

2015 Kennebec Valley Regional Bicycle Plan

Prepared by Kennebec Valley Council of Governments

requested and funded by the Maine Department of Transportation

1: Introduction

The Kennebec Valley Regional Bike Plan was developed in response to a perceived need to coordinate and put into perspective the numerous individual bicycle trails and evaluate the next steps in assembling a coordinated network. KVCOG is responsible for planning multi-modal transportation options for the Kennebec Valley (Kennebec, Somerset, western Waldo Counties), but is not directly involved in designing or constructing facilities.

This document is divided into four substantive sections.

- The following section (page 3) is a summary of the status of various bicycle trails and initiatives within the region. It includes existing off-road bike and multi-use trails, designated road routes, trail networks, and future local plans.
- Section 3 (page 7) describes an alignment for a bikeway the length of the Kennebec Valley, to serve as a connector for individual projects and eventual touring trail in its own right. It does not recommend any new construction, instead relying on existing trails and the best available roads. It provides a mechanism for implementing the designation.
- Section 4 (page 19) describes several changes that could be made to the Kennebec-Waldo portion of the East Coast Greenway. Routing options offered as a result of the routing study done for this plan have already been accepted by the greenway; this section offers the next steps in line to move more of the greenway off-road. It also describes trail segments that could be used to enhance the backbone route.
- Finally, Section 5 (page 22) describes a route and future options for a mountain biking trail planned to cross the state from east to west through relatively undeveloped northern woodlands.

This plan is the result of extensive discussions with primary stakeholders, as well as map and on-the-ground research. Stakeholders consulted during the active phase of the study include municipal planners, road commissioners, and selectmen, mountain biking and road biking advocacy groups, trail associations, landowners, trail managers, and recreation business owners. These individuals made important contributions to the information and recommendations in this report, including in some cases doing their own trail evaluations. The recommendations in the plan are, however, entirely the responsibility of KVCOG.

2: Existing Conditions

Extensive progress has been made on improving conditions for bicycle travel throughout the Kennebec Valley over the past couple of decades. Bicycling has been rediscovered, as a mechanism to save money, maintain physical fitness, and reduce environmental impacts. A number of clubs and associations dedicated to walking and cycling have either been created or re-energized. The resulting political energy has stimulated designation and development of bicycle and multi-use routes throughout the region.

The expansion of bicycling opportunities has taken place at many levels:

- The State, through Maine DOT and DOC, has done some designation and mapping of existing bike routes and loops and supplied funding for new projects;
- Regional groups have provided advocacy, and in many cases manpower, for development of multi-town trails or networks;
- Municipalities, often through their recreation or public works departments or working with private groups, have provided funding and manpower to designate on-road bike routes, new trails, and local networks.

Status of Existing and Planned Trail Systems (ordered from south to north):

The **Merrymeeting Trail** is a 25-mile long corridor extending from Topsham to downtown Gardiner. The long term plan is to establish an off-road trail alongside an existing rail corridor. An interim route along nearby roads (primarily Route 24) has been designated. Preliminary engineering is underway for new trail development, with no set timetable for construction or completion.

The **Kennebec River Rail Trail** is an established, 6.5 mile trail between downtown Gardiner and downtown Augusta. The trail is primarily off-road, paralleling and within the right-of-way of state-owned, inactive railroad tracks. A short segment through downtown Hallowell uses public streets. In the 20 years since its creation, the trail has become the most heavily used walking and biking trail in the region. The trail is a segment of the East Coast Greenway (river route). Motorized vehicles are prohibited.

The **Cobbossee Corridor Bike/ped Trail** is a planned extension of the Kennebec River Rail Trail from downtown Gardiner westward along Cobbossee Stream for approximately 0.8 miles. It is part of an unfunded master plan for the stream corridor that includes redevelopment.

The **Kennebec-Messalonskee Trail System** is a network of nearly two dozen individual trails and loops in the region consisting of Waterville, Winslow, Fairfield, Benton, and Oakland. Many of the trails are recreational loops, but some are origin-to-destination trails, including one

alongside the Kennebec River from Winslow through Benton. The system consists of both newly-constructed off-road trails and designated on-road routes. Travel surfaces vary; some are more like footpaths and some are suitable for ATV's. The KM Trails organization manages the trail system, coordinates expansions and additions, and provides much of the manpower.

In Unity, the Unity Barn Raisers, a community development group, established the **CommUnity Trail System**, the most prominent of which connects Unity College to downtown and the Sandy Stream Residences. The trail network is now part of the Waldo County Trail Coalition, which is developing a hiking trail from Unity to Monville, the "Hills to the Sea" trail. A portion of it is a mountain biking trail connecting the college to the MOFGA fairgrounds.

The **Town of Skowhegan** is responsible for a trail system within the town, including nine separate loops and links. Most are nature, park, or school loops. The system is not formally tied together. A bicycle-pedestrian plan was developed to link the individual elements, but little work has been done to implement it.

The **Bingham to Solon Multi-use Trail** extends approximately seven miles between the north end of Solon village and the south end of Bingham village. It follows an abandoned railbed alongside the Kennebec River. It's primary users are ATV riders, so the trail surface has some rutting and scouring; however, it has a strong base and level grade, typical of railbeds.

The **Forks Area Scenic Trails (FAST)** is a network of approximately 12 miles of connected trails under development in The Forks and West Forks. The purpose of the system is to provide recreational access between area resorts and attractions, such as Moxie Falls, the Kennebec River, Dead River, and Maine Huts and Trails system. Some of the network is funded for development over the next year.

The **Maine Huts and Trails System** is a multi-region wilderness trail through Franklin and Somerset County. It was designed as a point-to-point hiking and cross-country ski trail, but the surface is suitable for mountain bikes. The portion from Carrabassett Valley to West Forks is completed; an extension from West Forks to Greenville is under development.

Designated Bike Routes and Loops:

As well as designated and signed off-road and on-road bicycle paths and networks, the region encompasses several bicycle tours and trips promoted by various entities. These tours take advantage of existing bike trails where available, and low-volume or wide-shouldered roads whenever possible. Signage is generally not present, but printed or online maps and directions are available to guide travelers.

The **East Coast Greenway** is a grand plan for an off-road bicycle route stretching the length of the east coast, from Florida to Maine. The **River Route** of the greenway runs along the Kennebec from Gardiner to Augusta along the rail trail, then continues upriver on existing roads through Waterville to Benton, where it turns east towards Unity and, eventually, Bangor. In the Waterville area up to Benton, the route will eventually be able to traverse off-road on the KM system, but there are no off-road plans elsewhere, which range from highly-congested roads like

Bangor Street in Augusta to rough gravel roads in Troy. In late 2015, the MaineDOT designated the greenway route as Maine Bike Route 1 and posted directional signs along the route.

There are three tours listed in *Explore Maine by Bike* (2013 Edition).

The **Kennebec River Valley Tour** provides three options originating in Skowhegan and looping north. The longest follows Routes 151 and 16 as well as local roads to encircle Mayfield and Bingham. The middle option follows the same route as far north as West Athens, then local roads through to Solon, then south along River Road. The short option uses Route 43 to cut the loop from northern Cornville to Madison, then back to Skowhegan via Russell Road. The majority of road mileage is along roads with no paved shoulders but traffic volumes below 2,000 per day.

The **Waterville and China Lakes Tour** identifies three options originating in Waterville and running eastward. All routes follow Route 137 southeast as far as China village. The longest one continues to Palermo on local roads, backtracks along Route 3 to Dirigo Corner, then on local roads through Weeks Mills and Windsor, then north on local roads through Vassalboro. The middle option proceeds south from China village to South China along Route 9/202, then west along Route 3 to South Vassalboro and back. The short option turns west at China village towards East Vassalboro on local roads and back on Route 32. While the local roads on these routes are lightly travelled, the highways have significant traffic. Shoulders on the highways are 6-8 feet wide (except Route 32.)

The **Capital Area Tour** offers three options, all beginning in Augusta and travelling southwestward. All routes proceed south on the rail trail as far as Gardiner. The longest continues west along Route 9/126 to South Monmouth, northward to Monmouth along local roads, then east along Route 135 and 202 to Manchester, then Winthrop Street to Hallowell and the rail trail. The middle option follows the long option only as far as the Hallowell Road in Litchfield, turning north at that point along local roads back to Hallowell. The short option simply returns to Augusta along the rail trail. Of the three, the longest option is the most challenging, with heavily-travelled rural roads with varying shoulder widths.

Planned/Concept Trails and Routes:

The following initiatives have, for the most part, not progressed beyond the idea stage. There may come at some time actual route planning and implementation that would contribute to the overall network, but are not generally incorporated into this plan.

- A bike trail from Winthrop to Augusta: This concept is mentioned in both the Winthrop and Manchester Comprehensive Plans. The trail would provide a cycling alternative to Route 202, which has heavy traffic volumes with numerous trucks. Apparently a trolley used to go between Winthrop and Augusta, but it was long since abandoned and only small portions of the railbed are still identifiable. No activity at present, though both towns would be interested in proceeding with planning.
- South Waterville: A major landowner with contiguous holdings in south Waterville and north Sidney has offered to work with KM Trails and other interested groups to develop a

bicycle path or loop on his property. There is currently some snowmobile use of the property, but little else. Plans have not progressed beyond the discussion stage.

- A bicycle-pedestrian trail east of Skowhegan: Somerset Woods, a land trust centered in Skowhegan, owns a portion of the Kennebec riverfront as far east as a rest area, and has mapped out a trail along the river from the rest area to Coburn Park (approximately 1 ½ miles). There are plans on paper, but the impediment to this project is financing.

Recreational Loops and Trails:

Several recreational trail systems exist in the region. These are not generally appropriate for incorporation into a regional bicycle network, but may serve as destination points or drop-offs for the system.

- The City of Augusta maintains a number of walking/biking trails and paths through its park system. These include paths with varying degrees of challenge for bikers, but they are generally not integrated into a network.
- KM Trails network in the greater Waterville area includes several recreational loops, primarily in Waterville.
- On property owned by the Kennebec Valley Community College and Maine Academy of Natural Sciences, in Hinckley, a series of woods trails are appropriate for off-road biking.
- The Town of Skowhegan maintains a number of walking/biking trails in local parks and school property.
- Thurston Park in China contains some off-road biking loops.
- In Jackman, The local sportsman's club has identified and mapped three loops for mountain biking north of town from existing local roads and woods roads. The loops range from 8 to 11 miles.

The region is host to a network of snowmobile and ATV trails nearly as extensive as the road system. A snowmobile trail may be considered for a bike trail, but there are a different set of considerations. Snowmobile trails are well-maintained during the winter, but there is no need to establish a hard or level surface for summer use. Summer use of the trails by bikes is impossible if the trails go over frozen wetlands or farm fields during the winter.

ATV trails are not generally useable by any but the hardest mountain biker. ATV use tends to create deeply rutted wheel tracks making them hard to navigate. ATV trails do have potential for side-by-side use by mountain bikes, if a suitable separation and width restrictions are implemented.

3: Kennebec Valley Bikeway – A Backbone Route

This portion of the plan describes a bicycle trail designed to connect and serve population centers along the Kennebec River. The need for a regional trail has been expressed both as a fundamental part of the region’s multi-modal transportation system and as a building block for additional elements of the system.

The long-term vision of this portion of the plan is to establish a dedicated bicycle or multi-use trail the length of the river. Portions of this vision have already been built or planned. However, many obstacles remain. The objectives of this chapter are 1) to describe an interim route along portions of the corridor not already built or planned as off-road trails, 2) to identify and prioritize projects or activities attainable within the next decade that will serve the ultimate vision and 3) to build public awareness as the bikeway is built out.

The proposed Kennebec Valley Bikeway is described in segments. Each segment contains a description of the interim or established route together with rationale for selection of that route. One or more projects or activities are also described, together with their status and interested parties.

Segment 1 – Brunswick to Augusta

This is summarized as a single, long segment because planning for an off-road trail is already well underway in places where it is not already in place.

The Kennebec River Rail Trail is a completed 6.5 mile trail between Augusta and Gardiner. Except for a short portion through downtown Hallowell, the trail is an off-road, finished surface.

The Merrymeeting Trail is estimated to be 25 miles long when completed and will extend from Gardiner south to Topsham, where it will connect with a coastal trail system. An interim on-road route has been designated, with planning underway for a trail to parallel existing railroad tracks. The Merrymeeting Trail location and status can be viewed on their website, www.merrymeetingtrail.org.

Activities along the Merrymeeting Trail are being coordinated by the Merrymeeting Trail Initiative. In 2014, the Kennebec River Rail Trail joined with the MTI in a concept for the “Capital to Coast Trail”, which has since been designated as a trail of statewide significance.

Segment 2 – Augusta to Benton

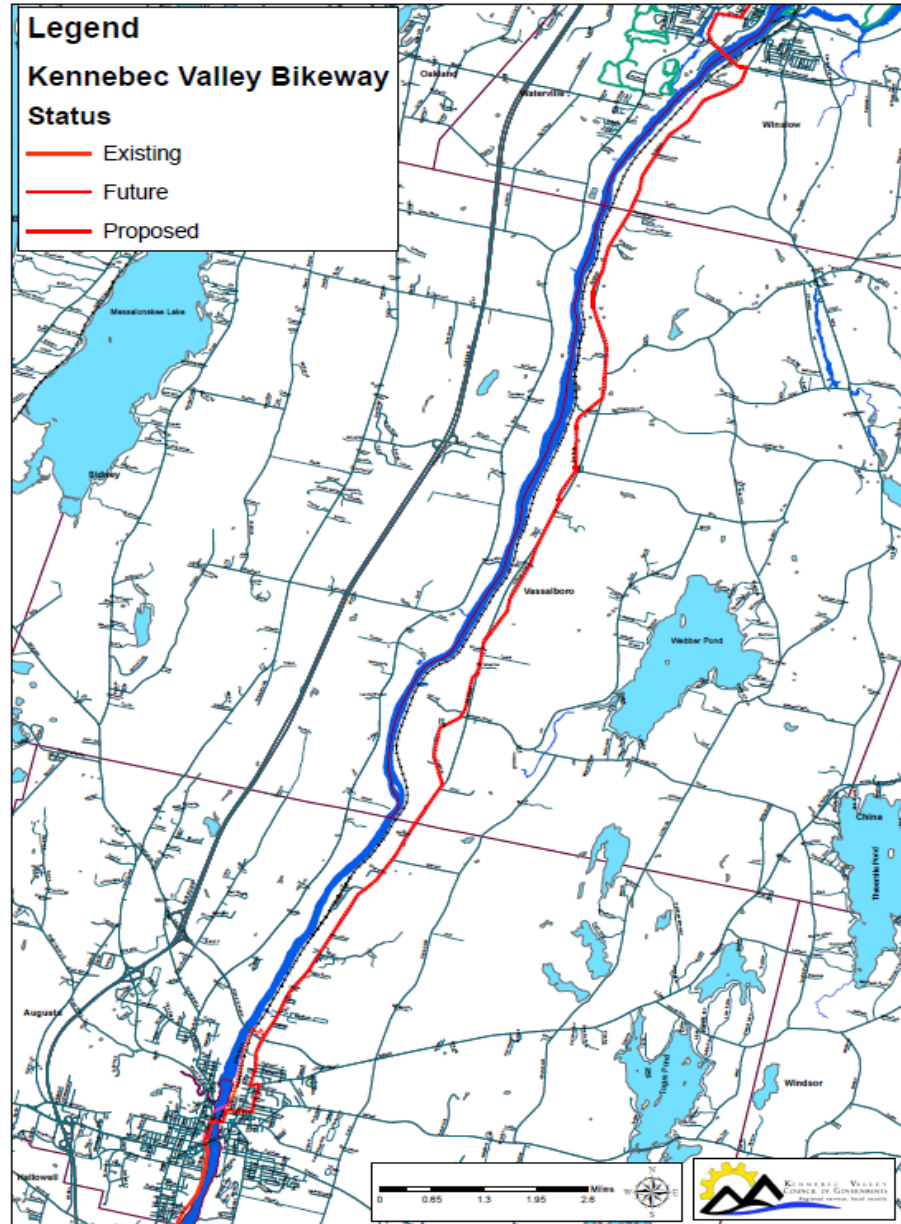
Segment 2 begins at the northern terminus of the Kennebec River Rail Trail and extends through Augusta, Vassalboro, and Waterville to Benton, which is the outer jurisdiction of the KM Trails network.

Interim Route:

The rail trail is being planned to extend into downtown Augusta along Water Street/Commercial Street (one-way pair) to Bridge Street. These would be on-street routes, although the rail bed is still in place and could be utilized. From the point at which the rail trail ends, the designated bikeway would cross the river at the Calumet Bridge (Bridge Street – Route 27).

Rather than follow Bridge Street into the roundabout and out along Bangor Street (Route 201) to the north, the bikeway is routed along local streets as far as North Belfast Ave. (Distance = 1.1 miles)

From North Belfast Ave. the route proceeds north along Route 201 (Riverside Drive) towards Vassalboro. Once in Vassalboro, there are approximately 6 miles of “old Route 201” in four separate segments that provide a quieter alternative, even though Route 201 at this point has relatively low traffic counts on a road with broad shoulders and level surface.

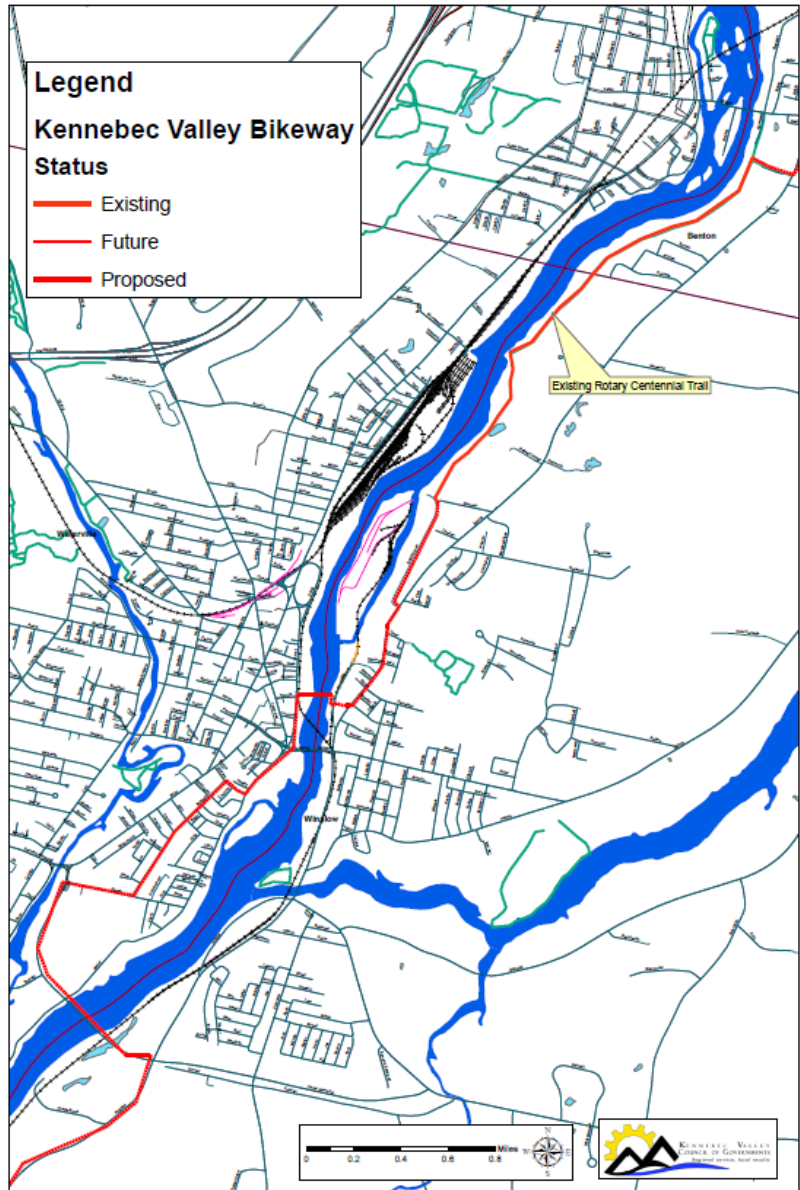


Continue on Route 201 into Winslow as far as the Carter Memorial Bridge. (16.5 miles, using “old Route 201” alternatives).

Crossing the river again at the Carter Memorial Bridge Road (Route 137), the bikeway proceeds into downtown Waterville. Local roads provide a safer alternative to narrow and heavily-travelled Silver Street (Route 11), taking the trail to the “Head of Falls” park in Waterville. (2.6 miles)

Across the historic “two-cent” walking bridge, a serpentine paved path leads to Benton Ave. (Route 100) at the Winslow town office. Approximately 0.4 miles north on Benton Ave. brings you to Scalehouse Road, the southern end of the newly-opened East Kennebec Trail. The East Kennebec Trail links up with the KM/Rotary Centennial Trail. Follow the KM/Rotary Centennial Trail to trailhead parking. A graveled access road leads back to Benton Ave. (3.6 miles).

The total length of this segment is approximately 24.3 miles, of which approximately 2.5 miles are off-road. This segment has already been designated and has been signed as the official East Coast Greenway River Route, based on the routing study done for this plan.



Selection Rationale:

The East Coast Greenway had originally been proposed for Route 104 (River Road) along the west side of the Kennebec River, but was shifted to Route 201 because Route 104 has poor alignment and shoulders, whereas Route 201 has beautiful vistas, good alignment, and wide shoulders. In addition, one of the region’s few bicycle service shops is located in Augusta on the new alignment.

The challenge at the Augusta end was Bangor Street. The ECG route calls took travelers right up Bangor Street. Since the route was established in the mid 2000's, Bangor Street has been redesigned, with additional travel lanes usurping the shoulders and on-street parking, making it almost impossible for the average cyclist. The proposed interim alignment shifts the route a block eastward to Pearl Street, as far as North Belfast Ave. From North Belfast Ave, Route 201 becomes Riverside Drive, where a decent shoulder is re-established and traffic counts drop off. A project is proposed (below) for a new off-road trail to completely bypass Bangor Street and the busiest part of Riverside Drive.

Route 201 between Augusta and Winslow was built to federal standards when it was a much higher volume road (before traffic shifted to the interstate). This included straightening the road in at least four locations. Segments of the old highway are still in use as local roads paralleling the highway. These byways constitute about 6 miles of road with much lower traffic volume, though with 18-20' road width without designated shoulders. The segments of "old Route 201" would be called out in the turn-by-turn directions, but it should be clear to travelers that they can choose to stay on 201.

The challenge at the Waterville end was the segment between the Carter Memorial Bridge and the KM Trail system. The route of the East Coast Greenway continued along Route 201 to the Waterville-Winslow Bridge intersection, straight through to Route 100 to halfway between Winslow and Benton, where it veered east. This created two issues: 1) it avoided downtown Waterville, with its potential attractions, and 2) it took riders down Bay Street in Winslow, which for approximately 2/3 mile is a heavily-travelled road with very narrow shoulders, a low-angle railroad crossing, commercial entrances and other hazards.

The proposed interim route crosses into Waterville before encountering Bay Street, but then faces a narrow and busy segment of Route 11 (Silver Street). It avoids this by taking local streets (Summer Street and Sherwin Street). The route shift means that riders can access downtown Waterville, stop at Head of Falls, and cross back over the river on a historic walking bridge. Crossing back to the east permits the route to link up with the KM Trail system (East Kennebec Trail).

Projects and Planned Route:

The highest priority project for the bikeway involves the relocation away from Bangor Street. The logical relocation route is the lightly-used rail corridor adjacent to the river.

The rail corridor can be accessed from Willow Street north of Calumet Bridge and can be followed northward at least as far as Cushnoc Bridge (Route 3). While at this point, the rails are considerably lower in elevation than Route 201, a trail could be looped up to the highway either along the existing Drum Barker Road or a new trail through Savage Park. The Savage Park alignment would be more expensive, but would avoid the Route 3/Route 201 intersection.

Sufficient cleared area along the tracks exists now to locate a bike path. Most of the frontage is owned by the City of Augusta (former Statler Tissue property). Some is owned by a junkyard in the process of relocating. The City has a redevelopment plan for the property which includes a walking path along the river serving residential and commercial development. The plan could easily be amended to be a walking/biking path. The total length of this path would be roughly 1.3 miles. Most of it is already graded and some is paved. The only challenge would be climbing the hill in Savage Park.

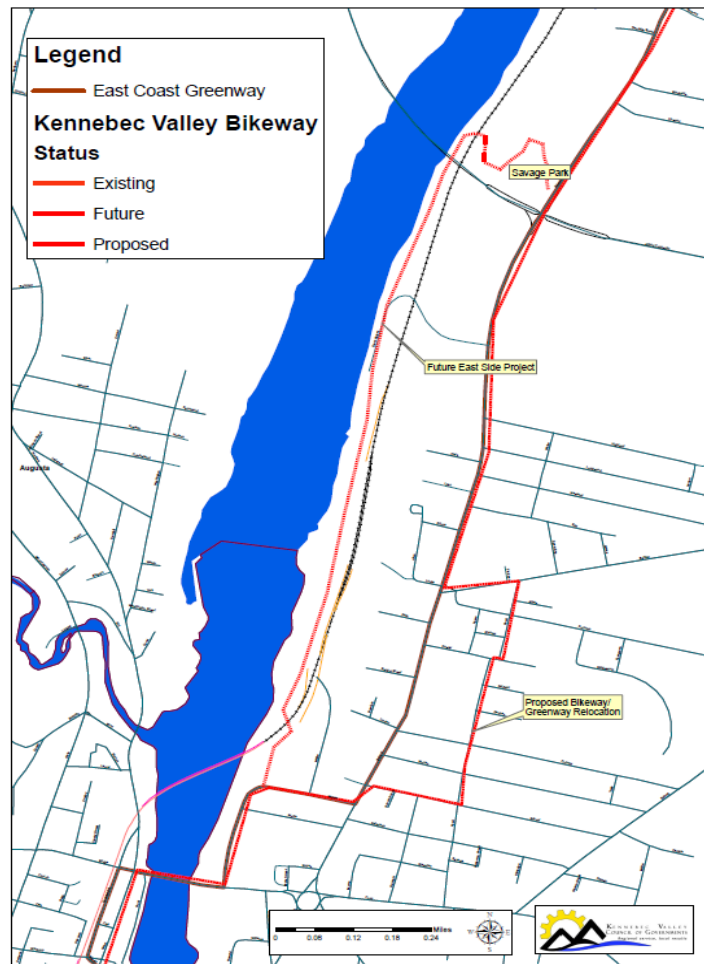
Another possible project would be the relocation of the Waterville section onto Winslow while avoiding Bay Street. This would avoid crossing the river on the Carter Bridge and negotiating city streets, while shortening the overall distance and permitting Fort Halifax Park as a stopping/parking place.

The only way to avoid Bay Street, other than climbing a steep grade onto residential streets, is to follow the railroad corridor. This could be problematic, as the rail line is in tight quarters and still active.

Development along Bay Street is mature, and a candidate for redevelopment. If Winslow took the initiative, it could designate a bikeway route through private property and require any new development to complete its portion. The total length of Bay Street is 0.6 miles. There is also a narrow band of undeveloped river shoreline, but it is steep and has not been investigated for its potential.

The Bay Street project is suitable to be pursued by KM Trails.

KM Trails has also discussed extending its trail network through southern Waterville into Sidney. However, taking the bikeway to the west side of the river would involve something like 16 miles of new construction. The chief obstacle to a west bank riverfront route is the multiple gravel pits along the banks, whereas an inland route would have to utilize a power line corridor near the interstate and would be lacking in scenery. Either of these options would be well in the future.



It would also be possible to locate a bikeway along the riverfront rail corridor on the east bank of the river. However, this corridor is currently active and the terrain flanking the tracks is steep, making a side-by-side design expensive.

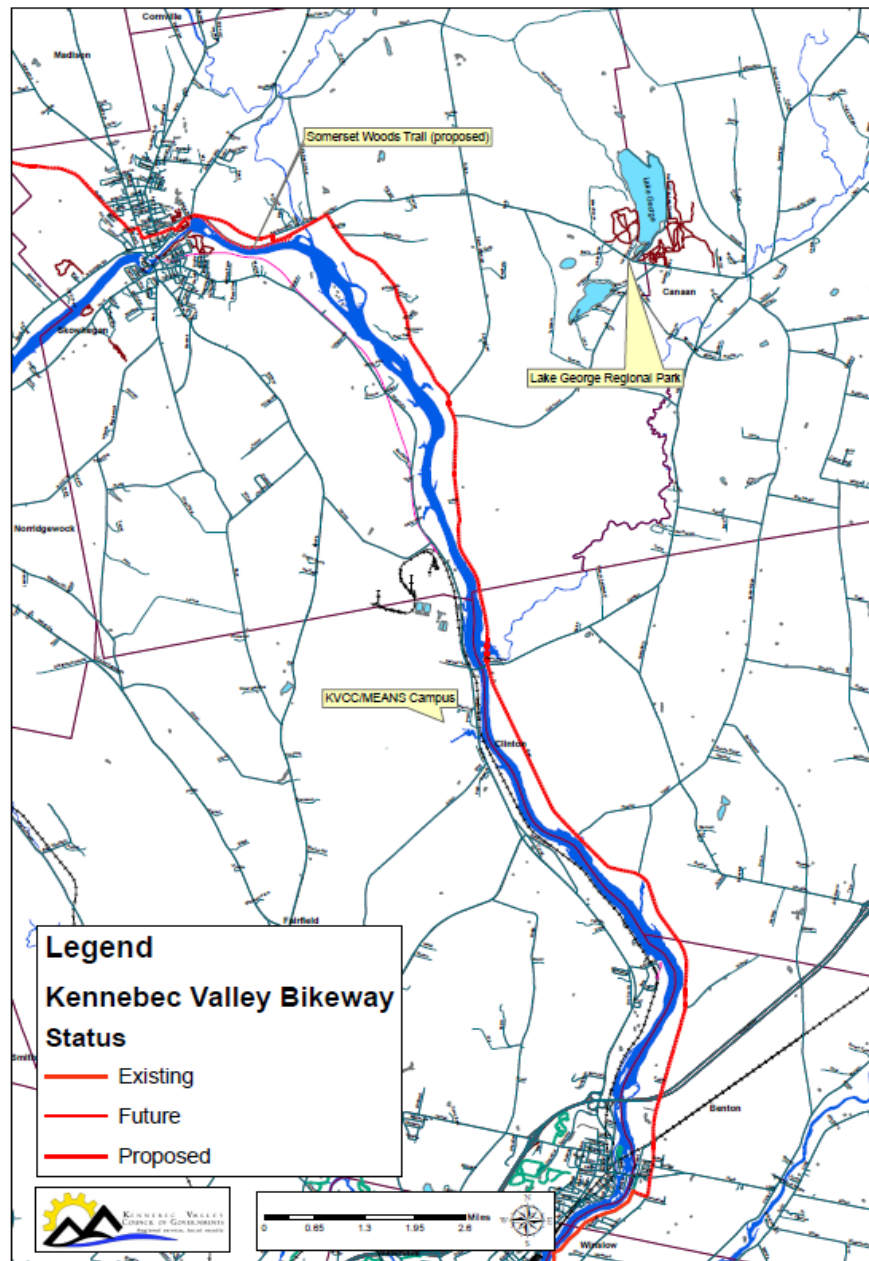
Segment 3 – Benton to Skowhegan

Segment 3 begins at the trailhead of the Rotary Centennial Trail in Benton, and extends to downtown Skowhegan.

Planned Route:

From the junction of the trailhead access road, the bikeway will turn left onto Route 100 (Benton Ave.). Benton Ave. turns into River Road beyond Route 139 (Neck Road). River Road continues north alongside the Kennebec River for approximately 14.4 miles to Route 2 in Skowhegan.

At 7.8 miles, River Road intersects Route 23 at the Hinckley Bridge. Turning left onto the bridge would bring riders to the recreational trail system at Goodwill-Hinkley campus. At 11.2 miles, River Road intersects Oak Pond Road. Oak Pond Road provides a loop to access Lake George Regional Park (day use). The loop is 8.3 miles, and eliminates 3.2 miles of River Road, but requires more travel along Route 2.



Turning left onto Route 2, the bikeway would proceed 2.6 miles into downtown Skowhegan. The alternative to Route 2 is Parkman Hill Road, with minimal traffic. However, a bridge on Parkman Hill was washed out several years ago and replaced with a pedestrian-only bridge. Staying on Route 2 would allow a cyclist to access a highway rest area approximately 1/3 mile west of the River Road intersection.

The overall length of this segment is 17.3 miles. The majority of travel is along a local road 20' in width without designated shoulders.

Selection Rationale:

Between Waterville and Skowhegan, we examined three alternative routes. In addition to the one selected, we looked at Route 201, the most direct mileage but a very busy commercial highway, with an AADT of approximately 8,000 and over 15 percent trucks. It was rejected because of high traffic volume.

We also looked at a local road route that would lead from Benton to Norridgewock. The total distance was roughly similar to the selected route. The majority would be on Martin Stream Road in Fairfield, which has about two miles of gravel surface. Between Norridgewock and Skowhegan, a cyclist would have to travel busy Route 2 or a narrow local road north of the river. Traffic volume on River Road in Clinton is about 1,760 AADT. Martin Stream Road carries AADT of less than 1,100, but both the road alternatives from Norridgewock to Skowhegan have much higher traffic volumes.

This alternative was rejected because the selected route has better pavement, better sight distances, and more scenic views of the river. Also, cyclists would have to negotiate a complex and busy set of roads in Waterville or Fairfield to get onto Martin Stream Road. However, this route would be preferable if the route were to bypass Skowhegan entirely, or if a chance opened up for a bike trail along the Madison rail spur, which parallels Martin Stream Road.

Projects and Planned Route:

Because River Road through Benton, Clinton, and Skowhegan has a history of fast-moving traffic and does not have designated shoulders, it will be important for safety purposes to provide pavement markings to remind drivers to share the road. These can be in the form of official “shared lane marking” (see at right).

Somerset Woods Land Trust in Skowhegan has plans to build a trail between the Kennebec Rest Area on Route 2 and Coburn Park in Skowhegan, a distance of about 1 ½ miles. This would make an excellent substitute



for the proposed route. While the pathway has been designed, it is now on hold pending funding.

For the long term, it is tempting to think of the potential in the inactive rail spur between Oakland and Madison (extending also into Anson and Embden). However, the chances of the spur being formally abandoned or for Pan Am Railways to allow a bike trail alongside are very remote. Practically speaking, the mileage would be very expensive to develop into a bike trail while retaining rail service, because of adjacent wetlands, and the route would then bypass Skowhegan.

There is a possibility that an off-road route could be found on the west side of the river, particularly between the two Kennebec Valley Community College campuses. No discussions have taken place on this to our knowledge. The riverfront itself is occupied by a rail line, but it is still quite active.

Segment 4 – Skowhegan to Bingham

This segment begins in downtown Skowhegan, and incorporates the Solon-to-Bingham Multi-use Trail, ending at downtown Bingham.

Planned Route:

The bikeway would enter downtown Skowhegan from the east and utilize local roads to cross Madison Avenue to get onto north-south Bennett Ave. Bennett Ave. becomes Russell Road, leaving built-up Skowhegan and going for 5.3 miles through rural country to Route 148 (White School House Road) in Madison. The route would turn westward onto Route 148 and go for 1.2 miles. (Distance = 6.8 miles)

From Route 148, the first right takes the route north again onto Old County Road. After 1.5 miles, Old County Road becomes River Road. River Road runs another 8.5 miles to Route 201 in Solon. At this point, Route 201, though still built as a major arterial, carries an AADT of only 4,000. From River Road north on Route 201 is Solon village. Approximately ½ mile north of the center of the village is the trailhead for the Solon-Bingham trail (access road to left). (Distance = 11.5 miles)

The Solon-Bingham Multi-use Trail runs for approximately seven miles to Bingham. The northern trailhead is only a few hundred yards from Route 201 and approximately 0.8 miles to the center of Bingham village. (7.9 miles)

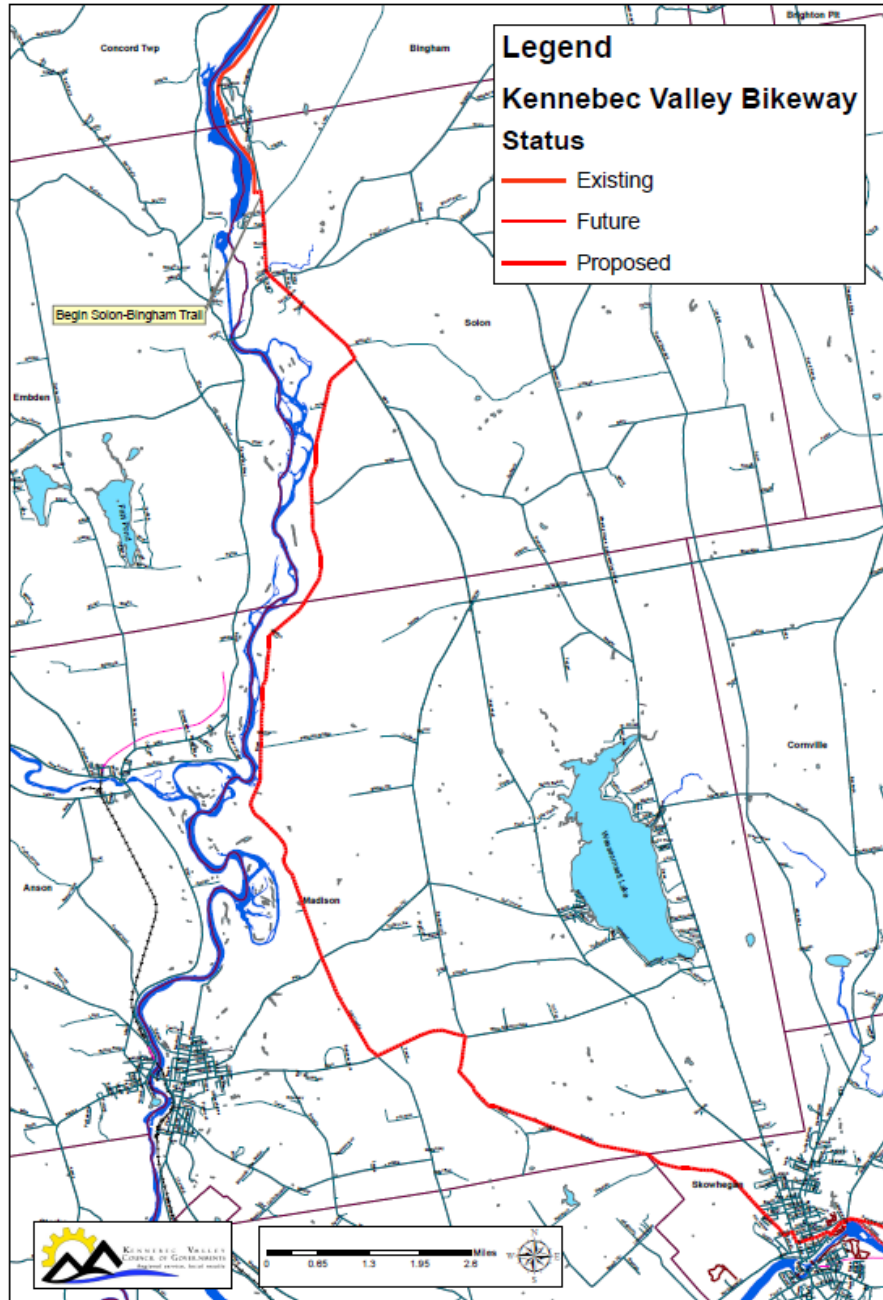
The total length of this segment is 26.4 miles. Seven miles are along an off-road trail of crushed stone. A little over two miles are along an arterial highway.

Selection Rationale:

There are three alternative on-road routes between Skowhegan and Solon. The most direct one is Route 201. Route 201 has traffic volumes of over 8,000 AADT at the southern end,

not including about two miles of 4-lane, urban Madison Avenue in Skowhegan. It also has some very long grades, but does have some good scenic opportunities. It was rejected primarily due to traffic volumes.

The second alternative involves taking East Madison Road directly north out of Skowhegan. The road eventually becomes Meetinghouse Road, then Parkman Hill Road, and French Hill Road before intersecting Route 201 in downtown Solon. This route measures 1.5 miles shorter than the selected route, but includes 3.5 miles of dirt road (Parkman Hill) with steep grades and rough gravel and 1.5 miles of busy Madison Avenue in downtown Skowhegan. It does not go near the river nor view the lake, but does pass by one campground. East Madison Road carries an AADT of about 1,460 at its southern end. It was rejected due to the 3.5 miles of steep dirt road and the segment of Madison Avenue.



The selected Russell Road-River Road route, though the longest of the three, has the best riding experience. There are good views, especially along River Road. It also passes by the Backyard Farms greenhouse complex. Traffic volumes are about 1,000 AADT on Russell Road, 800 AADT on River Road. The roads are, for the most part, 18-20' wide, with no designated shoulders.

Projects:

As with River Road on segment 3, Russell Road and River Road in this segment should be marked with Shared Lane Markings. They do not currently have designated paved shoulders.

Segment 5 -- Bingham to Jackman

The long term vision includes extending the bikeway beyond Bingham. The immediate obstacle is that there is only one reasonable corridor option: Route 201. The traffic volume on Route 201 declines as you get further north, from 3,700 AADT in Bingham to 1,400 in Jackman, but large truck behavior is repeatedly cited as having a chilling effect on more casual travelers. It is a scenic byway, with multiple turnouts. Paved shoulders are 4-6' in most places, with the exception of climbing lanes north of The Forks and one "unbuilt" segment in southern Caratunk where rock walls come almost to the edge of the road (*see photo below*).

The Forks Area Scenic Trail is under development, probably ready sometime in 2015, and will extend roughly 7.5 miles through The Forks and a portion of West Forks parallel to Route 201. In Caratunk, a highway construction project is scheduled for 2016 that will result in wider shoulders.



Between Moscow and Caratunk, much of the shoreline of Wyman Lake is owned by Florida Power and Light, with a conservation easement to the State administered by the Forest Society of Maine. This could be the basis for a future off-road bike route along the lake. Such a route was suggested as a future project in the Old Canada Road Scenic Byway 1999 Management Plan.

An alternate to Route 201 was explored between Bingham and West Forks, utilizing mostly private roads and skirting Moxie Pond. The distance is 28.6 miles, compared to the Route 201 distance of 22.7 miles. A total of 22.6 miles of the route is unpaved. Although level grade, the surface is suitable only for mountain bikes or the more rugged hybrids. The road is 16' wide and used regularly for logging operations. It does offer some good views of Moxie Pond and back country.

The distance between West Forks and Jackman is roughly 26 miles along Route 201. There are no other road connections. There are woods road segments, snowmobile trails, and ATV trails which may be suitable for mountain biking, but these have not been investigated for the bikeway. Some discussion of the possibility of a mountain bike route is included in the Section 5 of this plan.

This plan recommends that the bikeway be planned to extend to West Forks. The extension will not be publicized until the Route 201 reconstruction project with widened shoulders is completed. By that time, the Forks Area Scenic Trail system should also be completed. That would provide approximately 16.4 miles of travel along Route 201 and 6.3 miles on an off-road trail. Any cue sheets for travel on Route 201 should include a warning of tractor-trailer trucks.

Long-term, the Old Canada Road Scenic Byway should continue to investigate the possibility of a Wyman Lake Trail using FPL easement property.

Bikeway Establishment and Implementation:

The establishment of the Kennebec Valley Bikeway as described in this plan utilizes existing roads and as many off-road bike trails as are available in proximity to the river. Therefore, the pathway itself is already in place. It is also designed so that additional projects will gradually shift more of the path away from roads.

The Kennebec Valley Bikeway need only be designated to be a useable asset. The activities listed below will, if implemented, provide that step.

- 1) Provide a print map and cue sheets for prospective travelers.
 - a. Cue sheets have already been prepared in draft form, including trail conditions and amenities;
 - b. Local officials in Augusta, Waterville, and Skowhegan should be consulted where local roads are used for the downtown routes. They were consulted in development of this plan, but specific intersection or road condition considerations may arise, and they will need to be used in erecting signage.
 - c. The bikeway maps in this plan were created using GIS technology. At this scale, they are not easily readable, but they can be reprinted or incorporated into new editions of existing city or regional street maps or MaineDOT's bike tour maps.
 - d. A *Kennebec Valley Bikeway* brochure may be printed for distribution. Set up and printing costs are yet to be determined. Possible resources include local chambers of commerce, Kennebec Valley Tourism Council, grants.

- 2) Provide an online resource.
 - a. Maps and interactive cue sheets can be provided on a website. KVCOG has a website where they may reside, or a new URL can be obtained for \$100. KVCOG can do the website maintenance as part of its existing IT contract.
 - b. The website can be linked into additional websites for the region, including chambers of commerce, Kennebec Valley Rail Trail, KM Trails, Bicycle Coalition of Maine, etc.
 - c. A facebook page can be developed for mobile applications.

- 3) Ground-based notification and signage.
 - a. KVCOG is working with other regional entities in the valley to develop consistent branding for a Kennebec Valley “identity.” The identity will include a baseline theme that can be used to tie together different elements of the Kennebec Valley. A Kennebec Valley Bikeway icon can be produced from it.
 - b. Printed metal signs can be produced and installed along the bikeway. Since this would require roughly 140 signs, directional arrows, and posts, plus installation costs, this portion of the project could prove costly and time-consuming. Possible resources include Kennebec Valley Tourism Council, MaineDOT, and Maine Department of Conservation (RTP). Installation would be done by MaineDOT and local public works crews.
 - c. Painted notification of bike lanes on road segments would also assist in implementation. Roads with no designated shoulder would be the priority, with shared lane markings. Roads with designated shoulders can be treated with standard bike lane marking.

4: East Coast Greenway and Tributary Routes

Re-routing of the East Coast Greenway

The vision of the East Coast Greenway is creation of an extended, off-road bicycle route with connections and stopping points of interest. The interim greenway route takes it through Kennebec County on existing roads once it reaches the end of the Kennebec River Rail Trail. The understanding is that the greenway can be shifted as more off-road tracks become available.

This plan identifies three segments where this may be possible:

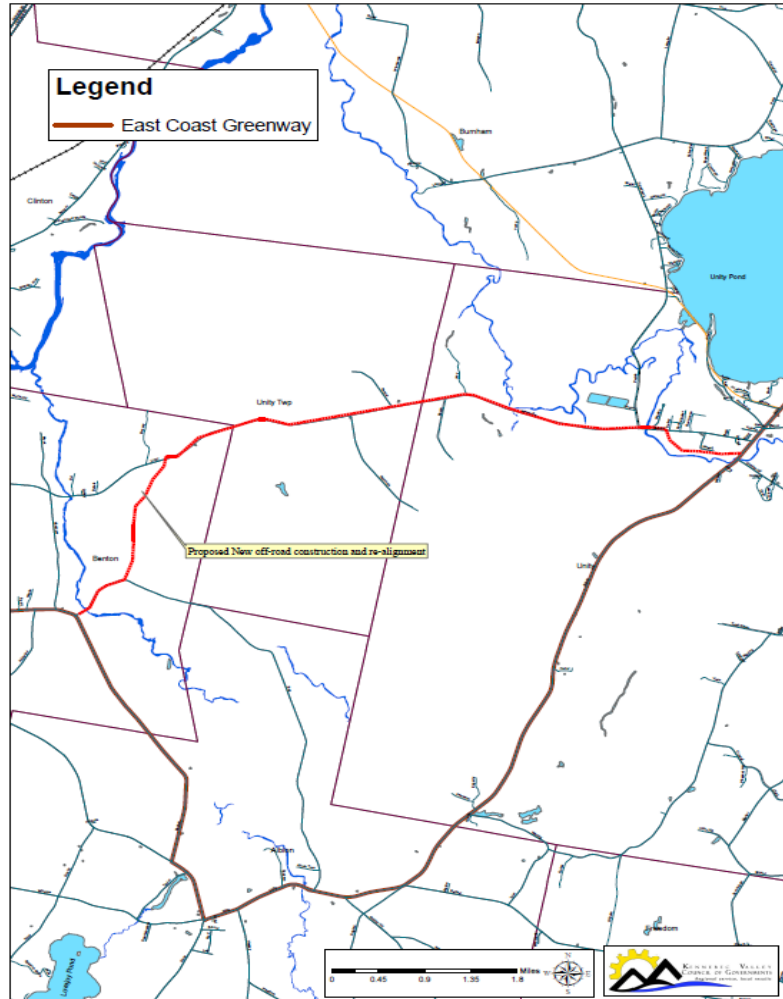
- In Augusta, the greenway currently crosses from west of the Kennebec to the east side at Calumet Bridge and follows near Bangor Street and Route 201 north. As a result of the routing work done for this plan, cue sheets have been changed to shift riders onto Pearl Street, one block to the east, as far as North Belfast Ave. *Long-term*, when the alternate route becomes available alongside the rail corridor as far as Cushnoc Bridge, the greenway route should be shifted.
- In Winslow, the greenway route was formerly on Route 201, including Bay Street, until it reached the intersection with Waterville-Winslow Bridge. It continued straight through on Benton Ave. (Route 100) to the intersection with Heywood Road, then on to to Route 100A. This route was designed to avoid a dangerous segment of Route 139 (Benton Neck Road) and prior to the completion of the East Kennebec Trail. In 2015, cue sheets were changed to correspond to the Kennebec Valley Bikeway route between Carter Bridge in Winslow and Benton Ave. There has been some discussion regarding infrastructure constraints on the East Kennebec Trail, leading to a delay in re-routing the greenway. It currently follows Benton Ave. to Route 139. At Route 139, the greenway departs from the Kennebec Valley Bikeway. (Since the original greenway route designation, Route 139 has been reconstructed with adequate shoulders.)
- In Benton and Unity, the greenway route currently follows existing local roads to Albion, then onto Route 9/202 to Unity. The route was chosen to avoid a hazardous and hilly section of Route 139 in eastern Benton and take advantage of scenic farmland in Albion. *Long-term*, trail planners should pursue the creation of an off-road trail linking Bog Road in eastern Benton with Route 139 in Unity Township. The required trail would be approximately one mile long through private forest land, partly on existing wood roads, and would cut out the hilly segments of Route 139 and approximately 4 ½ miles of greenway length as currently routed. A map of the proposed new segment of trail is displayed on the following page.

Tributary Routes:

In addition to the East Coast Greenway, there are several possible bike trails that could connect to or enhance the proposed bikeway. Some of these have been explored, others have only been suggested as concepts.

1) As noted in section 2, A bike route between Winthrop and Augusta or Hallowell has been discussed. This project is recommended in both the Winthrop and Manchester Comprehensive Plans, as well as KVCOG's Augusta Southwest Multi-modal Corridor Management Plan (2010).

A bike trail from Winthrop to the Capitol Area would provide a cycling alternative to Route 202, which has heavy traffic volumes with frequent trucks, and provide bike access into the Cobbossee Lakes region. There are remnants of a trolley line which used to go between Winthrop and Augusta, but it was long since abandoned, with the right-of way having reverted and only small portions of the railbed still identifiable. Another possible route could incorporate a water line right-of-way between western Augusta and Manchester. Groundwork for route planning has been done in a Mainewatch Institute map and report titled *Rediscovering Forgotten Assets: Trails for the 21st Century*.



Local residents had at one time discussed applying for a TIGER grant and would welcome a renewal of planning effort towards this project.

2) The proposed bikeway traverses between two major lakes regions in Kennebec County – the China Lake area and the Belgrade Lakes area. A possible project to be explored would be off-road routing into those regions.

KM Trails already has a trail connecting Waterville to Oakland, and further extension could be part of KM's long range plans. Due to the topography, however, such a trail might be more rugged, suitable more for mountain-type bikes. To the east, MaineDOT's designated bike tours encompass the China Lake area. Though these tours are all on-road, they might serve as a

jumping-off point for further discussion. The Town of China has some interest in developing a recreational bike trail network.

3) As mentioned in discussion of segment 3 of the bikeway, the proposed route comes close enough to the Lake George Regional Park to make a loop or alternate route logical and easy. Lake George is a developed day-use park, with a beach, picnic area, and hiking trails.

Staying on existing roads, a traveler on the bikeway could access the park along Route 2 (4.3 miles off the proposed bikeway) or along Oak Pond Road (4.0 miles off the bikeway). The alternate route would total 8.3 miles, while cutting off 3.2 miles of the bikeway. Incorporation of the loop would be as easy as adding signage and cue sheets to the bikeway route.

4) It is anticipated that once the bikeway can be extended to The Forks that the recommended improvements from section 5 of this plan will be implemented, providing the Maine Huts and Trails and Bike the Maine Woods routes as a northern anchor to the bikeway. These trails would, however, require a different type of bike than suitable for the bikeway.

5: Bike the Maine Woods – Adventure Cycling Route through Somerset County

Vision and Role:

This section of the plan addresses an expressed desire to develop a bicycle trail through the mountain areas of western and northern Maine. Such a trail would be suitable exclusively for mountain bikes and would be a draw for adventure and eco-tourism.

Other planning organizations have developed a Maine Woods Trail from northern Maine as far as Greenville. The purpose of this plan is to suggest a route from Greenville west.

In Somerset County, such a trail would complement other forms of adventure tourism, such as whitewater rafting, hiking, and snowmobiling. Mountain biking is currently the “weak link” of adventure tourism in Somerset County. There are a number of recreation-based businesses in upper Somerset County that offer their patrons a range of adventure tours; mountain biking is not promoted but would be welcome. There are no specific facilities for mountain biking. Outfitters in The Forks sponsored a bike rally in Spring, 2014 with a ride from The Forks to Greenville. The Forks Area Scenic Trail (FAST) is designed to allow easy biking and walking between the Forks-area businesses and attractions. While the FAST will be suitable for mountain bikes, it will not be very long nor challenging.

Local officials in the Town of Jackman have expressed interest in biking connections with the region. Jackman is now a center for snowmobiling and ATVs, and does have a trail map showing five separate mountain biking treks to the north and west of town. Jackman is somewhat isolated, however, some 35 miles north of The Forks.

Routing Constraints:

Development of an east-west mountain bike route through Somerset County is subject to a number of constraints:

- **Water features:** Although the topography through this portion of the corridor is not particularly challenging, there are a number of large water courses that have funneled travel options in the past. In particular, the Kennebec and Dead Rivers and Moxie Stream are all large enough that it would not be feasible to bridge simply for mountain bikes. Lake Moxie, Spencer Lake, Pierce Pond, and Indian Pond are finger lakes that also run north-south and are clearly not bridgeable. That means any possible trail route is funneled through existing river crossings – the most logical being at Moxie village and West Forks.
- **Ownership:** While the vast majority of land in upper Somerset County is undeveloped, it is private land. Most is paper company ownership, with known considerations. Some is

in smaller or non-industrial ownership. The smaller ownerships are best to avoid, since it increases the number of parties that must be negotiated with, and increases the possible restrictions on trail use. KVCOG has researched ownerships within the corridor to determine which would be most likely to negotiate.

- Fiscal/Engineering: This trail is not intended to break new ground. With an east-west distance of nearly 50 miles as the crow flies, the cost to develop a bike-only trail would be prohibitive. A multi-use trail would mean either snowmobiles or ATV's, with accompanying problems, as described below. That leaves either existing roads, although they would have to be low volume and challenging enough for bikers, or existing non-motorized trails.
- Support Systems: The intent is for this trail to be a vacation or adventure experience, not an afternoon ride. Therefore, sufficient infrastructure should be in place to support the users. This means access points, bases, and places to stop to rest or resupply. The Forks area meets all these criteria, plus having the outfitters that would benefit economically from the trail. East and west of Route 201, however, amenities are scattered widely.

The sum of these constraints makes it clear that a Maine Woods Trail should be routed from Greenville to the Forks-West Forks area then westward north of the Dead River towards Flagstaff Lake.

The Route: West of West Forks

The route west of West Forks is fairly obvious and, for the most part, has already been built. The Maine Huts and Trails system has a trailhead and parking area at West Forks. From there, it is 14.5 miles to an overnight hut and a further 7.8 miles to Flagstaff Lake. The trail then goes as far as Carrabassett Valley. The trail to Flagstaff Lake is almost entirely skirting the north shore of the Dead River.

The system is designed primarily for non-motorized winter touring. Summer hiking volume is low, because it is in the river valley, not a peak-to-peak experience like its cousin, the Appalachian Trail. However, the hut system is active, allowing point-to-point riding. Mountain biking is encouraged. Motorized vehicles are prohibited, so bikers could be assured of relatively peaceful and safe travel.

The Route: West Forks-The Forks

A suitable route through West Forks and The Forks is under development in the form of the FAST trail. The trail is designed to hook into the Huts and Trails system about 1 ½ miles west of West Forks. The trail will also run the length of The Forks north-south along the Kennebec, in order to allow access to all of the resorts and accommodations in the area. The West Forks portion of the trail is expected to be completed in 2016. It will be a multi-use trail, but runs along an old roadbed, so should stand up to motorized as well as non-motorized uses. This plan recommends incorporation of the FAST Trail into the Kennebec Valley Bikeway, providing a connecting point between two major trail corridors.

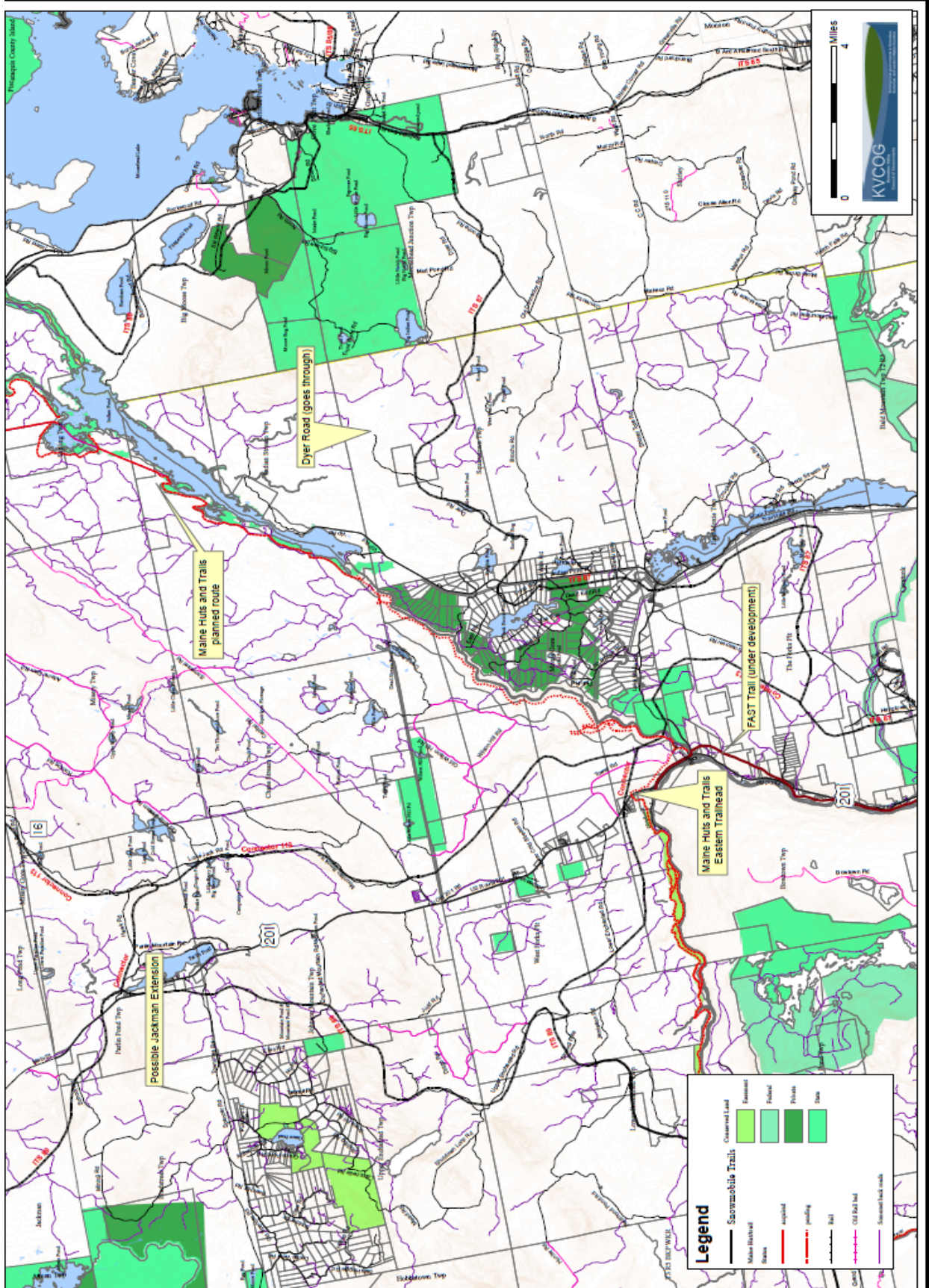
Route Options: The Forks to Greenville

Several likely routes lie between The Forks and Greenville. The landscape is largely undeveloped and a number of private roads crisscross the area. The following options have been examined.

- 1) Lake Moxie Road/Indian Pond Road/Brochu Road: This is the most direct route between The Forks and Greenville. The total distance is roughly 25 miles. Five miles (Forks to Moxie) are paved. Another two miles are flat and graveled. Brochu Road itself is well-maintained and well-travelled, including by logging trucks. It runs primarily through land owned by Penobscot Forest LLC. It would not be particularly challenging for mountain bikers.
- 2) Lake Moxie Road/Indian Pond Road/Dyer Road: This route is approximately 29 miles in length. Five miles are paved and another five miles are flat and graveled. Dyer Road is a single lane woods road, with approximately two miles east of center impassible to all but well-built four wheel drives. The western end of Dyer Road is lightly used relative to other woods roads; the eastern end is moderately used where it joins with Brochu Road. Dyer Road skirts both Little Indian Pond and Big Indian Pond, with public camping available on Little Indian Pond. Dyer Road is primarily on Plum Creek Forest land.
- 3) Lake Moxie Road/Indian Pond Road/VIP Road/Burnham Pond Road/Route 6: This route is roughly 32 miles in length. Twelve miles are paved, including seven miles of state highway. An additional nine miles are flat and graveled, and a primary logging truck route and busy route for rafting expeditions and access to Indian Pond. Three and a half miles on Burnham Pond Road are also indicated as a primary logging road. The remaining seven and a half miles were not investigated on the ground. It may in fact be impassible, as some maps show no existing road or bridges out.

The preceding three options all pass along Lake Moxie Road as far as the village of Lake Moxie. Lake Moxie has a seasonal vehicle repair garage and convenience store, as well as accommodations associated with resort camps. East of Lake Moxie, the routes rely on existing woods roads where maintenance is at the discretion of the landowner.

- 4) The final option relies on the extension of the Maine Huts and Trails network. The trail does not yet exist, but much of the route has been mapped and easements obtained by MHT. The route skirts to the north of the Kennebec River and Indian Pond, so does not cross or utilize any existing roads. At the northern end of the pond, the route is planned along the West Outlet to Rockwood; however, MHT is in discussions with landowner Plum Creek to create a branch that would cross over and head southeast towards Greenville. It is likely there would be a trailhead somewhere along Route 6 seven or eight miles north of Greenville. The length of the route is unknown, but it is likely it would be at least a couple miles longer than the 32 miles of option 3. When completed, it would likely have huts or campsites somewhere along the route, and the trail surface would be the best for mountain biking of all the options.



For the short term, this plan recommends the designated route be option 2, Lake Moxie Road/Indian Pond Road/Dyer Road. This route is not the shortest but has the least amount of vehicle traffic for the longest distance. It provides a light-to-moderate biking challenge over approximately 18 miles. It provides opportunities for accommodation at both Lake Moxie village and Little Indian Pond, and supplies at Lake Moxie village. About 2/3 of its length is in the ownership of Plum Creek, known to have good relations with recreationists before its purchase by Weyerhaeuser. The eastern third belongs to Penobscot Forest LLC (American Forest Management) with which the MaineDOT has already negotiated on other trail segments. A short (unmaintained) connecting segment is on land of the Bureau of Public Lands.

Since a portion of Dyer Road does not show up on some maps, care would have to be taken to designate the route “on the ground.” There are four primary intersections along Dyer Road or Indian Pond Road that would be suitable for information boards or kiosks. There are an additional nine crossroads that would warrant arrow signage.

In the longer term, the extension of the MHT Huts and Trails System into the Greenville area will make the most sense for the designated route. The system will eliminate conflicts with motor vehicles, provide a consistent surface with some challenge, and make a direct connection into the MHT system west of West Forks. Although longer in distance, it will probably provide additional amenities.

Since no great investment in development would be put into the Dyer Road route, it would be only a matter of moving signs and reprinting maps to re-route it whenever the MHT trail is ready. Or, both routes could be kept and promoted as a loop or an extension up to Rockwood.

A Jackman Extension

The Jackman community has expressed a strong interest in being linked into a bicycle corridor. Jackman is part of the scenic byway and has been promoting itself as a touring center for bikers, ATV’s, snowmobilers and hikers.

Road bikers have only a single option between The Forks and Jackman. Route 201 is the only hard-surface route between the two towns. Though there is a network of private roads in the region, they generally do not connect, and all originate on Route 201. The distance along Route 201 is approximately 25 ½ miles, so it is not feasible to build a parallel bike route. Route 201 is in good condition with 4 foot or greater paved shoulders except in two areas (north of West Forks and south of Jackman) where climbing lanes have claimed most of the shoulder. Traffic volume is light, except that over a quarter of the vehicles are heavy trucks.

Mountain bikers would prefer the challenge of the many logging roads in the area, but, again, they do not connect except along Route 201. Jackman has identified a potential route in a set of logging roads which would extend about 11 miles south as far as the northern edge of Parlin Pond. This route has not been investigated on the ground but appears to be fairly clear on aerial photos and Jackman residents say that it is passable with a four-wheel-drive. It is owned entirely by Plum Creek (Weyerhaeuser).

Between Parlin Pond and West Forks, there are a multitude of logging roads, but they all seem to radiate out from Route 201. There are very few interconnections. One alternative would be to swing to the east of Parlin Pond along a series of roads that takes you past a chain of lakes and as far south as the Johnson Mountain woodyard. This distance is roughly 13 miles, as measured out along maps and would still leave you about 8 miles short of The Forks, along Route 201. A further detour of roughly 7 miles would leave you about ½ mile short of meeting up with the proposed MHT trail along the Kennebec, about five miles northeast of The Forks as the crow flies. The half mile stretch appears on aerial photos to be mostly logged-over area, so there could be skid trails that could be adapted.

Another alternative would be to utilize existing off-road trails. There are two principal snowmobile trails and at least one ATV trail linking Parlin Pond and West Forks. There are problems inherent in using either snowmobile trails or ATV trails for mountain biking, but they might be investigated for their potential for combined use, or as a jumping-off point for constructing side-by-side routes.

With an off-road distance of close to 40 miles, very few mountain bikers would be able to travel from The Forks to Jackman in one day. There is a public lodge at Parlin Pond and the *Maine Atlas* shows a number of primitive campgrounds along the chain of ponds east of Parlin Pond. Neither the route nor the off-road accommodations have been investigated on the ground.