

SanfordTM Trails

Master Plan



Spring 2020



SanfordTM Trails

Master Plan



Created by the Sanford Trails Committee (pictured above);

- Seated, left to right: Don Roux, Dollie Hutchins, Hazen Carpenter, Kevin McKeon, Rick Tockman, Thom Gagne
- Standing, left to right: Julie Isbill, Alan Grady, Albert Pollard, Lee Burnett, Lawrence Furbish, Melissa Beecher

Facilitated by the Rivers, Trails and Conservation Assistance program of the National Park Service

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Master Plan



Executive Summary

Who we are:

The Sanford Trail Committee's mission, on behalf of the City of Sanford/Springvale, is to develop, maintain and promote a comprehensive system of trails connecting a wide-range of users to natural and cultural places for exercise, recreation, transportation and overall well-being.

Through three decades of sustained effort, much of it by volunteers, Sanford has built a 22-mile network of interconnected footpaths, bike paths and multi-purpose trails integrated with major destinations in Sanford/Springvale. This network, primarily on public land, is interlaced with a wider network of trails primarily on private land, including 31 miles of snowmobile trails, 23 miles of all-terrain vehicle trails, and 10 miles of informal mountain bike trails.

What's in the Plan:

The Sanford Trails Master Plan addresses all aspects of current and future trail development, from maintenance and organizational structure, to new trails and funding.

Why this matters:

The Sanford Trails Master Plan is a blueprint for transforming Sanford's trail network into the best in New England.

Vision

We envision the City of Sanford/Springvale as a place where ample open space and a diverse network of safe and inviting trails link this and future generations to each other and to the places they want to go, while preserving the area's

history and natural beauty. Our vision embraces the intrinsic value of natural, scenic, forested and open land, in balance with developed areas, connected by a system of trails.

With some key upgrades, Sanford could transform this largely recreational asset into a multi-purpose engine serving additional community goals, four of which are:

- Public health
- Tourism
- Modern transportation network
- Catalyst for land conservation

Continual effort should be made to improve, connect, and expand the existing trail system to achieve these goals. Criteria for choosing to improve an existing trail or create a new one include: safety, access to trails, and demand, as well as economic, scenic, cultural, and historical value. All proposed new development should consider incorporation of existing formal and informal trails, and should consult the Sanford Trails Master Plan map regarding proposed trails on, or connecting to, the land to be developed. Utility corridors, abandoned roads, and public lands should be considered for inclusion of trails. Whenever there is potential for private property to be incorporated into the trails, the Trails Committee will continue to work in conjunction with landowners to ensure there is agreement about how and where the land will be used for the trail network.

Highlights:

In addition to specific and incremental actions, the plan suggests some larger initiatives:

- Build “The Big Connector”, a universal-access backbone trail through the heart of the community to create a regional destination attraction. Bracketed on both ends by trailheads/parking areas on state highways, it would link existing trails with four new trail segments, including “The Downtown Connector”, to form a continuous 6.6 mile route for walking, cycling and other forms of human-powered locomotion.
- Continue to incorporate spur and loop trails within Sanford/Springvale into the trail system.
- Stretch the trail system to connect to neighboring towns’ trails.
- Provide leadership opportunities for Sanford youth by creating a multi-faceted Trails Program at Sanford High School/Sanford Regional Technical Center.

In summary, the Sanford Trails Master Plan outlines the steps towards creating a connected, coherent, and homegrown system of trails that are the pride of the

community, and a means to a healthy and vital place to live and work.

THE PROCESS

One of the most productive aspects of any good plan is the process that created the plan. In the case of the Sanford Trails Master Plan, the process itself resulted in strengthened relationships, new community organizations, and ideas coming to fruition. Many of the Master Plan ideals and actions started to unfold while engaged in the planning.

In 2016 the Sanford Trails Committee successfully applied to the Rivers, Trails and Conservation Assistance program of the National Park Service (NPS) for help in creating a trails master plan for the City of Sanford. National Park Service staff (Julie Isbill) began working with the committee that fall, and other than five months when staff was not available, the committee chipped away at the plan until its completion in 2019. In the course of monthly meetings, NPS facilitated conversations with the Committee, topic by topic. After committee input and regular conversations with the committee Chair, NPS wrote a chapter at a time, vetting and editing the drafts at each meeting. Meanwhile, Sanford Trails Committee proceeded with its work of managing and growing the 20+ miles of trails.

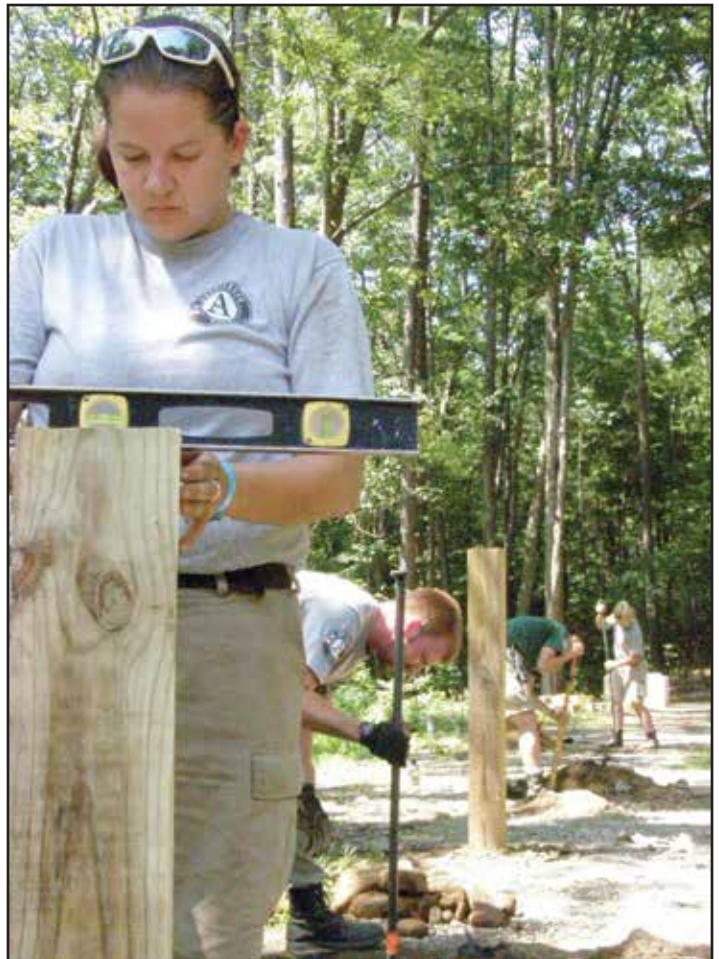
In the course of writing the plan, issues arose and in some cases were resolved. For example, for years the City had been hoping for the creation of an ATV club to help manage and monitor the sometimes problematic ATV use in the city. The City and Sanford Trails Committee organized a public meeting to discuss ATV use of the Rail Trail, and soon thereafter, a robust Sanford Maine ATV Club was formed! The time was also right for a bicycle-focused group to organize. With two bike shops and an after-school bike program in town, energy mounted resulting in the new bicycle advocacy group, Cycle Sanford. During the planning process the “Downtown Connector” - a corridor connecting two critical parts of town and existing trail systems - emerged as a focus. Thanks to a partnership between the NPS and the American Society of Landscape Architects, Sanford Trails/the City received pro bono design services for the Downtown Connector from Aceto Landscape Architects (ALA). The City is now vetting the design and hopes to find funding and move forward with it. One important piece (new pavement and bike stenciling) was implemented in June 2019, right before the Sanford Cycle Fest. The Bike Fest was yet another exciting outcome of this planning process!

The master planning process also resulted in a host of presentations to community groups. As a result, many more

people and organizations are aware of the Sanford trail system and the plans for its improvement. The sustained maintenance and growth of the trail system will need participation and support from these groups and a cross-section of the community. Sanford Trails presented and received feedback on the Trails Master Plan to the following groups:

- Chamber of Commerce
- City of Sanford staff
- Conservation Commissions from the surrounding towns
- Cycle Sanford
- Fire Department
- Goodall Library
- Kennebunk and Kennebunkport Water District
- Kiwanis Club
- Landowners – various owners who would be affected by the plan
- Mousam Way Land Trust
- Planning Board
- Police Department
- Rotary Club
- Sanford Maine ATV Club
- Sanford Historical Society
- Sanford Industrial Development Corporation
- Sanford School Committee
- Sanford Sewerage District
- Southern Maine Health Care primary care physicians
- Southern Maine Sno-goers
- The Nature Conservancy
- Three Rivers Land Trust
- YMCA

The Sanford Trails Master Plan was made possible thanks to the hard-working, perseverant Sanford Trails Committee: Melissa Beecher, Lee Burnett (Chair), Hazen Carpenter (Vice Chair), Lawrence Furbish, Thom Gagne (Secretary), Alan Grady (Parks and Rec), Dollie Hutchins, Kevin McKeon, Albert Pollard, Don Roux, and Rick Tockman (plus ex-Committee member Michelle Martin).



BACKGROUND AND HISTORY

An informal network of trails has existed on the banks of the Mousam River for as long as memories go back. In 1988, Hazen Carpenter proposed as a Kiwanis Club project to develop these trails into a town-wide trail system, which was met with enthusiasm in the club and throughout town. The club launched a ten-year campaign to create what became known as Mousam Way. The charter group numbered 32 people and included stalwarts such as Merle Porell, C. Scott Hoar, Ron Woodward and David Joy.

The club's first project was rebuilding a footbridge in the woods between Gowen Park and Sanford High School in 1989. During the next several years, the club defined trails with bark mulch from recycled Christmas trees collected by the club. The club raised money through annual walkathons and through grants from William Oscar Emery Trust, Sanford Housing Authority and Maine Job Creation Bond. The proceeds were poured into construction projects. One of the club's most ambitious undertakings was development of Mousam Way Park on the banks of the Mousam River in Springvale. It included restoration of two bridges, construction of a brick-paver crosswalk, construction of bathroom and storage facilities, and reconstruction of a gazebo (once relocated from Central Park, where it housed



a drinking fountain). In 1992, Kiwanis Club received awards from Maine Association of Planners and the Kiwanis New England District. Other projects included construction of Mousam Way trail head sign in Gowen Park, a 60-foot bridge across the Mousam River, two other foot bridges, a gazebo in a park opposite Oscar Emery Drive, and a shelter and bus stop at the YMCA.

All that work culminated in the town's formal adoption of the Mousam Way Trail as a linear park system in 1999. The trails were almost all footpaths and extended about 8.5 miles. That same year, the Board of Selectmen appointed a Sanford Trails Development Committee, which worked initially with Planning Director David Carpenter. The committee moved quickly to secure ownership from State of Maine of an abandoned railroad bed last operated by Sanford and Eastern Railroad in 1961. The rail bed expanded the town's trail network by another six miles and ushered in an even more active era of trail development.

A new focus was developing a multipurpose trail on the rail bed. Major sections of the rail bed were reconstructed, sound barrier fencing was erected, Depot Park was built, and long stretches were graded. Grants for trail construction were secured on a regular basis. Initially, this was a volunteer effort. But it was bolstered in 2006 when trail committee member Lee Burnett was hired as a part-time grant writer for the town. Funding from the state's Recreational Trails Program flowed to town in 2002, 2005, 2009, 2010 (Kiwanis), 2012 (Kiwanis), 2014, 2015 (Mousam Way Land Trust) and 2016.

Development of the rail bed was especially important

to snowmobile riders. Organizing into a club in 1994, snowmobilers eventually stitched together a 31-mile network of trails. But maintaining good relations with 60 landowners in the face of ATV trespass and landownership changes became a constant struggle; trail relocations were common. The rail bed was a welcome constant. Southern Maine Sno-goers contributed with trail maintenance and took the lead in building Carpenters Crossing bridge over Little River.

Gradually, trails came to be valued not just for recreation, but for transportation. Developing these alternative transportation corridors required more significant funding. Both the federal highway and community development block grant programs were tapped. In 2007, Sanford opened the town's first paved bike path – a .75-mile bike path connecting Sanford High School, YMCA and surrounding neighborhoods. In 2009, another .25-mile bike path was built as part of a new road through the Mill Yard.

Trail development seemed to inspire contributions from many groups and individuals. In 2005, Sanford Springvale Historical Society contributed photographs and text for the development of historic walks in downtown Sanford and Springvale. In 2009, Developer Lionel Sevigny constructed a one-quarter-mile trail through Soldiers and Sailors Park as part of the redevelopment of Edison School into Edison Park Apartments. In 2010, trail committee member Ruth Bettinger established the Rene Letourneau Fund in memory of her late husband to help finance construction of Mousam Way South, a 1.6-mile network of trails on private land open to the public south of Emery Street. The Mousam Way Land Trust, which opens all its properties to public use, also



got into the trail building act. In 2014, it built the half-mile George Sweet trail on trust property near Sand Pond and in 2016 it improved the half-mile Vigue Road trail on trust property east of Deering Pond.

Finding resources for trail development was a constant challenge. The committee got ever more creative in leveraging the \$10,000 in annual town funding. For five summers, teams of college-age volunteers spent six weeks in town through the AmeriCorps NCCC program. Among their biggest projects was cleaning up the Mousam River and making it passable for paddling. They visited town in 2007, 2008, 2010, 2011 and 2013. Twice, the committee secured the services of Maine Army National Guard to construct sections of Mousam River Bike Trail as a training exercise. (The 262nd Engineer Company worked in 2015 and the 185th Engineers Support Company worked in 2016.) In 2009, the trails committee took over management of town-owned forestland and in 2011 conducted a timber harvest that netted more than \$50,000 in revenue. For three years (2011-2013), the committee raised funds through the annual Sanford Rail Trail 5 K. In 2014, the committee sold sponsorships to raise funds to publish Sanford Trails Map & Guide. In 2014, the committee crowd-funded a trail construction project, raising \$4,000 through Indiegogo for Springvale Farm Trail.

The committee came to realize that further expansion of the trail system depended on reaching out to private landowners. Sometimes small advances were made through the development review process, such in 1992 when developers granted a trail easement as part of the development of Haven Cove Condominiums in Springvale. A land swap with Marcel Angers in 2009 allowed for construction of a short but critical link between Marginal Way and the Railbed Trail. The opportunity for longer-distance trail linkages existed in the sewer trunk line extending from Springvale to a pump station on Jagger Mill Road in south Sanford. But gaining access to the sections of it crossing private property depended on the good will of landowners along the way. Seven landowners signed agreements (recreational easement deeds or five-year agreements) for construction of Mousam River Bike Trail, a 1.7-mile trail connecting to the new Sanford High School / Regional Technical Center. In another part of town, 15 landowners made handshake agreements to allow the one-day Springvale Farm Walk – a four-mile trail connecting to 10 farms – to cross their properties beginning in 2014. A longer loop trail through farm country is in development.

The 30th anniversary of trail development in 2018 is a good time to take stock and gather inspiration to do even more.



VISION and MISSION

Trails play an important part in quality of life. They provide access to fresh air, open spaces, nature and freedom of movement. Sanford/Springvale has an abundance of places to roam, in the woods and fields, as well as within the neighborhoods and downtowns. This is a priceless resource that should be valued, grown, and maintained.

Sanford is on its way to becoming a “trail town” – a community criss-crossed by trails of all types with something for everyone. Sanford is poised to become a bike and pedestrian city where all residents and visitors can get into, around, and out of the city on sidewalks, bike paths and off-road trails. This is the kind of place that promotes healthy lifestyles and attracts people and businesses, thereby stimulating the economy. Trails create physical connections as well as social connections. People see and stop to talk to each other while out using the trails. Connections are also made between organizations and groups who become involved in using and maintaining the system. This web of connections makes Sanford strong and resilient.

Vision

We envision the City of Sanford/Springvale as a place where ample open space and a diverse network of safe and inviting trails link this and future generations to each other and to the places they want to go, while preserving the area’s history and natural beauty. Our vision embraces the intrinsic value of natural, scenic, forested and open land, in balance with developed areas, and connected by a system of trails.

Mission

The Sanford Trail Committee’s mission, on behalf of the City of Sanford/Springvale, is to develop, maintain and promote a comprehensive system of trails connecting a wide-range of users to natural and cultural places for exercise, recreation, transportation and overall well-being.



Policies:

- Design trails for their intended type and intensity of use.
- Create a maintenance program for all public trails.
- Encourage and coordinate with individuals, trail groups, businesses, service organizations, and community groups (e.g., churches, schools, the Y, etc.) to provide maintenance for specific trails and/or segments.
- Designate the Sanford Trail Committee, a volunteer group functioning under the City of Sanford, as the overseer of trail development, use and maintenance in the City of Sanford.

GOALS and POLICIES

Goal One: Trail Types

The City of Sanford shall encourage the development of a mix of trails for recreation and transportation.

Policies:

- Collaborate with others (service organizations, schools, businesses, etc.) to continue to develop a system of trails to access natural and cultural features such as ponds, streams and forested areas, as well as schools, farms, shopping and services, and employment centers.
- To the extent possible, locate trails through natural and scenic areas and parks.
- Develop bike lanes and sidewalks that link to trails and population centers with businesses, industrial areas, recreational sites and institutional facilities.
- Create and improve universal access trails wherever possible.
- Where possible, segregate incompatible uses.
- Create a system of trails that offer a variety of difficulty and terrain.
- Ensure that the trail system includes longer distance trails that connect beyond Sanford (e.g., Eastern Trail, Mousam River Trail, etc.)

Goal Three: Safety and Security

Incorporate safety and security on all trails for users as well as adjacent properties.

Policies:

- Work with public safety agencies to formulate action plans for emergency and non-emergency service on the trail system.
- Address trail safety in the design phase of trail development.
- Incorporate appropriate safety measures for trails with mixed uses.
- Where feasible, work with property owners to mitigate noise and safety issues related to trails. For example, screen abutting properties, and where it makes sense, seek to separate motorized and non-motorized users.
- Work with motorized trail users, City public safety agencies, and property owners to mitigate noise and safety issues and ensure that trail vehicles are properly maintained for noise and safety.
- Provide information at the trailheads stating the allowed uses, trail length, difficulty and any regulations.

Goal Two: Maintenance and Management

Consider maintenance and management as vital components of trail development and use within the City of Sanford.

Goal Four: Planning and Incentives

The City of Sanford shall provide both regulatory and non-regulatory mechanisms for encouraging the retention and development of trails.

Policies:

- Provide developers with options to create new or incorporate existing trails as a means of demonstrating compliance with open space or recreation requirements.
- Support and encourage the City Planner and Planning Board to actively work with developers to create trails, especially in corridors defined in this Trails Master Plan.
- Assign a Planning Board member as liaison to the Trails Committee or implement another process to notify the Sanford Trails Committee when new development is proposed so that the Committee may comment on and advocate for potential trails.
- Consider a tax incentive program available to property owners who commit a portion of their property for public trail use.

Goal Five: Property and Easement Acquisition

The City of Sanford shall develop procedures for the acquisition of property or easements for trails.

Policies:

- Authorize the Sanford Trails Committee to review all City-owned land and rights-of-way for potential trail use before disposing of such property or rights. When retention is not appropriate, consider securing an easement for public trail use before the sale of the property.
- Secure long-term use of trails by purchasing land or easements from willing sellers. Where this is not possible, work with landowners to make other arrangements to allow public use of trails.
- Establish a City policy that grants a tax break to any landowner who allows a public access trail on their property. Automatically notify those landowners of this tax benefit.
- Coordinate with public utility providers to secure trail easements along new and existing service corridors or extensions.

Goal Six: Promotion and Programming

Attract visitors and residents to use and enjoy the Sanford trail system by offering, as well as supporting others to offer activities and events that use the trails.

Policies:

- To foster economic and community vitality, promote the trail system to visitors as well as local groups including trail runners and walkers, mountain bikers, cross-country skiers, equestrians, snowmobilers, ATV'ers, and geocachers and others.
- Support and encourage groups such as schools, the hospital, and land trusts to develop and implement trail programs that use the Sanford trail system.

Goal Seven: Funding

The City of Sanford shall seek and provide funding for the development, maintenance and promotion of its trail system.

Policies:

- Actively pursue and provide funding to grow, maintain and promote the trail system in Sanford, including purchase of land and/or easements.
- Pursue available grants and donations from individuals, corporations/businesses, foundations, and state and federal programs.
- Direct City staff to assist with trail projects when possible, and use surplus City materials (e.g., gravel) as needed for Sanford trail projects.



USER GROUPS and TRAIL STANDARDS

The Sanford trail system includes the full spectrum of trail types, from ATV and snowmobile trails to hiking trails and on-road bike lanes. Each user group has different needs and ideal conditions. Many trails serve multiple types of users, combining design features from each group. Some trails are single or limited use in order to minimize environmental impacts and potential user conflicts. Following are the different trail user groups and the qualities that make a good trail for them. Some of these specifications have been gleaned from the Maine Trails Manual; none are set in stone given all of the variables that go into creating and maintaining a trail. All trail users need some of the same amenities such as good trailhead information, blazes/markers, and maps. For more detailed information, consult the references listed.



Universal Access

Anyone walking including those pushing strollers and anyone walking with or without mobility impairment, including those in a wheelchair. The specifications below describe “Universal Access” trails.

- Trail width/surface: “Firm and stable” is the standard for the trail surface. A firm trail resists deformation by indentations. A stable trail is not permanently affected by normal weather and can sustain normal wear and tear between maintenance. Paving may be appropriate in highly developed areas but crushed stone, packed soil and other natural materials may provide a firm and stable surface. Minimal tread obstacles up to 2 inches high can be tolerated on an unpaved trail. Tread width should be a minimum of 36 inches for one way traffic (with passing spaces every 1000 feet), and 60 inches for two-way traffic. If the trail narrows at some point, a turnaround space of 60 inches by 60 inches must be provided. Side slope (necessary for drainage) should be 2% for paved trails and up to 5% for unpaved trails. Running slope is ideally fairly flat (less than 2%). If the slope is up to 8.33% there must be a resting place every 200 feet. If the slope is up to 10%, resting spaces must be every 30 feet. The maximum slope should be 12% which will require resting spaces

every 10 feet. The minimum size for a resting space is 60 inches by 60 inches. All sidewalks in Sanford should be universally accessible with proper width, surface and curb-cuts.

- Parking: For trails that can be accessed within a populated residential or commercial area, parking may not be necessary. Other trailheads should be evaluated on a case by case basis, with standard and wheelchair-accessible parking with a firm and stable surface provided.
- Bridges: Clear travel space a minimum 36 inches wide, with a board outside the 36 inches, on each edge, to prevent wheels, canes, etc. from slipping off of the edge. The spacing of the planks should include a maximum ½ inch gap perpendicular to the direction of travel. Bridges that are more than a few feet high need a railing.
- Notes:
 - Trailhead information is one of the most helpful tools for anyone with a mobility impairment. All major trailheads should include information about: length of trail/segment, trail surface and obstacles, width, and maximum running and cross slope.
 - Facilities such as trash bins, benches and restrooms should be constructed to accommodate someone in a wheelchair.
 - A huge and often controversial user group are the **dog-walkers!** Best management practices include:
 - Consider installing dog waste stations (sign, bags, trash can) at one or more popular dog-walking trailheads, and require that all dog waste be removed on and around trails! If a dog waste station is installed, a City maintenance crew would have to regularly dump them. One alternative is to install waste bags but no waste receptacle, in keeping with the trail system’s “carry-in, carry-out” policy.
 - Consider possible off-leash trails, but where density of use or serious incompatibility exists, institute an on-leash-only policy. It is often difficult to enforce an on-leash policy. Some towns have instituted an on-leash policy at and near the trailheads where most conflicts occur.
 - Create another “dog park” if

demand is significant.

- Enlist dog-owners as trail stewards. Consult the dog license registry to reach out to dog-owners.

- References:

- United States Access Board, www.access-board.gov/guidelines-and-standards/recreation facilities.
- US Forest Service, www.fs.fed.us/recreation/programs/accessibility
- American Trails, www.americantrails.org/resources/accessible



Hikers

Able-bodied people on trails that might be narrow with sections that are steep and with some surface irregularities and/or impediments such as roots and rocks.

- Trail width/surface: The tread for primitive foot trails should be 1-3 feet wide for single-file and 5 feet for side-by-side travel. Clearing of the corridor should be a 3 foot minimum for primitive foot trails to 4+ foot width; 6 foot minimum width for side-by-side walking. The surface can be native soil or placed rock and/or minimum excavation with packed gravel and some/most surface roots and rocks removed or modified. Although wood chips are not the ideal trail surface (they are erodible and degrade, creating a soft surface that has to be replaced regularly), it is a natural and often a free and available material that volunteers can manage to temporarily fill in holes and/or cover roots and rocks.
- Parking: Some on or off-street parking should be available at most trailheads.
- Bridges: Capacity: 200 pounds times the estimated number of people/span, plus 20%. Decking: a single layer rough/non-slip plank, 1.5 inches thick with maximum 1 inch spacing. Railings: 42 inch minimum height, 6-8 inch sideboard spacing. Shorter/lower bridges may be narrower and without a railing. To the extent possible, wet areas should be avoided, but if a trail traverses a wet area, proper surfacing such as a boardwalk or turnpike should be installed.
- References: *Maine Trails Manual, Guidelines for Recreational Trail Construction in Maine*, October 2002, Carl C. Demrow for the Maine Department of Conservation, Bureau of Parks and Lands.



Bicyclists

There are two main types of bicycling: on-road for transportation and exercise, and off-road for exercise and recreation.

Road Bikers:

More and more people are using their bikes as transportation to work and beyond. Others have taken to road-biking for exercise and recreation. Both users need safe, paved corridors.

- Trail width/surface: Ideally we would have separate bicycle paths or lanes connecting all parts of the City, just like vehicles have. For the most part, bicycles need to share the vehicular streets and roads. There is a spectrum of bicycle facilities: bike path (entirely separate from a road, 10-14 feet wide), bike lane (alongside or within the road, striping/signs, 4 feet wide), paved shoulder (an extension of the outside lane, striping 4 feet from pavement edge), wide outside lane (an extension of the outside lane, striping 2 feet from pavement edge), shared lane (lane shared by bicyclists and motorists, where road is too narrow for a bikeway, signs essential).
- Parking: Generally road bikers can start from home, though some may want to drive and park in particularly desirable biking areas.
- Bridges: Bridges shared with vehicles should have at least 4 feet of maintained pavement on each side of the road, delineated by a stripe.
- Notes:
 - All roads should be considered for potential paved shoulders when they are slated for re-paving. The cost of paved shoulders is greatly reduced if done at the same time as the road maintenance.
- References: American Association of State Highway and Transportation Officials (AASHTO), *Guide for the Development of Bicycle Facilities, 4th Edition*

Mountain Bikers:

Mountain biking is an ever-increasing sport and is popular in Sanford! The bikes are designed to ride off-road anywhere from a gravel road to narrow, winding terrain ("single track"). The bikes themselves vary with some suited for on-road and off-road while others, such as the new "fat-tire" bikes are designed for all surfaces including snow.

- Trail width/surface: Some prefer the experience of a gravel road while others seek the challenge of "single track". For easier trails, tread width would be 4 feet if a one-way trail or 6 feet if two-way. Difficulty increases as the tread width decreases

with the most difficult being one foot wide. On all trails, the widths should be increased by at least 6 inches on switchbacks, tight curves and side slopes greater than 50%. All trails should be cleared to 10 feet high. The trail surface also varies with difficulty. The easier trails should be smooth, packed fine crushed gravel with few obstacles. The most difficult trails can have a variable surface with obstacles that may require carrying.

- Parking: Some bicyclists may choose to ride to the trailhead if it is within a few miles of where they live or work. Otherwise, standard parking (bikes are mounted on top or rear of vehicle) is needed.
- Bridges: Bridges should be built to accommodate 200 pounds x the estimated number of people on the bridge, plus 20%. A minimum width of 15 inches with 4 inch edging/curb rails; 1.5 inch Decking with .5 inch spacing.
- Notes:
 - To avoid erosion and significant maintenance, steer clear of long steep alignments and trails that go straight up or down the fall line.
 - The International Mountain Biking Association (IMBA) is a robust and active organization with many chapters across the country. These groups not only ride but frequently build and maintain mountain bike trails, and provide an organization to consult and coordinate with. The New England Mountain Bike Association (NEMBA) is active in Maine with the potential to add a chapter in the Sanford area.
- References: International Mountain Bike Association, *Trail Solutions*, *IMBA's Guide to Building Sweet Singletrack*



Equestrians

Sanford is still rural enough to be home to farms with horses and backyard horse lots. The existing and potential trail system provides riding opportunities for people on horseback.

- Trail width/surface: Trails can be anywhere from a footpath to 8-10 feet, though there should be 4-5 feet clearance for the width of horse and rider. Overhead clearance should be 10 feet. Gates should be 5 feet wide. A natural surface is ideal – no need to grade or groom, though dangerous surface conditions include: stretches of solid and/or loose rocks, riprap, bogs, swamps, mud (sinking beyond ankle of horse), sharp drop-offs on the side of the trail side (no rails), rock ledges (very slippery), extremely steep terrain. Paved trails are not acceptable.

- Parking: Parking should be off-road, unpaved and with enough room for at least four rigs (two- and four-horse trailers) with ample space between them.
- Bridges: Bridges should be 5-6 feet minimum width, with a maximum 1 inch spacing between deck boards. Use un-slippery decking such as unfinished wood. Corduroy bridges are unsafe for horses. If the bridge is just a few feet off of the ground, 2x4 boards on the edges help in case a horse's leg slips sideways. Note: The bridges Jack McAdam built on the McDougal trails are excellent examples of horse-safe low bridges. If bridge is more than a few feet off of the ground, 4 foot high railings plus 2x4 boards on the bridge edges are needed. Note: While the Carpenter's Crossing bridge is used by horses, some find it to be too narrow and the chain link fencing rattles spooking horse and rider.
- Notes:
 - On multi-use trails, install signs reminding motorized vehicles, walkers, and bikes yield to horses.
- References: Maine Horse Association/Dollie Hutchins



Cross-country Skiers

Trails for cross-country skiing vary depending on the skier's ability and preference, ranging from flat, broad and groomed to ungroomed challenging terrain. All skiers need a cleared corridor that accounts for tree limbs that sag lower with the weight of snow.

- Trail width/surface: Skiers require snow! Most skiers prefer a packed surface (like a snowmobile trail or others who have skied before them) and some prefer set tracks (provided at ski centers and by some municipalities in parks and golf courses). Beginners require relatively flat and wide trails. Skiers are allowed on all trails in Sanford and are often seen on the rail trail which is groomed as a snowmobile trail in the winter.
- Parking: Plowed trailhead parking needed.
- Bridges: The approach to bridges needs to be gently sloped and with a straight-away (no curves). Bridges should be a minimum 4 feet wide, and those higher than a few feet should include a sturdy railing. If the decking is perpendicular to travel, spaces/openings such as those often found on snowmobile bridges, are passable by skiers.
- Notes:
 - Where skiers use snowmobile trails, the skiers are encouraged to join/support the snowmobile club.



ATV Riders

As with other trail users, there is a range of ATV trails for different riders, from easy (smooth, flat, no obstacles), to difficult (natural conditions, rough and challenging terrain/obstacles)

- Trail width/surface: Ideal width is 8 feet to accommodate side by side ATV's; minimum width for a standard ATV is 5 feet with brush cleared at least one foot each side and 7 feet high. The trail should be free from hazardous obstacles such as stumps and large rocks. Minimum sight distances at intersections of 150-200 feet.
- Parking: Since ATV's are not allowed on most vehicular roads, access for those not living adjacent to trails will be via truck and trailer which will need parking.
- Bridges: Minimum 5 feet wide or 8 feet if shared with snowmobiles. Build for a capacity of 800 pounds x number of vehicles, plus 20%. 1.5 inch decking, 1 inch maximum spacing, minimum 15 inch wide running boards (boards where each wheel travels); minimum 4 inch curb rail (to protect railing). Minimum 42 inch high railing; 8-12 inch spacing of vertical elements.

Crossing fords are allowed only if they are located on a hard bottom to avoid sedimentation and only with all needed environmental permits.

- Notes:
 - Consider posting 15-20 mph speed limits.
 - Allow a maximum vehicle width of 60".
 - Consider connections to gas, food, restaurants and repair shops when designating ATV trails.
 - Trails should be laid out to avoid steep slopes and sustained slopes.
 - Trails across wetlands will need permits and will only be approved if the trail hardening techniques such as corduroy, turnpike, or puncheon are used to protect the soils.
 - Other trail users may share ATV trails.
 - By law, ATV's may not use any trail when there is groom-able snow.
- References: Southern Maine ATV Club; Maine Department of Agriculture, Forestry and Conservation, Bureau of Parks and Lands



Snowmobile Riders

- Trail width/surface: 8 feet is best though 6 feet can work as long as there is an area to pull off the trail when meeting oncoming traffic. Passage at gates needs to be 60" for the groomer drags to get through. The surface needs to be snow-covered! The flatter it is before snow falls, the better. Wet areas tend to freeze and be passable as long as there is no steady flow of water.

- Parking: Trailhead parking is necessary for users, unless they live adjacent to a trail. There are currently only 2 parking areas in Sanford/Springvale for trucks with trailers.
- Bridges: Bridges are needed at standing water areas, stream/river crossings and at areas that are unpassable without one. Bridges need to be a minimum of 60" for drag and groomer passage. Wider is better without allowing a small vehicle to pass.
- Notes:
 - The only group incompatible with snowmobiles is ATV's without snow tracks on the machine. They dig up/rut up the trails when the snow is not hard-packed causing snowmobilers the potential to flip over if they get into the ruts. Snowshoeing and cross-country skiing is a compatible use when the snow is present and mountain bikers may use the trails in the off season.
 - Access to fuel and/or food is great as long as there is parking available for snowmobiles when they arrive. Restrooms are appreciated.
- References: Southern Maine Sno-Goer's; Maine Department of Agriculture, Forestry and Conservation, Bureau of Parks and Lands



Paddlers

- Trail width/surface: A water trail is like a land trail but the surface is navigable water! In most cases, public access is allowed on all "navigable" water, but the put-in/take-out sites require landowner permission or public land. Just like users of a land trail, water trail paddlers appreciate trailhead information and maps.

- Parking: Most people will access the water with a hand-carry boat transported on top of their vehicle, so parking as close to the launch site as possible, is

essential.

- Bridges: Bridges over a water trail must be high enough to allow hand-carry boats to pass under without creating a safety hazard.
- Notes:
 - Smaller streams/ivers are often clogged by trees and natural debris that falls over and into the water. This is healthy for the stream, providing wildlife habitat and natural processes, but a water trail requires a clear route. Water trail advocates should consult with the Maine Department of Environmental Protection, ideally requesting a site visit for consultation on any needed permitting for minor clearing to create boat passage.
- References:
 - *Prepare to Launch! Guidelines for Assessing, Designing & Building Access Sites for Carry-In Watercraft*, a joint project of the National Park Service Rivers, Trails and Conservation Assistance program and the River Management Society.

- *Michigan Water Trails Manual, 2017*

Compatibility

Trail user compatibility is largely a function of expectations and density of use. Different types of users have different needs, speeds, and styles. Management is accomplished through design, guidelines, and monitoring/enforcement. In some cases, if possible there should be separate trails for specific uses.

Generally, motorized and non-motorized trail users prefer separate trails, though that is not always possible and there are many examples of shared use (e.g., Down East Sunrise Trail). Sharing by motorized and non-motorized users requires acceptance, good trail etiquette, and sufficient width and surface. In many places, snowmobile clubs allow skiers to share their trails, though both users must remain vigilant of each other to avoid accidents.

As a general rule, bicycles yield to walkers and all users yield to equestrians. A “yield” sign depicting this hierarchy is commonly seen at trailheads and may be appropriate on some Sanford Trails.



EXISTING TRAILS

Over the years, and with untold hours of volunteer planning, labor and donations, Sanford is now laced with 25 miles of sanctioned trails. The existing publicly accessible trails include:



- **Rail Trail**
The Sanford-Springvale Rail Trail is a 5.5-mile trail built on the old rail bed that passes through Springvale. Running easterly from the Lebanon town line, this multi-use trail is used year-round by hikers, bicyclists, walkers, joggers, cross-country skiers, horseback riders, ATV riders and snowmobilers.
- **Mousam Way Pedestrian/Bike Path**
A .75-mile paved asphalt trail connects the high school, YMCA and Marginal Way. This is a ten-foot wide, easy walking and biking trail connecting the old Sanford High School complex, the Sanford YMCA, Marginal Way, the Rail Trail, and William Oscar Emery Drive.
- **Urban/Historic Walks**
These historic walks, one in Springvale and one in Sanford, highlight points of interest along comfortable downtown walking streets and paths. Interpretive signs along the way feature historic sites in photos and text.
 - Sanford: This signed historic trail winds its way through downtown sections of Sanford and features sites such as Goodall Mansion, Goodall Park, Goodall Public Library, and City Hall, as well as former homes, businesses, churches and school sites.
 - Springvale: This signed historic trail is an easy and scenic walk along streets and paths crisscrossing the Mousam River in the historic heart of Springvale. Sites include a 19th Century bustling mill community as well as scenic waterfalls and picnic grounds.
- **Mousam River Bike Trail**
 - Phase I: This new (2016-17) ten-foot wide stone dust bike path is just over ½-mile and follows an existing utility trunk line from Pioneer Avenue to School Street.
 - Phase II: This trail was planned and engineered to extend the Phase I Mousam River Bike Trail 1+ miles south from School Street to the new High School. It includes a short paved lane along Breton Avenue and a stone dust surface along an existing utility trunk line.
- **Springvale Farm Trail**
This is a one-day footpath crossing mostly private property and open to the public every July on Open Farm Day. Since 2014, Sanford Trails Committee and farmers along the route have held the “Springvale Farm Walk”, a four-mile route connecting to ten farms. A half-mile section of trail from the Railbed Trail to Sunset Avenue is scheduled for improvements to firm up wet areas. With landowner permissions, a 3+ mile loop trail could be built: to Deering Ridge, over Mousam Way Land Trust properties at Deering Pond, and back to Deering Neighborhood Road and the Rail Trail.
- **Mousam River Water Trail**
In 2007 a group scouted and planned this water trail, making initial improvements: parking, a sign and a footbridge at School Street, and parking and a sign at Gavel Road. Though several groups have worked on this trail, it remains largely unknown and unused, and environmental regulations may hinder removal of debris in parts of the river.
- **Kiwanis Mousam Way**
 - Gowen Park to Marginal Way: This is where the original Kiwanis Mousam Way Trail started, with the entrance sign, the rebuilding of the Key Club

bridge (has since been replaced), the shelter at the YMCA, and the trail around the Y.

- Marginal Way to Rail Trail to Kiwanis Park: The trail borders the river along Marginal Way, then a short path to and along the Rail Trail to Pleasant Street, up Pleasant Street to Kiwanis Park. The Pavilion is an historic structure once removed from Sanford Central Park and later restored to its original condition and placed in this park. Kiwanis Park includes a storage and toilet facility, parking, flag pole, lighting, picnic tables, benches and an observation deck to view the falls. The trail continues over two bridges to the spring that was the inspiration for Springvale's name. The island is now privately owned.
- Mousam Way Park to Stanley Road Loop: The trail continues up Water Street, through Haven Cove and Springvale Cemetery, borders the Mousam River to Stanley Road, and then doubles back to the Springvale Recreation Area, down Main Street, and back to Mousam Way Park. Much of this loop is very scenic, including a rugged footpath section through the woods leading to Indian's Last Leap.
- Mousam Way South: Mousam Way South is a lovely woods trail that follows the Mousam River from Emery Street to School Street and features a 300-foot boardwalk across a wetland.

- Mousam Way Land Trust Trails
The Mousam Way Land Trust owns or has easements on 12 properties with 8-10 miles of trails, from rustic to groomed, that are open to the public
- Other Trails
There are many other trails in Sanford though many are over private land with use for only certain groups though a "handshake agreement".
 - Snowmobile: The Southern Maine Sno-goers use and in some cases manage 31 miles of trail in Sanford. Some of these miles coincide with the public access trail system outlined above, such as the Rail Trail.
 - ATV: As of February 2018, there is a new Sanford ATV Club that hit the ground running with signing up members, planning, improving and building trails, and hosting events. In addition to this local club, the Southern Maine ATV Club has a trail lease with Central Maine Power to use the power line corridor, from Deering Ridge Road to the Lebanon line. This is a multi-use trail open to all except motorcycles/dirt bikes. From Deering Ridge Road the trail proceeds to Hollis.
 - Mountain Bike: Local mountain bikers enjoy miles of mostly unofficial trails in and around Sanford.





RECOMMENDED IMPROVED AND NEW TRAILS

In order to materialize the Sanford Trails vision, efforts should be made to improve, connect and expand the existing trail system. Criteria for choosing to improve an existing trail or create a new one include: safety, connectivity, access, demand, scenic value, cultural and historic value, economic value, and the potential to create loops.

Big picture trail corridors and connectivity include:

- Connect major destinations (employment, shopping, services, public buildings, neighborhoods) with universal access trails.
- Create a universal access trail that runs north-south from Industrial Park to Springvale - utilizing existing and new trails and bike paths, utility corridors, quiet neighborhood streets, etc.
- Enhance and promote existing trails within each of the City of Sanford's public parks.
- Create trails that link to neighboring communities.
- Create a trail that links Sanford to the Eastern Trail.
- Established trailheads and parking areas on state highways Route 4 and Route 111 to provide accessibility and visibility for Sanford Trails System.

Rail Trail

- Continue to improve the former railroad right-of-way as an east-west spine, multi-use rail trail through Sanford, linking to Lebanon and Alfred.
- Encourage use of Rail Trail as a spine trail with other trails linking to it.
 - Work with landowners to get permission or easements for trails that connect to the Rail Trail.
- Determine the best (safe and pleasant) trail solution for the short section of Rail Trail bisected twice by Route 224 and continuing to Route 111 in Alfred
- Secure easements or purchase land from Steven Bruno, Sherwin Williams.
- Reconstruct the Carpenter Crossing bridge to accommodate maintenance vehicles (lock and post with load limits).
- Rebuild Rail Trail from Carpenter Crossing to Lebanon line. Work with landowners in Lebanon to connect the

Rail Trail to destinations in Lebanon.

- Establish trailhead and parking area on Route 111 in Alfred.
- Create usage policy for ATVs and abutting landowners.

Mousam Way Pedestrian/Bike Path

- Seek to designate a bike path on existing school access roads when the School Department renovates the old high school and junior high.
- Incorporate a dedicated bike path or parking-protected bike lane along Sanford High School Boulevard and clockwise around the school when it is renovated into becoming the new Sanford Middle School.
- Create shared lane stenciling on Marginal Way to connect to the Rail Trail.
- Trim up tree branches along Marginal Way to open up views of Stump Pond
- Improve gravel connector surface between Marginal Way and RR bed for universal access.

Downtown Connector

- These streets need traffic calming and improved bike-pedestrian crossings at three intersections: Riverside Avenue and Winter Street, Riverside Avenue and Washington Street, and Pioneer Avenue and Emery Street. Also needed is on-street bicycle infrastructure, such as signage, shared lane stenciling and parking protected bike lanes.

Urban/Historic Walks

- The priority for improvement to the Urban/Historic Walks is better directional signs/markings and promotion.
- Interpret more sites along these walks with informational signs.

Mousam River Bike Trail

- Obtain landowner permission, connect Mousam River Bike Path to Route 4, and establish trailhead parking on Route 4.
- Utilize shoulder of Route 4 and Gavel Road to connect to Birding Ponds with permission of Sewage District.
- Seek permission to use the sewer easement for a trail from Route 4 to Jagger Mill.
- Obtain permission for trail on Kruger Energy utility corridor (old trolley line) and connect to birding ponds with bridge and short section of new trail. Improve Kruger corridor for bicycles and pedestrians.
- Work with Industrial Development Corporation and businesses in industrial parks to create internal trail/bike path to Kruger corridor across Evonik Cyro property.
- Obtain permission for non-motorized trail across property of Kennebunk, Kennebunkport Wells Water District, The Nature Conservancy and others and utilize snowmobile trails, utility corridors and old roads to connect to the Eastern Trail.

Kiwanis Mousam Way

- Wherever the trail is on-road, create a bike lane.
- Improve/install directional signs along Main Street from the Springvale Recreation Area to Mousam Way Park.
- Improve signs/markings where the trail follows Pleasant Street from Mill Street to River Street.
- Obtain landowner permissions for trail on utility trunk line behind houses on River Street.



- Improve signs/markings and add a bike lane where the trail follows Marginal Way.
- Improve signs/markings from William Oscar Emery Drive south to Gateway Park, the Mill Yard and Mousam Way South.
- Work with the Veterans Cemetery to create and/or designate a 1 +/- mile trail through the cemetery connecting Riverside Cemetery to Veterans Cemetery through to Stanley Road.
- Obtain landowner permissions for trail on utility trunk line from Bougie Lane to Emery Street and Wilson Street.
- Obtain landowner permissions for trail from Bougie Lane along river to Heritage Crossing.

Springvale Farm Trail

- Create a multi-use (but no ATV's) 5 kilometer Rail Trail to Rail Trail loop in the Deering and Hanson Ridge neighborhoods.
- Secure necessary easements.
- Work with landowners, Mousam Way Land Trust, Snowmobile Club and others.

Mousam River Water Trail

- Enlist support from other organizations and volunteers to further develop and promote a Mousam River Water Trail from School Street to Estes Lake.
- Work with the Maine Department of Environmental Protection to determine how to make the route passable.
- Install improvements such as portage trails, trailheads and launch facilities, and directional signs.
- Purchase land at the Estes Lake bridge for trailhead parking, small boat put-in, and signs.
- Create a map.
- Promote the trail.

Mousam Way Land Trust Trails

- Support and work closely with the Land Trust to encourage use of their trail system.

ATV Trails

The Sanford Maine ATV Club was formed in 2018.

- Consider requiring ATV riders on trails in Sanford to be a member of an ATV club.
- The new ATV Club will work to resolve the conflicts with other users, neighbors and landowners. Special attention will be given to the Rail Trail and if the issues cannot be resolved, the City may prohibit ATV use of the Rail Trail.
- The ATV Club will apply for ATV trail grants from the state to improve and create ATV trails in Sanford.
- Work with ATV owners in Sanford to investigate use of the former CGA property as a staging area to access a new trail in the nearby Central Maine Power corridor.
 - Work with CMP to develop an ATV trail lease.
 - ATV Club should apply for State grants to improve/build an ATV trail in the CMP corridor.
- Continue to collaborate with the Southern Maine ATV Club to help Sanford develop a sound ATV trail system and to limit ATV use to permitted trails only.

Snowmobile Trails

- Continue to collaborate and communicate with the Southern Maine Sno-Goers to ensure coordination as well as landowner satisfaction, proper use, and promotion of the trails.
- Assist the Sno-Goers to make a trail connection to the J & S Gas Station.

Horseback Riding Trails

- Work to develop/designate a staging area for horseback riding events with enough room for 8-10 trucks and trailers and easy access to trails.
- Post all multi-use trails with trail user yield signs (all users yield to horses).

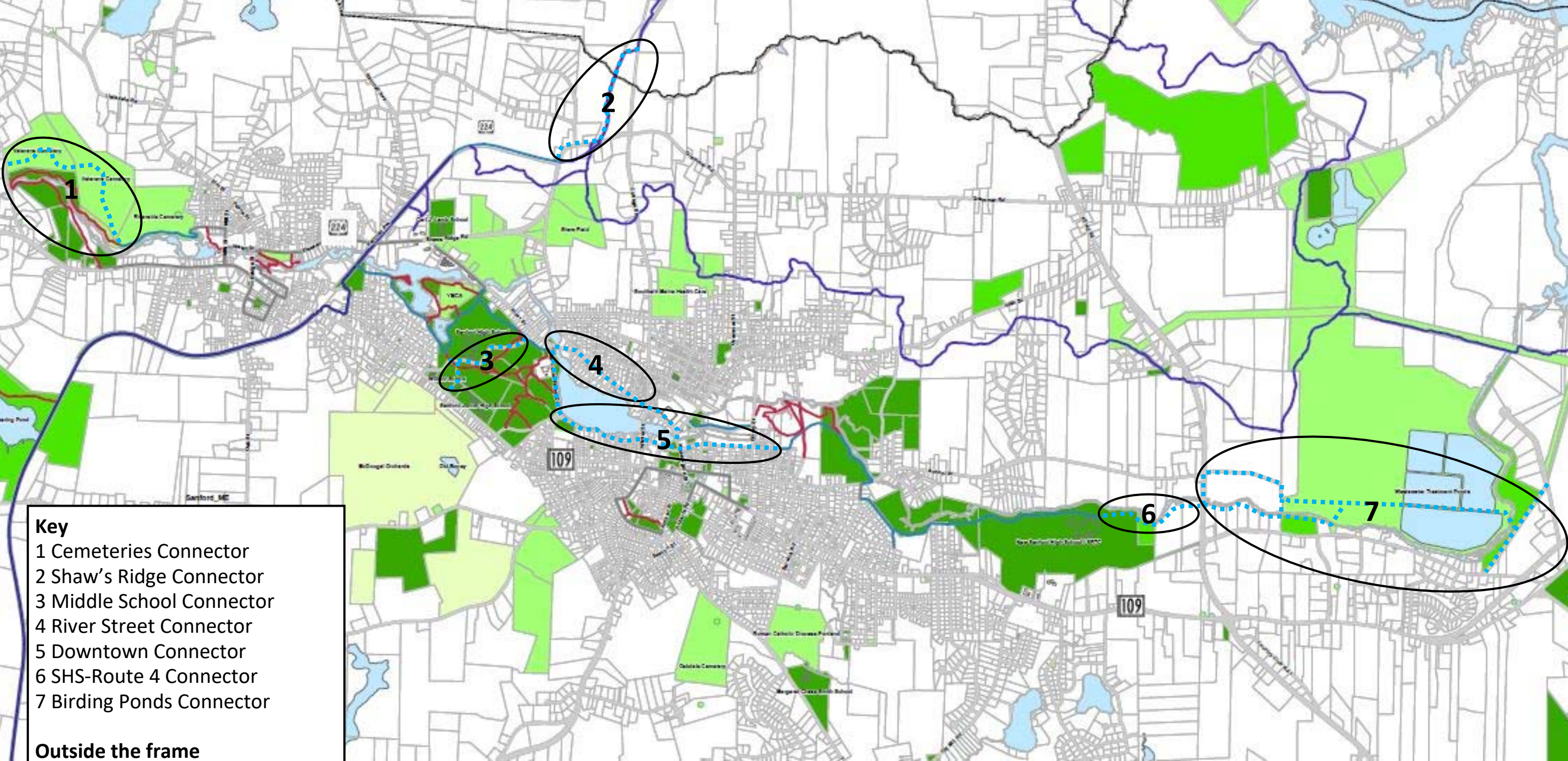
Mountain Bike Trails

- Currently, mountain bikers enjoy an informal system of off-road trails in Sanford. If and when needed, the mountain bike community could organize to create, use and maintain a sustainable system of trails.
- Encourage mountain bikers to join the ATV and/or snowmobile clubs since they use and benefit from those trails.

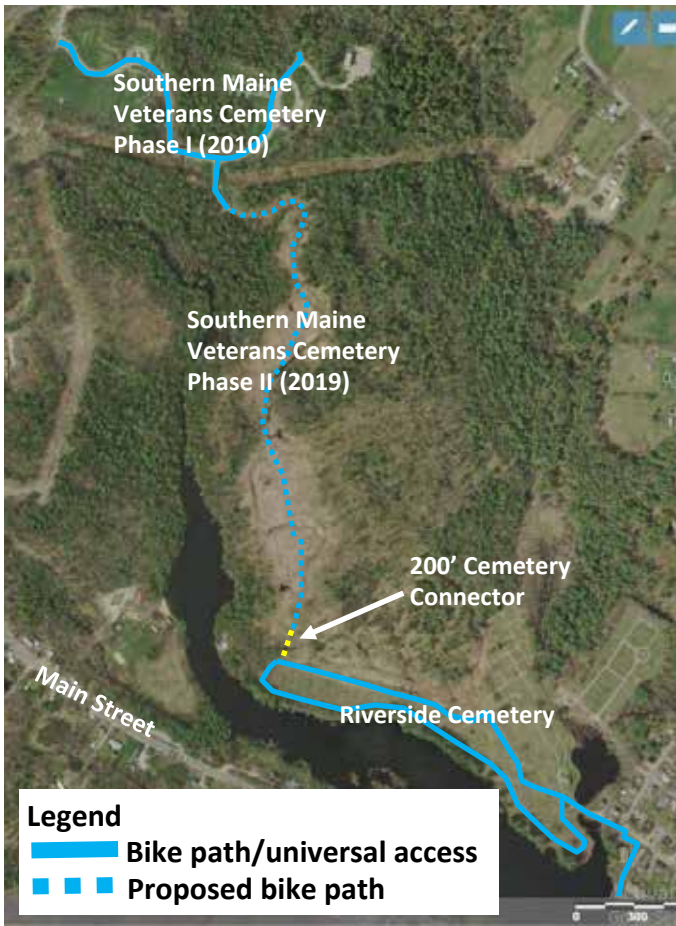


Recommended Connector Trails

This plan recommends ten important connector trails to improve the system’s integration with important destinations, scenic areas, neighborhoods and outlying trail systems. Each connector is described in more detail in the following pages.



- Key**
- 1 Cemeteries Connector
 - 2 Shaw’s Ridge Connector
 - 3 Middle School Connector
 - 4 River Street Connector
 - 5 Downtown Connector
 - 6 SHS-Route 4 Connector
 - 7 Birding Ponds Connector
- Outside the frame**
- 8 Springvale Farm Trail
 - 9 Eastern Trail Connector
 - 10 Industrial Park Connector



Cemeteries Connector

Why it's important

Connectivity—Encourages accessibility for families interested in visiting grave sites. Makes possible a looped walking route utilizing the Mousam Way trail along the river.

Scenic—Both Riverside Cemetery and Southern Maine Veterans Cemetery are especially scenic places to walk.

Vandalism protection—Bringing eyes and ears of the public tends to discourage vandalism.

Emergency access—Improves access for fire equipment and/or ambulances

Improvements

Constructing a 200-foot gravel or paved service road connecting the two cemeteries with a pass through gate or bollard system for access control

Permissions

Southern Maine Veterans Cemetery, Riverside Cemetery

Budget

To be decided

Funding

—\$3.8 million expansion of Southern Maine Veterans Cemetery.





Shaw's Ridge Connector

Why it's important

- Safety—Shaw's Ridge RR bed ends abruptly at Route 224 with no room for parking
- Destination connection— Five businesses: ice cream, barbecue, mini-golf, catering service, yoga studio
- Scenic— Long views across fields

Improvements

- Protected, two-way bike lane for 1,700 feet on outside shoulder of Route 224
- Parking lot/trailhead near intersection of Route 224 and Route 111
- Longer term: develop railbed to Alfred

Permissions

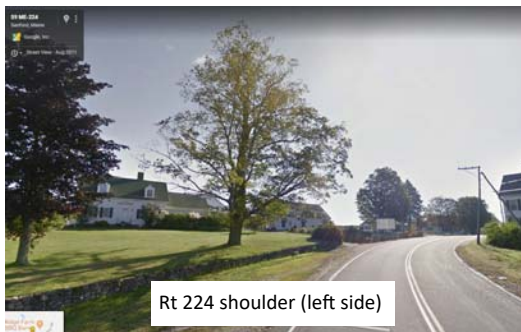
Maine DOT, City of Sanford, potentially five landowners for right of way.

Budget

\$4,000 boundary survey; acquisition costs unknown; \$27,600 for protected bike lane construction; \$15,000 for gravel parking lot construction

Funding

Recreational Trails Program, Maine DOT transportation enhancements program.



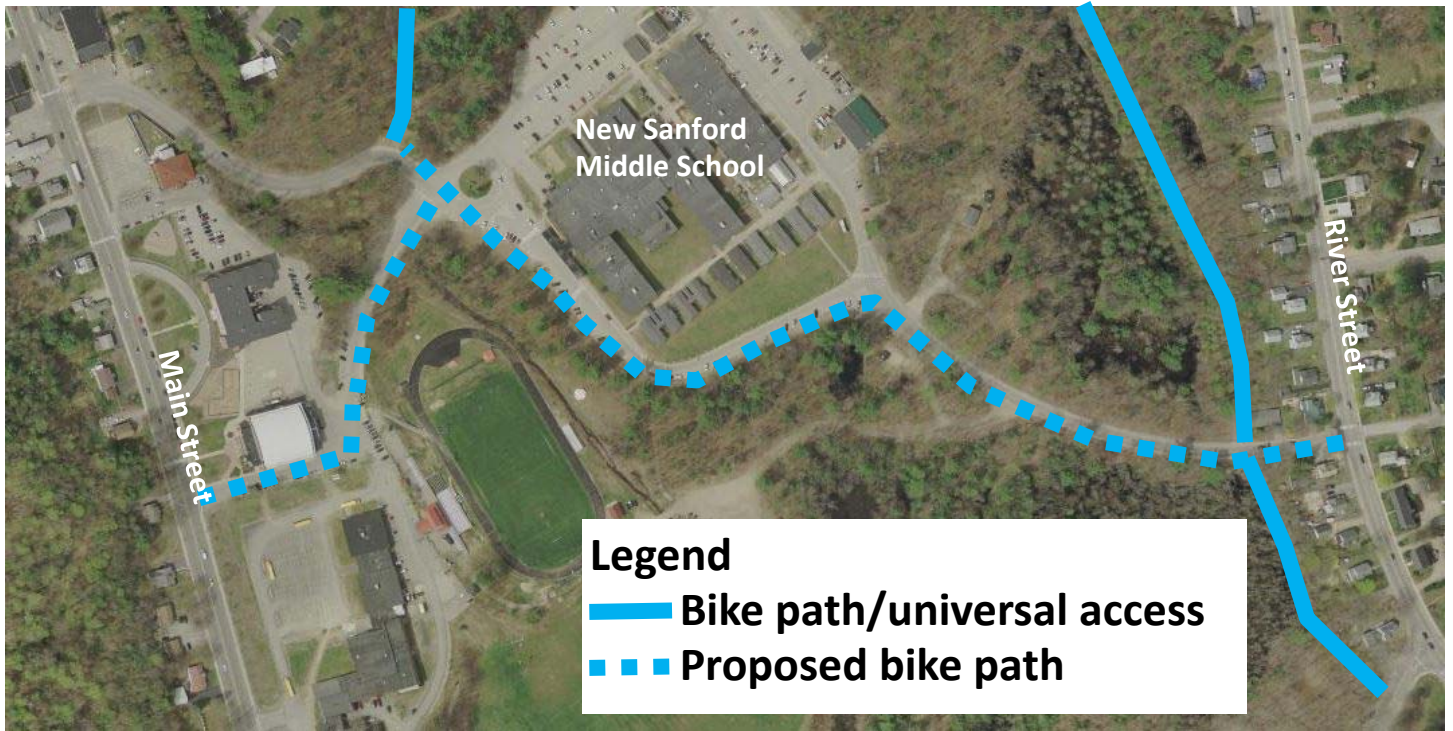
Rt 224 shoulder (left side)



Looking west from existing snowmobile trail toward Route 224



Existing snowmobile trail on former RR bed in private ownership



Middle School Connector

Why it's important

Safety—Improves safety for Middle School students coming from and going to school from Main and River Streets.
Connectivity—Improves walking and bicycling connectivity for the community, especially link to Downtown Connector
Public Health—Makes it easier to incorporate exercise into daily life, especially staff members at new Sanford Middle School and Consolidated Elementary School.

Improvements

Some combination of stenciling on pavement, signage, en-

hanced crosswalks, protected bike lane curbing, landscaping, drainage. Total distance is 3,100 feet.

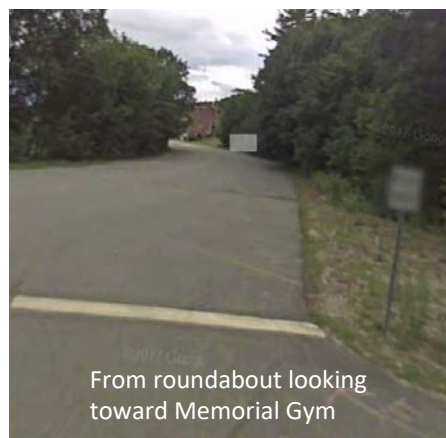
Permissions

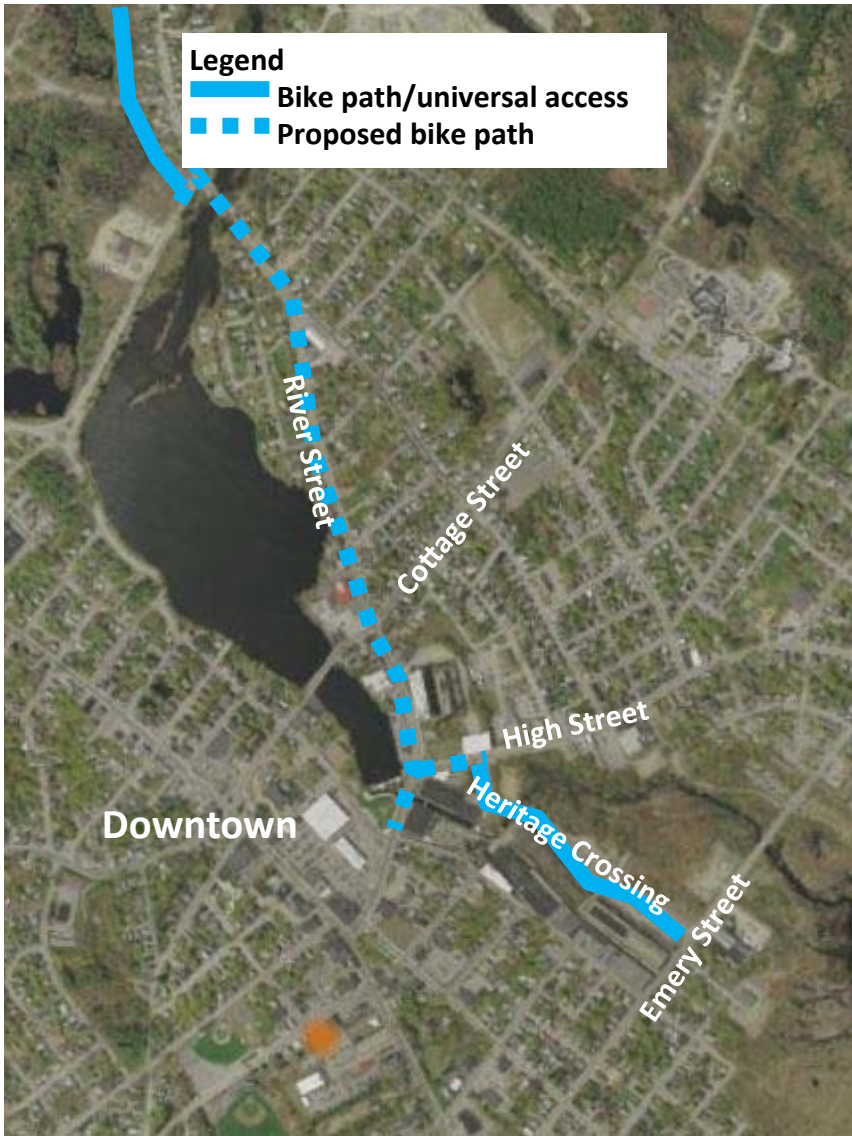
Sanford School Department, Maine Department of education

Budget

\$12,000/mile

Funding State construction funding approved for renovation of existing high school into new Middle School.





River Street Connector

Why it's important

Transportation—Connects to downtown, schools, parks, neighborhoods, other destinations.

Safety—River Street is a wide, high-traffic road where average speeds exceed posted 25 mph.

Quality of Life—Would create a safe, pleasant loop ride/walk around Number One Pond connecting to Downtown Connector

Improvements

Protected bike lanes

Permissions

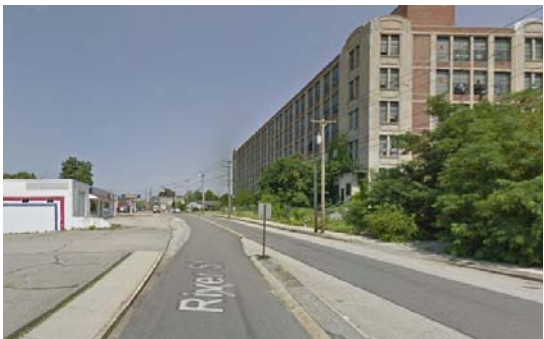
Public Works Department, City Council, possibly Maine DOT

Budget

To be decided

Funding

Sanford Roads CIP, Maine DEP MPI program





Downtown Connector

Why it's important

Transportation—Connects to downtown, schools, parks, neighborhoods, other destinations.

Tourism destination— Creates scenic core trail through town with potential to connect to Eastern Trail and other trails in region.

Public health—Makes it easier to incorporate fitness into daily life.

Downtown revitalization—Provides common meeting ground for events and socializing and activates emerging area of downtown.

Improvements

Some combination of bike path, protected bike lanes, stenciling on pavement, signage, crosswalk enhancements, curb modifications, landscaping, drainage. See Aceto Landscape Architects' plans on pages 30-36.

plans on pages 30-36.

Permissions

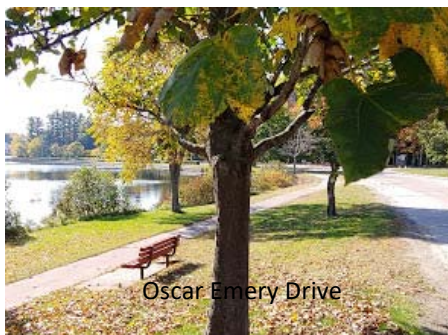
Public Works Department, City Council, possibly Maine DOT

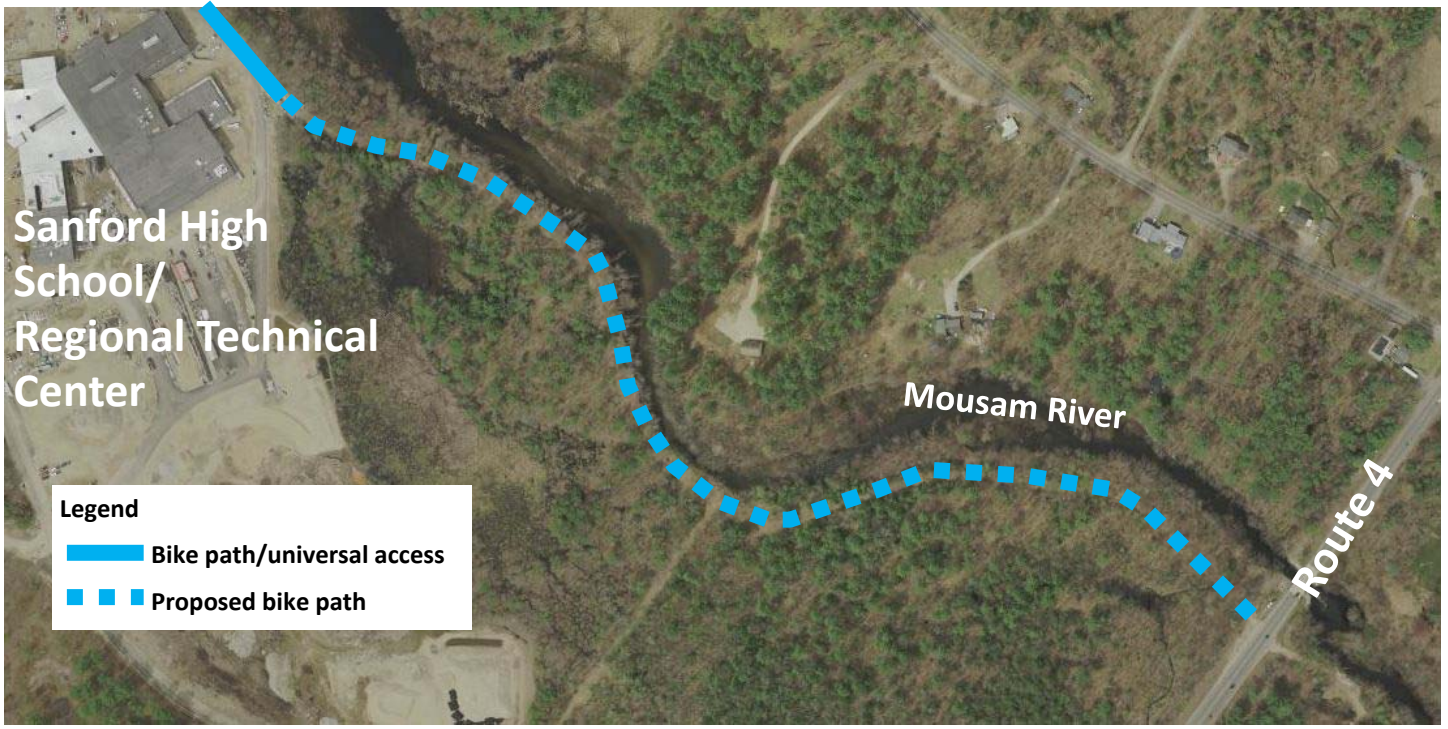
Budget

\$25,000 for engineering; implementation unknown.

Funding

Community contributions, local bonding, City Capital Improvements Program, People for Bikes, Quimby Foundation, Recreational Trails Program, Transportation Enhancement Program, in-kind from Build Maine, Bicycle Coalition of Maine, Maine Society of Landscape Architects.





High School to Rt 4 Connector

Why it's important

Connectivity—Provides bicycle-pedestrian access from the south to new High School and Technical Center. Could provide safe alternative walking route from Jagger Mill Road neighborhoods. Important link connecting to Birding Ponds, industrial parks and Eastern Trail.

Scenic— extended views of Mousam River.

Improvements

Grade and shape surface of existing utility trunk line for about .5 mile. Spread and compact gravel. Signs and bollards. Address intermittent flooding from adjacent wetland, acquire

land for parking lot

Permissions

One private landowner and Mousam Way Land Trust, City of Sanford, Maine DEP

Budget

\$25,000, plus land acquisition and parking lot development

Funding

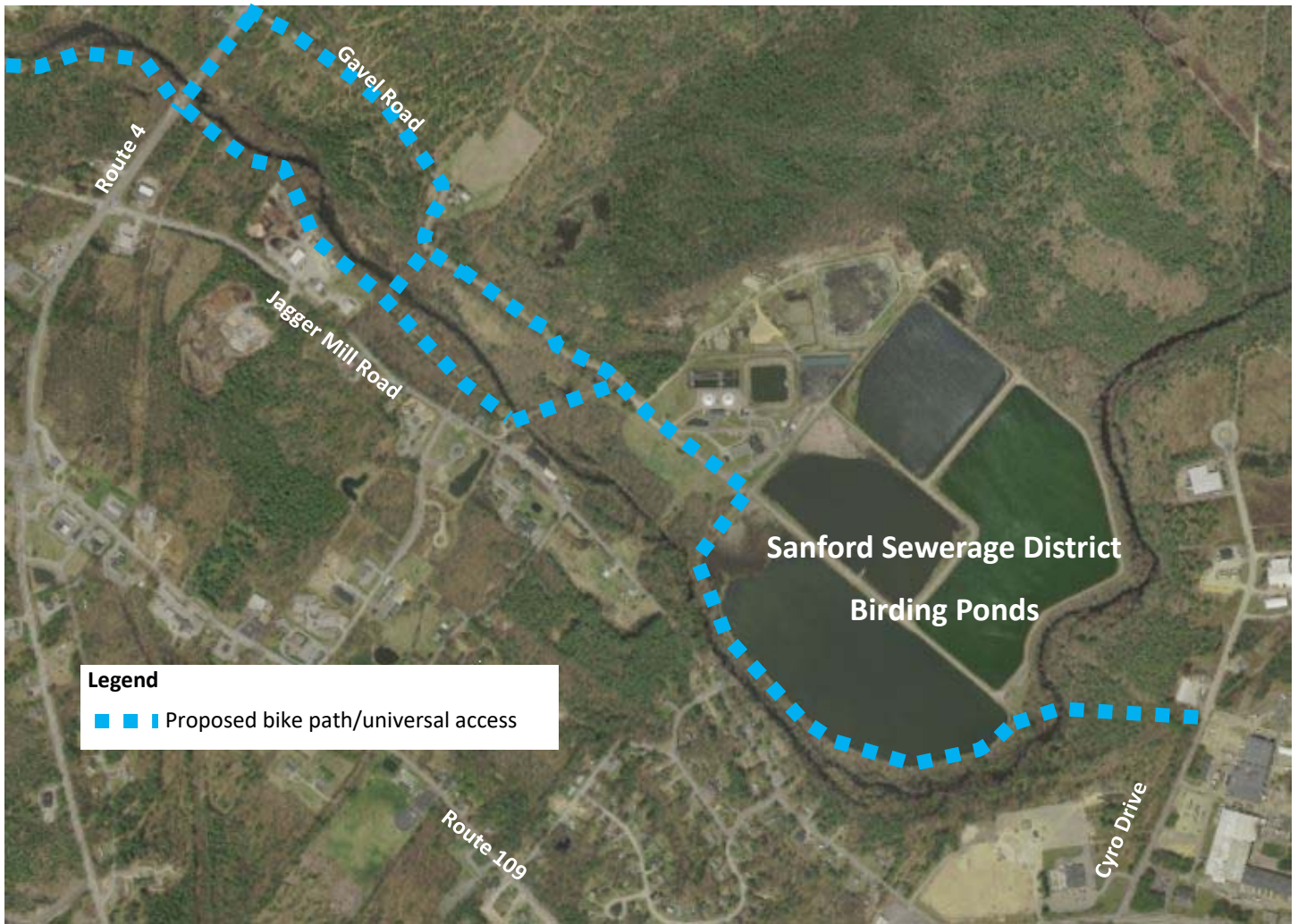
City of Sanford CIP, Recreational Trails Program, Maine DOT enhancements program, and private foundations



Existing utility trunk line



Occasional flooding



Birding Ponds Connector

Why it's important

Connectivity—Important link from Sanford to Industrial Park and Eastern Trail.

Tourism destination—Birding Ponds is already a top birding hotspot in Maine with access restricted to biz hours.

Safety—Lightly traveled Gavel Road is much safer alternative to Jagger Mill Road, a heavily traveled artery with narrow shoulders and with average speeds exceeding 35 mph speed limit.

Improvements

Building passage under Powers Bridge on Route 4, building protected bike lane on Route 4 for 790', bike stenciling on Gavel Road, modifying perimeter fencing at Sewerage District, improving gravel road through Birding Ponds, building 50' bridge across

Mousam River; establishing parking lot/trailhead on Cyro Drive

Permissions

Maine DOT, Sanford Sewerage District, Seacoast Hardwoods.

Budget

\$12,000 stenciling and signage on Route 4 and Gavel Road, \$50-100,000 Powers Bridge improvements, \$7,000 fencing relocation, \$100,000 bridge across Mousam River, \$15,000 new trail construction to Cyro Drive.

Funding—Maine DOT transportation enhancements, Recreational Trails Program, Sanford CIP, Sewerage District, private foundations.



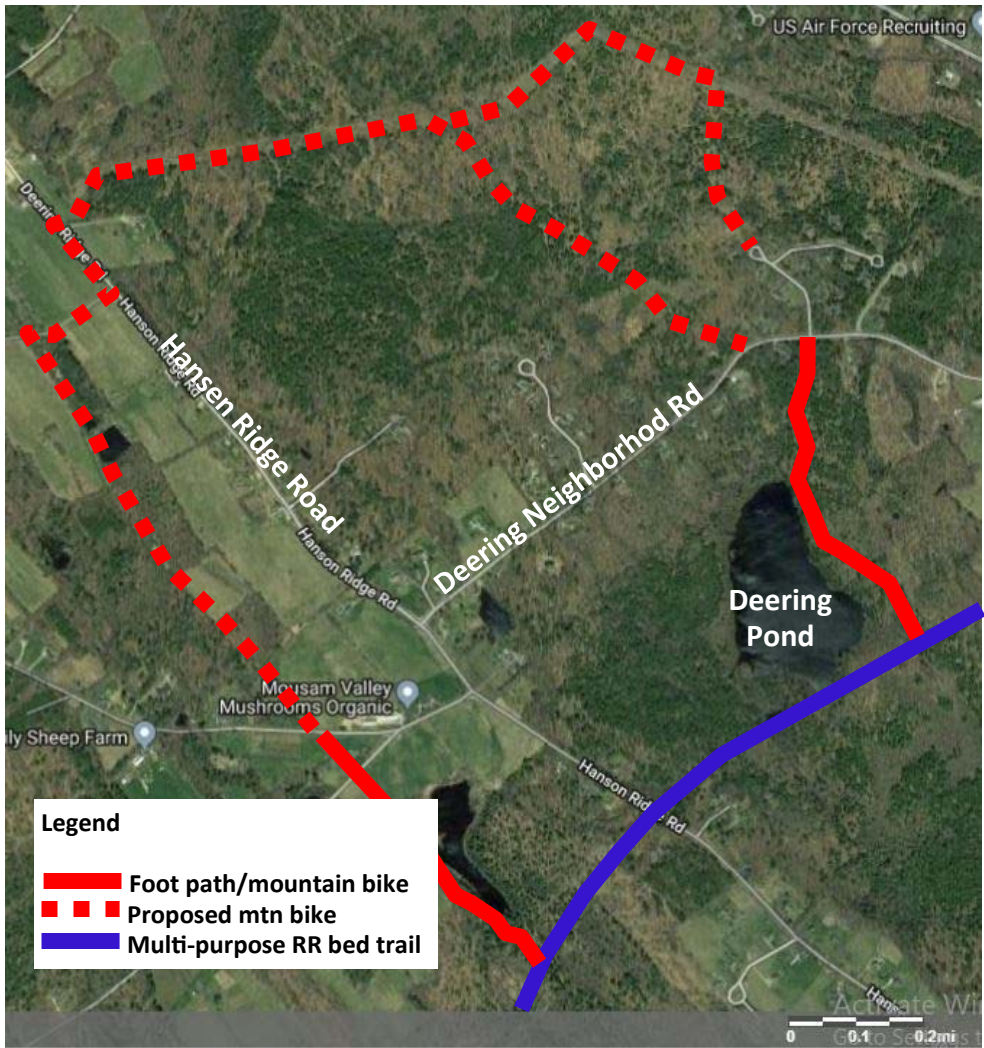
Birders at Sanford Lagoons



Lightly traveled Gavel Road



Powers Bridge on Rt 4 showing dangerously narrow shoulder width



Springvale Farm Trail

Why it's important

Recreational loop—Provides a 3+ mile loop to and from Railroad Trail for walking, mountain biking and snowmobiling.

Scenic—Long views of Springvale farm belt

Catalyst for conservation—Trail accesses Mousam Way Land Trust property and Noon farmland easement property and other high-value conservation area. Could provide impetus for additional conservation.

Variety—No other Sanford trail provides access to working farmland

Improvements

Standardize Treadway, signage

Permissions

Permissions needed from 4-7 private landowners, depending on route taken

Budget

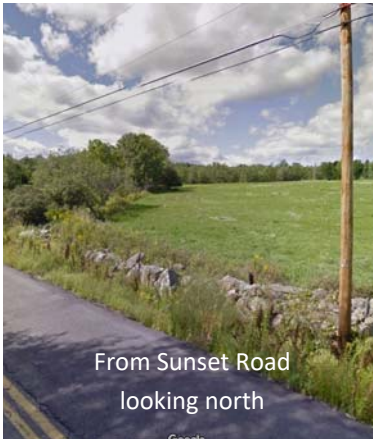
\$15,000

Funding

Recreational Trails Program, Sanford CIP, private foundations



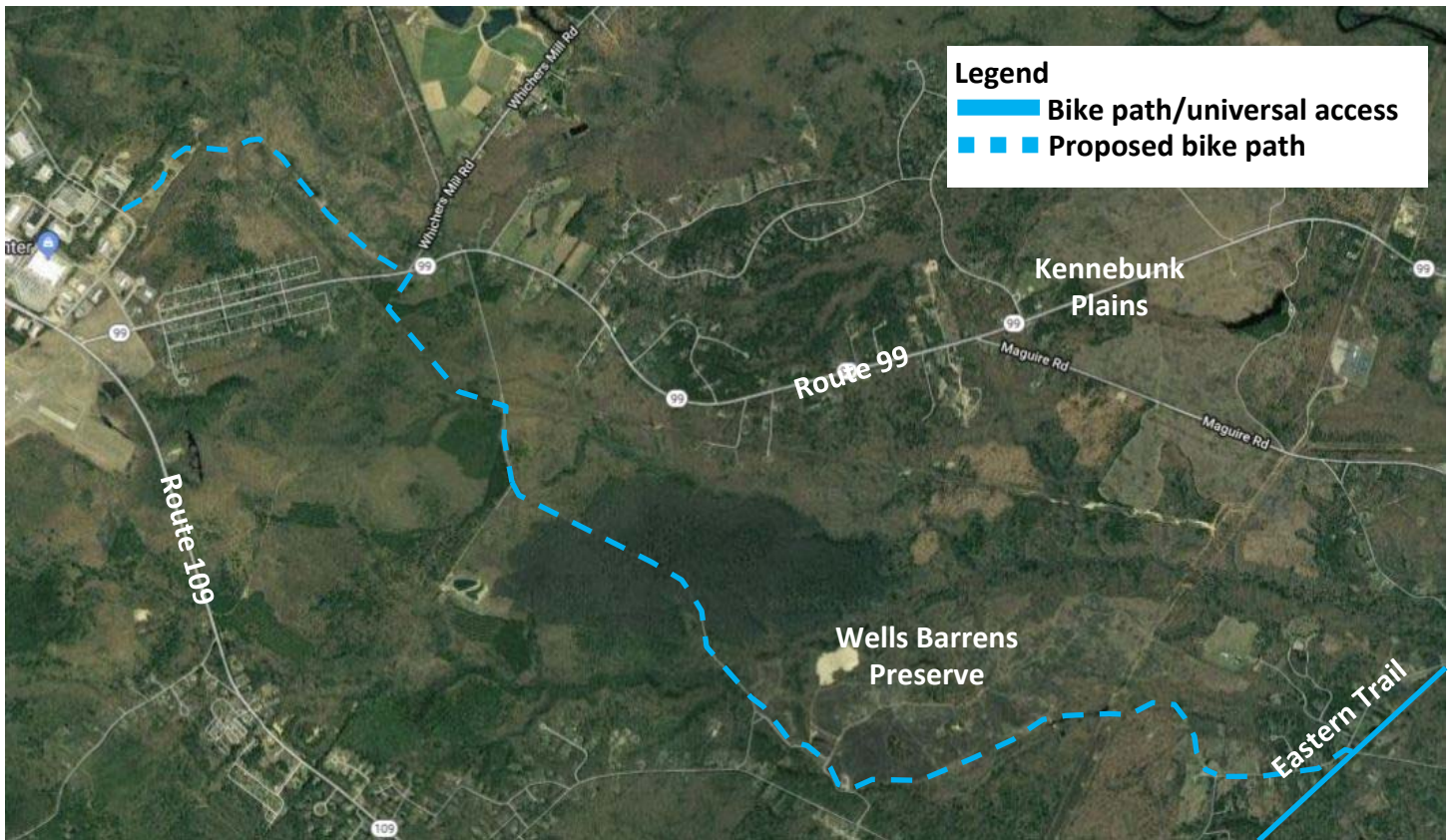
Headwaters of Little River



From Sunset Road looking north



Looking toward Mousam Valley Mushroom barns



Eastern Trail Connector

Why it's important

Connectivity— important link between Sanford trail network and the Eastern Trail, a regional attraction.

Scenic—Long views of grasslands and shrubland habitats valued by rare creatures

Catalyst for conservation—Trail accesses The Nature Conservancy's Wells Barrens Preserve and other high-value conservation area. Could provide impetus for additional conservation.

Improvements

Grade and shape surface of existing snowmobile trails for five miles. Spread and compact gravel. Signs and bollards.

Landowner permissions

Three private landowners and Central Maine Power, The Nature Conservancy, Kennebunk-Kennebunkport-Wells Water District, Chick Farm (conservation easement property)

Permitting

City of Sanford, Town of Wells, Maine DEP

Budget

\$150,000+

Funding

Recreational Trails Program, The Nature Conservancy, Kennebunk-Kennebunkport-Wells Water District, Sanford CIP, Town of Wells.



Wells Barrens Preserve



Wells Barrens Preserve



Wells Barrens Preserve and snowmobile sign



Industrial Park Connector

Why it's important

Connectivity—Important link from Birding Ponds through Industrial Park to Eastern Trail.

Tourism destination—Improves access to Birding Ponds, which is already a top birding hotspot in Maine with access restricted to biz hours.

Employee amenity—Provides employees with recreation and transportation option for lunchtime walks and commuting to and from work.

Improvements

Build new trail/bike path from Cyro Drive through Evonik Cyro property with landowner permission for approximately 2,900 feet to intersection of Eagle Drive and Industrial Ave. Build protected bike lanes along Industrial Ave and Community Drive for

approximately 2,300 feet.

Permissions

Seacoast Hardwood, Industrial Development Corporation and Evonik Cyro

Budget

\$55,000 for protected bike lanes; \$50,000 new trail construction

Funding

Maine DOT transportation enhancements, Recreational Trails Program, Sanford CIP, IDC businesses, private foundations.





- Railroad Bed Trail from Route 224 on Shaw’s Ridge to Marginal Way Connector (crusher sand and gravel surface for 6,000 feet) - existing
- Marginal Way Connector (gravel surface for 330 feet) - existing
- Marginal Way (city street for 880 feet) - existing
- Middle School (paved bike path 1,700 feet) – **proposed Middle School Connector**
- Mousam Way Pedestrian/Bike Path Connector (gravel surface for 570 feet) – existing
- William Oscar Emery Drive (city street for 2,700 feet) –**proposed Downtown Connector**
- Riverside Avenue (city street for 4,100 feet) – **proposed Downtown Connector**
- Pioneer Avenue (city street for 2,400 feet) – **proposed Downtown Connector**
- Mousam River Bike Trail (crushed stone for 3,300 feet) - existing
- Sidewalk along School Street and Breton Ave (concrete sidewalk for 500 feet with crosswalk on School Street) - existing
- Mousam River Bike Trail (crusher sand surface for 5,400 feet) – existing
- Mousam River Bike Trail (crusher sand surface for 2,700 feet) - **proposed Sanford High School -Route 4 Connector**

The Big Connector

Completing four of the "connectors" in this plan would create a linked backbone trail that would elevate Sanford’s trail system into a showcase for the city and establish a regional outdoor recreation destination.

The four pieces are: **Shaw’s Ridge Connector, Middle School Connector, Downtown Connector and Sanford High School to Route 4 Connector**. Building this out would create a continuous 6.6 mile universal-access trail, bracketed on both ends by high-visibility trailheads and parking areas on state highways. It would transform a recreational amenity into a cross-town alternative-transportation artery and business activator.

The proposed route would be developed by linking several existing trails and quiet city streets into a continuous route. The trails and streets to be linked (from north to south) are:

Route 224 starting at Route 111 (protected bike path on wider shoulder for 1,700 feet) - **proposed Shaw’s Ridge Connector**

Most of the route already exists. The key linchpin remaining is the Downtown Connector, as designed by Aceto Landscape Architects. These streets need traffic calming and improved bike-pedestrian crossings at three intersections. Also needed is on-street bicycle infrastructure, such as bike lane striping and parking protected bike. In addition, the entire 6.6-mile corridor needs attractive, consistent signs that everyone can recognize as Sanford’s Downtown Connector.

Once established, the route should be enhanced with art and other interpretive installations/exhibits that “Tell Sanford’s Story.” Some of these exhibits already exist and others are under construction or proposed. In addition to these physical improvements, the route will be a great place for the community to stage events and programs such as parades, guided walks and bike rides, fun runs, food and art festivals, etc. All of this provides rich opportunities to engage businesses, organizations and individuals to help tell the story of Sanford. The Downtown Connector has the potential to become a beloved and well-used community space for all Sanford residents and visitors

Through a partnership between the National Park Service and the American Society of Landscape Architects, Sanford Trails/the City received pro bono design services for the Downtown Connector from Aceto Landscape Architects (ALA). The geographic scope of the Downtown Connector design work was the corridor along the west side of Number 1 Pond, from the intersection of River Street and William Oscar Emery Drive, to Riverside Street, to the end of Pioneer Avenue. In addition to site visits and conversations with City staff and Sanford Trails, ALA helped host a community charette (design workshop) in February 2019. Community members discussed and drew their ideas on maps, including:

- Improve road conditions/maintenance
- Lane delineation for bikes, cars, pedestrians
- Safer pedestrian crossings at major intersections
- Signage for pedestrians and bicycles
- Enhancements to community space/parks
- Delineation of parallel parking spaces along streets
- Bike lane signage/markings
- Economic and visual enhancements to corridor (mill)
- Reduce traffic speed with speed bumps, narrower street, etc.

- Connection to existing trail network
- Water quality (rain gardens, bioswales)

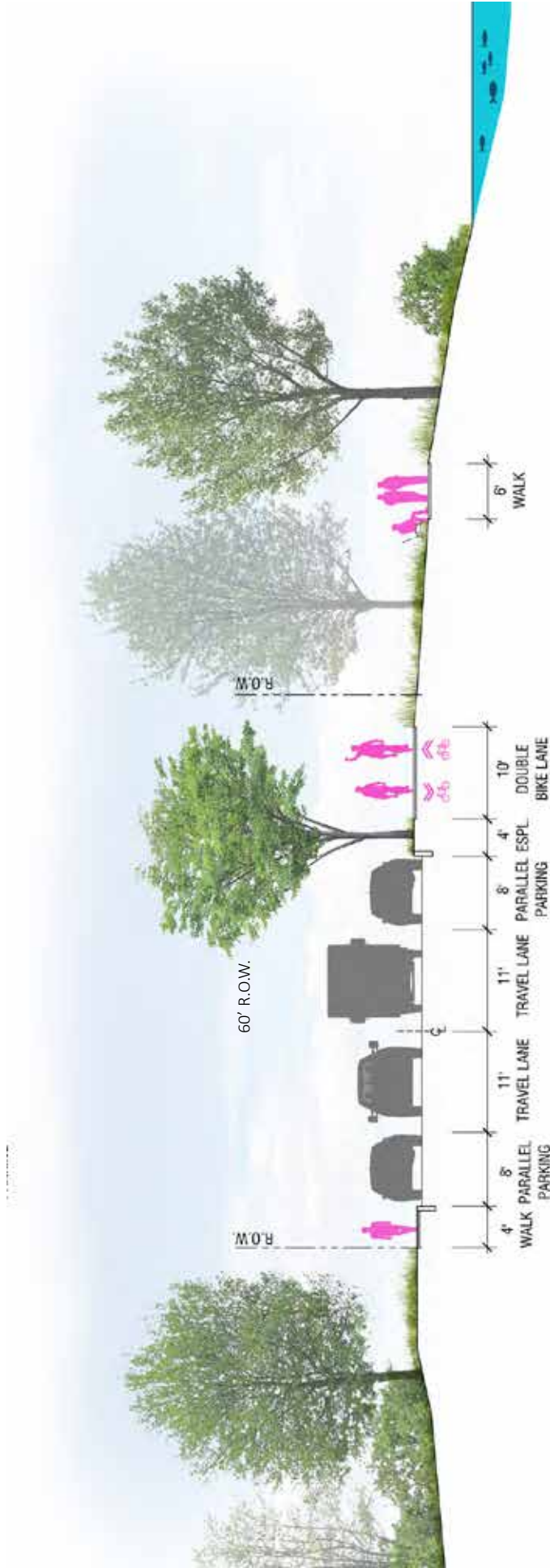
In a final presentation to City Council, ALA proposed:

- A two-way cycle path from River Street to Pleasant Street
- Reconfiguration of the roundabout at Gowen/Front/William Oscar Emery to create a mini-park
- Shared lane markings from Pleasant Street to the end of Pioneer Avenue
- Bike/pedestrian improvements at major intersections
- Street trees and streetscape





SANFORD DOWNTOWN CONNECTOR | BICYCLE LANE STRATEGY



SANFORD DOWNTOWN CONNECTOR | PROPOSED SECTION W.O.E. DRIVE



SANFORD DOWNTOWN CONNECTOR | PARKWAY NORTH ENTRY PROPOSED



LANDSCAPE ARCHITECTURE + URBAN DESIGN + GRAPHICS
ACETO LANDSCAPE ARCHITECTS | WWW.ACETOIA.COM

SANFORD DOWNTOWN CONNECTOR | W. O. E. DRIVE ROUNDABOUT PARK



SANFORD DOWNTOWN CONNECTOR | ROUNDABOUT PROPOSED



SANFORD DOWNTOWN CONNECTOR | PIONEER AVE. MILL STREETScape PROPOSED

SIGNS/BRANDING

Sanford/Springvale began developing trails many years ago, including the signs to mark them. Several different groups have been responsible for building their own trails, using their own signs and styles (color, size, shape, materials, logos, rules, etc.). Development of the trail system has been iterative, as volunteer time, funding and landowner permission unfolded. The current sign system lacks consistency and therefore can be harder to find and follow. In addition, the wide range of styles, colors, etc. take away from the sense that there is a unified and connected system of trails in Sanford. The Sanford Trails “brand” is not clear.

However, the Sanford Trails Committee recommends keeping many of the existing trail signs because they are functional and honor the history of the people, groups and trail initiatives over the years.

Over time, the existing signs can be replaced with signs that have consistent colors, fonts, shape, materials and logo. To begin to create unity throughout the Sanford Trails system, a new “Sanford Trails” logo as been designed. Markers with the Sanford Trails logo can be added to many of the existing trail signs and placed on future signs, to indicate that the entire system is part of Sanford Trails.

Inventory and a Sign Plan

To begin to get a grasp on the reality of the trail signs in Sanford, the Committee will conduct a sign inventory, plus suggestions for improvement, replacement and installation of new signs. A subcommittee of Sanford Trails will tackle the inventory and possibly the plan too. The City might also consider hiring a sign consultant, with a fresh and experienced eye, to create a Sanford Trails Sign Plan that would include:

- Map and photo-referenced sign inventory
- Map-referenced sign plan listing all sign improvements, replacements, and new installations.
- Sign design guidelines for the hierarchy of signs – size, shape, materials, logo, colors
- Cost estimates
- Phasing plan

Create a new Sanford Trails logo/sign

- In the process of working on this Trails Master Plan, the Committee decided on a Sanford Trails logo that uses the Sanford “swish” with the words “Sanford Trails”. The logo will be used in a variety of ways that visually pull the entire trail system together.

The Sanford trail system signs should include the following sign types:

Trailhead information kiosk

- This sign type draws attention to the trail’s entry point and helps trail users orient themselves. Trailhead kiosks are large signs (minimum 3’x4’ panel) that visually signal the trailhead. Trailhead kiosks require two posts (minimum 4”x4”) and may be covered with a small roof. Some of the trailheads in Sanford already have a unique and handsome wood structure kiosk. This should be used for all future and/or replaced trailhead kiosks. In general, the information of the kiosk should be consolidated into one area, rather than attaching multiple smaller signs to the posts.



Besides the name of the trail, trailhead kiosks might also include:

- “Carry In/Carry Out”
- Universal symbols for allowed uses
- Symbols and/or words for uses that are not allowed (if absolutely necessary)
- “Please Respect All Landowners”
- A map of the trail and its context
- Trail distances and difficulty
- Recognition of donors/funders
- Contact information (e.g., “If you would like to report a trail issue, or get involved with Sanford Trails, please contact the Department of Parks and Recreation, 207-324-9130.”)
- The new Sanford Trails sign and/or logo



Directional

- Directional signs, especially along the roadways, are needed to show people which way to go to get to or stay on the trail. The name of the trail(s) and arrows are the essential elements. An 8"x12" version of the new Sanford Trails logo/sign could be installed to serve as directional signs. An arrow would be part of the sign, or separate arrows could be mounted on the post above or below the Sanford Trails sign, oriented in the relevant direction (up, right, and/or left).

Confidence markers and/or blazes

- Confidence markers reassure trail users that they are still on a particular trail. A trailhead kiosk or a directional sign helps a user get onto the trail while a confidence marker allows a user to relax knowing they are still on the right track. Along wooded hiking trails, a blaze painted on a tree can serve as a confidence marker. In more developed areas, confidence markers are typically small (3-4" round/square) signs attached to trees or posts, with the trail logo and/or name.
 - Mousam Way has a round yellow confidence marker with "Sanford-Springvale Trails" and the Mousam Way logo. These should continue to be used along all Mousam Way trails.
 - A round, green confidence marker with the new Sanford Trails logo should be placed along other trails in the Sanford Trails system.

A system for marking where two or more trails overlap

- Typically where two or more trails overlap for a distance, there is a hierarchy of signs that recognize each trail. If one trail is larger/more dominant, its name/logo should be on top, with the other trail(s) indicated by signs with that name/logo below. These overlaps would also be indicated on any trailhead or printed maps/brochures.

Guidance/Rules

- Ideally rules on signs should be kept to a minimum – otherwise no one will pay attention to them. Wherever possible, use positive messages (rather than "Do Not..."), and icons rather than words. The most critical guidelines should be posted at all major trailheads as part of the trailhead kiosk. Guidelines/rules may be appropriate in other locations, such as trail user "yield" signs (e.g., bikes and hikers yield to horses).



- Many trailheads for Sanford trails should include the following:
 - "Carry In/Carry Out"
 - Universal symbols for allowed uses
 - "Please Respect All Landowners"
- Other guidance/rules may be appropriate for certain trails:
 - "No ATV's"
 - "Open dawn to dusk"
 - "Dogs on leash only"
 - "Trail closed due to wet conditions"
 - Yield to horses signs on trails that equestrians use

Interpretive

- Sanford already has a trail system focused on teaching or interpreting the place: the Urban/Historic Walks in downtown Sanford and Springvale. These signs include an historic photo and a very brief description of the history of that place/building. Similar interpretive signs could be a great addition to other trails in the Sanford-Springvale system.



MAINTENANCE

Sanford has an impressive array of trails that are maintained in a variety of ways and to varying degrees. Sanford Trails must make maintenance a priority so that the trails are viewed as a positive, tended-to asset of the City.

Generally, the group that created a trail in Sanford has been maintaining it. For example, the Kiwanis Club largely maintains the Mousam Way, the Sno-Goers maintain the snowmobile trails, etc. The Sanford Trails Committee acts as an umbrella group, keeping an eye on all of the trails and the groups that maintain them. While this all-volunteer system works well in many ways, it is difficult for volunteers to keep up with all of the maintenance tasks. With the anticipated addition of miles of new trail, some new maintenance systems are called for. Systems to consider:

- Create a Trails Coordinator position (possibly part-time with a stipend), to work through the City, or an existing nonprofit, or a new Sanford Trails nonprofit.
- Expand the adopt-a-trail program where every trail in Sanford has its own Adopter. An Adopter could be an individual, a school, a group/club, a nonprofit, or a business. Adopters would regularly monitor their trail and perform simple maintenance. A system of trail Adopters would not only greatly help with monitoring and maintenance, it would also involve locals in the trail system, thereby creating a base of use and support.
- Some trails (e.g., Mousam River Bike Trail Phase I and II) should be maintained by the Sanford Department of Parks and Recreation or Public Works; those trails may or may not need an additional Adopter.
- When a large maintenance issue arises (e.g., a large

washout), the Sanford Trails Committee should work with City staff to resolve the problem.

- Create an annual maintenance fund.
- Create a Sanford High School Green Team to help manage and maintain Sanford trails and parks.
- Tap into corporate service days with groups such as Tom's of Maine, Aroma Joe's, and Day of Caring.
- Host regularly scheduled trail work days; advertise these in a variety of ways, including social media, to continue to reach new potential volunteers.
- Create a system for keeping track of all hours volunteered on Sanford Trails by any volunteers, e.g., Kiwanis, Scout groups, community service days, Aroma Joe's volunteer day, snowmobile and ATV clubs, etc.

Trail maintenance includes monitoring and enforcement of trail policies. While the various trail groups and Adopters can monitor the trails, they need to partner with the Police Department when a serious enforcement problem arises. Sanford Trails should seek advice, and when necessary, intervention from the Police when trail policies are broken and endangering the public. A routine, or even occasional presence of law enforcement on Sanford trails would help cut down on littering, public drinking, and other offenses. In some cases, staff from the Department of Parks and Recreation could respond to policy breaches that arise on the trails.

All trails need regular maintenance! Some tasks can be done by volunteer groups or trail adopters. Other larger tasks may require equipment, skilled labor and funding. Ongoing trail maintenance items include:



- Grading and drainage: periodically and as needed especially after storm damage
- Tree and brush clearing: monthly monitoring and small brush removal, with larger removal as needed
- Gates: paint and apply safety striping, every 4 years
- Parking: grade or re-pave as needed; plow in the winter
- Signs: remove graffiti, repair if needed, replace when faded/broken, update with new information and design as needed

Specific Trails' Needs:

Rail Trail

- Upgrade the trail surface and maintain it to accommodate all users including ATV's and bicycles.
- Grade a mile or more section each year.
- Grade Carpenter Crossing to Lebanon line, to connect to the mile of rail corridor and 80 acres adjacent to rail, recently acquired by Mousam Way Land Trust.
- Replace Carpenter Crossing Bridge. The Snowmobile Club built the bridge narrow enough to exclude other vehicles, but now that the trail is gated, the bridge should be built wider to accommodate easier trail maintenance. Post the bridge with weight limits and limit vehicle use to maintenance-only by installing a locked bollard. Estimated cost: Engineering plus \$20,000.
- Estimated annual cost: \$3,000

Bike Path (connecting high school, YMCA and Marginal Way)

- Seal coat the pavement every 5-6 years.
- Trim back corridor every 2-4 years.
- Annually: cut brush, seal cracks, maintain gates and signs
- Estimated annual cost: \$2,800

Urban/Historic Walks

- Monitor all signs annually. Straighten posts and replace signs as needed.
- Estimated annual cost: \$1,600

Mousam River Bike Trail

- Grade every 2-4 years.
- Annually: Cut brush/weeds, grade, maintain signs, etc.
- Estimated annual cost: \$5,500
- Seek estimates for snowplowing 2.8 mile of trail.

Mousam Way

- Gowen Park to Marginal Way
 - Other than a section of trail that uses the City's paved Bike Path, the Kiwanis Club continues to maintain this trail, including the entrance sign, bridge, gates, railing, and shelter at YMCA.
- Marginal Way to Rail Trail to Kiwanis Park and Pavilion
 - The Kiwanis Club maintains this but may need City assistance in the future due to the extent of facilities at the park: storage and toilet facility, parking, flag pole, lighting, picnic tables, benches, observation deck. The two bridges to the island with the spring and the island itself is now owned and maintained privately.
- Kiwanis Park to Stanley Road Loop
 - Maintain the three bridges and signs along this route; remove extensive downed trees and brush and then monitor and maintain annually.
- Mousam Way South
 - This section of Mousam Way was a joint project of the Kiwanis Club and the City and should be jointly maintained. The 300 foot boardwalk should be monitored for rotting with spot repairs, and someday will need replacement. Monitor the parking, sign, and brush encroachment and maintain as needed.
- Estimated annual cost: \$4,600 total to be shared 50:50 with Kiwanis Club: \$2,300 each (gates, signs, pavement sealing, lights, roof replacement, etc.).

Springvale Farm Trail

- Maintain the two culverts and the bridge.
- Grade as needed.
- Cut brush/weeds annually.
- Estimated annual cost: \$800

Mousam River Water Trail

- Maintain facilities put in place so far: footbridge, parking and sign at School Street, access point with parking and sign at Gavel Road.
- Estimated annual cost: \$600

To support the larger maintenance and replacement costs that are inevitable with an extensive trail system like Sanford's, the City should create an account, using annual Capital Improvement Program funds, that can build up and rollover each year.



PROMOTION AND PROGRAMMING

The trail system in Sanford is a significant asset of the City! To help more residents take advantage of the trails, and to use the trails as a selling point for attracting new businesses, the Sanford trail system should be promoted. Promotion of the trails can be accomplished in different ways, from actual “advertising” to sponsoring events that get people out using the trails.

To get the word out about the trail:

- Initiate a campaign by the Chamber of Commerce, possibly related to a trail event, to let visitors know about the variety of trails available in Sanford.
- Post improved/attractive trail information on the City website, and on a new Sanford Trails website.
- Write a monthly column in the local newspaper(s) about the trails.

To help people find and use the trails in Sanford:

- Upgrade the trail signs to be more visible, comprehensive and attractive (see section on “Signs/ Branding”).
- Update and make widely available an accurate map showing all trails in Sanford. This includes good maps at major trailheads, paper maps available at many locations, and online maps that can be downloaded and printed.
- Consider creating a phone app with maps and information about the trails in Sanford.
- Create a Sanford Trails website using the reserved domain name: sanfordtrails.org.
- Start an Rx Trail Prescription program with interested local doctors.
- Install a bike share/rental program.

Sponsored recreational, educational events such as walks, work days, tours and festivals are essential to keeping the trail system alive and maintained. It is through these activities that a supportive trail community comes together, consistently attracting new members. Sanford has a history of these activities that they can build upon:

- An annual fun run, and Halloween “Fright Night” sponsored by the YMCA

- Group rides for youth by Nasson Bike Program
- Earth Day clean-ups on the Rail Trail
- Trail runs sponsored by the hospital
- Sports teams use of the trails for training
- Sixty existing geocache sites
- Annual Springvale Farm Walk
- Guided walks along the Urban/Historic trails

While some of these events will continue, others might be added, for example:

- A bike ride to introduce students and their families to the new trail to the high school
- A bike treasure hunt
- More geocaching activities
- Organized horseback rides
- A Halloween parade along the Downtown Connector
- Annual National Trails Day (first Saturday in June) event
- Guided tours of the city and its restaurants by Bike outfitters

Sanford Trails must work with partners to create strong promotion and programming on the trails. Existing and potential partners include:

- YMCA (all ages and families) and the Trafton Center (seniors)
- Nasson Bike Program (youth)
- Bike Shops:
 - Fast and Happy Bicycles
 - Goodrich Bicycles
 - New Generation Bike and Ski
- Sanford Department of Parks and Recreation
- Southern Maine Health Care
- Local physicians
- Chamber of Commerce
- Springvale Farmers
- Sanford-Springvale Mousam Way Land Trust
- Three Rivers Land Trust
- Allied Public Health Group
- Businesses
- Kiwanis Club
- Rotary Club
- Schools (Environmental Club, Key Club)
- Boy and Girl Scouts





ORGANIZATIONAL STRUCTURE

The past and current structure behind the development and maintenance of trails in Sanford has been effective and productive. (See “Background/History” section.) Essentially, the current structure is a web of interest groups working on their trails and coming together in the Sanford Trails Committee to coordinate and make decisions. Sanford Trails is an advisory board to the City. Funding comes from an annual allocation from the City, plus grants and other occasional sources. The different necessary roles are filled as follows:

- Ongoing planning and decision-making: Sanford Trails Committee (snowmobile club, ATV club, horseback rider, land trust members, Department of Parks and Recreation, hikers, mountain bikers) The Committee has a Chairperson, Vice Chair, and Secretary.
- Agenda-setting: Sanford Trails Chairperson in consultation with other Committee members
- Keeping minutes: Sanford Trails Secretary
- Agenda and minutes distribution and meeting announcements: Department of Parks and Recreation
- Meeting facility: City Hall
- Special events: the main event of Sanford Trails has been the Farm Walk, which is planned each year by a few volunteers from the Trails Committee, plus

Springvale Farmers; the event is “staffed” by various volunteers. Sanford Trails has also sponsored landowner recognition events.

- Public relations: Sanford Trails and other organizations do some public programming; there is a link to trail information on the City website
- Funding: the City has a dedicated trails account. Expenditures are recommended by the Sanford Trails Committee and approved by the Department of Parks and Recreation. The City Treasurer’s Office distributes the funds.
 - Typically the City allocates \$10,000 - 15,000 annually
 - The City’s Grantwriter (who is also currently the Chairperson of the Trails Committee), applies for grants for trail projects on behalf of the Trails Committee
 - Individuals and contractors donate funds, materials and equipment
 - Occasionally there are other sources of funds. For example, some illegal tree cutting close to a trail near the Veterans Cemetery resulted in a fine that went into the trails account.
- Trail maintenance: A significant amount of the trail work is done by volunteers. Typically maintenance is supervised by members of Sanford Trails and/or one of the trail interest groups. Heavy maintenance is usually done by a paid contractor.
- Trail construction: typically done by a contractor, overseen by Sanford Trails.

In order to sustain and grow the trail system in Sanford, some adjustments to the organizational structure could be considered.

- The Sanford Trails Committee operates with a Chairperson, Vice Chair, and Secretary. An additional role of financial liaison, by the Department of Parks and Recreation, has been added to report monthly on the Committee’s finances.
- The Sanford Trails Committee has utilized subcommittees for different tasks. Some are more active than others, depending on interest and need. Periodically the subcommittees should be reconsidered. Generally it is ideal to have at least two people per subcommittee with those subcommittees working between meetings and reporting at each meeting.

Given the current network of people and organizations involved in trails in Sanford, perhaps the most effective addition would be a paid staff person or contractor whose primary job would be to coordinate all of the groups and volunteers, and dig into new projects that bring the trail system to the next level. However, a staff person would be

in addition to the funding that the Trails Committee receives annually from the City. The Sanford Trails Committee would act as the “board” for guiding the staff person. “Staffing” could be accomplished in a variety of ways:

- A part-time Trails Coordinator position within the Department of Parks and Recreation.
- A part-time Trails Coordinator who is a sub-contractor to the City.
- Create or share a part-time position with an allied organization, such as Three Rivers Land Trust which currently has part-time staff.

Another possible way to grow and support trails in Sanford would be the creation of a trails program at the high school and/or technical school. Such a program would provide a new dimension and boost capacity and support for the trails, while also involving the next generation in a real and significant project in their home town. Once the program is fully developed, the students/program might be in charge of managing the Sanford trails system as a recreational destination! There are many ways it could unfold! For example:

- Find a champion within the schools.
- Need a paid teacher/staff explicitly in charge of the program.
- Consider involvement from different existing school classes/programs such as business, welding, building trades, statistics, and the Great Works Foundation (community betterment program). All of these programs have already been involved in Sanford Trails in some way.
- Utilize the new high school’s business incubator space/program.
- The program could help and/or lead: trail maintenance, marketing, volunteer coordination, special events, evaluation/surveys, etc.
- Students/the program might get involved with creative expansion and enhancement of the trail system such as creating a bike-share program, building public restrooms, designing/manufacturing signs, designing/installing landscaping/trees, designing/painting murals and other art.
- Students get credit (and real-life experience).
- Make it an after-school program if it does not fit, or takes time to develop an in-school program.
- Since the technical school is regional, the trail focus might be regional.
- Create and coordinate with a Sanford Trails high school outing club.
- Continue to work with high school students on specific trail projects.
- Integrate an annual trail walk by students into the curriculum and school calendar.

FUNDING

While the trails in Sanford have been built over the years with an enormous amount of volunteer planning and labor, actual dollars have been and will be essential. Simple foot trails can sometimes be built without any funding, but many trails need an influx of cash, especially those that accommodate multiple user groups and are therefore wider, flatter, and constructed with imported surface materials. Trail amenities, such as signs, kiosks, benches, parking lots and maps generally need to be purchased.

Identifying, applying for, and then managing funds for trails is a significant job! Currently and in the past this has been accomplished by members of the Sanford Trails Committee, plus the expertise of the city’s grantwriting consultant.

As donations of time, labor and funds for trails in Sanford continues and increases, Sanford Trails should create a process for always thanking each donor.

To date, Sanford Trails has creatively tapped into a wide variety of funding sources, mixed with volunteer time and labor, plus donated materials. Following is a partial list of many years of contributions.

Cash:

- City of Sanford Capital Improvement Program: typical allocation of \$10,000 (sometimes \$15,000) per year.
- Recreational Trails Program: have received several grants up to \$35,000 (with a 20% match requirement).
- Maine Department of Transportation, Alternative Transportation funds: for transportation projects like sidewalks and bike paths or lanes.
- Walmart: several years of \$1000 grants.
- William Oscar Emery Fund: several grants over the years.

State and federal agency assistance:

- Rivers, Trails and Conservation Assistance of the National Park Service: twice Sanford Trails has applied for and received assistance with their work, including facilitating the creation of this master plan.
- Maine National Guard: received labor for two different projects; Sanford Trails supplied the materials and some of the engineering.
- AmeriCorps NCCC (National Civilian Conservation Corps): received free hand labor from a crew for six weeks on five occasions; Sanford Trails provided housing and tools.

- Land and Water Conservation Fund: helped fund six park and outdoor recreation projects

Community Participation:

- Kiwanis Club: created the Kiwanis Mousam Way with donated time, materials and funds!
- Mousam Way Land Trust: built trails on their conserved properties with donated time, materials and funds
- Rotary Club: participated in several trail construction projects
- Developer/7E Properties: construction and maintenance of a public use trail on developed property, plus other contributions
- Sanford Regional Technical Center: made/welded gates and built timber frame structures for signs
- R. Pepin & Sons, Inc. and Genest Concrete: donated gravel and other construction materials
- Springvale farmers: host the annual Springvale Farm Walk
- Hazen Carpenter and Family: countless hours, equipment, materials and funds
- Boy Scouts: numerous Eagle Scout trail projects
- Southern Maine Sno-Goers: donated time, materials and funds for snowmobile trails; eligible for Snowmobile grants through the Maine Bureau of Parks and Lands.
- Sanford Maine ATV Club: newly formed in 2018; donated time, materials and funds for ATV trails; eligible for ATV grants through the Maine Bureau of Parks and Lands.
- Aroma Joe's: volunteers helped with a trail cleanup
- Curtis Lake Christian Church: trail clean-ups and maintenance
- YMCA: built a connector trail with landscaping
- Schools:
 - Installed a disc golf course along the Kiwanis Mousam Way
 - Statistics class conducted a trail user survey
 - Environmental Club: volunteer help with parking for the Farm Walk
 - Margaret Chase Smith School: built a trail at the school
- Department of Parks and Recreation: installed a trailside fitness course
- Department of Public Works: conducted land surveys, built sidewalks linking to trails

- Others: So many people have helped with trails in Sanford over the years. Many contractors have repeatedly gone above and beyond the required scope of work. Thank you all!

Other funding and donations to consider in the future:

- Create an adopt-a-trail or corporate sponsorship program. Ask local businesses to donate an annual sum of money and then publicly acknowledge them for their donation (e.g., in newsletters, press releases, social media, on trail signs, etc.)
- Tap into Sanford TIF (Tax Increment Financing) funds that are appropriate for trails
- Establish signature annual fundraising events
- Invite volunteers from the York County United Way Day of Caring
- Start a chapter of the New England Mountain Bike Association (NEMBA) whose members would help build and maintain trails
- Grow a multi-disciplinary trails program within the schools
- Contact the Maine Chapter of the Appalachian Mt. Club for volunteer help with trail projects
- Work with Build Maine to receive technical assistance to create temporary public spaces improvement demonstration projects.
- Speak with the Trust for Public Land about their possible involvement with the downtown connector trail and other aspects of the Sanford Trails system.
- Work with hospitals, clinics and doctors to promote the health benefits of trails through trail "prescriptions" as well as trail use programming. Keep an eye on the possible re-emergence of the tobacco settlement funds for use on trails.

Potential grant sources:

- Quimby Family Foundation (apply through one of Sanford Trails' nonprofit partners): relationships between people and nature in Maine
- Elmina B. Sewall Foundation: well-being of people, animals and the environment of Maine
- William Oscar Emery Fund: beautification of Sanford
- Community Development Block Grants: through US Housing and Urban Development, improvements to moderate to low-income areas in cities
- Davis Conservation Foundation: protection of the environment and conservation of natural resources in Maine
- Fields Pond Foundation: increase environmental

awareness by involving local residents

- Maine Community Foundation: various funds and goals, including community and the environment
- People for Bikes: funded by the bike industry, build bike facilities and momentum for bicycling
- Carol M. White Physical Education Program, U.S. Department of Education: initiate, expand or enhance physical education programs
- LL Bean: conservation and outdoor recreation
- REI: access to outdoor places
- Tom's of Maine: health, education and the environment; employees volunteer 12 days/year
- Maine Outdoor Heritage Fund: conserve wildlife and open spaces
- William P. Wharton Trust: the conservation, study and appreciation of nature
- Surdna Foundation: sustainable environments, strong local economies, thriving cultures
- Land and Water Conservation Fund, National Park Service: acquisition and development of public outdoor recreation areas and facilities
- AARP Community Challenge Grant: helping to make communities great places to live for all ages
- Harold Alfond Foundation: youth development
- Gerard and Gertrude Genest Fund: support to organizations that serve and educate the youth of Sanford and Springvale
- Walmart Foundation Community Grant Program: support the needs of the community; create opportunities so people can live better; also has an employee volunteer program
- National Recreation and Park Association: increase access to parks within a 10 minute walk



Year One Work Plan

The Sanford Trails Committee continues to be an action-oriented group. In the first year after this Trails Master Plan has been adopted, the group intends to focus on the following priorities:

*Note:

- Those listed in the “Who Takes the Lead” column include: the City of Sanford (“City”), City departments (“Parks & Rec”, “Public Works”), the Sanford Trails Committee (“Trails Comm.”), subcommittees of the Trails Committee (“Maint. Comm.”, “Sign Comm.”, etc.), and individuals (mostly members of the Trails Committee).
- Cost estimates are for 2019.

TASK	WHO TAKES THE LEAD	COST ESTIMATE
<p>Short Term – Within One Year</p> <p>Various</p> <ul style="list-style-type: none"> • Continue to improve the trails section of the City’s website and recruit a social marketing/PR volunteer. • Create a Sanford Trails fundraising subcommittee to figure out funding for short and medium term priorities. • Support and activate the Sanford Trails sign subcommittee to create a sign inventory and list of needed repairs and replacement. Begin to replace and repair signs. • Form a Sanford Bike-Pedestrian Committee to address all on-road non-motorized travel such as sidewalks and bike lanes, formation of local chapter of New England Mountain Biking Association, and establishing a ride center. 	<p>Lee B, Kevin M, Parks & Rec</p> <p>Trails Comm.</p> <p>Hazen C, Thom G, Sign Comm.</p> <p>Kristen Cyr, Bill Frank</p>	<p>No cost</p> <p>No cost</p> <p>\$500/year</p> <p>No cost</p>

<ul style="list-style-type: none"> Expand the adopt-a-trail program where every trail in Sanford has its own Adopter. Set aside and account for annual maintenance funds. Tap into corporate service days with groups such as Tom's of Maine, Aroma Joe's, and Day of Caring. Host regularly scheduled trail work days; advertise these in a variety of ways. Create a system for keeping track of all hours volunteered on Sanford trails. Report at each Trails Committee meeting. Secure an Innovative Readiness Team from 262nd Engineers Company of Maine National Guard to work on RR bed. Apply to York County Soil and Water Conservation District for funding from storm water compensation fund to fix two erosion-prone areas – Normand Ave trailhead and Boothby Ave trailhead. Obtain landowner permission and connect Mousam River Bike Path to Route 4. Create a city policy making landowners who donate easements eligible for Open Space tax rates for portion of property encumbered by trail corridor. Explore partnerships with Sanford School Department and others with the goal of creating formal outdoor recreation career exploration opportunities for students, such as through Environmental Club, Jobs for Maine Graduates, Extended Learning Opportunities, and traditional curriculum at the High School/Tech Center. The goal would be development of a membership organization that could in, partnership with city, schools and a non-profit, support a paid position, stipend or otherwise Advise the City on management of City forest lands. Identify locations for trailheads with parking. 	Rick T Hazen C., Parks & Rec Lawrence F, Parks & Rec Trails Comm. Rick T. Lee B. Lee B. Lee B. Lee B., Parks & Rec, Planning Lee B. Trails Comm., Kevin M Trails Comm.	No cost No cost No cost No cost No cost No cost No cost No cost No cost No cost No cost
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<ul style="list-style-type: none"> • Each year, review the Sanford Trails Master Plan and create a new annual work plan. <p>Rail Trail</p> <ul style="list-style-type: none"> • Develop an agreement with all parties regarding shared use of the railbed, including maintenance, neighbor concerns, trespass, etc. <ul style="list-style-type: none"> ○ Drag a York Rake over rutted sections ○ Grade a mile or more section each year. • Secure easements or purchase land from Steven Bruno, Sherwin Williams. <p>Mousam Way Pedestrian/Bike Path</p> <ul style="list-style-type: none"> • Patch the pavement • Trim back corridor • Seal cracks • Maintain gates and signs <p>Downtown Connector</p> <ul style="list-style-type: none"> • Work with City staff to create a Downtown Connector design/plan. • Raise needed implementation funds. • Secure funding to maintain bike lane stenciling for 1.3 miles along Oscar Emery Drive, Riverside Drive and Pioneer Avenue. • Build improvements for bicycles and pedestrians (based on temporary improvements by Build Maine) at key intersections: Washington Street/Pioneer Avenue and Emery Street/Pioneer Avenue. • Secure participation in creation of enhancements (e.g, art, landscaping, information, etc.) from businesses and organizations along the route 	<p>Trails Comm.</p> <p>Parks & Rec, Trails Comm., ATV Club, snowmobile club, bikers, walkers, neighbors</p> <p>ATV Club</p> <p>Coordinate with other City projects: Public Works, Parks & Rec, Trails Comm.</p> <p>Trails Comm.</p> <p>Trails Comm., Public Works</p> <p>Trails Comm.</p>	<p>No cost</p> <p>No cost</p> <p>\$3,000 for grading</p> <p>\$2,800</p> <p>\$5,000/mile</p> <p>\$5-\$10,000</p> <p>\$750 each</p> <p>Cost depends on specific enhancement</p>
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<p>Urban/Historic Walks</p> <ul style="list-style-type: none"> • Evaluate the goals • Monitor all signs: straighten posts and replace signs as needed <p>Mousam River Bike Trail</p> <ul style="list-style-type: none"> • Cut brush/weeds • Install signs from School Street to the new High School • Grade • Seek estimates for snowplowing. <p>Kiwanis Mousam Way</p> <ul style="list-style-type: none"> • Gowen Park to Marginal Way <ul style="list-style-type: none"> ○ Maintain this trail section, including the entrance sign, bridge, gates, railing, and shelter at YMCA • Marginal Way from Rail Trail to Mousam Way Park and Pavilion <ul style="list-style-type: none"> ○ Maintain park facilities: storage and toilet facility, parking, flag pole, lighting, picnic tables, benches, observation deck ○ Seek landowner permissions for trail on sewerline along the river. • Mousam Way Park to Stanley Road Loop <ul style="list-style-type: none"> ○ Maintain the three bridges and signs along this route; remove extensive downed trees and brush and then monitor and maintain • Mousam Way South <ul style="list-style-type: none"> ○ Monitor the 300 foot boardwalk for rotting with spot repairs. 	<p>Sign Comm.</p> <p>Trails Comm.</p> <p>Hazen C, Kiwanis Club</p>	<p>\$1,600</p> <p>\$5,000</p> <p>\$100/sign</p> <p>\$4,600 (split with Kiwanis Club)</p>
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<p>Springvale Farm Trail</p> <ul style="list-style-type: none"> • Maintain the two culverts and the bridge • Grade as needed • Cut brush/weeds • Gravel 600 feet of wet area <ul style="list-style-type: none"> ○ Work with landowner David Genest and Kiwanis Mousam Way Committee to discourage bootleg campsites • Entire route <ul style="list-style-type: none"> ○ Replace and repair signs as needed 	<p>Hazen C</p>	<p>Up to \$4000</p>
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PRIORITIES BEYOND YEAR ONE

The priorities and cost estimates for the first year of the Sanford Trails Master Plan are outlined in the “Year One Priorities” section. This section focuses on the projects and tasks anticipated in the next five years and in the next twenty years. The major sections of trail that are needed to make the Sanford Trails system more complete are outlined at the end of this section with general estimates of cost.

Medium Term Priorities– Within Five Years

TASK

Various:

- Create a part-time Trails Coordinator and Maintenance position within the Department of Parks and Recreation.
- Conduct annual maintenance on all existing trails.
- Create a Sanford High School Green Team to help manage and maintain Sanford trails and parks.
- Continue to improve and repair trail signs. Consider hiring a landscape architect to create a professional sign plan/design.
- Conduct a trail user count using an electronic system or volunteers. Do this every five years.
- Create a universal access trail that runs north-south from Industrial Park to Springvale - utilizing existing and new trails and bike paths, utility corridors, quiet neighborhood streets, etc.
- Utilize shoulder of Route 4 and Gavel Road, OR cross Route 4 and create an off-road trail that includes Land Trust property, to connect to Birding Ponds with permission of Sewage District.
- Advocate for construction of a trail under the Route 4 bridge, when that bridge is reconstructed (2025 +/-) by MaineDOT.
- Obtain permission for trail on Kruger Energy utility corridor and connect to Birding Ponds with bridge and short section of new trail. Improve Kruger corridor for bicycles and pedestrians.
- Acquire parcel of land along Jagger Mill Road or from Marc Motors for parking area to serve Kruger Energy line.
- Build the highest priority new trailhead with parking.
- Evaluate and adjust trail names to clear up confusion.

Rail Trail

- Replace Carpenter Crossing Bridge with help from the National Guard. Post the bridge with weight limits and limit vehicle use to maintenance-only by installing a locked bollard.
- Work with landowners to get permission or easements for trails that connect to the Rail Trail.
- Secure easement and plan and construct the Rail Trail extension over Shaw property to the Alfred line.
- Create a protected bike lane on Route 224 from the Rail Trail crossing to Ridley Road and back to the railbed, OR find a way to make the trail off-road rather than along Route 224.
- Rebuild the Rail Trail from Carpenter Crossing to Lebanon line.
- Work with Three Rivers Land Trust and landowners in Lebanon and Alfred to connect the Rail Trail to destinations in Lebanon and Alfred.
- Review abutting landowner access and logging policies as they relate to impacts on the Rail Trail.

Downtown Connector

- Work with City staff to engineer the Downtown Connector.
- Raise needed funds.
- Connect Phase I Mousam River Bike Trail through downtown/Mill Yard, Riverside Street, William Oscar Emery Drive, Gowen Park, schools and the YMCA.
- Evaluate and install the best bicycle/pedestrian facilities (striping, signs, road markings, etc.) along: William Oscar Emery Avenue, Riverside Avenue, Emery Street, and Pioneer Avenue. Implement this permanent bicycle infrastructure with priority for parking-protected bike lanes as much as feasible.
- Stencil “Shared Lane” markings on Marginal Way to connect to the Rail Trail to Mousam Way Bicycle-Pedestrian Trail.
- Obtain landowner permissions for trail from Bougie Lane along river to Heritage Crossing to create a loop from Heritage Crossing Bike Path to Bougie Lane to Emery Street.
- Trim up tree branches along Marginal Way to open up views of Stump Pond.
- Evaluate and install the best bicycle/pedestrian facilities (striping, signs, road markings, etc.) along River Street. Implement this permanent bicycle infrastructure with priority for parking-protected bike lanes as much as feasible.

Kiwanis Mousam Way

- Improve/install directional signs along Main Street from the Springvale Recreation Area to Kiwanis Park.
- Improve signs/markings where the trail follows Pleasant Street from Mill Street to River Street.
- Improve signs/markings and add a bike lane where the trail follows Marginal Way.
- Improve signs/markings from William Oscar Emery Drive south to Gateway Park, the Mill Yard and Mousam Way South.
- Work with the Southern Maine Veterans Cemetery Committee to get permission to create and/or designate a 1 +/- mile trail along cemetery roads connecting Riverside Cemetery to Veterans Cemetery through to Stanley Road.
- Obtain landowner permissions for a trail on the utility trunk line from Bougie Lane to Emery Street and Wilson Street.

Springvale Farm Trail

- Create a mountain bike, horse, hike, and snowmobile loop from railbed to CMP Power line and back to Vigue Road and railbed.

ATV Trails

- Work with the Sanford ATV Club to determine locations for new trails and maintenance and monitoring of existing trails.
- Work with the Sanford ATV Club to investigate use of the former CGA property as an ATV staging area to access a trail in the nearby Central Maine Power corridor.
- Support the Sanford ATV Club in applying for State grants to improve/build appropriate ATV trails in Sanford.

Mousam River Water Trail

- Collaborate with paddlers and other organizations to create a usable 6-mile water trail, including maintenance of the facilities put in place so far: footbridge, parking and sign at School Street, access point with parking and sign at Gavel Road.

Long Term – Within Twenty Years

Various

- Support and maintain the entire Sanford trails system!
- Work with adjacent communities to connect with trails.
- Build additional new trailheads with parking.
- Support the City or any other local group to purchase and operate a grooming machine for fat-tire snow biking and/or tracked cross-country skiing.

Downtown Connector

- Raise needed funds and build any remaining planned improvements.

Mousam River Bike Trail

- Work with Industrial Development Corporation and businesses in industrial parks to create internal trail/bike path to Kruger corridor.
- Obtain permission for non-motorized trail across property of Kennebunk, Kennebunport Wells Water District, The Nature Conservancy and others and utilize snowmobile trails, utility corridors and old roads to connect to the Eastern Trail.

Urban/Historic Walks

- Continue to evaluate and update/improve the Urban/Historic Walks.
- Improve the directional signs/markings on the Urban/Historic Walks, and increase promotion.
- Interpret more sites along these walks with informational signs.

Snowmobile Trails

- Assist the Sno-Goers to make a trail connection to the J & S Gas Station.

Horseback Riding Trails

- Work to develop/designate a staging area for horseback riding events with enough room for 25 trucks and trailers and easy access to trails.

Mousam River Water Trail

- Enlist support from other organizations and volunteers to further develop and promote a Mousam River Water Trail from School Street to Estes Lake.
- Work with the Maine Department of Environmental Protection to determine how to make the route passable.
- Install improvements such as portage trails, trailheads and launch facilities, and directional signs.
- Purchase land at the Estes Lake bridge for trailhead parking, small boat put-in, and signs.
- Create a map.
- Promote the trail.

Major Sections of Trail to Connect to the Eastern Trail

- 1) Extend the Mousam River Trail approximately ½ mile to Route 4 along sewer easement \$40,000
- 2) From the Route 4 end of the Mousam River Trail, install bollards at entry points, bike route signs, and bike stenciling for .9 mile along Route 4 and Gavel Road to the Birding Ponds. Secure an easement where the trail crosses Route 4. \$250/stencil, \$150/sign, \$500/bollard
- 3) Improve to universal access standards a .6 mile section of utility trunk line right-of-way between Route 4 to Sanford Sewerage District pump station.
 - Secure permission from four private landowners (Sanford Sewerage District,

Mousam Way Land Trust, and JA Simpson - the original Planning Board approval for Simpson's development has trail right-of-way written into permit)

- Grade, shape, spread new gravel, compact: \$15,000
 - Signage, access control against motorized vehicles: \$5,000
 - Option to build bridge at old abutments with access to Gavel Road
- 4) Lobby MaineDOT to reconstruct Mousam River Bridge on Route 4 to include a bicycle lane/bypass. The bridge is scheduled for replacement. Many thousands of dollars
 - 5) Build a bicycle/pedestrian bridge across the Mousam River from the Birding Ponds to the old trolley line. \$100,000
 - 6) Build a trail (approximately ½ mile) along the old trolley line to connect to the industrial park. \$15,000
 - 7) Stripe, stencil and sign the roads within the industrial park (1.3 miles). \$12,000/mile
 - 8) Connect to the Eastern Trail:
 - Utilize existing snowmobile trails and abandoned City ways to build a 5 3/4 - mile trail that connects to Chick Crossing Road in Wells. \$30,000/mile
 - Sign and stencil ½-mile of Chick Crossing Road and Clark Road to reach the Eastern Trail. \$12,000/mile

*All cost estimates are for 2019

