free time is the primary barrier to visiting more often (83 percent)
- Disparities in Washington County park and trail visitation included:
 - Age of Washington County park and trail users (see Figure 4)
 - Household income of Washington County park and trail users (see Figure 5)
 - Educational attainment of Washington County park and trail users (see Figure 6)
 - Physical or mental ability of Washington County park and trail users (see Figure 7)
 - Race and ethnicity of Washington County park and trail users (see Figure 8)

Figure 4: 2016 Age Cohorts of Park and Trail Users

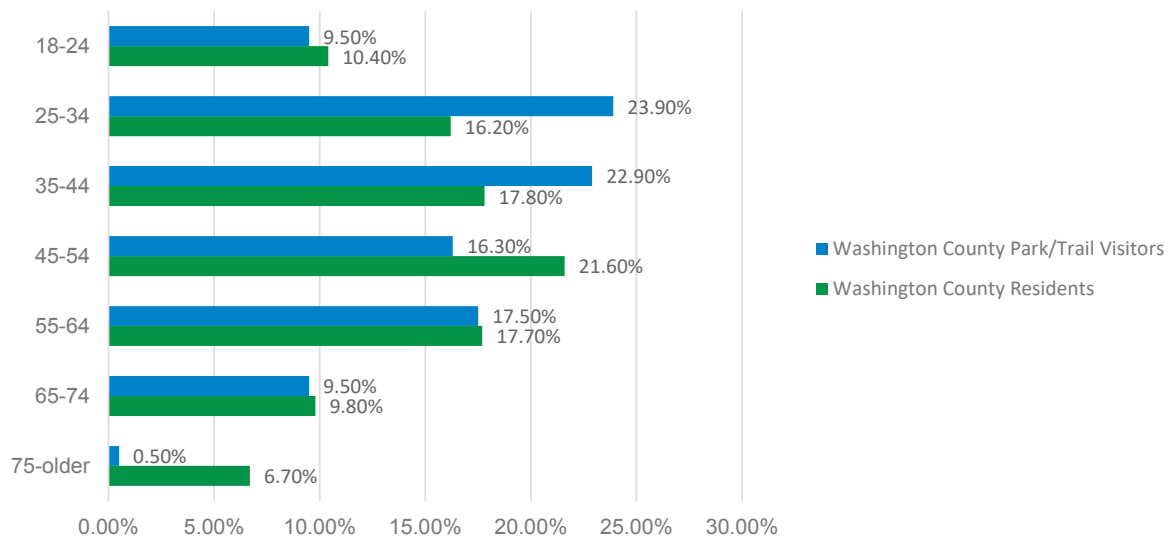


Figure 5: 2016 Household Income of Park and Trail Users

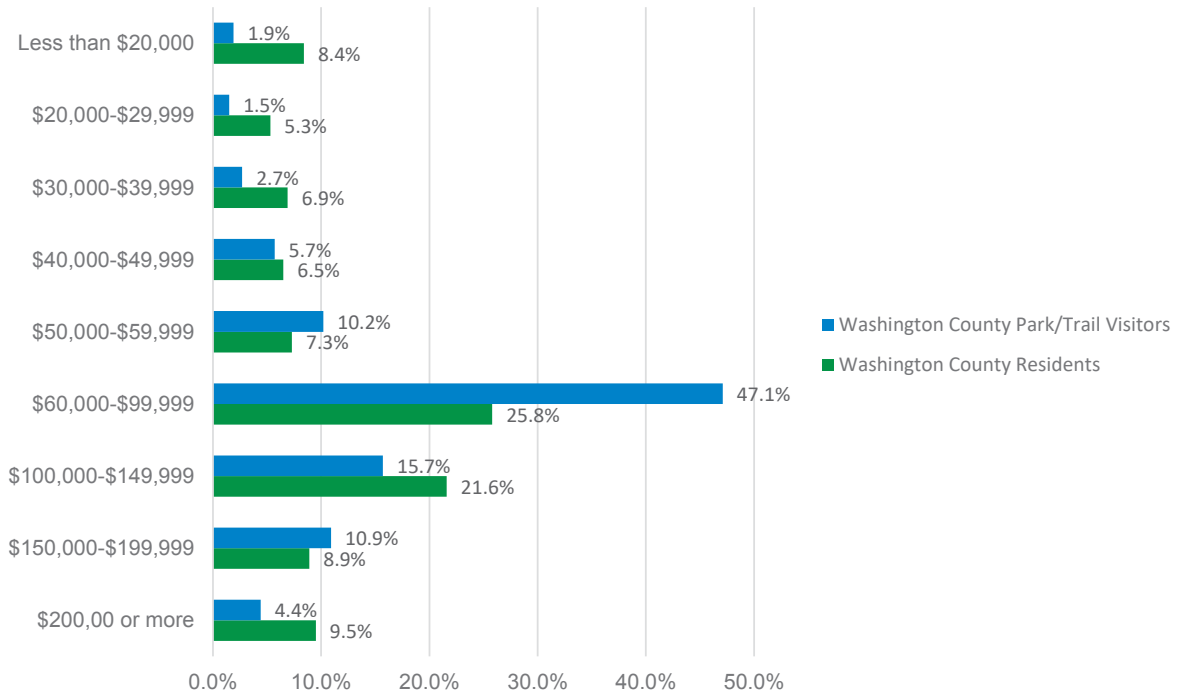


Figure 6: 2016 Educational Attainment of Park and Trail Users

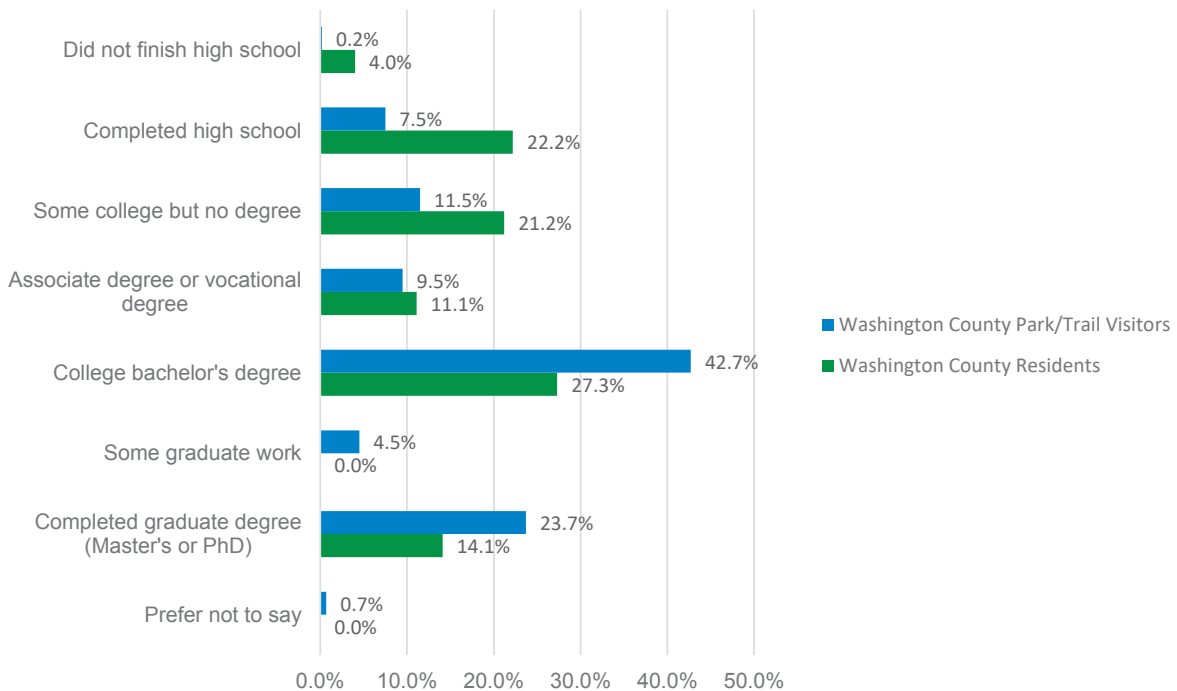


Figure 7: 2016 Physical and Mental Ability of Park and Trail Users¹:

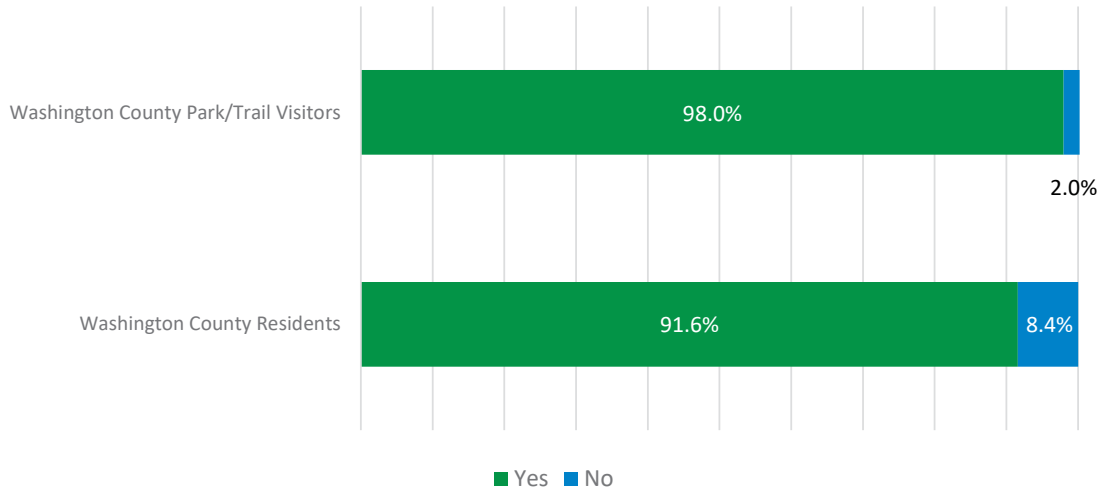
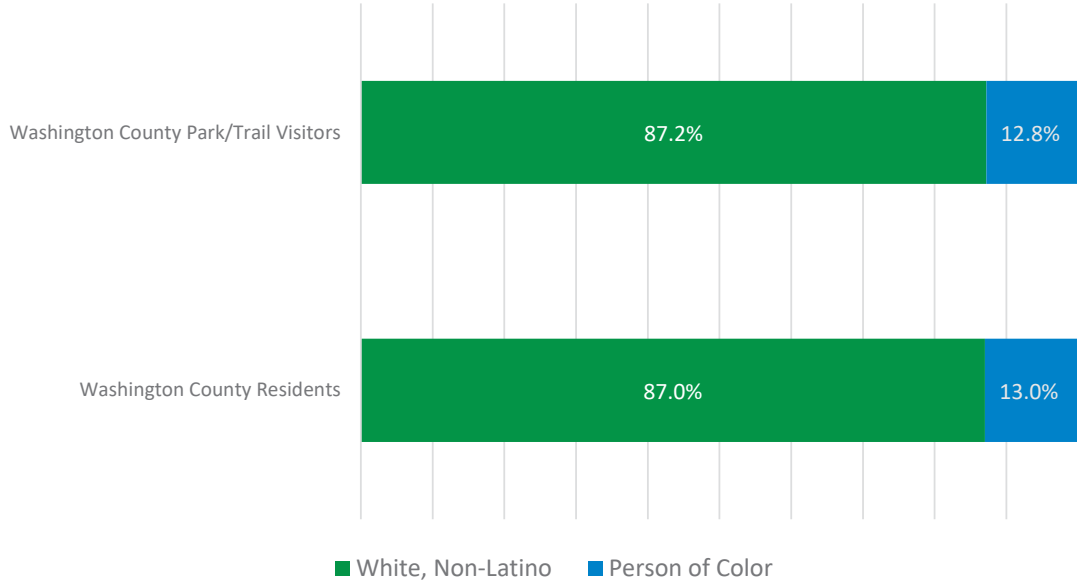


Figure 8: 2016 Race and Ethnicity of Park and Trail Users



¹ Responses reflect answers to the following question: “Does anyone in your group have a physical or mental condition that makes it difficult to access or participate in [Park/Trail] activities or services?”

Washington County Park Visitor Study (2016)

Washington County Parks conducts an independent Visitor Use Survey annually. These responses serve as another tool to measure visitation and park use. Furthermore, it gives Washington County flexibility in asking questions unique to the County (as opposed to the region as a whole). Key findings from the report included:

- Survey respondents primarily engaged in the following activities:
 - Nature walks/trails
 - Swimming
 - Boating/Fishing
 - Camping
 - Biking (paved trails)
- Programs visitors provided responses on activities they would like to see offered (or offered more frequently) in Washington County Parks:
 - Canoeing/kayaking lessons
 - Outdoor recreation for women
 - Moonlight hike/ski
 - Tree & plant identification
 - Cross country ski lessons/rental

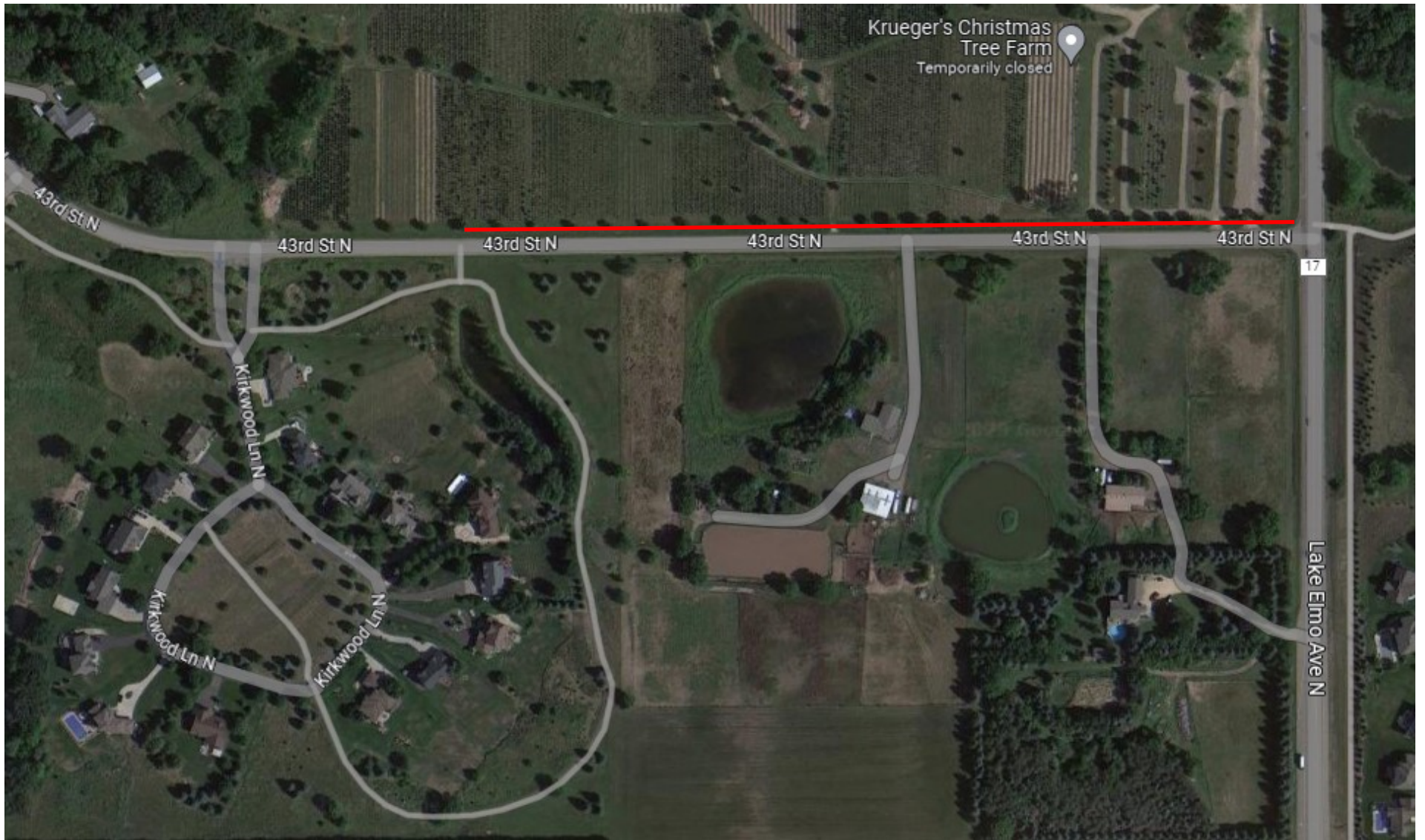
Regional Park Use Among Select Communities of Color (2014)

In 2014, the Metropolitan Council staff produced the [Regional Park Use Among Select Communities of Color](#) report to better understand and address disproportionate or inequitable park use and identify barriers to regional park visitation among communities of color. Metropolitan Council staff partnered with several local community-based organizations and public agencies to collect demographic data and organize focus groups throughout the metropolitan region. Key findings from the report included:

- The most prominent perceived barriers to regional park system visitation among focus group participants were:
 - Lack of awareness
 - Time available
 - Fear/safety concerns
 - Lack of transportation options
 - Language barrier
- The most prominent suggestions from focus group participants to enhance regional park system visits were:
 - Increase awareness
 - Address safety
 - Enhance capacity of gathering spaces
 - Create ambassador program
 - Increase and diversify programming



Keats Ave. N. - Tapestry



43Rd St.— Sunfish Ponds

1600— Ft.