

Section 4: Issues and Needs

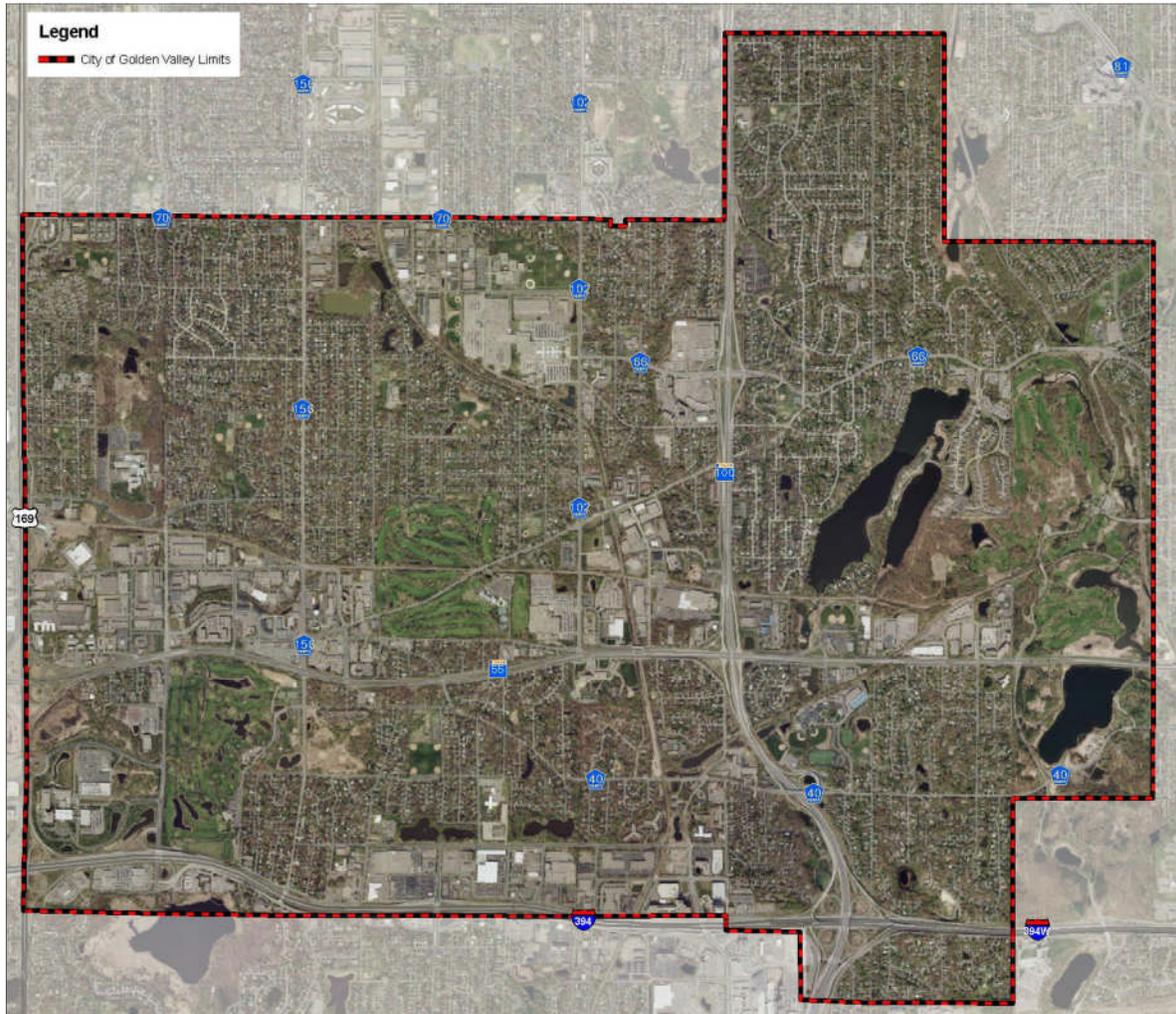
To understand and anticipate Golden Valley's current and future natural resource planning and management needs, it is important to review the existing natural resource conditions within the City. These conditions include existing land use patterns, land cover, nature areas and open spaces, invasive plant species, current management practices and programs, public outreach and education programs, and partnerships related to natural resources.

Land Use Patterns

Figure 4.1 shows an aerial photograph of Golden Valley. According to the 2008 Comprehensive Plan, the predominant land use pattern in the city is residential (48%), followed by 25% cover under the combination of institutional/recreational land use, which includes the City's schools, open spaces, golf courses, and parks. Undeveloped areas, which include designated Nature Areas, open space, and wetlands, total 3%, with open water bodies comprising an additional 3%.

City-owned and managed Nature Areas, the focus of this management plan, comprise approximately 2.3% of the total land cover within the city limits. Additional areas within the city that provide natural areas, but are not owned by the city include: General Mills Research Nature Area (57 acres), owned and managed by General Mills; Theodore Wirth Regional Park (759 acres), with portions located in Golden Valley and Minneapolis but managed by the Minneapolis Park and Recreation Board; and Westwood Hills Nature Center (160 acres), which has a small portion within Golden Valley, but is primarily owned and managed by the City of St. Louis Park.

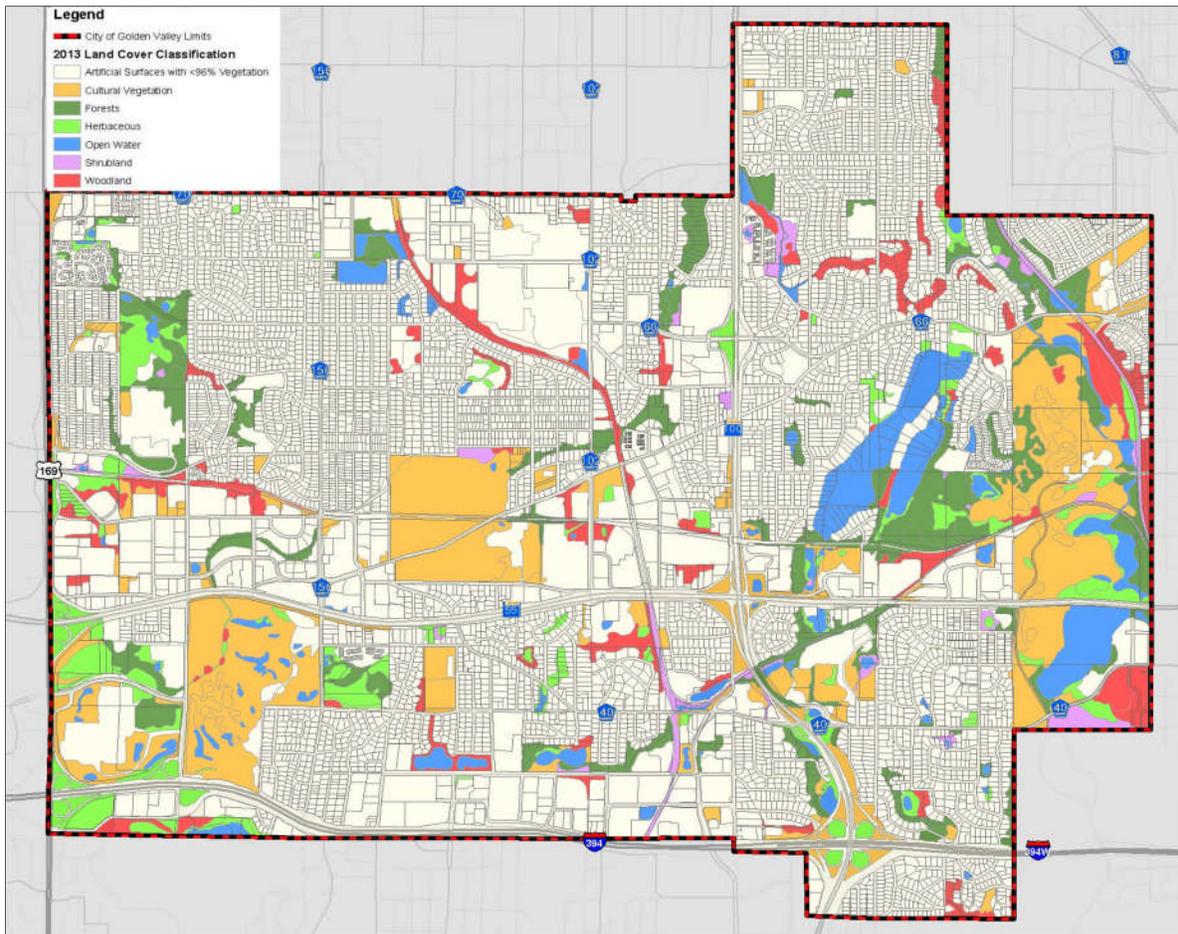
Figure 4.1: 2012 Aerial Photograph



Land Cover

Land cover (Figure 4.2), unlike land use, which is based on function (how the land is being used), is a determination of the physical characteristics, which can be observed from the ground or through remote sensing. Land cover includes naturally occurring or planted vegetation, aquatic resources, forested areas, and areas that have been developed (buildings, roads, bridges, etc.).

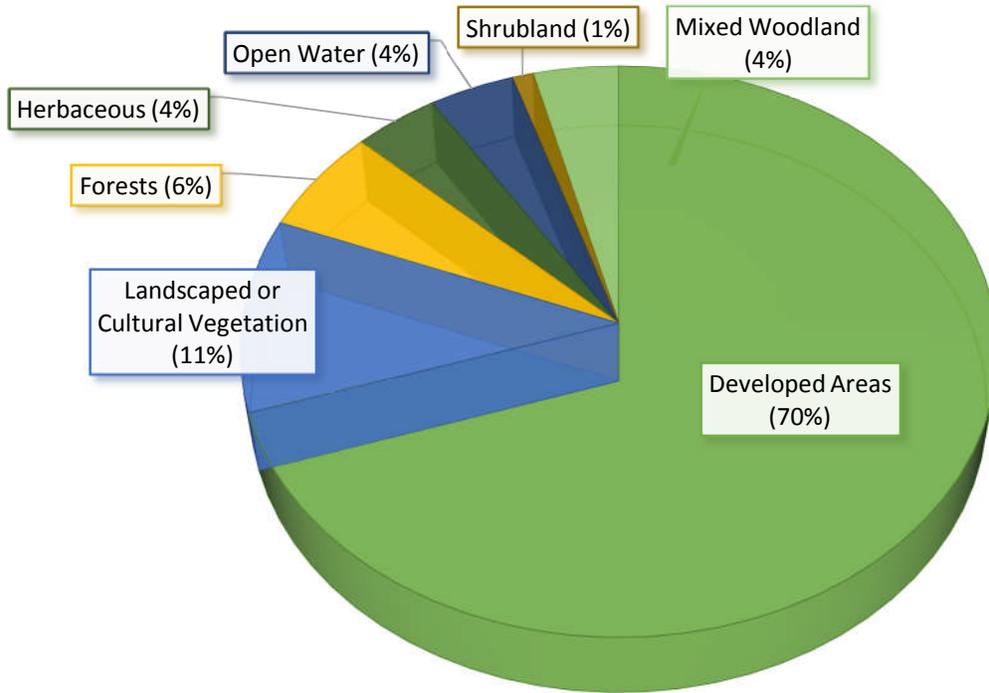
Figure 4.2: 2013 Land Cover



The 2013 land cover map is based on an update of the 2002 Natural Resources Inventory. The categories have been defined based on a land cover classification system developed by the Minnesota Department of Natural Resources (MNDNR).

Figure 4.3 shows land cover type by acres. Total land cover is approximately 10.6 square miles or 6,754 acres. Developed areas, which may be partially vegetated, comprise about 70% of the land cover, while forests and woodlands comprise 10%, and open grasslands and prairies 4%. Shrublands contribute to least amount of land cover, with an approximate 1% distribution. Overall, developed land and cultural (non-native) vegetation encompass about 81% of Golden Valley's land cover while native-dominated plant communities comprise about 19%. This value is relatively constant over the past few decades, although a goal of the city is to increase the quantity and quality of these natural areas.

Figure 4.3 Land Cover Type by Acres



Alterations to the natural environment initially through agriculture, and more recently through the residential and commercial development, have altered the majority of historic land cover. Most of the native vegetation has been generally replaced with turf grass, landscaping, and hard surfaces (structures, parking lots and roadways).

Nature Areas and Open Spaces

Nature areas and open spaces are public lands set aside by the City of Golden Valley for preservation of natural resources, and in many cases for flood storage. These areas provide for passive recreation, visual aesthetics, protection of natural resources, and buffering for water quality improvements. These areas may include trail corridors, areas for wildlife viewing, and other passive recreation uses.

The nature areas and open spaces differ from parks. Parks are typically dedicated to active recreation opportunities such as sports fields and playgrounds. Golden Valley's adopted definition by ordinance of a park is as follows: "An open space with natural vegetation and

landscaping, which may include recreational facilities, designed to serve recreation needs of the residents of the community.”

Figure 4.4 shows existing Nature Areas and Open Spaces. Other areas shown on the map include trail/walkway easements, City parks, golf courses, and campuses, schools, and other governmental entities open spaces.

Figure 4.4 Existing Nature Areas and Open Spaces

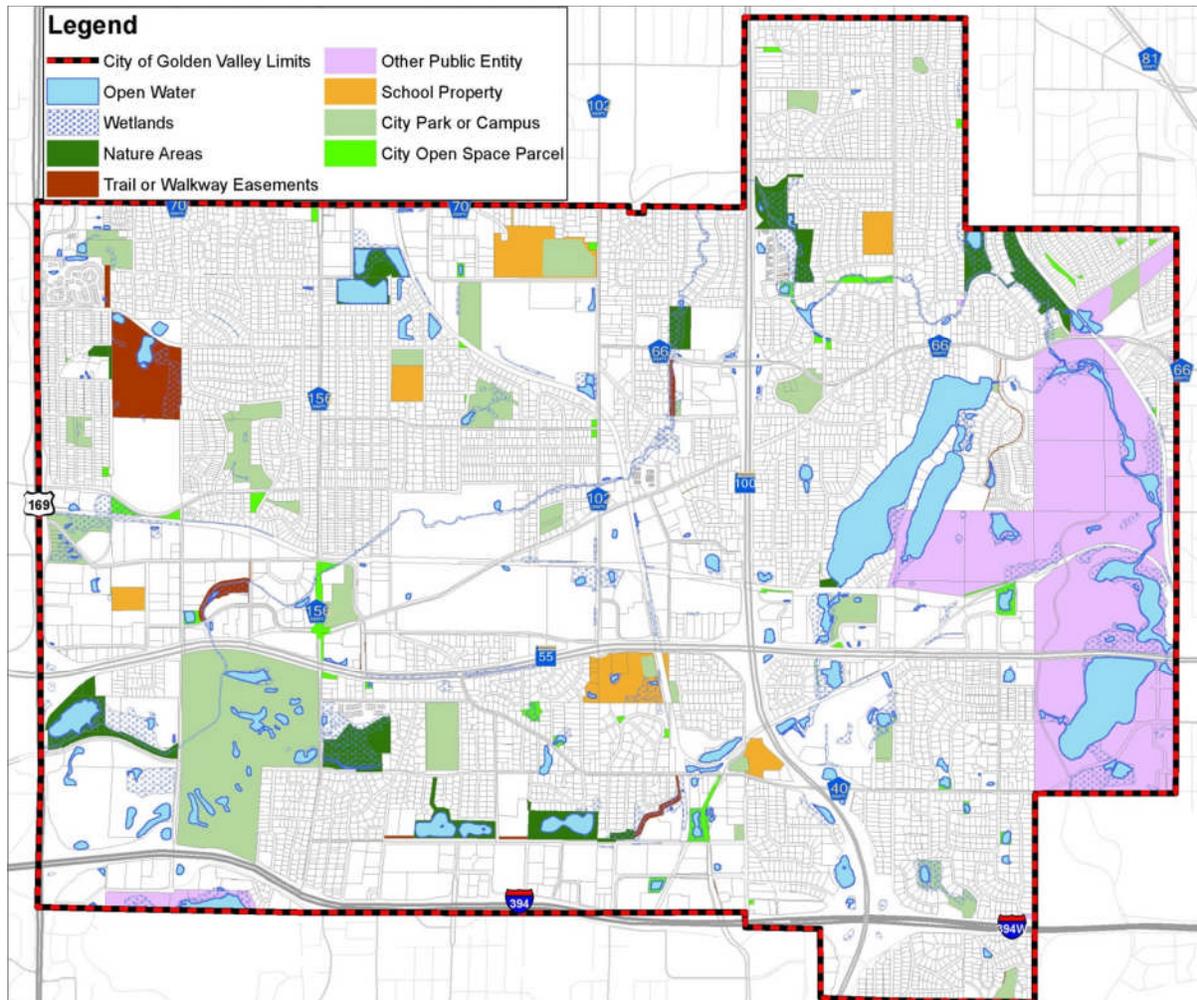
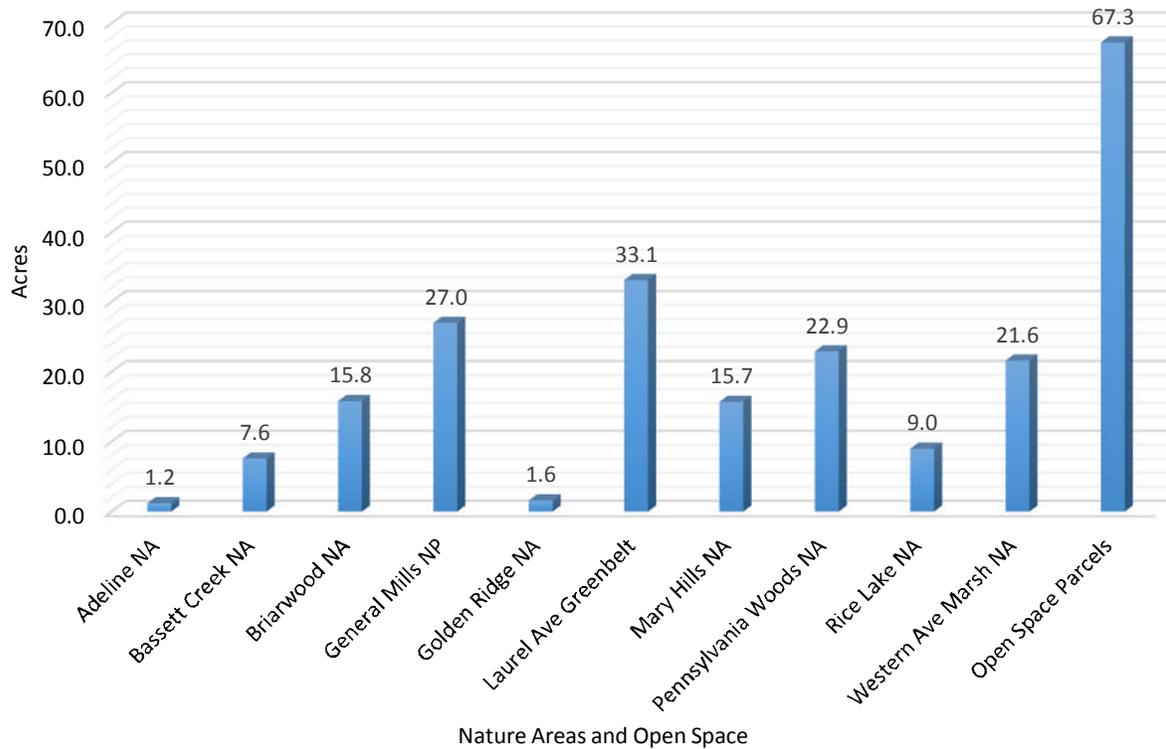


Figure 4.5 lists Golden Valley’s nature areas, nature preserves, and greenbelts by acres. The four largest nature areas in the system include Laurel Avenue Greenbelt, General Mills Nature Preserve, Pennsylvania Woods, and Western Avenue Marsh. Together, these four areas comprise 67% of the nature area’s total acres.

Figure 4.5 Nature Area and Open Spaces Area (acres)



Following are more detailed descriptions of each of the categories shown on Figures 4.4 and 4.5.

Nature Areas: Golden Valley’s Nature Areas are relatively large blocks of undeveloped land that have been set aside by the City and managed with a minimal maintenance approach to preserve their natural habitats.

Nature Preserves: A Nature Preserve is a protected area that is considered important as a habitat for wildlife, flora, fauna or other special features of interest such as unique geological features. The General Mills Nature Preserve is the only one located within the City. The land that comprises the Preserve was donated to the City by General Mills. The Preserve area was developed as wetlands for wetland banking and flood storage purposes. It was protected with a conservation easement through the Minnesota Land Trust and is preserved in perpetuity as a nature area.

Greenbelts: Greenbelts, also referred to as greenways, are linear features that may either bypass or intentionally transect urban areas. Greenbelts usually protect higher quality linear

open space, such as along rivers and streams, or are un-developable, such as floodplain, wetland, storm water ponds, etc. The Laurel Avenue Greenbelt is the representative feature within Golden Valley, and is a linear open space area along Laurel Avenue, that serves to buffer the adjacent low and medium density residential areas from the business uses south of Laurel. The greenbelt is comprised of a series of ponds with perimeter woodlands and routinely maintained turf grass immediately adjacent to Laurel Avenue.

Parks, Campuses, Golf Courses, and schools: Parks include Golden Valley's community and neighborhood parks while campuses describe other public property such as city hall, fire stations, and maintenance facilities. Golden Valley currently has nine Community Parks and ten Neighborhood Parks (as described in Chapter 6 in the Golden Valley 2008-2018 Comprehensive Plan). The City boasts three regulation golf courses: the City-owned Brookview public golf course; the public golf course in Theodore Wirth Regional Park; and the private Golden Valley Golf and Country Club. Schools within the city also contain open spaces for both active and passive recreational opportunities, although many of the schools are privately owned.

Easements: Recreation and trail or walkway easements in Golden Valley allow public access to private property for the purpose of trail use by the community and maintenance by the City which may include trail construction and repair, mowing along the trails, and tree trimming. Occasionally, the easement areas also include sweeping and snow removal programs. The General Mills Research Nature Area is a 57-acre nature area, which is not owned by the City, but is accessible to residents through a partnership with General Mills. A network of trails through wooded, grass and shrub land areas provide views of ponds and wildlife. The City of Golden Valley provides mowing along the trail edges 2-3 times a year.

Other Governmental Entity: Other entity owned or managed areas include: Theodore Wirth Regional Park and Westwood Hills Nature Center.

- *Theodore Wirth Regional Park:* The 759-acre park contains over 500 acres within the City of Golden Valley, but is managed and maintained by the Minneapolis Park and Recreation Board. A number of natural resource based opportunities exist within the park including those that take advantage of trails through woodlands, ponds and wetlands, the Quaking Bog, Wirth Lake, Twin Lake, and Bassett Creek. It is also home to the Eloise Butler Wildflower Garden, and the Wirth Golf Club.
- *Westwood Hills Nature Center:* Westwood Hills is 160-acre nature center located just south of I-394 and east of Highway 169. Approximately 20.79 acres of the park

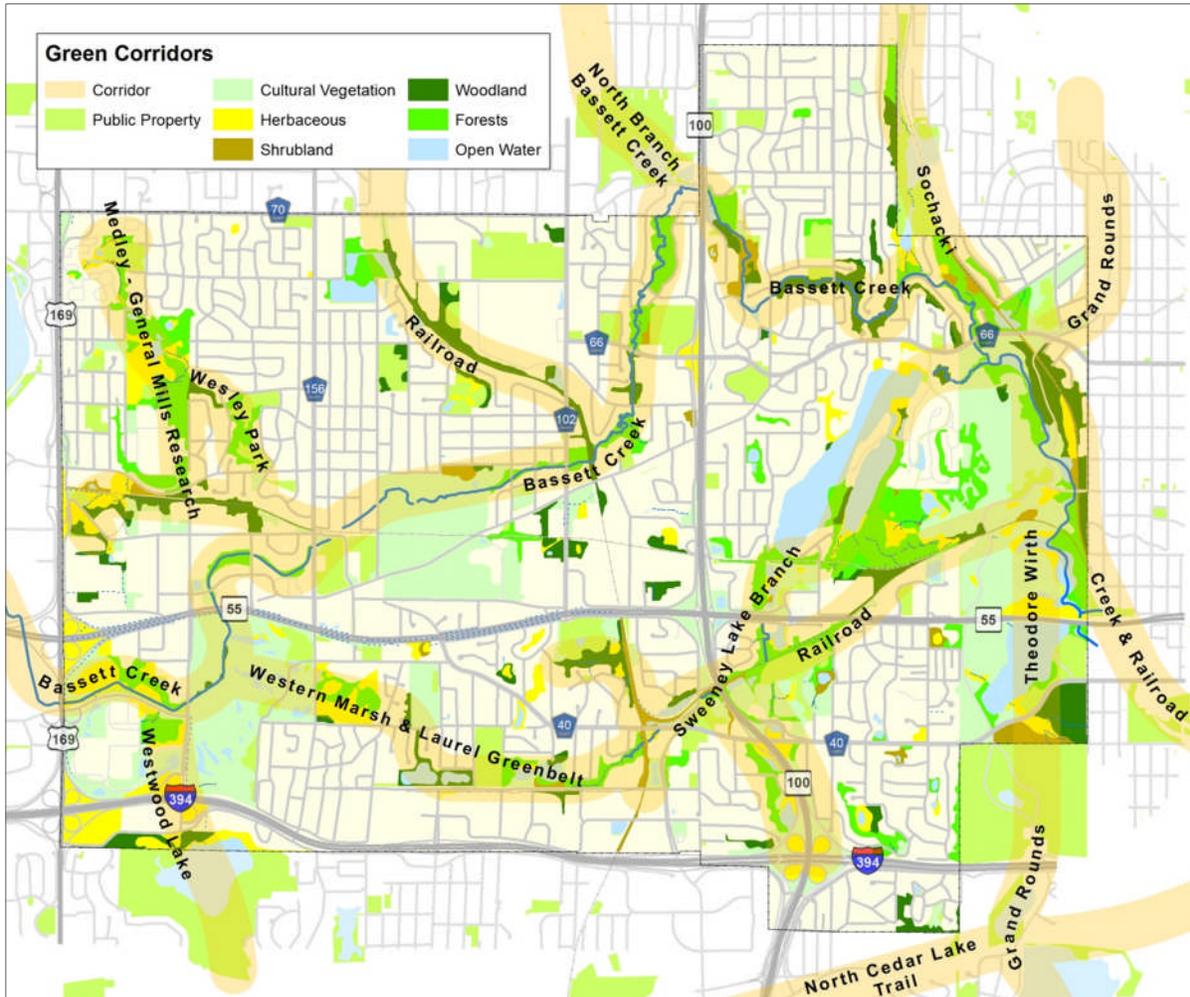
are within the Golden Valley city limits. Wood chip and boardwalk trails traverse through the property and around Westwood Lake. Access to the property, including the Interpretive Center, is provided through the City of St. Louis Park.

City Open Space Parcels: Golden Valley has 132 unique pieces of property that can be categorized into open space parcels, highway turnback property, or unimproved rights-of-way. Of those areas, it was recommended by the Environmental Commission that about one third be “preserved as open space” due to their size, location, or ecological importance. The primary land covers in these areas include turf, trees, mixed vegetation, and stormwater pond native vegetation buffers. Some of the open spaces include water resources such as ponds, wetlands and streams. In many Open Space parcels, there has been a history of public investment in natural, structural, or recreational elements.

Green Corridors

When land cover types are overlaid atop an existing land use map it becomes evident that many natural or “green corridors” have emerged as the City has developed. These green corridors tend to follow streams, floodplains, railroads, and large tracts of public and private land and provide many opportunities for humans, wildlife, and plants to connect and move throughout the community. The green corridors are a patchwork of public and private lands and the various land covers within these undeveloped spaces play an important role in providing critical habitat, protecting larger ecosystems, and providing recreational opportunities. Although these corridors were not part of a formal plan or vision, they could be enhanced or expanded in the future, or at a minimum used as a guide to assist in making decisions regarding individual open space parcels, new development and dedication of park land, and trail planning. The map below shows the green corridors that are present within Golden Valley.

Figure 4.6: Green Corridors



Amenities

Nature Areas typically provide opportunities for preservation, conservation, or enhancement of natural resources, sometimes referred to as “natural amenities”, such as forests, woodlands, grasslands/prairies, or wetlands while also providing more passive structural amenities. Structural amenities are provided to increase user satisfaction, and can include paved and natural surface trails, boardwalks, overlooks, benches, fences, retaining walls; entry, way-finding and educational signage, native plant and wildlife viewing opportunities, waste receptacles for trash and pet droppings, etc.

Natural Resource-Related Ordinances and Standards

1. **Tree Preservation:** An adopted city code (See Section 4.32 of Golden Valley City Code) written to “protect, preserve, and enhance the natural environment of the community and to encourage a resourceful and prudent approach to the development, redevelopment and alteration of trees in wooded areas.”
2. **Animal Waste:** An adopted city code (See Section 10.33 of Golden Valley City Code) written to promote immediate animal waste removal from public or private property).
3. **Feeding of Deer:** An adopted city code (See Section 10.34 in Golden Valley City Code) written to control intentional public feeding of deer within the City.
4. **Shade Tree Diseases:** An adopted city code (See Section 10.50 of Golden Valley City Code) written to protect the health of trees within the city limits from tree diseases and pests. This includes the prevention and spread of these type of conditions.
5. **Lawn Maintenance:** An adopted city code (See Section 10.51 of Golden Valley City Code) written to establish minimum standards for lawn maintenance and allow for alternative diverse vegetation types such as those defined as “Native Vegetation” within the ordinance.
6. **Application of Fertilizers and Pesticides:** An adopted city code (See Section 10.52) of Golden Valley City Code written to regulate the amount of lawn fertilizer and other chemicals entering the “lakes and streams” as a result of storm water runoff or other causes.
7. **Regulating the Use of Coal Tar-Based Sealer Products:** An adopted city code (See Section 10.54 of the Golden Valley City Code) written to regulate the use of sealer products within Golden Valley in order to protect, restore, and preserve the quality of its waters.
8. **Public Sites and Open Spaces:** An adopted city code (See Section 12.30) written in the Subdivision Code to require a reasonable portion of a plat or subdivision to be

dedicated for public use as parks, playgrounds, public open space or stormwater holding areas or ponds.

9. ***Landscape Standards:*** A policy document prepared by the City of Golden Valley to establish minimum standards relative to landscaping, buffering, and screening where required as part of the development process.
10. ***Stormwater Management:*** An adopted city code (See section 4.31 of the Golden Valley City Code) written to regulate land development and land disturbance activities resulting from erosion and site runoff.
11. ***Floodplain Management:*** An adopted city code (See section 11.60 of the Golden Valley City Code) written to provide an overlay district defining the floodplain of Bassett Creek and tributaries, and regulate activities within that overlay.
12. ***Shoreland Management:*** An adopted city code (See section 11.65 of the Golden Valley City Code) written to define and limit what is allowed to occur within the shoreland zones of Public Waters within the city limits.
13. ***Planned Unit Development:*** In reviewing planned unit development projects, the City enforces design standards for preservation and protection of resources, wetland buffers, and set back requirements.

Natural Resource Management and Maintenance

Golden Valley is a mature community, and its natural resource management needs must be considered in light of the age and successional state of the natural resources. For example, maintenance of a mature, fully canopied hardwood forest may differ from a young forest with scattered trees, and considerably less shading of the understory.

Planning for healthy and ecological diverse open spaces, like nature areas, can also provide a beautiful image of the community. This is especially true after a native plant restoration is completed, or new facilities and amenities are installed. However, it is the long-term care of the resources that exhibits a City's commitment to providing natural places and experiences that adds to the quality of life for its residents.

Managing natural resources for quality of life is enhanced when there is a sustainable management approach that balances the need to restore, enhance, and protect the natural resources with the need to provide passive recreational opportunities for the user, such as trails and other amenities.

Sustainable design and maintenance is any practice that protects and enhances natural resources while providing a realistic expectation for outcomes based on pre-defined goals, existing conditions and measurable changes, and available resources, which may be both physical and financial.

The City of Golden Valley has a long history of employing sustainable design into public improvement projects. For example, the City manages its storm water ponds using a sustainable management approach. This approach has been used in Hampshire and Brookview Parks where native vegetative buffers enhance water quality and provide benefits to wildlife habitat, pollinators, water resource education opportunities, and decreased maintenance efforts. The sustainable approach balances the potentially greater costs of initial installation with an overall long term reduction in costs and efforts as these naturalized areas require less mowing and maintenance, watering, and specialized care.

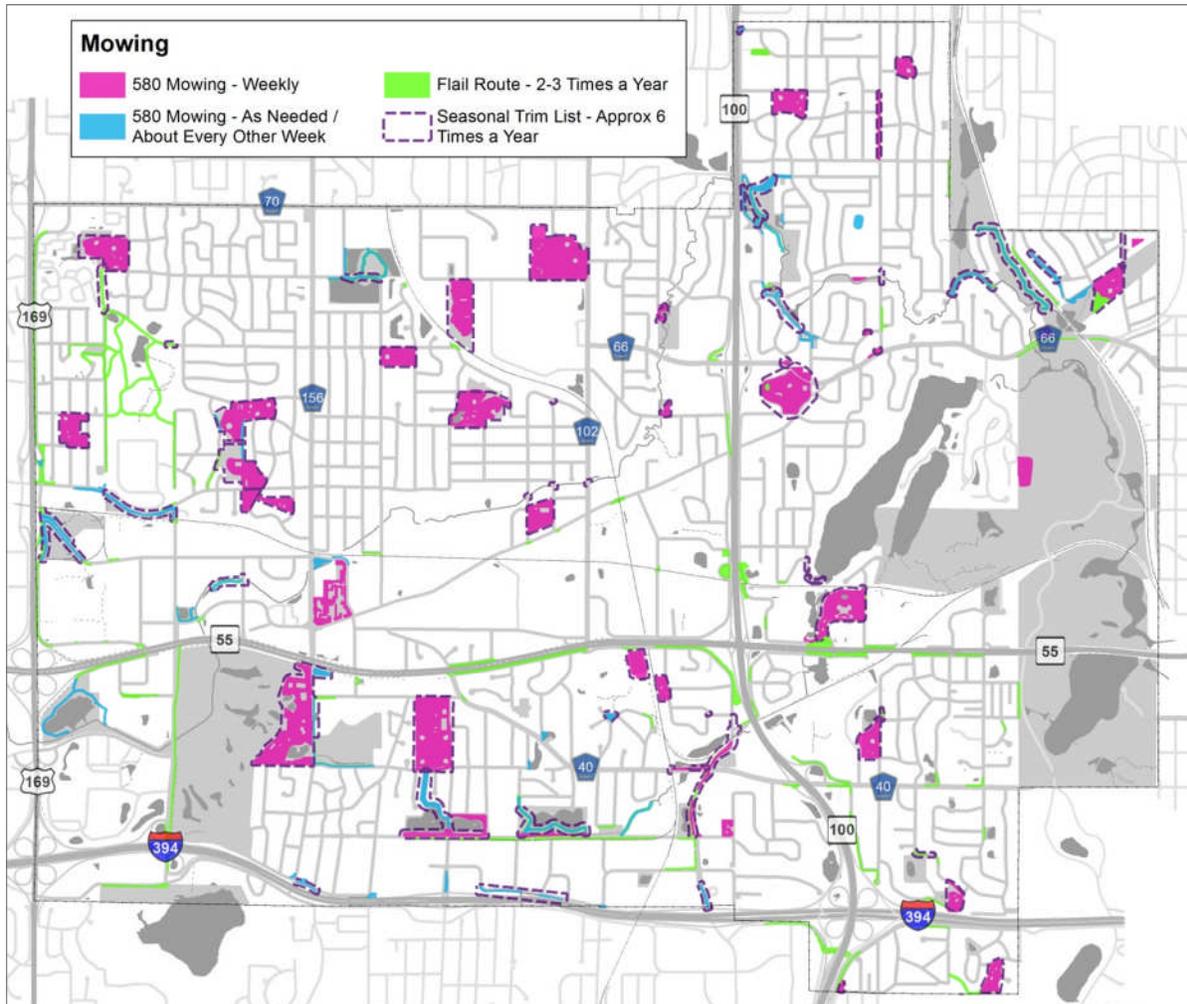
Nature Area Management and Maintenance Responsibilities

Park Maintenance, which is within the Physical Development Department, is responsible for the day-to-day and on-going operations of the City's Nature Areas and open space. There is currently one supervisor, one crew leader, one assistant forester, and five maintenance staff.

The primary tasks performed by Park Maintenance staff include maintenance along trails within the nature areas and easements, such as mowing, pruning, and relocation or removal of hazardous and downed trees. Trail maintenance is also completed, and includes paving, repair, sweeping, and in some cases, snow removal. Buckthorn and other invasive plant species removal may also be performed by City staff, however, due to the invasive nature of these plants, additional resources are needed to successfully control or reduce their impact on Golden Valley's natural resources.

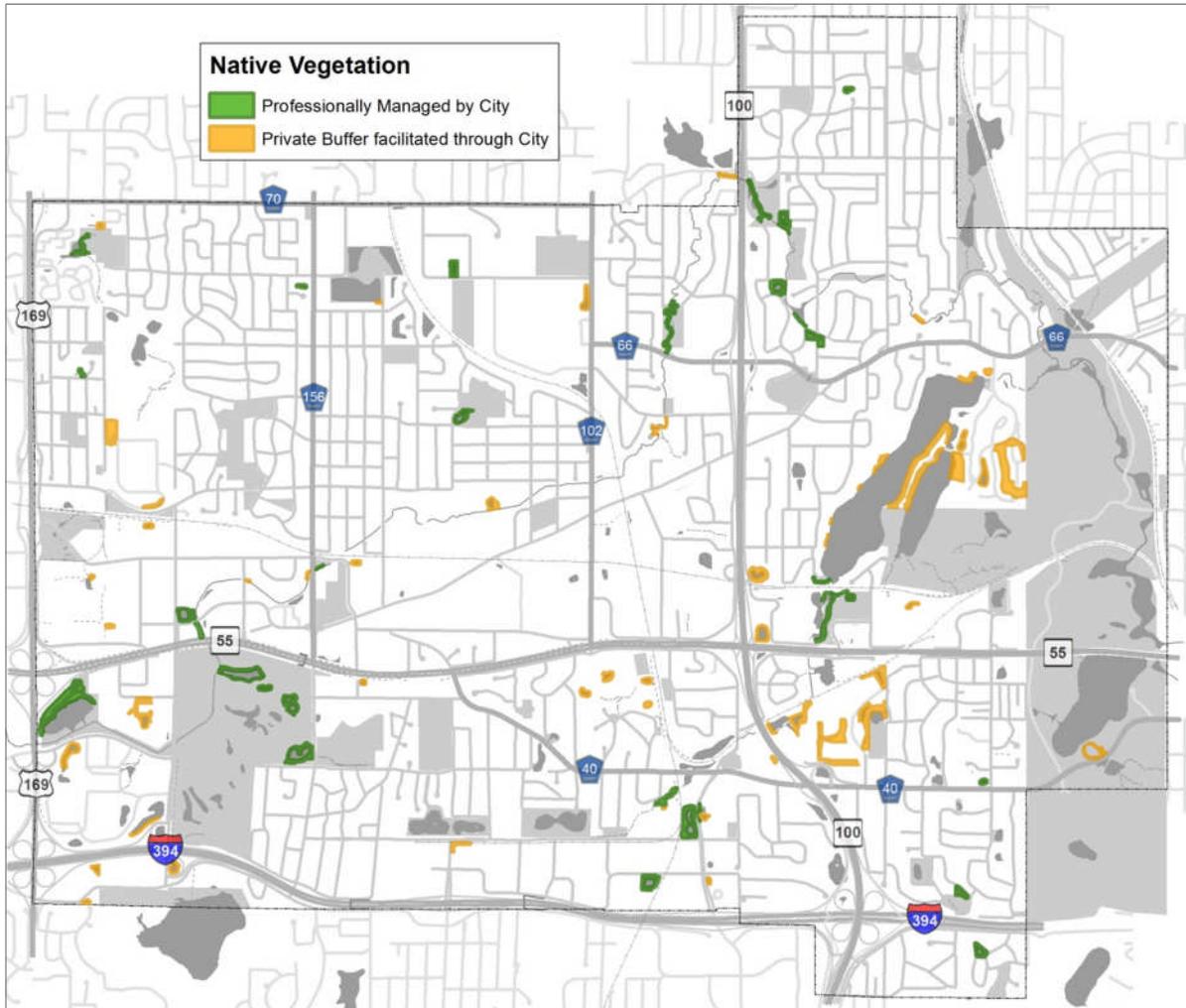
Figure 4.7 shows a general mowing and maintenance plan for nature areas and open spaces. The majority of mowing is on a weekly basis, but is concentrated on parks and open spaces that are used primarily for active recreation. Within the Nature Areas, mowing may also be weekly, but tends to be associated with trail maintenance.

Figure 4.7 General Mowing Schedule for Parks, Nature Areas and Open Spaces



The City of Golden Valley also contracts with specialized professional consultants for the establishment and maintenance of naturalized areas when additional expertise is required. This is typically associated with naturalized storm water pond buffers, but can include portions of right-of-way and natural areas where a native restoration project has been completed. For example, the Briarwood Nature Area has a small prairie restoration and a stream bank stabilization project that are being maintained by a professional contractor. Figure 4.8 shows where Vegetated Buffers have been established.

Figure 4.8 Native Vegetation



As part of the City's Adopt-a-Park program, volunteers help to ensure the nature areas remain free from litter and retain their natural beauty.

Invasive Plant Species

While Golden Valley has been proactive in controlling invasive plant species, many natural areas including the City's Nature Areas and Open Spaces have become infested with non-native plants including European buckthorn, and garlic mustard, in the woodlands, reed canary grass, giant reed grass, and purple loosestrife in the wetlands, and spotted knapweed and leafy spurge in the grasslands. Refer to *2013 Natural Resources Inventory Update* for more details regarding Invasive Species and the Urban Forestry page of the City of Golden Valley's website www.goldenvalleymn.gov.

Figure 4.9 Invasive Species

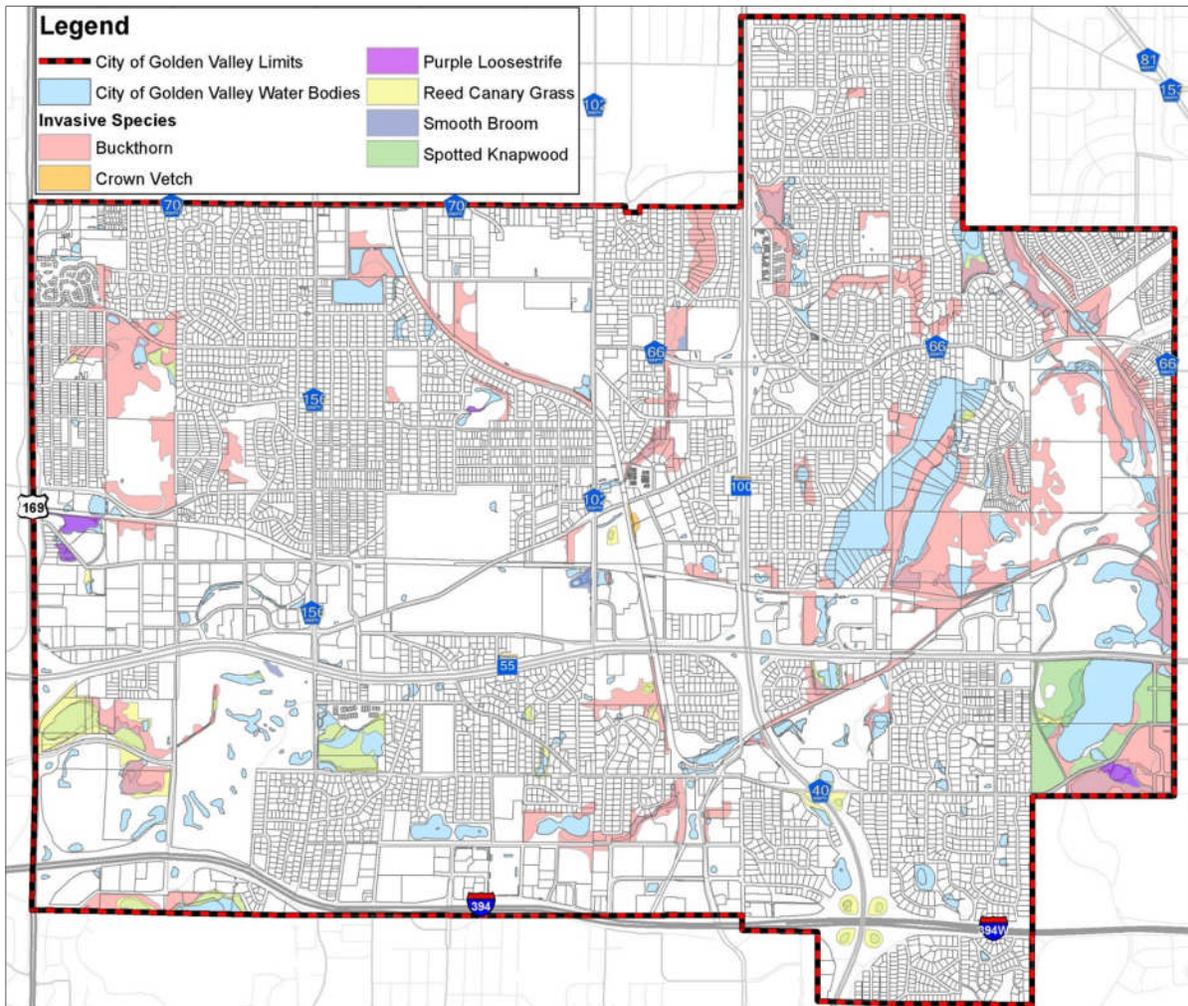


Table 4.1 identifies the acres that are dominated by invasive species. City-wide, buckthorn is the most prevalent invasive, followed by reed canary grass, and spotted knapweed. While buckthorn is found in many wooded areas of the City, reed canary grass can be found around a number of wetland complexes, and spotted knapweed primarily found around Wirth Lake in the southeast corner of the city. Crown vetch is limited to one area of railroad embankment, which is not located on city property, but is part of a greenway corridor. Other species are present but in smaller numbers including oriental bittersweet and wild parsnip.

Although aquatic invasive species have not been identified as an immediate concern in Golden Valley's water resources, eurasian water milfoil is found in Wirth Lake and is managed by the MPRB in accordance with the Minnesota DNR.

Table 4.1 Invasive Plant Species by Acres

Type	Acres
Buckthorn	543
Reed canary grass	84
Spotted knapweed	56
Purple loosestrife	11
Smooth brome	5
Crown vetch	2

Pests

Gypsy Moths: These moths are considered by many experts to be the single most destructive pest of trees and shrubs. While first present in Golden Valley in 2001, none have been found in the area since pesticide treatment by the Minnesota Department of Agriculture in 2002.

Emerald Ash Borer (EAB): Although not present in Golden Valley at this time, it is anticipated that the Emerald Ash Borer will threaten the City's Ash trees in the future. To meet the challenge, the City began developing an Emerald Ash Borer (EAB) Management Plan in 2010 and updated it in 2012. The plan outlines Golden Valley's objectives and approaches to meet current and anticipated impact of the EAB on the community's urban forest and woodland resources. The intent was to provide City Staff and the community with a dynamic pest management guide that could be easily updated as new pest management technology evolves.

Tree Diseases

Dutch Elm and Oak Wilt: These are two tree diseases that are caused by fungi carried by an insect from tree to tree. Once the fungus takes hold, it grows rapidly in the water-conducting vessels of the entire tree. The vessels clog and the tree eventually dies. Once a tree becomes infected, it can be a source of fungi for transmission to healthy trees. Both diseases are a continuing problem within the Golden Valley urban forest. Over the past years, Golden Valley has experienced losses to Dutch Elm disease and is continuing a comprehensive sanitation program to keeping annual losses to a minimum.

Public Outreach and Education

Building public support for nature conservation and natural resource protection including invasive species management is essential to managing a community's resources. Especially when, in most cases, there is no physical barrier between public and private property. Public outreach and education can help raise awareness of natural areas and wildlife, and the importance of the natural environment to the community and its overall quality of life.

Public Outreach

The City of Golden Valley uses a number of means to provide information to the residents of Golden Valley including:

- **CityNews publication:** A 16-page bi-monthly publication, produced by the City of Golden Valley and mailed to all residents. The publication is designed to provide a range of topics to the City's general population, an audience that varies by age, education, and level of interest in City government. Natural resource-related topics have included: native vegetation, rain gardens and water quality, spring brush pick up and fall leaf drop-off programs, public improvements such as stream restorations, emerald ash borer, nature area and natural resource partnerships, development of Natural Resources Management Plans, identification and management of invasive species (Buckthorn, garlic mustard, Reed canary grass, Spotted knapweed, Leafy spurge), and others.
- **Cable Channel 16/Northwest Community TV:** The City of Golden Valley partners with Northwest Community Television (NWCT) to bring Golden Valley residents a wide variety of programming that features information about local government, community activities, and events. The channel also highlights special features which include natural resource topics such as the Golden Valley Natural Resources Management Plan that aired in September 2014.
- **City Website:** Educational information related to natural resources is provided on the City's website that cover topics such as native landscaping and rain gardens, value of urban trees, tree diseases and, pests, tree management tips for homeowners,

Natural Resource-Related Education

While the City of Golden Valley does not have a naturalist on staff, nor any community hosted programs devoted to active or social environmental education, it does partner with the City of St. Louis Park's Westwood Hills Nature Center to provide environmental education programs like "Tuesday Turtles", an interactive nature learning opportunity for ages 4-5 along with other nature-oriented educational programs for all ages including:

- Science and Reading
- Puppet Story Time
- Games and Adventure
- Fall Color Paddle on Westwood Lake
- Honey Harvest

Discussions have also occurred to collaborate with the Three Rivers Park District to provide educational opportunities and programming in the Rice Lake and Mary Hills Nature Areas.

Stewardship/Public Service Volunteer Programs

Stewardship/public service programs provide an opportunity for community members to become actively involved in the care of Golden Valley's natural resources or areas and include through volunteering:

Storm Drain Inlet Stenciling Program: Education component of the Surface Water Management Plan that helps to prevent pollutants from entering the street storm drains by soliciting volunteers to paint a fish symbol and text "Dump No Waste" near storm drains.

Storm Drain Outlet Program: Storm drain adoption program near lakes, ponds, or streams with outlet basins whereby the City works with volunteers to report back any operation, maintenance concerns, or presence of illicit discharges.

Adopt-a-Park: Public service program that enables volunteers to help keep Golden Valley's parks and nature areas clean and beautiful. While the main focus of this program is picking up litter, volunteers can help City staff by identifying safety hazards, and communicating any issues that arise within the park or nature area.

Buckthorn Busting: Public service program related to the Adopt-a-Park in which residents can provide buckthorn removal within designated areas.

Lilac Planting and Maintenance: Local program, where volunteers plant or provide care and maintenance for planted lilac shrubs located throughout the City,

Partnerships

Minnesota Department of Natural Resources (MNDNR): Golden Valley partnered with the MNDNR, the Metropolitan Council (Met Council), and Hennepin County to complete vegetative community mapping from 1990s through 2002. Grants have also been awarded to the City from the MNDNR for shoreland buffers and tree plantings.

Hennepin County Natural Resources Partnership: In 2014, Hennepin County started the Hennepin County Natural Resources Partnership to provide a forum for a more holistic and collaborative approach to managing and protecting our land and water resources. Partners include cities, watersheds, and agencies and organizations involved with or interested in natural resources management and protection.

Metropolitan Council (Met Council): Besides partnering with Met Council on the Golden Valley Natural Resources Inventory, the City works with the Met Council for the completion of the Comprehensive Plan, which includes a natural resource planning component.

Adjacent Communities: Golden Valley has been involved in a number of partnerships related to parks and nature areas. Community Partners include: Minneapolis (Theodore Wirth Regional Park); St. Louis Park (Westwood Hills Nature Center); and Robbinsdale (Sochacki, Mary Hills, Rice Lake Nature Area joint powers agreement).

Three Rivers Park District: Golden Valley has partnered with Three Rivers District in recent years on a number of projects including the Bassett Creek Regional Trail Master Plan, the construction of the Luce Line Regional Trail, and the Sochacki Park joint powers agreement, among other initiatives.

Bassett Creek Watershed Management Commission: Golden Valley has partnered with Bassett Creek Watershed Management Commission on a number of restoration projects including Bassett Creek streambank stabilization in Briarwood Nature Area and Bassett Creek Nature Area, and water quality improvement projects throughout the city. The City and the BCWMC also collaborate to establish water quality and erosion control standards related to development.

General Mills: Golden Valley has also been part of public-private partnerships including the General Mills Research Nature Area. While the nature area is owned by General Mills, Golden Valley maintains the trails, including mowing and tree pruning along the edges.

Board of Water and Soil Resources (BWSR): The BWSR holds conservation easements over wetland banks located within the Golden Valley Nature Preserve and Minnaqua Wetland.

Other partnerships include:

- **Tree Trust** - a Minnesota non-profit organization with programs committed to helping to protect and advocate for the urban tree canopy state-wide while offering employment training programs to youths and adults. Volunteers assisted the City in planting shade trees as a way to begin preparing for potential threats from the emerald ash borer. Projects have also been completed within several nature areas, including a tree planting project in Briarwood Nature Area in 2010.
- **Minnesota Land Trust** – a Minnesota non-profit conservation organization that works with communities and landowners to protect and enhance land through a number of ways including conservation easements. The City worked with the Minnesota Land Trust to establish a permanent easement on a portion of land donated by General Mills to create what is now the General Mills Nature Preserve.
- **Hennepin County Sentencing to Service** – this correctional program provides manual labor, which can include work on natural resource-related projects, including buckthorn removal, vegetation maintenance around storm water ponds, and litter and debris cleanup in nature areas and open spaces.

Community Input

Equally important to understanding the existing conditions of the natural resource system, current management and maintenance strategies, and public outreach and education approaches and partnerships, is the understanding of community issues and concerns, needs and desires. The quality of a city's natural resources impacts the quality of life of its people.

Listening to those who develop policies (Commission Members), those who currently manage the City's natural resources (City Staff) including nature areas and open spaces, and those who

appreciate or use the system (citizens, users) is a critical step in the planning process. The wealth of input provided helps to determine future priorities for the preservation, conservation, improvement and management of nature areas and open spaces.

Project Steering Committee

The natural resources management planning process was guided jointly by Golden Valley's Environmental Commission and the Open Space & Recreation Commission. Both Commissions met early in the process to discuss goals and objectives of the plan and issues regarding the City's natural resources. Issues, concerns and opportunities identified included:

- *Bottineau Light Rail Corridor and Station* – its impacts and its opportunity as a gateway to Golden Valley.
- *Theodore Wirth Park Master Plan* – compatibility between the updated plan and Golden Valley's Natural Resource Management Plan.
- *Buckthorn Management Plan* – need for City endorsement and approval of a buckthorn management plan that would also provide education and management strategies for community residents. This would be similar to one that has been developed by the City for stormwater pond vegetative buffering.
- *Natural Resource Management* – need to create a plan that will guide opportunities for preservation (particularly Mary Hills Nature Area and General Mills Nature Preserve), protection and enhancement.
- *Sweeney Lake* – identify additional opportunities that would help to improve the water quality of the lake (would complement the existing Surface Water Management Plan).
- *Future Threats by Invasive Plant Species, and Climate Change* – provide management strategies that will be cognizant and adaptive to dealing with unknown threats.
- *Greenbelts* – preservation and enhancement of Dakota, Brunswick and Laurel Avenue.
- *Wildlife and Insects* – management (nuisance wildlife species control – Canada geese and Deer) and habitat enhancement for wildlife and insect species, i.e. pollinators.

- *Community Natural Resource Outreach and Education* – implementing or revising existing programs and creating and implementing new ones to increase community stewardship of Golden Valley’s natural resources.
- *Inter-agency Cooperation* – identify ways to communicate goals and policies of the Natural Resources Management Plan to other agencies in order to achieve positive results.
- *Funding* – identify additional sources of funding to support natural resource project implementation.

Following the February 2014 Joint EC and OS&R Commission meeting, monthly meetings were held with the Environmental Commission between July and October, all of which were open to the public. The meetings provided an opportunity to share project progress and receive guidance. Drafts of the Natural Resources Management Plan were presented at joint meetings in November 2014 and in February 2015 to both Commissions.

Natural Resources Community Survey

Because natural resources within a community are most often experienced by visiting Nature Areas, the Environmental Commission prepared a Natural Resources Survey as part of the planning process. An introduction of the survey and an on-line link was published in the City’s September/October Newsletter. The non-statistical survey was administered on the City’s Website between September 30th and November 7th. Forty-three (43) members of the community responded. The survey sought information from the public on a number of natural resources and open space topics including use, preference, and reason for visiting nature areas, overall satisfaction and natural resource protection. The following highlights the general findings of the survey:

Question #1: When asked which nature areas (permitted multiple responses) in Golden have the respondents visited, the top four answers among the 43 included: Bassett Creek Nature Area (24 checks) in first place; General Mills Nature Preserve and Mary Hills Nature Area (each receiving 20 checks) in second place; and General Mills Research Nature Area, a nature area within Golden Valley but not owned by the city received 18 checks. The Nature Area receiving the least number of visits was Golden Ridge, having received 5 checks. Those responding to “other” included natural areas within Wesley Park, Janalyn

Pond, Theodore Wirth Park, Bassett Creek itself, personal backyard adjacent to railroad corridor, etc.

Question #2: When asked which nature area is considered a favorite and why, most frequent answers by the 32 respondents included (in alphabetical order):

- *Bassett Creek Nature Area* – close proximity to home, kayaking,
- *Briarwood Nature Area* – close proximity to home, is beautiful, creek restoration, trails, wildlife viewing, provides connection to other parks
- **General Mills Areas* – quiet, native plant restorations, bird houses, pond to observe wildlife
- *General Mills Nature Preserve* – close proximity to home, walking
- *General Mills Research Nature Area* – close proximity to home, large enough for significant walking experience, large enough to support diverse flora and fauna, paths easy to walk on, safe for dogs, variety of topography, multiple habitats
- *Laurel Avenue Greenbelt* - nice size, close to residential neighborhood, good year round walking, water present
- *Mary Hills Nature Area* – close proximity to home, connects to Robbindale's, Sochacki Park, peaceful, forested, mushrooms, private and tucked away, lots of wildlife, fairly large, still feels "wild", great dog walking, diverse walking/biking trails, biking, off-road biking, skiing
- *Pennsylvania Woods Nature Area* – close proximity to home, destination for biking, dog can swim in pond
- *Rice Lake Nature Area* – close proximity to home, mixed habitats, quiet, skiing, lake, long dock, walking paths
- *Westwood Hills Nature Center* – natural path and beautiful site,

*Not specified as to which General Mills nature area

Other areas mentioned include Luce Line Trail because it is long and interesting, James Ford Bell Nature Area.

Question #3: When asked why a nature area is generally visited, the answers showed that exercise was the top reason for visiting, followed by view nature and wildlife, then relaxation. Education was reported least in the responses.

Question #4: When asked about satisfaction of the quality of Golden Valley’s Nature Areas and Open Spaces, the answers showed that the majority were satisfied or very satisfied while some were dissatisfied.

When asked to explain their answers, many reasons were given but typical answers for being satisfied included:

- The quantity, beauty and proximity of nature areas, green, wild and open spaces within the City
- The walking trails, ponds, trees, and wildlife
- One of the reasons for living in Golden Valley, nice amenities so close to downtown
- Provides diversification to asphalt and commercial space, and alternative to parks

The following provide typical reasons for respondents not being satisfied with the quality of Golden Valley’s Nature Areas and Open Spaces:

- Need for larger sized nature areas and more of them
- Need for increased/better buckthorn control, removing buckthorn would open it up, improve views, and make it feel more safe
- Need of additional effort/funding to protect natural areas from invasive species (buckthorn, purple loosestrife, garlic mustard, etc.)
- Concern about the future of Mary Hills Nature Area due to light rail transit
- Need for additional amenities, e.g., benches along trails within nature areas for resting and wildlife viewing, additional waste/recycle containers in Nature Areas, additional trails
- Need for better maintenance of trails, particularly snow removal in the winter
- Need for more native vegetation and less mowed areas and weeds, makes Golden Valley more desirable
- Algae growth in ponds

Question #5: When asked what should be done to improve Golden Valley’s nature areas and open spaces, the following suggestions were offered:

Access	Make Bassett Creek more accessible and navigable
Education	Educate citizens on buckthorn identification and removal practices; create a volunteer program to help educate public on invasive species

	Educate on use of pesticides, herbicides, other chemicals
	Educate on air quality, burning, and recreational fires
Funding	Seek grants to help community control buckthorn
Invasive Species	Remove buckthorn and garlic mustard prior to restoration of woodlands; remove reed canary grass prior to restoration of wetland/shoreland
Maintenance	Add mulch or rock to non-paved trails to make them less muddy during rain and snow
	Eliminate use of pesticides and herbicides
	Remove snow berms from trail entrances
	Make accessible year round with predictable snow removal schedule
Marketing and Signage	Market the Nature Areas and include identifying and way finding signage to and within Nature Areas
Nature Area Amenities	Install pet waste stations at nature area entrances
	Provide additional benches along trails
	Provide toilets in parking areas
Partnerships	Increase partnerships, like Three Rivers Park District to help protect and preserve natural resources and mitigate against invasive species
Pets	Enforce leash and dog waste pick-up for dogs; trails can be un-walkable in the spring
Protection	Protect more natural areas and open spaces within the City
	Add more nature areas to the system
Recreation	Create dog parks and community gardens
	Add zip line to Mary Hills Nature Area
Restoration	Improve soil to sustain native vegetation; place collected residential leaf debris on woodland floor (to regenerate soil)
	Add pollinator or edible plants to enhance landscapes or native plant restoration sites
	Decrease mowed areas and increase native plantings similar to what has been done in Brookview Park
	Restore un-used ball fields or large areas of open space within

	parks to native vegetation
Trails	Complete trail loops with mileage and connections to other trails and streets, create paths for birding
	Construct more trails
	Have a mix of paved and natural surface trails
Wildlife Habitat	Increase attention to wildlife habitat; retain downed trees if not hazard
Wildlife Management	Control deer population

Question #6: When asked about the ways to protect Golden Valley’s natural resources, the results showed that responders felt the most effective way to protect Golden Valley’s natural resources would be to acquire land or easements and the least effective way would be to provide financial or other incentives.

Chosen from following list: Education; Laws and regulations; Volunteer conservation/protection; Financial or other incentives; Acquisition of land or easements, education seems to be important to those responding to the question:

Acquisition of Land or Easements	There is ample opportunity for the city to purchase private land in the city for green and open spaces
	There is no more land in Golden Valley for parks or nature areas
	Forces the land to be saved for park use
Education	Citizens need to understand the importance of good conservation
	Many are unaware of nature areas, marketing them will make residents more aware of them; organize tours of them
	Education is required to control buckthorn on private property
	Some people will always abuse a nature area but most will not if they know/understand the purpose
	Without on-going education of the younger generation, the best plans in the world will not protect natural resources

	Education, including exposure to nature, is the key to developing interest in people for these areas and for continued usage plus encouraging volunteers to work in them
	Education should go hand in hand with laws and regulations
Laws and Regulations	Have laws and regulations in place and not sure what could modified to greater effect
	We need authority to show citizens that it is important to preserve environmental integrity
	Regulations are required to control buckthorn on private property
	Laws and regulations need to be in place so the efforts of education and conservation/protection have some teeth
	Laws and regulations are in place but need to be tweaked from time to time
Volunteer Conservation/Protection	Having natural areas in City ownership gives permanence, using volunteers (adopt a park) gets folks directly involved
	Volunteers are essential because city cannot afford to maintain
	Without “ordinary citizen involvement”, the best plans in the world will not protect natural resources
	Volunteers need to be armed with education in order to change people’s minds about protecting natural resources
	Getting people involved is great but only a handful ever volunteer for anything
Financial/Other Incentives	Financial incentives work wonders
	People won’t just do what is right unless they benefit from it directly