

America's Rails-with-Trails



A Resource for Planners, Agencies and Advocates
on Trails Along Active Railroad Corridors



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About Rails-to-Trails Conservancy

Rails-to-Trails Conservancy (RTC) has helped develop more than 21,000 miles of rail-trail throughout the country and provide technical assistance for thousands of miles of potential rail-trails waiting to be built. Serving as the national voice for more than 100,000 members and supporters, RTC has supported the tremendous growth and development of rail-trails since opening our doors on February 1, 1986, and remains dedicated to the creation of a nationwide network of trails and connecting corridors. RTC is committed to enhancing the health of America's environment, transportation, economy, neighborhoods and people—ensuring a better future made possible by trails and the connections they inspire.



Orange Heritage Trail, N.Y. (Boyd Loving)

Acknowledgements

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Conservancy

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RTC and trail planners and advocates across the country are very appreciative of the support of Pennsylvania Department of Conservation and Natural Resources and share its vision to increase and improve trail development in Pennsylvania and across the United States.

While this report provides information about legal and design issues relating to rails-with-trails and describes how the trails surveyed in this report addressed these issues, this report is not intended to provide specific legal or design advice or guidance. Each trail project should be viewed in its unique context, as the legal and design issues vary depending on the jurisdiction and the unique facts of each situation.

Cover photo: D & L Trail, Pa. (Peter Treiber)



Lance Armstrong Bikeway, Texas (Rails-to-Trails Conservancy)



Martin Luther King, Jr. Promenade, Calif.
(Boyd Loving)



Cardinal Greenway, Ind. (RTC)

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experience at www.railstotrails.org/railwithtrail

EXECUTIVE SUMMARY

Rails-with-trails, which are trails located adjacent to active rail lines, are valuable assets in providing safe transportation networks for pedestrians and bicyclists. This report examines the characteristics of 88 existing rails-with-trails in 33 states, based on a survey of trail managers and the results of RTC's ongoing study. It provides a collection of data, examples and practical tools to assist trail planners and advocates in increasing awareness of the rail-with-trail concept, and advancing local and state policies and practices that support rail-with-trail development.

Rails-to-Trails Conservancy (RTC) produced this report to provide updated information on national rail-with-trail trends. A continuation of RTC's efforts to equip trail managers and advocates with resources to promote and develop rails-with-trails, this report enhances our rail-with-trail studies published in 1993, 1996 and 2000, and complements a report produced by the United States Department of Transportation (USDOT) in 2002, *Rails-with-Trails: Lessons Learned*.

Our key findings are that rails-with-trails are safe, common and increasing in number.

Growth

RTC has identified 161 rails-with-trails in 41 states, a significant increase from our 2000 report, *Rails-with-Trails: Design, Management and Operating Characteristics of 61 Trails Along Active Rail Lines*, which identified 61 rails-with-trails in 20 states. California has the most rails-with-trails (33), of which 22 are included in this study. Another 60 rail-with-trail projects across the country are currently in various stages of development.

Safety

Significantly, our research found only one record of a fatality involving a rail-with-trail user and a train, and just two reports of injury, in the 20-year period of our study of the subject. Given the frequency of injuries and fatalities on railroads outside the context of rail-with-trail, this suggests that providing a well-designed pathway dedicated for cyclists and pedestrians provides a safe travel alternative and reduces the incentive to trespass or use the tracks as a shortcut. Such pathways often include some form of barrier between the trail and the active railway, and carefully-planned intersections if the trail crosses the tracks.



The findings of this report demonstrate the excellent safety record of rails-with-trails. The report also provides guidance for future development through the examples of a diverse range of communities which have constructed, and are managing, rails-with-trails. Eleven case studies from rails-with-trails around the country are included in the report.

Dual Benefits

Constructing a trail along an active railroad multiplies the value a community derives from the rail corridor and provides citizens with transportation options. There is a growing trend of rail-with-trail development alongside local and regional transit corridors, such as the popular M-Path in Miami, Fla., the extensive BeltLine system being developed in Atlanta, Ga., and the new West Rail Line and trail in Denver, Colo. Fifteen percent of the active rails-with-trails identified in this study are located adjacent to mass transit corridors.

Range of Designs

Rail-with-trail designs vary widely, depending on factors such as their proximity to trains, the frequency and speed of rail service, and the presence of at-grade crossings. A majority of rails-with-trails in this report have segments of trail that are within 30 feet of active railroad tracks. More than 80 percent of respondents to our survey reported that their trail included a barrier (fence, vegetation or grade separation, for example) between the trail and tracks. These characteristics are similar to the rails-with-trails analyzed in RTC's 2000 report.



America's Rails-with-Trails

Railroads

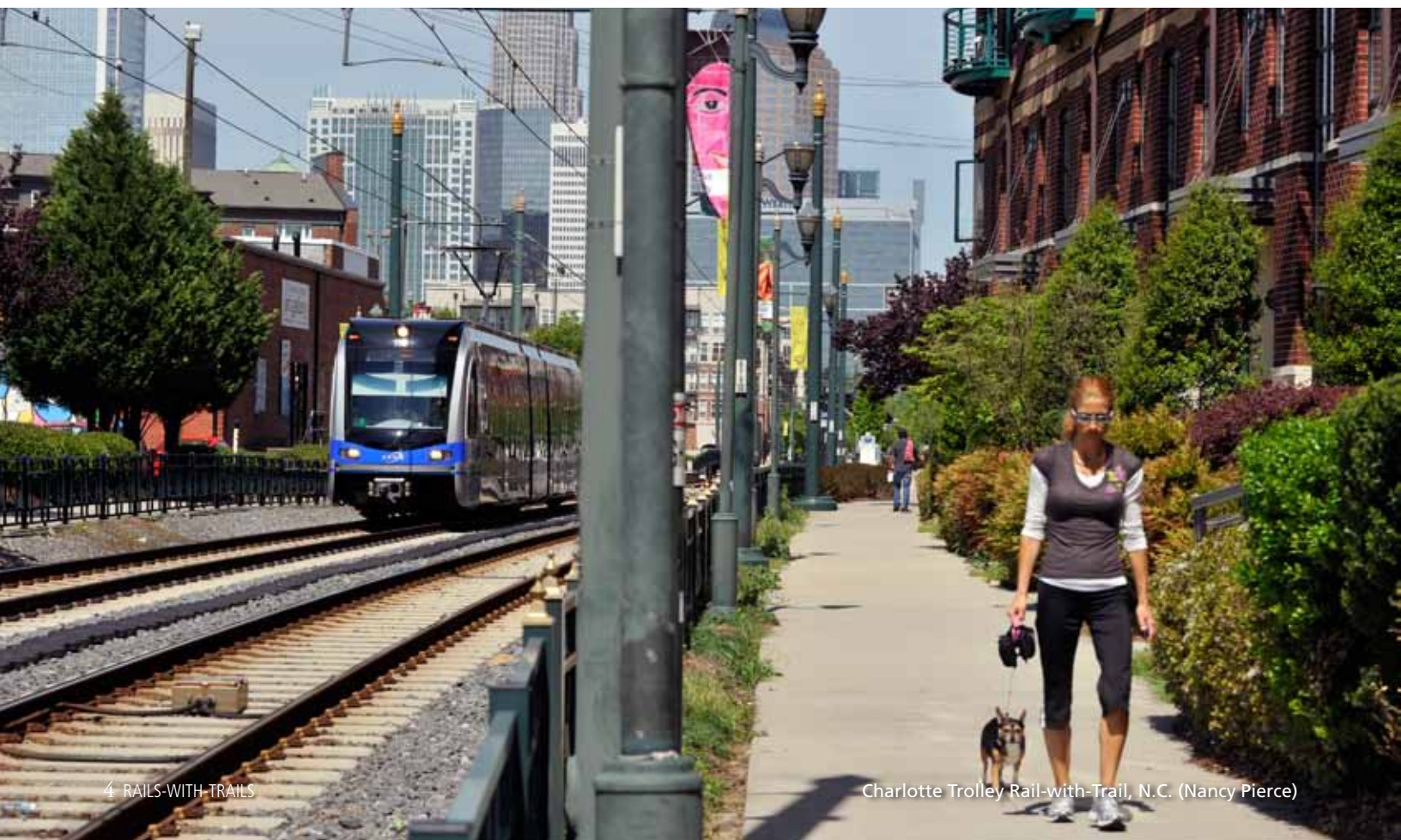
Of the rails-with-trails surveyed, 28 percent are located adjacent to rail corridors owned by Class I railroads (see p.17 for railroad classifications). Class I railroads continue to express formal opposition to the concept of trail development within or adjacent to their corridors. However, numerous smaller private railroad companies and public rail authorities have reached agreements with trail managers on rail-with-trail development that have satisfactorily addressed any concerns about risk and liability. The majority (51 percent) of rail-with-trail project managers interviewed for this study indicated that the railroads were not opposed to trail development, and 44 percent of trail managers described the current attitude of the railroad as positive (i.e., cooperative, supportive or favorable).

Liability/Risk Management

The vast majority of the rails-with-trails included in this report are insured by an existing local umbrella policy, similar to most rail-trails and greenways. A substantial proportion of the trail managers surveyed responded that no indemnification was required by the railroad or was included in the easement or license agreement. Slightly fewer trail managers reported that

indemnification was required. Recent amendments to the Recreational Use Statutes (RUS) (which provide exemption from liability for private landowners allowing public recreational use of their land) of Virginia and Maine are notable state legislative efforts to encourage rail-with-trail development. Significantly, in the only known case of a trail user struck and killed by a train while on a rail-with-trail, the court found neither the trail manager nor the railroad liable due to the protections provided by the state's RUS. Responses to this study indicated that there were no successful claims made against the railroad or trail manager due to train- and trail-related incidents.

Rails-with-trails continue to demonstrate a strong safety record. Their increasing adoption has resulted in more opportunities to provide safe and intentional alternatives to trespassing on tracks. Rails-with-trails have become a common part of the American trails landscape, representing nearly 10 percent of rail-trails, and the number is growing rapidly across the country. Americans increasingly demand that trails connect to form systems and that they be given balanced transportation options that include safe and healthy places to walk and ride. Taking full advantage of corridors to facilitate both rail and active transportation, as rails-with-trails do, is a smart and efficient step in that direction.





Santa Fe Rail Trail, N.M. (Scott J. Bolanger)

When RTC began its work in 1986, there were fewer than 200 known rail-trails in the United States. Since then, development of trails within former railroad corridors has increased across the country. Today, more than 1,800 rail-trails exist, spread across all 50 states and totaling more than 21,000 miles. As more communities experience the economic, health, environmental and historic benefits that trails offer, the demand for rail-trails and other types of shared use paths continues to rise. While demand for trails is increasing, finding uninterrupted and available corridors for trail development can be difficult. Placing trails alongside active railroad corridors is becoming a resourceful and more common method of securing land for safe, accessible and effective trail development.

Rails-with-trails are shared use paths that are located within or immediately adjacent to active railroad rights-of-way. The legal right-of-way for one width of railroad track can be as narrow as the track itself or as wide as a football field, and may not be readily apparent based on visual observation alone. Although rail-with-trail development has increased in the past 20 years, communities considering these facilities as part of their bicycle and pedestrian systems are still faced with many of the same challenges that trail managers have contended with for a long time. Trail builders and advocates need to be equipped with risk management tools and compelling examples of successful rails-with-trails to help assuage concerns about safety and liability often expressed by the railroad. In response to this continued need, and in recognition of the growing popularity of rails-with-trails, this report provides a range of resources to

help inform and support rail-with-trail development efforts in a variety of contexts.

Background and Methodology

This report analyzes 88 rails-with-trails and improves upon the findings presented in RTC's 2000 report by requiring that all trails included in the study be within or directly adjacent to railroad corridors that currently host *active service*. Some of the trails examined in earlier studies were within or alongside railroad corridors that did not have active rail service, but were considered "active" because they were not officially abandoned through the Surface Transportation Board.¹

Safety and liability issues around potential interactions between trains and trail users is often the primary concern of railroads and communities considering rail-with-trail development. To address these concerns and demonstrate the safety record of rails-with-trails, this report presents findings from an extensive survey of 88 rail-with-trail managers, a review of related literature, an analysis of Federal Railroad Administration (FRA) data on fatalities that have occurred on railroad corridors, and case studies. The USDOT publication, *Rails-with-Trails: Lessons Learned*, remains the most comprehensive and authoritative resource for rail-with-trail development. Findings from this report serve as a complement to *Lessons Learned* and RTC's previous rail-with-trail studies by providing updated information and new resources for trail managers and advocates interested in rail-with-trail development and confronted by its unique challenges.



In 2012, RTC contacted more than 100 trail managers to request their participation in this study. Some trail managers completed an online survey and others provided response via telephone interviews conducted by RTC staff between February and April, 2013. Survey and interview findings included responses from 76 trail managers in addition to 12 trail managers who participated in a 2009 study produced by RTC's Western Region Office, *California Rails-with-Trails: A Survey of Trails Along Active Rail Lines*.² Survey questions were developed using a combination of questions from RTC's 2000 study, the 2009 California rail-with-trail study, and from RTC staff. Several open ended questions allowed participants to provide more detail about their relationship with the railroad, challenges they faced, and successful strategies for acquisition, design and construction. Report findings were reflective of the experience of trail developers and advocates; the authors and interviewers had little direct contact with the railroad industry. These findings are summarized in Section IV, and detailed survey responses are available online.

There exists no comprehensive database of incidents or fatalities on rails-with-trails. In researching fatality data for this report, RTC completed thorough searches of news and legal reports using Lexis and Westlaw research systems, mined existing FRA data, conducted interviews with trail managers across the country, and drew upon information compiled by more than 20 years of extensive involvement with trail projects and trail managers in every state.

Using this Report

Designed to assist trail planners, advocates and managers, this report intends to present the experience of rail-with-trail managers and provide applicable tools to help answer questions such as:

- ▶ Are rails-with-trails safe?
- ▶ Will a rail-with-trail work in our community?
- ▶ How do we design our rail-with-trail to make it safe and accessible?
- ▶ How can we work cooperatively with the railroad company?
- ▶ How do we address liability issues?
- ▶ What can we learn from the experience of other rails-with-trails?

This report can also be used to make the case for rail-with-trail development to elected officials, representatives of state

and local transportation and planning departments, railroad companies, consultants, and anyone interested in the rail-with-trail concept.

Additional online resources are available at www.railstotrails.org/railwithtrail. RTC will continue to monitor online resources and correspond with trail managers to provide updated rails-with-trails data and information, including accident and fatality data. Contact railtrails@railstotrails.org to share your rail-with-trail experience.

Growth of Rails-with-Trails

The growth and popularity of rails-with-trails is similar to the growth of traditional rail-trails. There are currently more than 1,800 rail-trails in the U.S., totalling more than 21,000 miles. RTC's trails database indicates there are as many as 161 rails-with-trails in 41 states, representing approximately 9 percent of the total number of rail-trails in the country.³ RTC reports of 1996 and 2000 analyzed 37 and 61 rails-with-trails, respectively. This report examines the characteristics of 88 rails-with-trails that are along active railroad corridors hosting regular rail service. For a complete list of trails included in this report and a list of other known rails-with-trails in the U.S., see Appendices.

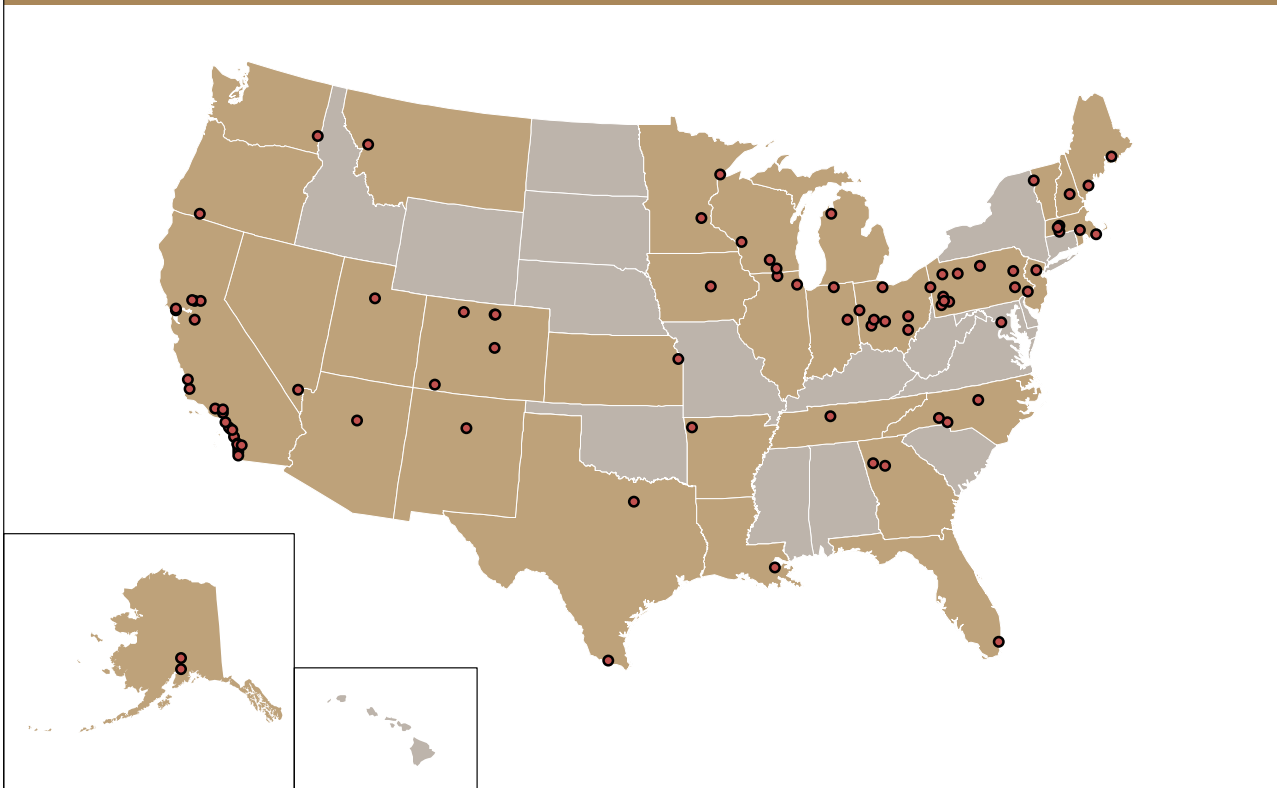
At least 60 more rails-with-trails are known to currently be in various stages of development. Select rail-with-trail projects are highlighted in Case Studies, Section V.

The total mileage of rails-with-trails has also increased over the past decade. The total mileage of trails located completely or partially along active railroad corridors is 1,397 miles, up from 523 miles in 2000. Not all rails-with-trails run along or within active rail lines for their entire length. Of the 820 total miles of trail inventoried in this study, 321 miles (39 percent) are adjacent to active railroad corridors. A majority (63 percent) of the 88 trails examined have more than half of their length along active railroads, with the range of "rail-with-trail length" varying between 0.07–22 miles.

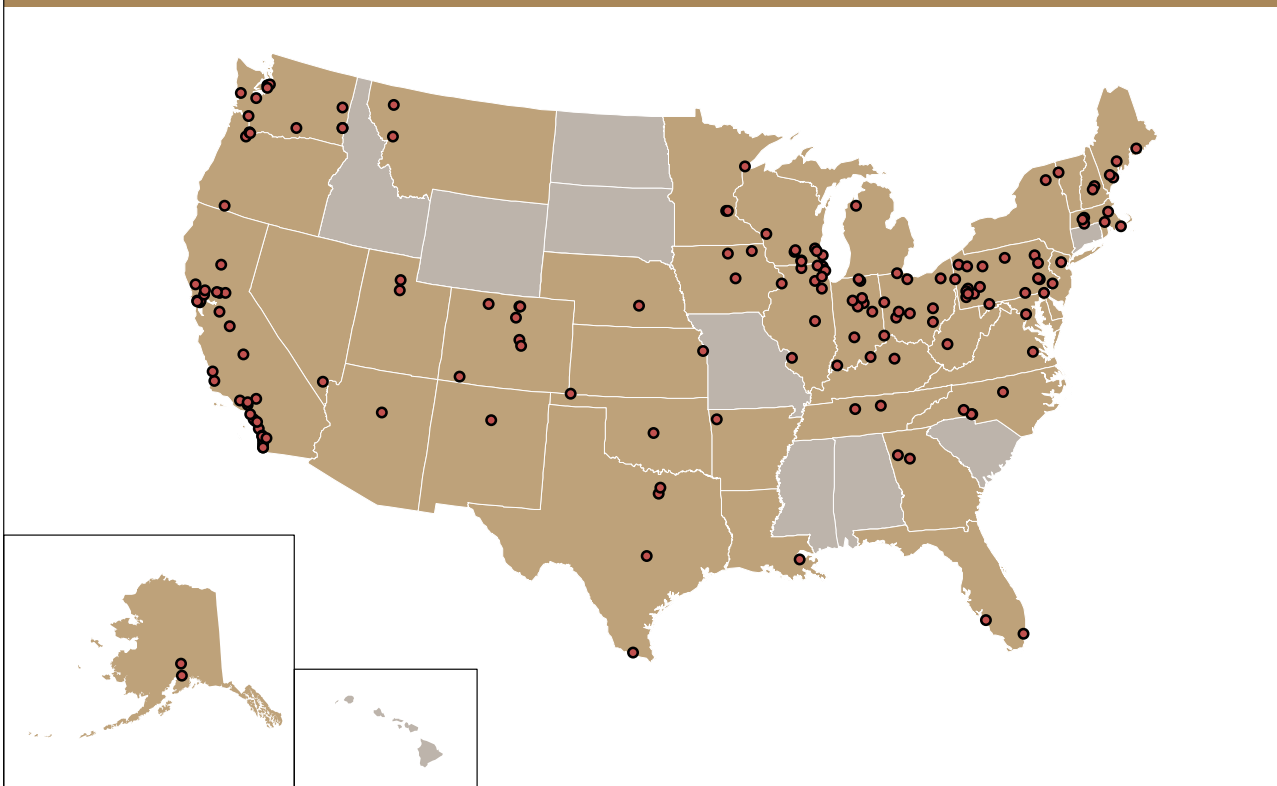
Rails-with-Trails in the United States			
Date	Total Trail Length (in miles)	Percent parallel to active rail line (miles)	# of states with rails-with-trails
1996	299	51%	N/A
2000	523	46%	20
2013 (88 trails)	820	39%	33
2013 total	1,397	39%	41

I. INTRODUCTION

Rail-with-Trail Locations Represented in the Report



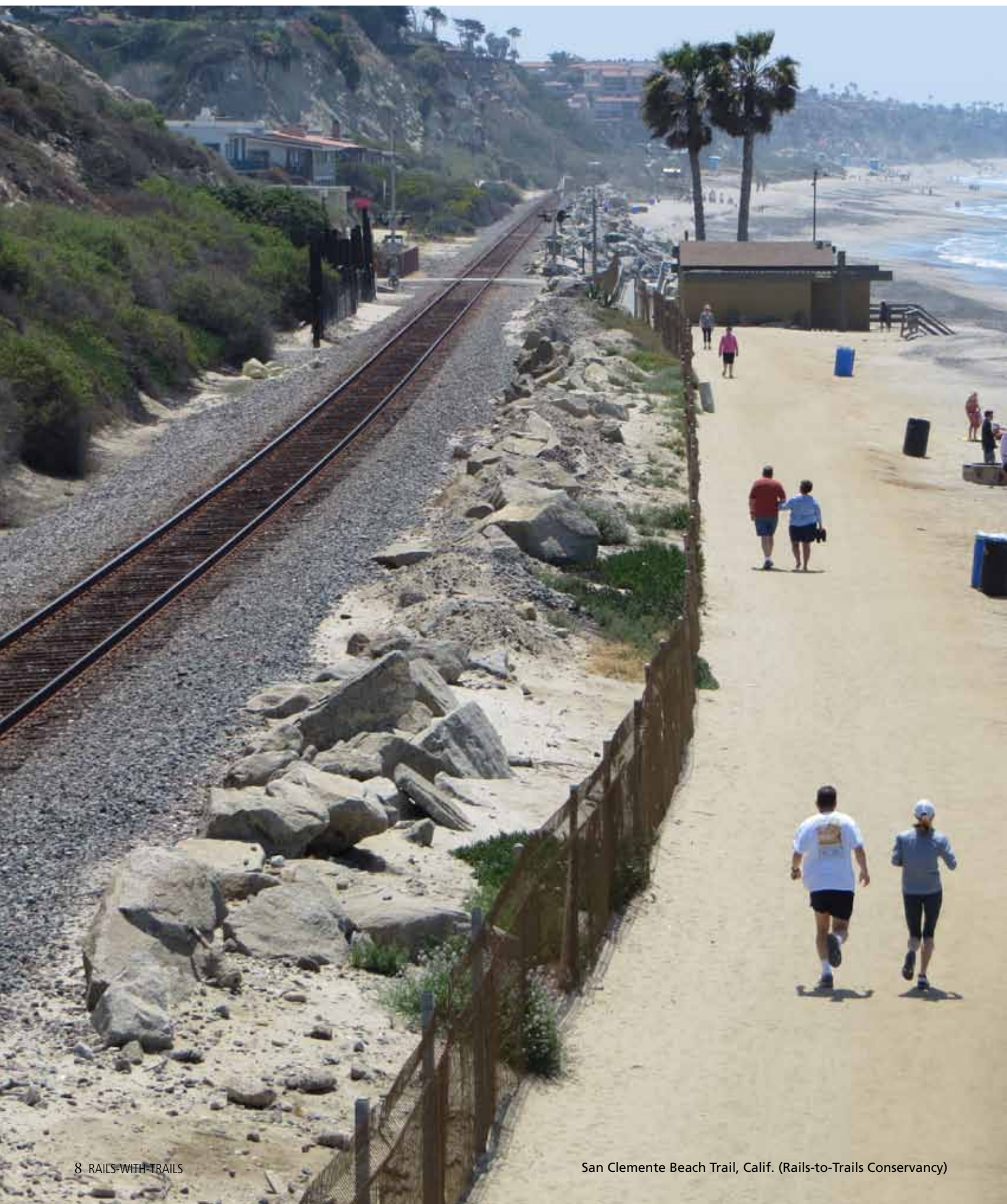
Rail-with-Trail Locations Country-wide



For a complete list of trails included in this report and a list of other known rails-with-trails in the U.S., see Appendix.



America's Rails-with-Trails



II. LITERATURE REVIEW

Rail-with-Trail Studies

The most comprehensive resource on rail-with-trail development is *Rails-with-Trails: Lessons Learned*, prepared by Alta Planning and Design for the USDOT in 2002; it remains the most definitive resource on rails-with-trails with regard to the trail development process, design and operation. Drawing from research of 21 rails-with-trails (16 existing and 5 planned, at the time of publication) and including findings from RTC's *Rails-with-Trails: Design, Management and Operating Characteristics of 61 Trails Along Active Rail Lines* (2000), *Rails-with-Trails: Lessons Learned* highlights design best practices and provides information pertaining to the process of rail-with-trail development and operational aspects (e.g., acquisition, stakeholder involvement, maintenance, railroad safety education and outreach, etc.).

Currently there are no national standards or guidelines prescribed to the design and development of rails-with-trails. Trail planners must reference a combination of standards for shared use paths, pedestrian facilities, railroad facilities and roadway crossings of railroad rights-of-way. *Rails-with-Trails: Lessons Learned* continues to be referenced in state and local trail guidelines and in individual trail master plans, and should be consulted with other national standards on bicycle/pedestrian facilities and railroad crossings and design elements to achieve safe, accessible rail-with-trail development. Many rail-with-trail projects necessitate that trail planners work cooperatively with the adjacent railroad to ensure the trail also reflects standards set by the railroad and its regulatory bodies. The challenge of rail-with-trail design is to meet the operational needs of the railroad while enhancing the experience of trail users.

Since the publication of *Rails-with-Trails: Lessons Learned*, state and local transportation departments have included reference of rails-with-trails in their design guidance documents. Several documents from California provide useful examples of how public agencies can create or incorporate rail-with-trail guidance for policy and procedure manuals. California's North Coast Railroad Authority (NCRA) created and adopted a Policy and Procedures Manual in 2009 to "provide uniform and consistent standards on NCRA's rights-of-way for the design, construction, safety, operations and maintenance of Rails-with-Trails Projects." This direction requires compliance with current standards set by the California Department of Transportation (Caltrans), railroad operators, USDOT's *Manual on Uniform Traffic Control Devices* (MUTCD), and other applicable agencies and authorities.⁴ The NCRA manual also suggests consulting *Rails-with-Trails: Lessons Learned* and the *Guide for the Development of Bicycle Facilities*, prepared by the American Association of State Highway and Transportation Officials (AASHTO). Similarly, the Southern California Regional Rail Authority (SCRRA) adopted rail-with-trail design guidelines in 2010.⁵ At the state level, Caltrans includes a section on rails-with-trails in their 2005 guidance document, *Pedestrian and Bicycle Facilities in California: A Technical Reference and Technology Transfer Synthesis for Caltrans Planners and Engineers*,⁶ and rail-with-trail design is addressed in *Trail Planning for California Communities*,⁷ a reference for trail planners in state, regional and local agencies.

A recent study by the Illinois Center for Transportation, *Pedestrian/Bicyclist Warning Devices and Signs at Highway-Rail and Pathway-Rail Grade Crossings* (2013),⁸ adds to the growing body of knowledge related to rail-with-trail guidance and best

The American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* (4th edition, 2012) provides guidance for "Railroad Grade Crossings" in section 4.12.1, addressing crossing angle, surfaces, bikeway width and flange opening.

The 2009 edition of the *Manual on Uniform Traffic Control Devices* (MUTCD) includes guidance for shared use pathways that cross railroad corridors at grade. See Chapter 8D. Pathway Grade Crossings.



practices. The study investigates best practices for “providing effective warnings to non-motorized users of highway-rail and pathways-rail grade crossings.” Through discussion with experts, conducting surveys with non-motorized users, and direct observation of non-motorized user behavior, the study presents several recommendations that should be considered by trail planners designing rail-with-trail facilities with at-grade crossings. These include more “active” signage at pedestrian-rail crossings, and increased education and enforcement campaigns to demonstrate when and where it is legal to cross railroad corridors.

Feasibility Studies

Rail-with-trail feasibility studies and master plans provide a glimpse into the trail development process, often presenting a useful framework and successful strategies specific to the challenges of rail-with-trail planning. These studies may demonstrate how trail planners and advocates can engage the railroad company and other stakeholders, utilize design guidance, and use different methods to gain support and secure funding. Brief summaries of three feasibility studies are provided below, and additional examples are included in the online resource section of our website: www.railstotrails.org/railwithtrail.

Capital Metro Rail-with-Trail Feasibility Study⁹ Austin, Texas, 2007

Conducted by the Capital Metropolitan Transportation Authority, this study developed a long-range plan offering guidelines for trail design improvements, determining bike and pedestrian trail alignments, and evaluating existing and future implementation of roadway crossings, trailheads, amenities, safety and security options. It also specifically addressed trail setbacks and separation from active rail. Capital Metro assessed 11 potential trail segment projects and determined prioritization for development based on technical feasibility, cost and funding opportunities. The study also focused on gathering input from Capital Metro staff and a broad group of stakeholders, including trail users and various state and local government representatives.

Chelatchie Prairie Rail-with-Trail Corridor Study¹⁰ Clark County, Wash., 2008

The Chelatchie Prairie Railroad is located in Clark County, Wash., and is 33 miles in length. The trail corridor study was conducted by Alta Planning and Design with an expectation

of defining overall goals, guidelines and approaches towards developing a regional, multi-modal rail and trail system along the corridor. The study evaluated existing conditions, technical analysis of trail standards and design options, and emphasized the public engagement of adjacent landowners, agency stakeholders and interested citizens during five open houses. The design guidelines included specific recommendations for trail and rail setbacks, separation and crossings. This study is unique because of its inclusion of a separate equestrian trail facility within the right-of-way. Construction on the first one-mile section began in May 2011 and was completed in December 2011.

Merrymeeting Trail Feasibility Study¹¹ Midcoast Council of Governments, Maine, 2011

The development of a multi-use regional trail system in southern Maine was a joint effort of the cities of Gardiner, Richmond, Bowdoinham and Topsham, to support recreational activities, promote healthy living, encourage tourism and improve quality of life. The Merrymeeting Trail Feasibility Study, contracted by the Midcoast Council of Governments and conducted by Vanasse, Hangen, Brustlin, Inc. (VHB), evaluated the development of a 25-mile rail-with-trail system along a Maine Department of Transportation-owned rail corridor. This trail was determined to become a “Maine Trail of Significance” due to its length, connection of population centers and service to multiple communities. Of specific interest is the study’s Assessment of Probable Costs and evaluation of alternative routes for the trail system that would bypass the most expensive and challenging aspects of trail development. Various alternatives were determined, and if implemented would result in a cost reduction of \$22 million.

II. LITERATURE REVIEW

Railroad Policies

Although rails-with-trails have increased across the country and continue to operate safely and cooperatively with a wide range of railroad companies and agencies, some trail managers report that railroads have become more apprehensive about trail development within their rights-of-way. Some trail managers reported that Class I railroads, in particular, have become more difficult to negotiate with over the past decade, despite the precedent of safe rails-with-trails within almost all Class I railroad systems.¹² Since *Rails-with-Trails: Lessons Learned* was published, railroad companies including CSX,¹³ BNSF and Union Pacific¹⁴ have released public policy or guidance documents that explicitly discourage rail-with-trail development in their corridors. However, some trail managers indicated that these railroad companies have agreed to corridor access for trail development under specific circumstances.

There are recent examples of public rail authorities or transportation agencies that openly support rail-with-trail development as a matter of policy. These authorities have created design guidance that addresses rail-with-trail elements like setbacks and fencing, or have implemented agency-wide recommendations to improve safety at pedestrian-rail crossings. As of 2013, the Massachusetts Department of Transportation (MassDOT)¹⁵ has adopted a policy to “permit the construction of shared-use paths along active or planned railroad rights-

of-way provided appropriate fencing separates the two uses.” Previously MassDOT considered rail-with-trail development within their rights-of-way on a case-by-case basis; this new policy demonstrates the agency’s commitment to developing multi-modal transportation facilities. In Pennsylvania, the Susquehanna Economic Development Association-Council of Governments (SEDA-COG) Joint Rail Authority adopted a policy in 2001 to address rail-with-trail standards for setback and fencing. Although SEDA-COG is generally opposed to rail-with-trail development, they will consider projects on a case-by-case basis if design standards can be met (i.e., setback and fencing requirements, no new at grade crossings permitted). In 2012, the New Jersey Department of Transportation (NJDOT) and New Jersey Transit Corporation (NJ TRANSIT) adopted a “Short Term Action Plan” that addressed pedestrian safety along railroad corridors in recognition of the consistent number of pedestrian fatalities occurring along NJ TRANSIT corridors and crossings. Notable recommended actions included creation of a pilot program to enhance engineering safety treatments at grade crossings, expanding resources for existing rail safety diagnostics, and additional consideration of Safe Routes to School (SRTS) grant applications near rail crossings and rail lines. These types of state and regional policies and actions provide models for other public agencies that are considering ways to encourage safe and accessible rail-with-trail development.





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Railroad Fatality Data

According to data collected by the FRA Office of Safety Analysis,¹⁶ there have been between 667 and 1,516 fatalities on railroad corridors each year since 1975, including 704 in 2012. These numbers include people who cross tracks by foot or in vehicles, some of whom are intoxicated or suicidal, as well as those who use tracks to walk to a destination.

However, out of the tens of thousands of fatalities that have occurred on railroad corridors since we began our study in 1992, as of September 2013, we have learned of only one involving a trail user on a rail-with-trail. This data suggests that well-designed rail-with-trail facilities can reduce fatalities by providing safer ways to traverse the corridor, and to cross tracks where necessary.

This above-mentioned fatality involving a rail-with-trail facility occurred on the South Bay Trail in Bellingham, Wash. In this instance, the cyclist did not slow or attempt to stop at a 90-degree track crossing, which included a railroad warning sign, a 'cross-buck' symbolic sign, and a stop sign.²² While a lawsuit was filed against the railroad and the trail manager, neither was found to be liable, and the court specifically noted that the trail crossing had in fact improved safety for pedestrians and cyclists.

Although management of the South Bay Trail did not take part in RTC's trail manager survey for this report, due to the singular relevance of this fatality RTC staff researched legal and media reports of the incident to present a clear understanding of what occurred.

More information about the liability findings of that case is included in the Liability section on the following page.

That our research found only one fatality on a rail-with-trail over a 20-year period testifies to the safety benefit of well-designed bike and pedestrian pathways to guide the movement of people alongside and across rail corridors.

Gross figures on the number of railroad fatalities are best understood in the context of the baseline level of risk—the amount of train movement. The table opposite presents rail deaths (both trespasser and non-trespasser) per 100 million miles of train travel for the last 15 years.

Rail deaths per 100 million miles of train travel declined approximately 20 percent in the last 15 years, and have fallen significantly from the peak of 1,516 in 1976. The trend may suggest that interventions like rail-with-trail accommodations

Rails-with-trails have an exemplary safety record, with only one trail user fatality recorded since 1992.

and improved crossing infrastructure are having a positive safety impact.

The contribution of rails-with-trails in making rail corridors safer places for people to travel along or across has particular relevance to the need to provide more equitable transportation options. Many transportation investments have historically created barriers to some neighborhoods being able to access employment centers, services and other destinations. Rail-with-trail presents a unique solution to the challenge of keeping people safe while also making optimal use of railroad corridors to accommodate the mobility needs of all residents. Squeezing maximal utility out of limited space is especially pressing in congested urban areas.

Year	Rail Deaths per 100 Million Miles of Train Travel
1998	142.04
1999	122.82
2000	125.19
2001	132.39
2002	125.30
2003	112.60
2004	111.54
2005	106.21
2006	107.92
2007	103.83
2008	96.76
2009	100.76
2010	100.74
2011	92.91
2012	113.35

III. POLICY, SAFETY AND LEGAL ISSUES

Legal Issues: Liability

While trails located alongside active rail lines have not proven to be any less safe or to result in greater injuries to trail users than other off-road bike facilities, the perception nonetheless exists that rails-with-trails projects could increase the legal liability of the trail manager, the railroad, or both. In the context of rail-with-trail, “liability” refers to the responsibility of a trail manager or railroad to compensate or otherwise make whole a person who is harmed through some fault of the trail manager or railroad.

Building a trail along an active railroad does not, in itself, expose the trail manager to liability. Adherence to generally accepted design standards and/or best practices in designing the trail will generally protect the trail manager from a finding of negligent design. Instead, trail manager and railroad liability is governed by general legal principles defining the legal responsibilities of owners and occupiers of land (“land managers”) to persons who enter their property. In other words, rails-with-trails are no more likely to expose landowners to legal liability than stand-alone trails.

Under general concepts of liability, a landowner’s liability depends on whether the injured party has the status of a customer or client (“invitee”), an invited guest (“licensee”) or trespasser. Each of these classes of persons entering the property is owed a different duty of care. Trespassers are owed the lowest duty of care and pose the lowest level of liability risk. The trail manager can only be held liable to a trespasser for actions that are either intended to cause harm to trespassers or are taken with reckless disregard for the consequences.

A few states have passed laws requiring railroad companies to fence their rights-of-way in various contexts. Some of these statutes impose liability on the railroad for any injury to cattle and livestock injured by the failure to fence, unless the fences would have interfered with railroad operations.

The most important legal protections available to trails, including rails-with-trails, are the Recreational Use Statutes (RUS) enacted in some form by all 50 states. These statutes typically limit the liability of landowners and managers who invite the public onto their land for recreational uses and do not charge a fee. Where a RUS is applicable, the trail manager will not be held liable for any injuries sustained by trail users unless the trail manager intentionally harmed the trail user or was grossly negligent.

Maine amended its RUS specifically to include “railroad property, railroad rights-of-way and utility corridors to which

public access is permitted” in the definition of “premises” that are subject to RUS protections.¹⁸ Virginia amended its RUS in 2010 to also define “premises” as including railroad property and to extend protection to nonprofit and tax exempt charitable organizations.¹⁹

It is important to check the specific language of a state’s RUS to determine its applicability. In virtually all states, the statute is inapplicable if a fee is charged for access to the land. Under most state RUS, lessees and occupants, in addition to landowners, are entitled to the limited liability benefits of the statute. For example, Alaska’s and Pennsylvania’s RUS apply only to “unimproved” and “undeveloped” lands, respectively.²⁰ This has raised issues of what improvements to a trail would prevent it from being considered “undeveloped land.”²¹ However, Pennsylvania has also enacted a specific limitation on liability for “an owner or lessee who provides the public with land for use as a trail under this act or who owns land adjoining any trail developed under this act.”

In some states, the RUS only applies to private landowners; governmental landowners are excluded. In these states, governmental land owners are liable only to the extent that state law limits their sovereign immunity from suit. Visit RTC’s website for a complete list of state RUS: www.railstotrails.org/railwithtrail.

While the application of a RUS varies depending on the wording of the statute and the facts of the case, one court recently held that both the trail manager and the railroad were immune from liability under the RUS where a cyclist was struck and killed by a train while within a designated trail crossing of the railroad tracks. The court specifically noted that the trail crossing had been created for the purpose of improving safety for pedestrians and bicyclists who had previously been crossing the tracks in an unsafe manner “at random locations.”²²

In addition to RUS, some states have enacted general statutes immunizing railroads from liability from injury to trespassers. For example, as noted above, Pennsylvania has enacted a statute providing that “[a] railroad carrier owes no duty of care to keep its railroad property safe for entry or use by any trespasser who enters upon any railroad property or railroad right-of-way or to give any warning to such trespasser entering or going on that railroad property of a dangerous condition, use or activity thereon.”²³ The FRA has developed model legislation that penalizes persons who trespass on railroad property in order to engage in recreational activities such as bicycling and walking.²⁴



America's Rails-with-Trails



III. POLICY, SAFETY AND LEGAL ISSUES

Notwithstanding these strong legal defenses to liability, some rail companies remain concerned about the time and expense that may be involved in defending against even a non-meritorious personal injury lawsuit. To address these concerns, California has enacted a statute allowing an owner who permits the public to use property pursuant to an agreement with a public or nonprofit agency for purposes of recreational trail use, and who ultimately prevails in a civil action brought by or on behalf of a person injured or harmed on the property, to apply for reimbursement for reasonable attorney's fees from the California Victim Compensation and Government Claims Board.²⁵

In addition, there are a variety of voluntary arrangements by which railroads and other landowners can shift liability to other parties. Insurance is the most common form, in which an insurance carrier is "subrogated" to the obligations and defenses of the responsible party and defends against claims and also pays out any amounts ultimately owed to the claimant.

Trail managers can also contractually assume legal responsibility through an indemnification agreement. In an indemnification agreement, a trail manager or other third party agrees to hold the railroad harmless (i.e. compensate or make the railroad whole) for any loss or damage that may be incurred in connection with the trail use, including the railroad's reasonable attorney's fees and costs. The trail manager may also be required to assume responsibility for the railroad's defense in any legal action in which the railroad is named as a responsible party.

Public agencies may be more limited in their ability to enter into indemnification agreements than private trail managers. For example, a governmental entity may be barred by its state constitution from imprudently assuming the liability of another entity.²⁶ Other states have, by statute, specifically granted agencies indemnification authority.²⁷ The extent to which government agencies possess the authority to enter into reasonable indemnification agreements depends on the law in that state.

Finally, risk management strategies can help minimize the possibility of injury to trail users and thereby reduce the trail manager's exposure to being sued in the first place. Risk management techniques include:

- ▶ Designing the trail for safety;
- ▶ Using prominent signage to warn users of potentially dangerous areas;
- ▶ Regularly inspecting the trail and correcting any unsafe conditions. (Keep records of inspections and remedial changes);

- ▶ Prominently posting hours of operation and other rules and regulations, along with emergency contact information; and
- ▶ Developing procedures for handling medical emergencies.

Legal Issues: Acquisition of Rails-with-Trails

Rails-with-trails, like all rail-trail acquisitions, involve some unique legal issues due to the regulated status of freight railroad lines. Principles of "federal preemption" may bar governmental entities from using their condemnation powers to acquire, over the railroad's objections, a portion of an active rail line that is regulated by the Surface Transportation Board if trail use could interfere with rail operations. Most rail-with-trail projects are governed by voluntary agreements between the rail operator and the trail manager.

A number of states have enacted legislation authorizing the creation of state-owned railroad corporations or authorizing state agencies to acquire railroad corridors for public transportation use. Several of these statutes have enacted specific policies permitting or directing that corporations or agencies authorize use of portions of a rail corridor for trail use if the use does not restrict or interfere with rail uses. For example, Alaska law requires the state railroad corporation to "authorize a walkway or a trail if the board first finds in writing that the proposed walkway or trail will not create a safety hazard and will not unreasonably interfere with continued or expanded operations in the utility corridor," provided that specified conditions (including indemnification and defense of the railroad) are met.²⁸



America's Rails-with-Trails



IV. RAIL-WITH-TRAIL SURVEY FINDINGS

This summary of findings focuses on some of the most prevalent themes related to rail-with-trail acquisition, development and management:

- ▶ Location and Land Ownership of Rails-with-Trails
- ▶ Railroad Operations and Attitude Toward Trail Development
- ▶ Safe Design: Setback, Separation and Crossings
- ▶ Liability and Insurance
- ▶ Management and Maintenance

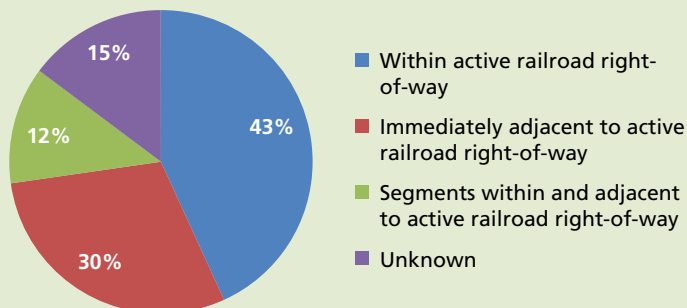
Results were analyzed from responses provided by trail managers or advocates involved in the trail's development. Most interviewees and survey respondents answered more than 60 questions; due to the large quantity of data, individual responses, trail facts and contact information are available in an online Appendix at www.railstotrails.org/railwithtrail.

Location and Land Ownership of Rails-with-Trails

Location

The distinguishing characteristic of rails-with-trails is their location within or directly adjacent to an active railroad corridor. More than half of the trails examined for this report have some portion of trail located within the railroad right-of-way. Some trail managers indicated that the railroad was unwilling to provide access to their right-of-way, forcing trail development immediately adjacent to – but completely outside of – the railroad corridor. While many of these rails-with-trails are located within or alongside publicly owned corridors (37 percent), a significant portion of trails located within the railroad right-of-way exist in corridors owned by Class I, II and III railroads.

Location of trail corridor relative to active railroad right-of-way



Railroad Classification

Railroads are classified by the Surface Transportation Board based on their annual operating revenues.

Class I railroads have an annual operating revenue that exceeds \$433 million, based on 2011 dollars. Seven Class I railroads account for most of the freight rail traffic in the U.S.:

1. BNSF Railway Company
2. Kansas City Southern Railway Company
3. Union Pacific Railroad
4. Soo Line Railroad Company (Canadian Pacific's U.S. operations)
5. CSX Transportation Inc.
6. Norfolk Southern Combined Railroad Subsidiaries
7. Grand Trunk Corporation (Canadian National's U.S. operations)

Class II railroads have an annual operating revenue that exceeds \$34.7 million, based on 2011 dollars. Class II rail carriers typically haul freight and are sometimes referred to as "regional railroads."

Class III railroads have an annual operating revenue of less than \$34.7 million, based on 2011 dollars. Class III railroads are generally referred to as "short line railroads."

More information: www.aar.org/StatisticsAndPublications/Documents/AAR.org/StatisticsAndPublications/Documents/AAR-Stats-2013-01-10.pdf



America's Rails-with-Trails

88 Rails-with-Trails Included in Study*

Chase Trail	AK	Silver Comet Trail	GA
Tony Knowles Coastal Trail	AK	Stone Mountain Trail	GA
Frisco Trail	AR	Linn Creek Recreational Trail	IA
Route 66 Trail	AZ	Illinois Prairie Path	IL
Oceanside Coastal Rail Trail	CA	Rock River Recreation Path	IL
Folsom Parkway Rail Trail	CA	Cardinal Greenway (Muncie Section)	IN
Solana Beach Coastal Rail Trail	CA	Maple Heart Trail	IN
Martin Luther King, Jr. Promenade	CA	Gary L. Haller Trail	KS
Santa Clara River Trail	CA	Mississippi River Trail—New Orleans Levee Top Trail, East Bank	LA
Carlsbad Coastal Rail Trail	CA	Springfield Connecticut Riverwalk and Bikeway	MA
Rose Canyon Bike Path	CA	Manhan Rail Trail	MA
Fillmore Trail	CA	Shining Sea Bikeway	MA
Mission City Bike Trail	CA	Norwottuck Rail-Trail (Mass Central Section)	MA
Richmond Greenway	CA	Eastern Promenade Trail	ME
Alton Ave to Orange Street Bike Trail (Alton Bike Trail)	CA	Ellsworth Trail	ME
Escondido-San Marcos Inland Rail Trail	CA	TART Trail	MI
Manteca Tidewater Bikeway	CA	Duluth Lakewalk	MN
Old US 40 Bike Path (Old Highway 40 Bike Path)	CA	Cedar Lake Trail	MN
Sacramento River Parkway Trail	CA	Bitterroot Branch Trail	MT
San Clemente Beach Trail	CA	Marcia H. Cloninger Rail Trail	NC
San Francisco Bay Trail (Pinole, Hercules)	CA	Libba Cotten Bikeway	NC
San Luis Obispo Railroad Safety Trail	CA	Charlotte Trolley Trail	NC
Santa Maria Valley Railroad Trail	CA	WOW Trail	NH
Walnut Trail (Atchison, Topeka and Santa Fe Trail)	CA	Traction Line Recreation trail	NJ
Watts Towers Crescent Greenway	CA	Santa Fe Rail Trail	NM
Westminster Hoover Street Trail (Hoover Bike Path)	CA	Union Pacific Railroad Trail	NV
Animas River Trail	CO	North Coast Inland Trail—Sandusky/Ottawa County (Clyde to Elmore)	OH
Power Trail	CO	Camp Chase Trail—Ohio to Erie Trail	OH
Mason Trail	CO	Fairborn Wright Brothers Huffman Prairie Bikeway	OH
New Santa Fe Regional Trail	CO	Simon Kenton Trail—Urbana-Bellfountain Connector	OH
Yampa River Core Trail	CO	Celina Coldwater Bike Path	OH
Metropolitan Branch Trail	DC	Zane's Landing Trail	OH
M-Path	FL		

IV. RAIL-WITH-TRAIL SURVEY FINDINGS

Hockhocking Adena Bikeway	OH
Central Ashland Bike Path	OR
Stavich Bike Trail	PA
Clarion-Little Toby Rail Trail	PA
Lehigh Gorge Rail-Trail	PA
Five Star Trail	PA
Arboretum Trail	PA
Schuylkill River Trail—Valley Forge to Philadelphia	PA
Schuylkill River Trail—Thun Trail	PA
McClintock Trail	PA
Pine Creek Rail Trail—Jersey Shore Connector	PA
Three Rivers Heritage Trail—Southside segments (Baldwin, Southside & Station Square combined)	PA
Montour Trail—Westland Branch	PA
Blackstone River Bikeway	RI
Richland Creek Greenway	TN
Cotton Belt Trail	TX
Bicentennial Hike and Bike Trail	TX
Porter Rockwell Trail	UT
Island Line Rail Trail (formerly the Burlington Bike Path)	VT
Pullman River Walk	WA
La Crosse River Trail	WI
Peace Trail	WI
Southwest Path (Greenbush Link)	WI

*A number of other trail managers participated in the survey, but their responses were not included in the analysis unless active rail service existed along the trail before April 2013. For example, the Heritage Rail-Trail County Park in York, Pa., is considered a rail-with-trail but did not have active service on the railroad corridor until after our research deadline.

Basic Characteristics of 88 Rails-with-Trails Surveyed

- Average width: 10 feet
- Average length: 9.3 miles
- Trail surface (some trails have more than one surface type):
 - Asphalt: 84%
 - Crushed stone: 20%
 - Concrete: 19%
 - Dirt: 5%
 - Other: 1%
- Permitted trail use: All trails are open to pedestrians, 95% of trails allow bicycling, and many trail managers indicated that most other forms of non-motorized uses were allowed (skating, skiing, etc.). Equestrian use is permitted on 13% of the trails included in this study and three trails allowed some form of motorized use (ATV, snowmobile or both).

Watts Tower Crescent Greenway, Calif. (Rails-to-Trails Conservancy)





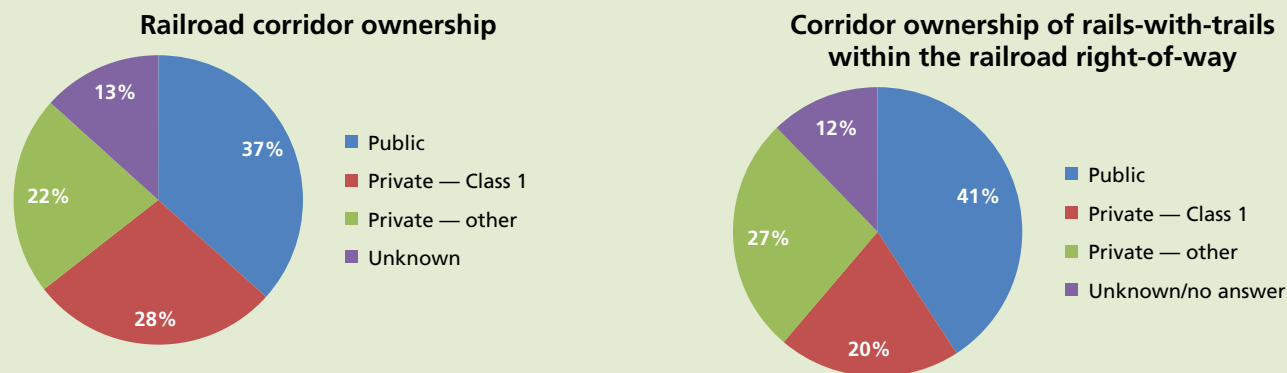
America's Rails-with-Trails



IV. RAIL-WITH-TRAIL SURVEY FINDINGS

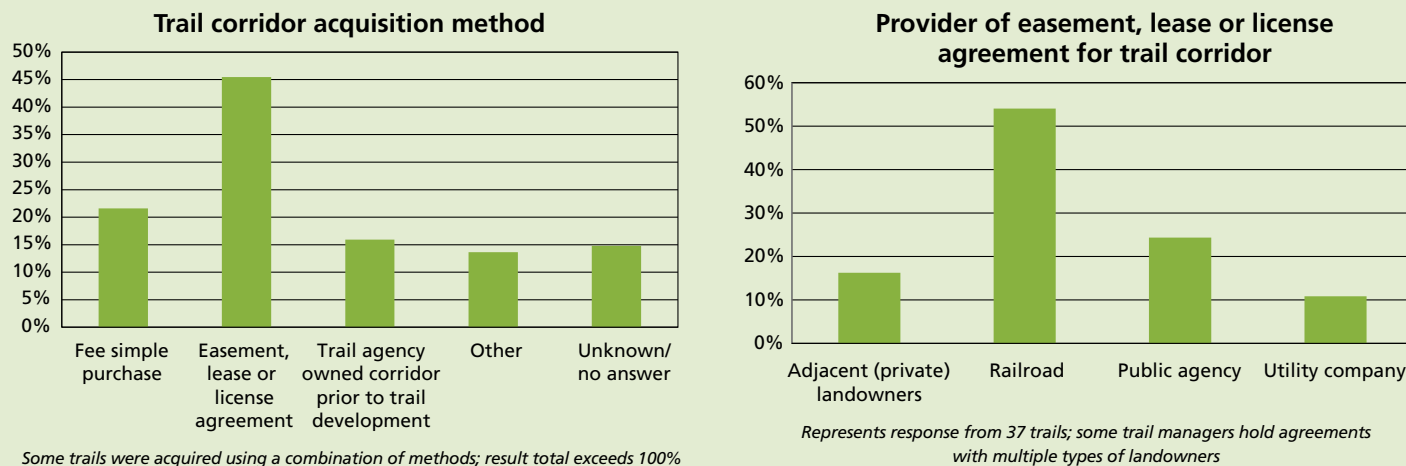
Corridor Ownership

A majority of the rails-with-trails examined exist within or alongside privately owned rail corridors, with 28 percent owned by Class I railroads. Of the 49 trails that are completely or partially within the railroad corridor, 47 percent are within privately owned corridors, including Class I railroads. The larger, Class I railroad companies are becoming increasingly resistant to rail-with-trail development (see Railroad Policies in Section II), although there is clearly a precedent set by so many existing rails-with-trails in many of the Class I companies' rights-of-way. However, this study's survey findings indicated that short line railroads and transit agencies often recognize the benefits of rails-with-trails, sometimes becoming a supportive stakeholder in the trail development process.



Acquisition

As is the case with traditional rail-trail projects, there are several methods used to acquire property for rail-with-trail development. Rails-with-trails that are located within the railroad right-of-way often obtain an easement or license agreement from the railroad. Survey findings indicate that 45 percent of the rails-with-trails used easement or license agreements to acquire all or a portion of the trail corridor, and half of those trails negotiated with the railroad for acquisition. Other trails purchased the trail corridor in fee or had fee ownership of the property prior to trail development. The only known examples of a trail-managing agency providing easements to the railroad are in Pennsylvania. The Montour Trail Council provided a 30-year lease to a natural gas company to establish new service on the Westland Branch segment of the Montour Trail (see Case Study in Section V). A 10-mile rail-with-trail segment of the Heritage Rail-Trail County Park was leased to an excursion railroad, Steam Into History, and began operating in 2013.





America's Rails-with-Trails

Example easements and license agreements from 13 rails-with-trails were provided by trail managers for use in this report. These examples serve only as a reference; legal counsel should be obtained to develop such agreements for rail-with-trail acquisition. Full copies of agreements are available for download at: www.railstotrails.org/railwithtrail.

Trail name	State	Municipality	Railroad	Year	Type
Frisco Trail	AR	City of Fayetteville	Arkansas and Missouri Railroad Company	2008	License and Agreement; Certificate of Liability Insurance
Route 66 Trail	AZ	City of Flagstaff	Atchison, Topeka and Santa Fe Railway Company (and successors – BNSF)	1996	Easement
Linear Park	CA	City of San Diego	Atchison, Topeka and Santa Fe Railway Company (a Delaware Corporation) and successors (BNSF)	1989	Lease Agreement and Terms of Use
Martin Luther King Jr. Promenade	CA	City of San Diego	San Diego and Eastern Arizona Railroad Company	2009	Joint License for encroachments
San Luis Obispo Railroad Safety Trail	CA	City of San Luis Obispo	Union Pacific	2008	Lease Agreement and Terms of Use
Yampa River Core Trail	CO	City of Steamboat Springs	Denver and Rio Grande Western Railroad Company	1991	License Agreement
Rock River Recreation Path	IL	City of Rockford (Rockford Parks District)	Union Pacific	2012	Lease Agreement and Premise of Use
Gary L. Haller National Recreational Trail	KS	Johnson County Parks and Recreation District	Atchison, Topeka and Santa Fe Railway Company (and successors – BNSF)	1996	License Agreement (for tunnel crossings)
Duluth Lakewalk	MN	City of Duluth	St. Louis and Lake Counties Regional Railroad Authority	2008	License Agreement
Santa Fe Rail-Trail	NM	Santa Fe County	Santa Fe Southern Railway, Inc.	1997	Easement
Camp Chase Rail-Trail	OH	Columbus and Franklin County Metropolitan Park District	Camp Chase Railroad Company	2009	Easement
Heritage Rail-Trail County Park	PA	York County	Steam Into History (nonprofit tourist train)	2010	Lease and Operating Agreement (county is leasing to railroad)
Porter Rockwell Trail	UT	City of Draper	Utah Transit Authority	2003, 2008	License Agreement

Duluth Lakewalk, Minn., in construction (Matt Decur)



Duluth Lakewalk, Minn. (Matt Decur)



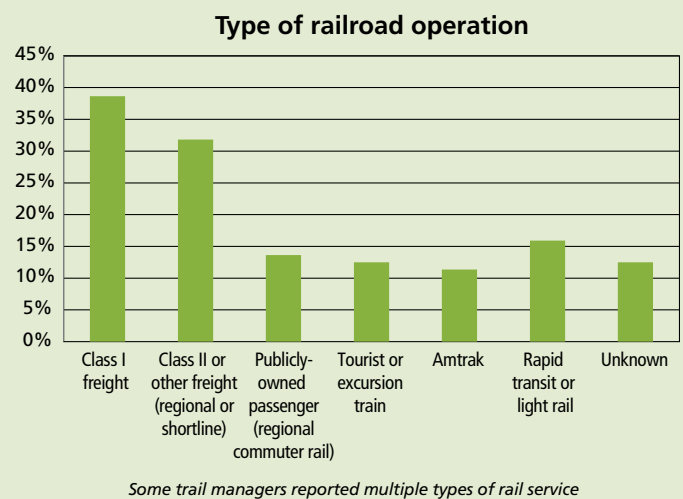
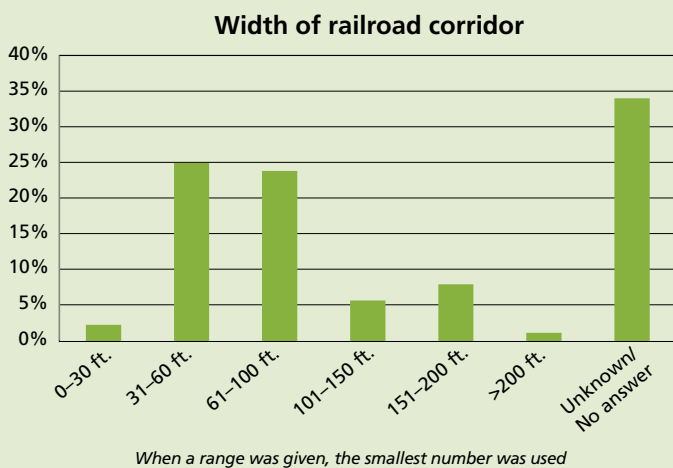
IV. RAIL-WITH-TRAIL SURVEY FINDINGS

Railroad Operations and Attitude Toward Trail Development

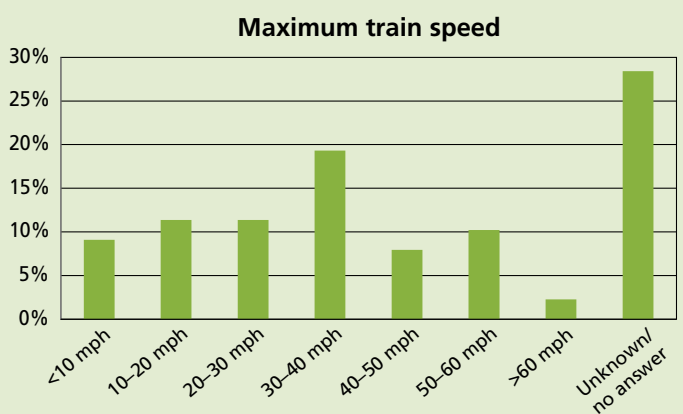
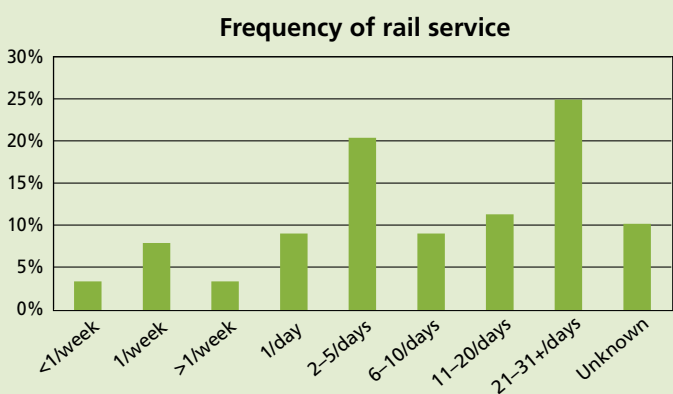
Consistent with trends identified in RTC's *Rails-with-Trails* report in 2000, rails-with-trails continue to be developed along a wide variety of active railroad corridors, demonstrating their ability to coexist with many different types of railroads and under a diverse range of conditions.

Characteristics of Operating Railroads

- **Corridor width**— Nearly half (43) of the railroad corridor rights-of-way studied in this report were between 31 and 100 feet wide.
- **Railroad type**— Rails-with-trails are developed within and alongside many different types of operating rail service (freight, transit, tourist, etc.), with the most common being freight. Several trails are located beside railroad tracks that serve multiple types of railroads. For example, the Metropolitan Branch Trail in Washington, D.C. is alongside a CSX corridor that Amtrak and a regional commuter railroad operate on, while another segment of the trail is located within a few feet of Metro, D.C.'s rapid transit system.



- **Train frequency**— Most trails are located beside rail corridors that receive service on a daily basis, and a quarter of trails reported that rail service runs more than 20 times a day. Several trails that share corridors with urban transit systems experience high rail traffic. A segment of the Watts Towers Crescent Greenway is beside the LA Metro, operated by the Los Angeles County Metropolitan Transportation Authority, which runs six trains per hour.
- **Train speed**— Maximum train speed varies widely, with trail managers reporting speeds of less than 10 mph and more than 60 mph. A majority of trails reporting train speed indicated speeds between 30 and 60 mph. This is consistent with findings from our 2000 study which reported an average maximum train speed of 32 mph and a range of train speeds between 5 and 150 mph.





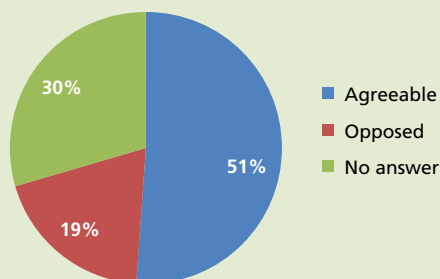
America's Rails-with-Trails

Attitude of Railroad Companies Toward Rail-with-Trail Development

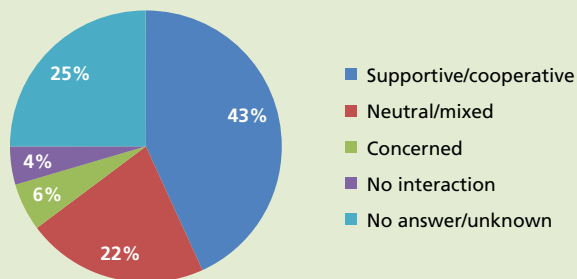
More than half of trail managers reported that the railroad had an “agreeable” attitude toward rail-with-trail development prior to trail construction. However, many trail managers described challenges in negotiating with railroads, based on the railroad’s apprehension and concerns about safety and liability. Several managing agencies had to meet setback, fencing and trail maintenance requirements set by the railroad. Specific examples and some negotiation strategies included:

- ▶ Frisco Trail, Ark.: Over two years of negotiation the city eased the railroad’s concerns by demonstrating safety benefits (diverting pedestrians off tracks and onto trail) and agreeing to construct a fence between the tracks and trail.
- ▶ Mason Trail, Colo.: Worked with BNSF safety design requirements and provided a 6’ high fence and grade-separated crossings to prevent trespassing across tracks.
- ▶ Gary L. Haller Trail, Kan.: Railroad had a neutral attitude toward trail development but required fencing, indemnification and a \$10 million insurance policy held by the trail manager.
- ▶ McClintock Trail, Pa.: The trail manager worked closely with the short line operator, Western N.Y. & Pennsylvania Railroad, and the railroad continues to be supportive of the trail by attending planning meetings and events.
- ▶ Pine Creek Connector Trail, Pa.: The Regional Rail Authority created a rail-with-trail policy that includes design standards but does not encourage trails within their right-of-way unless all other alignment options have been examined and determined infeasible or undesirable.
- ▶ Cotton Belt Trail, Texas: Railroad had concerns about pedestrians crossing the corridor and instituted a “no new crossing” policy. Only one crossing was granted during trail development. Trail design was reviewed, modified and accepted by railroad. Municipalities had to agree to maintain entire corridor.

Railroad’s attitude to trail prior to development



Current attitude of railroad



When asked about the current attitude of the railroad, 43 percent of trail managers indicated the railroad is either supportive or cooperative, and 22 percent reported that the railroad has neutral or mixed feelings about the trail. Only 6 percent indicated that the railroad remains concerned about the trail, although a quarter of trail managers did not respond to this question. Individual comments are available in the Detailed Survey Responses section on our website: www.railstotrails.org/railwithtrail.

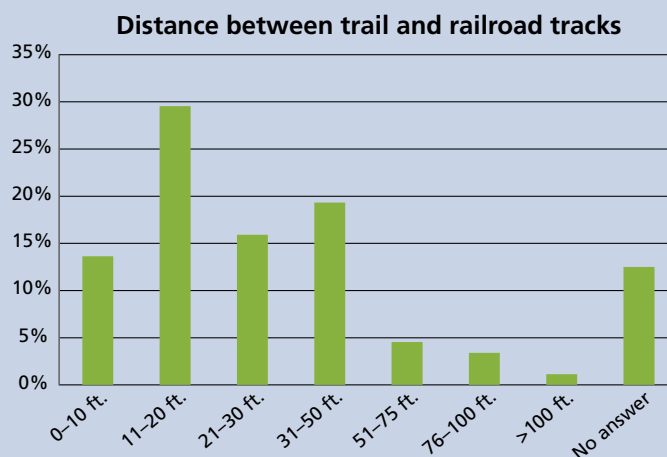
Safe Design: Setback, Separation and Crossings

When the rail-with-trail concept is presented to railroads or local decision makers for their consideration, safety is always at the forefront of the conversation. Fortunately, there are many design strategies that can be implemented to create a safe environment for trail users and rail operators. Some of the most common design elements that contribute to safety include setback, separation and crossings.

IV. RAIL-WITH-TRAIL SURVEY FINDINGS

Setback—The lateral distance between the centerline of the nearest track (track located closest to the rail-with-trail) and the nearest edge of the trail or the separation feature (fence, wall, etc.).

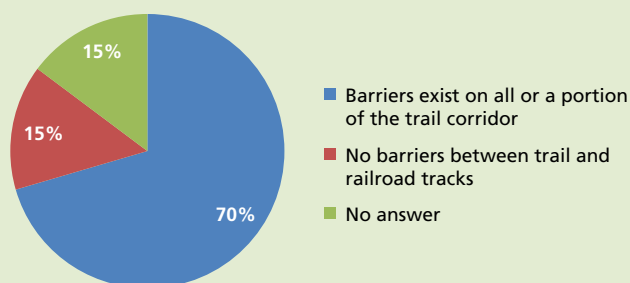
Whether the trail is within the railroad right-of-way or immediately adjacent, the actual distance between the railroad tracks and the trail may determine how design features address trail user safety. Several trail managers reported setback requirements enforced by the railroad, usually ranging from a 25 to 30-foot minimum. Nearly 60 percent of trails were 30 feet or less from the railroad tracks and more than a quarter of trails reported a minimum distance of between 11 and 20 feet. Some trails are extremely close to the tracks; the Frisco Trail in Fayetteville, Ark. comes as close as two feet from the tracks.



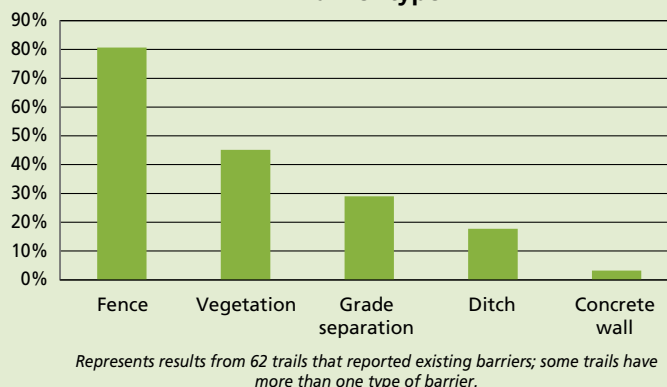
Separation

Separation refers to constructed or natural barriers between the trail and railroad. Survey results indicated that a vast majority (70 percent) of rails-with-trails have installed some type of barrier or were designed to be grade-separated for all, or a portion of, the trail's length. The most common barrier used is fencing, with a variety of fencing types and heights reported (e.g., chain link, wire fence with wood post). In some instances, railroads required that their fencing standards were met.

Existence of barriers between trail and rail



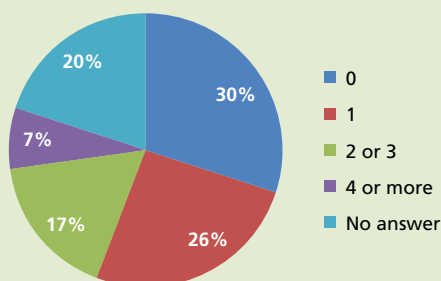
Barrier type



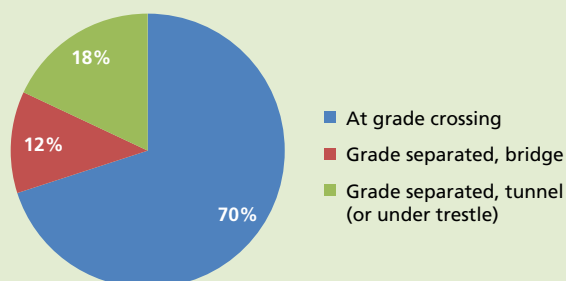
Crossings

Designing safe rail crossings is critical to creating a safe and accessible rail-with-trail. Fifty-four trails (61 percent) reported at least one crossing; the average number of crossings was 1.6 and 70 percent of those crossings are at grade. The Camp Chase Trail in Ohio reported seven crossings, the most of any trail. Several trail managers indicated that no new crossings would be considered by the railroad, and nearly a third of trails studied do not have a single crossing.

Number of times trail crosses railroad tracks



Trail/Rail crossing type





Liability and Insurance

Exposure to risk and liability is one of the primary concerns when developing a rail-with-trail. Refer to the Legal Issues segment in Section III for more information on liability and risk reduction. USDOT's *Rails-with-Trails: Lessons Learned* provides comprehensive information about these topics and should be consulted to learn more about measures that trail managers can take to reduce exposure to liability, and existing state statutes that may alleviate the liability concerns of the railroad. Since *Rails-with-Trails: Lessons Learned* was published, some Class I railroads have released public policy or operating standards that discourage or prohibit the development of trails within their corridors, and some railroads have specific standards that must be met during design and construction (see Section II). Survey findings indicate that trail managers and railroads remain very concerned about safety and liability, although no new accidents or fatalities involving trail user and train conflict were reported in the responses provided.

Claims Against Trail Managers and Railroads

Seven of the 88 rails-with-trails reported claims against the trail manager.²⁹ Most claims did not involve the railroad, but some claims involved trail conditions affected by proximity to railroad infrastructure:

- ▶ The Yampa River Core Trail in Colorado cited claims made due to injuries sustained by trail users going down grades at railroad underpasses.
- ▶ On the Gary L. Haller Trail in Kansas, a trail user was injured when he ran into the railroad's fence at one of the tunnel crossings. Even though the railroad was negligent (the fence was left open by the railroad), the city paid the settlement claim because the railroad was indemnified.

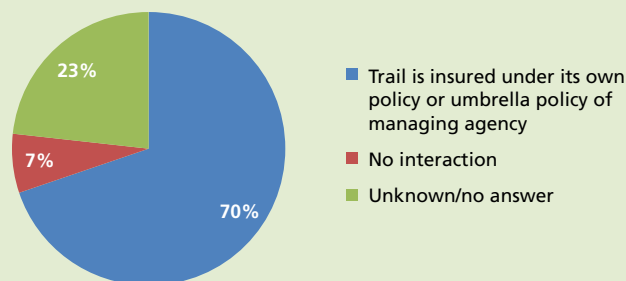
None of the 88 trail managers were aware of liability claims filed against railroads as a result of the presence of a rail-with-trail.

Insurance Policies

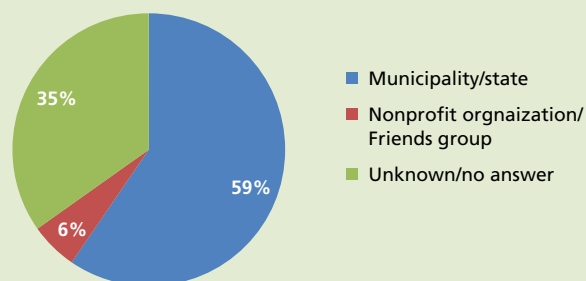
A majority of trail managers reported that their trail's insurance requirement was covered by an existing municipal or state insurance policy. Examples of nonprofit organizations that carry insurance policies for the trails they manage include:

- ▶ Clarion-Little Toby Rail Trail, Pa., insured by the Tricounty Rails to Trails Association;
- ▶ Montour Trail (Westland Branch), Pa., insured by the Montour Trail Council;
- ▶ Five Star Trail, Pa., insured by the Regional Trail Corporation;
- ▶ Three Rivers Heritage Trail, Pa., insured by the City of Pittsburgh and Friends of the Riverfront; and
- ▶ Cardinal Greenway, Ind., insured by Cardinal Greenways.

Insurance coverage



Insurance policy holder

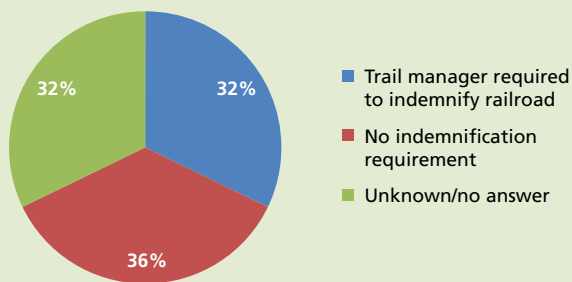


Indemnification

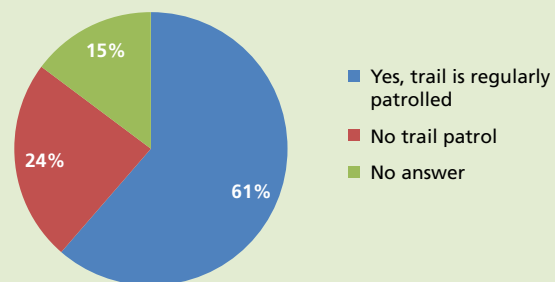
Many trail managers negotiating with railroad companies to develop rails-with-trails are required to indemnify the railroad or owner of the corridor, releasing them from liability. Approximately one-third (32 percent) of trail managers reported that their agency was required to indemnify the corridor owner. This is up from 26 percent of rails-with-trails that were required to indemnify in RTC's 2000 report. Another third reported that indemnification was not required, and 31 trail managers did not answer or were unsure of indemnification requirements. In addition to indemnification, some trail managers stated that the railroad required their agencies to carry supplemental insurance policies (e.g., comprehensive general liability insurance specifically for the trail). Example legal agreements included in the online Appendix include indemnification language and other liability protection requirements.

IV. RAIL-WITH-TRAIL SURVEY FINDINGS

Indemnification of railroad



Trail patrol



Management and Maintenance

Proper management and maintenance is an important factor in creating a safe environment for trail users. A vast majority (77 percent) of trail managers surveyed reported that routine trail maintenance is covered by a municipal agency or department (e.g., Parks and Recreation, Public Works, etc.), and nine reported that trails are maintained by volunteers or friends groups. Most trail managers reported that the railroad did not contribute to trail maintenance. Trail maintenance staff for the Cotton Belt Trail in Texas are required to complete an annual safety certification administered by the railroad. Personal safety is a frequent concern of trail users, whether or not the trail is located along an active railroad corridor. Many of the trails included in this study (61 percent) are regularly patrolled, either by law enforcement or volunteers.

Trail Development Challenges and Suggested Strategies

RTC asked trail managers several open-ended questions to gather feedback about rail-with-trail development challenges and successful strategies for acquisition, design, construction and maintenance. Some of the most common issues related to rail-with-trail development that were reported include:

- ▶ Working with the railroad and/or addressing its safety and liability concerns;
- ▶ Acquisition (obtaining easements);
- ▶ Working with multiple agencies to review plans and get permits;
- ▶ Funding; and
- ▶ Dealing with adjacent landowner opposition or lack of public support.

Some trail managers also reported challenges in the design and construction process due to environmental regulations (wetlands), constrained space, and crossings.

Respondents reported that successful rail-with-trail development included proactive strategies such as:

- ▶ Involving stakeholders early on, creating an inclusive and open process, and clarifying and documenting roles and responsibilities from the beginning;
- ▶ Becoming knowledgeable about required permits;
- ▶ Providing grade-separated crossings where feasible;
- ▶ Understanding and addressing the railroad's concerns;
- ▶ Obtaining legal counsel; and
- ▶ Having patience.

Some trail managers suggested partnering with council of governments (COG) organizations, which can act as a coordinating body for all state and local agencies involved. Several respondents mentioned that railroads may be more amenable to providing access to the corridor for trail development if the state or local municipality can respond with incentives such as at-grade crossing improvements, land swaps or zoning changes.

For detailed survey responses and more specific information about trails included in this study, visit RTC's website: www.railstotrails.org/railwithtrail.



America's Rails-with-Trails



The following case studies provide context and information about the development and operating characteristics of individual trails across the country. The examples demonstrate the wide range of circumstances of the different phases of trail development, from acquisition to design and construction, and the various conditions under which rails-with-trails are managed and maintained (i.e., proximity to active rail corridor, type of railroad, etc.). The final set of case studies are specific to rails-with-trails that exist beside excursion or tourist rail service, two different types of facilities that often have a symbiotic relationship.

V. RAIL-WITH-TRAIL CASE STUDIES

D & L Trail — Lehigh Gorge State Park Trail

Carbon and Luzerne counties, Pennsylvania

Status: Open. Land purchased in 1972, trail opened in 1980.

Description: The 25.7-mile Lehigh Gorge Trail was built on the abandoned corridor of the Lehigh Valley Railroad. Nearly seven miles of the trail are located adjacent to an active railroad corridor carrying both freight and excursion rail service.

Historically, the narrow river gorge was a primary supply route through eastern Pennsylvania, transporting timber and coal to Philadelphia. In the 19th century the Lehigh Coal and Navigation Company constructed 20 dams and more than 20 locks along the 26 miles of river in order to navigate the steep 800-foot-high slopes of the Pocono Mountains.

After 1860, railroads replaced the canals and by the end of the century the area was known for its resort accommodations.

Eventually, sections of three active rail-lines ran at the base of the gorge. The rights-of-way were developed and maintained by separate owners, and the single right-of-way which would become the D & L Trail was purchased in 1972, along with the acreage to develop a nearly 5,000-acre state park.

Design: The trail is surfaced with crushed limestone and welcomes trail and mountain bike enthusiasts who use the Lehigh Gorge Trail to access the many mountain bike trails in the park. Reading and Northern Railroad operates Class II freight and a seasonal tourist excursion train on the line. A second parallel line is operated by Norfolk Southern, carrying Class I freight. The Class I line runs adjacent to the trail for less than half a mile.

Where it runs parallel to active tracks, the trail is either grade-separated or has a dense barrier of native vegetation between the active rail and trail.

The majority of the trail was constructed all at once, completing the 24 miles between White Haven and the southern trailhead at Glen Onoko. But for many years there was no direct access from the tourist town of Jim Thorpe to the state park without traversing a very steep and narrow motorized road. After several years of negotiations with the railroad, a bicycle and pedestrian side path was built along the railroad bridge, providing trail users direct access to the town of Jim Thorpe. The trail and railroads are maintained, and function, completely independently of each other.

Comments: The town of Jim Thorpe is a busy tourist destination and hub for users of the Lehigh Gorge Trail and the Lehigh River. Commercial outfitters run both rafting and bicycle trips through the gorge. A common activity marketed to visitors is to rent a bike, shuttle to the northern end of the trail and then ride the 26 downhill miles to town. In 2012, a trail user survey indicated that trail users brought an additional \$6 million in revenue to the community. The Reading and Northern Railroad excursion trains are equally popular and now offer private charter excursions into the gorge as well as regularly scheduled weekend and holiday trips.



D & L Trail, Pa. (Peter Treiber)

Montour Rail-Trail — Westland Branch

Washington County, Pennsylvania

Status: Designed 2011–2012, constructed 2012–2013, official opening planned 2013.

Description: The Westland Branch rail-trail joins the main line of the 55-mile Montour Trail which circles the western and southern regions of Pittsburgh, Pa. The new four-mile section of active rail-with-trail traverses the three municipalities of Cecil, Mt. Pleasant, and Chartiers Townships in Washington County in southwestern Pennsylvania.

In the 1990s the Montour Trail Council (MTC) purchased the single track right-of-way of the Westland Branch as part of the property of the Montour Railroad, intending to construct the branch trail after the main segment of the Montour Trail was complete. However, the development of the Marcellus Shale gas industry in southwestern Pennsylvania presented MTC with an opportunity to develop the branch trail sooner than originally anticipated. In 2010, after two years of negotiations, MarkWest Liberty Midstream & Resources of Denver, Colo. agreed to a 30-year lease with the Montour Trail Council. MarkWest was to design and build five miles of active railroad track, along with four miles of parallel non-motorized trail.

The new railroad comes off the main east-west line of the Wheeling and Lake Erie (W&LE) Railway in Southview, Pa., parallels the Montour Trail mainline for just under a mile, then swings south for four miles to a large rail yard near Westland, Pa., not far from the MarkWest plant. W&LE Railway operates the trains for MarkWest, moving tanker cars of propane and other natural gas liquids. Since the original corridor owned by the Montour Trail Council was only a single width, MarkWest had to negotiate additional easements and acquisitions to safely accommodate both the rail and trail. MarkWest completed extensive engineering along the six-mile corridor in order to accommodate new rail traffic.

When open, the new Westland Branch Trail segment will come off the Montour Trail mainline at Gilmore Junction, MP 21.6, cross Pennsylvania State Route 50 via a “Cross Alert” signal system,³⁰ and then cross the tracks once. Paralleling the railroad southbound, the trail climbs a 1.5 percent grade to a deep rock cut and gently descends to a trailhead just off SR 519 in Westland. After the first mile, the surrounding landscape is mostly rural farmland. The nearest mainline Montour Trail parking area is at the Galati Road trailhead, MP 21.2.

Design: The trail has a crushed stone surface, with a four-foot-high chain link fence separating the rail and trail. Rail traffic consists of tanker loads that are pulled along an uphill grade at less than 15 mph.

Comments: The Montour Trail was designed and built in phases over the past 20-plus years. More than 55 of its planned 60 miles are currently developed, including the Airport and Bethel branches. The Montour system connects with the Great Allegheny Passage trail to Washington, D.C. Speaking for the Montour Trail Council in 2010, Ned Williams, then president of the Montour Trail Council, said the 30-year lease agreement with MarkWest will bring major financial and recreational benefits.

“Not only will MarkWest’s participation develop this recreational branch trail sooner than we could have done,” Williams said, “but the company’s lease payments will help us cover the trail’s ever-increasing operating and maintenance costs. Even more important to the region, we see the proposed rail development as a good thing for our neighboring communities, since rail transport is so much safer than having many extra tank trucks on our local roads.” For more information about the Montour Trail system, visit www.montourtrail.org



(John M. Breitigan)

“Not only will MarkWest’s participation develop this recreational branch trail sooner than we could have done,” Williams said, “but the company’s lease payments will help us cover the trail’s ever-increasing operating and maintenance costs.”

V. RAIL-WITH-TRAIL CASE STUDIES

Pine Creek Rail Trail—Jersey Shore Connector Jersey Shore, Pennsylvania

Status: Open. The rail-with-trail connector to the Pine Creek Rail Trail opened in September 2012.

Description: Pine Creek Valley and Pine Creek Rail Trail are significant tourist destinations in the state, bringing thousands of visitors and millions of dollars to the region each year. The new 1.4-mile section of trail was designed to connect the popular and scenic 64-mile Pine Creek Rail Trail to the retail center of the Borough of Jersey Shore. The Jersey Shore Connector was also developed to provide private residents of the area with easy access to the main trail without the need to use a car.

The route runs adjacent to the active railroad tracks for 0.4 mile, from the main southern trailhead for the Pine Creek Rail Trail at the edge of the borough, and includes one crossing of the active rail line. The trail then turns south onto Seminary Street (a designated shared-road route) and leads to the Susquehanna River waterfront.

Funding partners for this project included the Borough of Jersey Shore, Pennsylvania Department of Transportation (PennDOT), Lycoming County, Susquehanna Economic Development Association-Council of Governments (SEDA-COG) Joint Rail Authority, and the Lycoming Community Foundation.

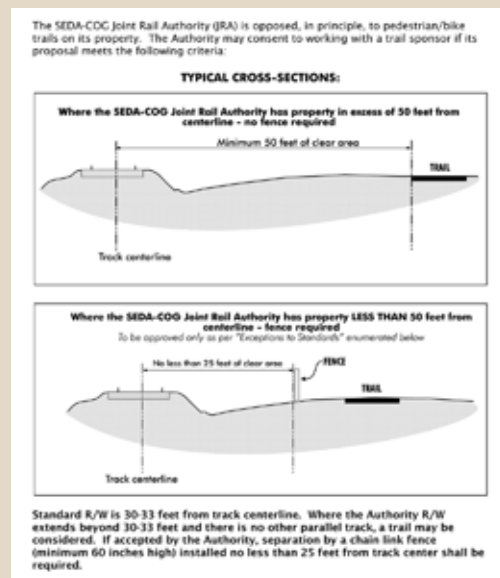
Design: Just under 0.5 mile of trail runs adjacent to the Class II active tracks. The width of the rail corridor averages 60 feet. The trail is 12 feet wide with a 20- to 30-foot setback from the active tracks. The trail is separated from the active tracks by a six-foot-tall black vinyl-clad chain link fence. There is one at-grade crossing delineated by a fence and signed with stop signs. This section carries one train daily, traveling at between 20 and 30 mph.

The Borough of Jersey Shore was able to work directly with SEDA-COG Joint Rail Authority (JRA) on this project because JRA has an existing rail-with-trail policy. The policy specifies design details of what the rail authority is willing to accommodate and its requirements. The Borough of Jersey Shore received a state grant of \$418,000 for the design and engineering of the trail connection through Jersey Shore. The approximate cost of the trail corridor acquisition was reported to be approximately \$1 million. Total cost for the entire 1.4 mile of trail was approximately \$2 million.



Comments: JRA owns five short line railroads and approximately 200 miles of track. It serves an eight-county area in north-central Pennsylvania under contract with a private operator, the North Shore Railroad Group. The company hauls raw material for local industries and presently supports 70 customers in the region. The area is an active location for natural gas drilling, and this industry is supported by several Class I and Class II railroads. JRA has been a recipient of TIGER³¹ grants as well as PennDOT Bureau of Rail Freight funding to build additional track and siding.

Detail from the SEDA-COG rail-with-trail policy:





Clarion-Little Toby Creek Trail Elk and Jefferson counties, Pennsylvania

Status: Opened in sections between 1997 and 2000.

Description: The 19-mile Clarion-Little Toby Creek Trail is located in a rural area of the state where recreation opportunities are emphasized and promoted. The trail parallels Little Toby Creek as well as the eastern side of the meandering Clarion River, which has been federally designated for preservation as part of the National Wild and Scenic Rivers System. Both the Clarion River and Little Toby Creek are popular trout fishing waters. Running north to south, the trail connects the small towns of Ridgway and Brockway. A majority of the trail's facilities fall within State Game Lands, including the section of trail along active rail line. Nearby public lands include national and state forests. The trail lies at the gateway to a region promoted by the state as the "PA Wilds," and is home to the largest elk herd east of the Mississippi River.

The original rail line that created this corridor was built by the Clearfield to Ridgway Rail Company in 1886 to transport lumber and coal. The Penn Central Corporation ceased using the corridor in the 1960s. Today, an active Class II rail line operated by Buffalo and Pittsburgh Railroad, Inc. parallels the trail for 1.8 miles.

Design: The trail surface is crushed limestone. An approximate width of 12 feet is maintained for the entire 19 miles. While the trail is always located on the eastern side of both waterways, an active rail line crosses the Clarion River at several locations, creating a segment of rail-with-trail.

This section is located in a valley where the Clarion River, the rail line, the trail and State Route 949 all come together at the river's narrowest width. The rail-with-trail section has some intermittent grade separation along the 1.8 miles.

A four-foot-high fence with metal posts and ¼-inch steel cable was installed to maintain a physical barrier between the active rail and the trail.

Comments: \$1.7 million of federal and state grants, along with a small amount of private donations and municipal funds, were used to plan and construct the trail. The majority of funds came from the Keystone Recreation, Park, and Conservation Fund program administered by DCNR, and the Federal Transportation Enhancements (now known as Transportation Alternatives) program.

The rail-with-trail section became a major issue involving three state departments, with legal action taken by the railroad in 2004 threatening to close the trail. Though the Tricounty Rails to Trails Association had followed the requirements of the Pennsylvania Game Commission (who owned the right-of-way), PennDOT, DCNR, and the railroad had safety and liability concerns.

A number of organizations, including RTC, were called in to assist in negotiations between Tricounty Rails to Trails Association and the railroad. Following a visit from the secretary of PennDOT, the stakeholders made a commitment to work together. DCNR paid to have a feasibility study³² completed for the 1.8-mile rail-with-trail section which examined all possibilities, including relocating both the trail and rail line. In the end, after nearly 10 years of negotiating, it was agreed that a fence and appropriate signage presented the best compromise.



V. RAIL-WITH-TRAIL CASE STUDIES

Richmond Greenway

Richmond, California

Status: Partially complete. 2.8 miles of the Richmond Greenway (phases I and II) are open. A planned connection to the Ohlone Greenway is expected to be constructed in 2014. A gap remains at the complex crossing of a Union Pacific line at 23rd Street and Carlson Blvd., and there are plans to extend the western end of the greenway to connect with the San Francisco Bay Trail.

Description: The Richmond Greenway runs through Richmond, Calif., a city of just over 100,000 people in the East Bay region. The 2.8-mile long, multi-use trail has 32 acres of adjacent green space, and provides a valuable transportation and recreation facility in an area underserved by open space and where many residents do not have a car.

The greenway runs directly adjacent to an active section of railroad for 1.3 miles of its length. This active railroad section is part of the Bay Area Rapid Transit (BART) system, a heavy-rail commuter line with an electric third rail. It operates between Richmond and other Bay Area destinations. Each weekday, 135 trains operate along the Richmond line in each direction, traveling up to 80 mph. Trains are less frequent on weekends.

Design: The multi-use trail is eight feet wide and its surface transitions from asphalt to crushed stone at various points. Ornamental light poles dot the path in places, and a wire fence separates the trail from the railroad tracks along the 1.3-mile rail-with-trail section. There is one railroad crossing on the trail, a grade-separated bridge crossing covered with fencing to minimize potential interactions between trail users and trains. A refurbished historic railroad tunnel takes the trail underneath Interstate 80. For the rail-with-trail portion, the total width of the corridor is approximately 75 feet, and the average distance between the trail and the tracks is 25 feet. Despite the limited right-of-way, there are efforts to add trees and landscaping to this narrower section to enhance the corridor and to provide a visual buffer between adjacent homes and the trail.

The cost of trail design was approximately \$450,000, and construction costs totaled \$3.6 million. Prior soil contamination and the mitigation of impacts to wetlands and biological resources contributed to these costs. City of Richmond had full ownership of the trail corridor prior to trail development, and did not have to purchase easements from BART.



Comments: BART's fencing standard was key in addressing the safety concerns posed by the speed and frequency of BART trains and the presence of the electric third rail. In addition, access to the trail from the north side, where the rail line is located, is restricted to grade-separated crossings. Along the section of trail that passes over the tracks, BART added razor wire to provide an additional barrier.

While this addressed BART's concerns, it detracted from the aesthetic experience of trail users. Friends of the Richmond Greenway, Urban Tilth, Groundwork Richmond, Pogo Park and other groups have led the effort to create an attractive urban space in this corridor, and have worked with the city to access significant funding to complete various phases of the project.

More information on the Richmond Greenway is available on the City of Richmond's website: www.ci.richmond.ca.us/index.aspx?nid=1118

"Our community partners have been a critical ally in helping to secure construction funding, and support the Richmond Greenway's ongoing maintenance activities. With the limited public resources available, this partnership has enabled the Richmond Greenway to develop to where it is today, and to continue to evolve as a community resource," notes Chris Chamberlain, Parks and Landscape Superintendent for the City of Richmond.



Frisco Trail

Fayetteville, Arkansas

Status: 1.3 miles constructed (including 0.4 mile of rail-with-trail) between 2008 and 2010.

Description: Just over a mile long, the Frisco Trail is a relatively short trail, and the rail-with-trail portion is less than half a mile. However, the trail runs remarkably close to the active railroad tracks—just two feet away at some points—as it courses through downtown Fayetteville. The trains on the adjacent tracks are operated by a short line railroad which primarily runs excursion tourist trains on the corridor but also maintains infrequent freight service. The community has rallied around the trail, with one trail-front coffee shop already open and a new apartment building with direct trail access under construction. After initially expressing hesitation, Arkansas & Missouri Railroad is generally satisfied with the trail design and occasionally uses the trail to directly board their trains. One of the most significant benefits of the trail is that where intoxicated revelers once walked on the railroad tracks through Fayetteville's entertainment district, they now use the Frisco Trail.

Design: After more than two years of negotiation, the City of Fayetteville signed a 99-year lease with Arkansas & Missouri Railroad. The lease, which did not include any payment to the railroad, stipulated that the City of Fayetteville must build a fence between the tracks and the trail, install a roof over the trail where it passes under the tracks to prevent debris falling from trains onto trail users, and purchase comprehensive insurance. The city also purchased six acres of right-of-way from BNSF Railway for more than \$70,000. This additional land had not been transferred to the Arkansas & Missouri Railroad when they originally acquired the corridor. The Frisco Trail is 12 feet wide and the surface transitions from asphalt to concrete. Trail design and construction were paid for entirely by a city bond issued in 2006.

Comments: A short non-rail-with-trail extension of the Frisco Trail is in the planning phase, and will soon take trail users under a busy boulevard. The Frisco Trail, along with all other trails in Fayetteville's comprehensive system, is regularly patrolled by a group of volunteers known as Trail Trekkers. The City of Fayetteville's Trails Coordinator emphasizes that, when negotiating with a railroad company, persistence is key. More information is available on the City of Fayetteville's website: www.accessfayetteville.org



(Matt Mihalevich, Trails Coordinator, City of Fayetteville)

V. RAIL-WITH-TRAIL CASE STUDIES

Mason Trail

Fort Collins, Colorado

Status: Open. 4.5 miles opened in 2006.

Description: The Mason Trail is one component of a transportation corridor that currently includes an active freight rail line and local roads, and which will eventually also include a dedicated bus rapid transit guideway. The trail is 4.5 miles long and runs on the western side of a BNSF corridor for most of its route, although an at-grade crossing shifts the trail to the eastern side of the corridor at one point. Passing through an urbanized section of Fort Collins, the rail line sees frequent use with approximately 11 to 20 trains per day traveling between 30 and 40 miles mph. The full width of the corridor ranges from 100 to 200 feet.

Design: The City of Fort Collins spent just over \$1 million acquiring the land for the Mason Trail. Much of the cost was incurred in purchasing easements from adjacent homeowners' associations. BNSF required the city to adhere to its fence construction standards, so most of the trail is separated from the rail corridor by six-foot-high wooden rail fences with mesh covering. The total design cost for the trail was more than \$4 million which included preliminary and final design work and environmental assessments. Trail development costs were covered by a mix of local, state and federal funding sources. The trail is 12-feet wide with a concrete surface. Much of the land for the adjacent bus rapid transit (BRT) guideway, which is currently under construction, was acquired through an easement from BNSF. The Mason Trail and new BRT lane are unique examples of a city negotiating with a Class I railroad for two different transportation uses adjacent to the railroad tracks.

Comments: The City of Fort Collins recognizes the importance of providing safe crossings of the railroad tracks. It has already added several underpasses of the tracks and has plans to construct a new overpass in the vicinity of a new BRT station. The new bridge and tunnels have the dual benefit of creating new connections to popular shopping centers where road crossings do not exist, as well as providing easy access between the trail and the new BRT stations. Amy Lewin, Transportation Planner for the City of Fort Collins, emphasized the importance of this interconnected rail-with-trail and BRT project.

The Mason Trail is just one of two successful rail-with-trail projects in Fort Collins. The Power Trail runs within an overhead electric utility corridor parallel to active Union Pacific

tracks about two miles east of the Mason Trail. More information on the Mason Trail and the Power Trail in Fort Collins is available at: www.fcgov.com/parks/trails.php

“The Mason Trail has been a significant enhancement for the Fort Collins community and will be an important complement to the new MAX bus rapid transit system, opening in 2014. The trail provides a great way to get to major destinations and activity centers along the corridor, and also provides convenient access to other trails in the city’s existing and expanding trail network.” —Amy Lewin



(Amy Lewin, Transportation Planner, City of Fort Collins)



America's Rails-with-Trails



(Rails-to-Trails Conservancy)

With the tight parameters of land available for this rail-with-trail development, project manager Steve Brown of Columbus and Franklin County Metro Parks warned that it is “important to do your homework up front on the ground when it comes to prevailing grades, drainage and utilities to avoid expensive redesigns and change orders.”

Camp Chase Rail-Trail

Columbus, Ohio

Status: Partially complete. 5.5 miles are open to the public. 6 miles are currently under construction.

Description: When completed, the Camp Chase Rail-Trail will be a major connection in a cross-state trail project stretching from Cleveland through Columbus to Cincinnati. Currently, 5.5 miles of the trail are open and when finished will pass over a major interstate and into Columbus' Hilltop neighborhood, a dense urban residential, retail and industrial area. Trains on the adjacent tracks are operated by a short line freight company that runs approximately one train a day at less than 10 mph. The entire length of the existing trail runs parallel to the active railroad corridor, although a section of the planned trail corridor will divert from the railroad corridor for about one mile.

Design: Columbus and Franklin County Metro Parks, the lead agency in the development of the Camp Chase Rail-Trail, acquired a fee simple purchase of property from the rail operator for \$750,000. The agreement stipulates the trail be built at least 20 feet from the edge of the rail. Multiple design elements were used to delineate the trail from the rail line, including fencing, grade separation and some ditching. The trail is 12 feet wide with an asphalt surface and crosses the rail corridor at grade several times. Crossings are signed and marked for trail users. A prefabricated bridge will be installed to create a safe crossing of an eight lane interstate. The budget for development of the trail to date, including the cost of property rights of the entire 11.5 miles, is \$6.9 million.

Comments: Completion of the entire trail corridor is expected by the end of 2014. Further expansion opportunities along the corridor are being explored by the City of Columbus, which could turn this stretch of rail-with-trail into almost 15 miles of total trail.

Camp Chase Railroad is operated by a short line rail company, Carload Express Inc., which also operates two short line railroads in Pennsylvania. The take away for all rail-with-trail projects is to have an intimate familiarity with the project area and take into account all variables that may affect the project. For more information, visit Metro Parks website: www.metroparks.net/CampChaseRailTrailProject.aspx

Trails and Excursion Railroads

Heritage Rail Trail County Park

York County, Pennsylvania

Status: Opened in August 1999.

Description: The Heritage Rail Trail was developed on an existing double-track corridor with one set of tracks remaining in place. The trail winds for 22.8 miles through largely rural landscapes between York and New Freedom. When the Heritage Rail Trail first opened, it shared the corridor with the Northern Central Railway Liberty Limited dinner train. By late 2001, insufficient ridership caused the Northern Central Railway to cease operations.

But after 12 years of inactivity, rail service was returned to the Heritage Rail Trail County Park in 2013 with the introduction of “Steam into History,” a project of a local nonprofit group of rail enthusiasts which raised funds to build a 1860s-era reproduction locomotive. The restored locomotive and two passenger cars began running on 10 miles of the corridor. Today, re-enactors on the train and along the trail add to the excitement of a train ride through history. Steam into History is planning to soon offer bike shuttle service between New Freedom and Hanover Junction.

Design: The County of York purchased the corridor from PennDOT for \$1, under the provision that one set of tracks had to remain within the double-track corridor. There is no barrier between the rail corridor and the trail. Separation between the center line of the track and the edge of trail averages five feet. The trail’s surface is primarily crushed stone, with a few paved sections where frequent storm damage has occurred. The average width of trail is 10 feet, and the trail crosses the railroad corridor 16 times over its 22.8 miles. All rail crossings are paved, and in each instance the trail crosses the rail line at an approximate right angle. There is railroad crossing signage at each of these crossing points. The excursion train travels at a speed of between 10 and 15 mph, and railroad staff walk ahead at each rail crossing to ensure trail users have stopped to wait for the train to cross the trail.

Comments: A lease and operating agreement was negotiated between the County of York and Steam into History which stipulates that Steam into History insure the county and park which owns and manages the trail. Special mention is called to the fact that an existing underground utility (fiber optic line) lease takes precedence over rail operations and any future rail

freight service would take precedent over the tourist train. The tracks are currently maintained solely by the nonprofit organization to run the tourist train at very low speeds.

Steam into History is not responsible for upgrading the tracks for freight service. The reintroduction of train service along the Heritage Rail Trail corridor was welcomed by the County of York and the county’s parks department, and the relationship between the train and the trail is proving to be mutually beneficial. The retail businesses in the Borough of New Freedom are seeing increased commercial traffic drawn to the community by the train. More information: yorkcountypa.gov/parks-recreation/the-parks/heritage-rail-trail-park.html and Steam into History: www.steamintohistory.com/about



Allegheny Highlands Trail — Western Maryland Scenic Railroad

Allegany County, Maryland

Status: The 22-mile trail opened in 2006, and runs from Cumberland, Md., to the Mason-Dixon Line at the Pennsylvania border.



Description: The Allegheny Highlands Trail is a segment of the 150-mile Great Allegheny Passage (GAP). It shares the right-of-way with Western Maryland Scenic Railroad (WMSRR) from Cumberland to Frostburg over the southernmost 16 miles of the GAP corridor. The railroad operates both a steam and a diesel locomotive. The restored coaches have large windows and provide scenic views of the mountains of western Maryland. Trains complete the 32-mile round trip excursion on select days between May and December. While the railroad grade from Cumberland to Frostburg averages just 1.5 percent, there are some short sections of 2.7 percent grade over the 1,400-foot elevation change. For that reason, WMSRR offers a bike shuttle service to carry trail users uphill from Cumberland to Frostburg. During 2012, the railroad transported 1,691 bikes, bike carts and trailers to Frostburg. Trail users with bicycles enjoy the leisurely train ride up to Frostburg and then have a downhill ride back to Cumberland. RTC's Greenway Sojourn has utilized the bike shuttle service on two trips along the GAP, adding hundreds of riders to the railroad's annual traffic.

Design: The rail-with-trail segment shared with the WMSRR has an average trail width of 10 feet. The trail maintains a minimum distance of 8.5 feet from the railroad, and shares a bridge and a tunnel. The trail was built in segments with the first, from Frostburg north to the Pennsylvania border, completed in 2004. The second segment, from Frostburg south to Woodcock Hollow Road, opened in late summer 2005. The final segment, connecting to Cumberland, opened in December of 2006. The trail surface is primarily stone dust but there are some paved areas near Cumberland. The only physical barrier separating the railroad and the trail is a chain link fence inside Brush Tunnel. The train travels at an average speed of 15 mph.

Comment: The right-of-way is the old Western Maryland rail line, which operated on two tracks between Cumberland and the Pennsylvania border and is now owned by Allegany County. The WMSRR operates the train and maintains the tracks. The county maintains the trail with assistance from the local Mountain Maryland Trail (MMT) group. The Frostburg to Woodcock Hollow Road segment was the first rail-with-trail segment of the GAP. Discussions over a number of years revolved around how the GAP would be developed along the right-of-way where the WMSRR operated. Supporters of bikes and trains got together and, working with the Maryland Department of Planning, the two groups found creative ways to overcome old obstacles and close the gap between Frostburg and Cumberland. Trail riders pay the full fare to ride the train (\$35), plus \$5 to haul their bikes. More information: www.wmsr.com

V. RAIL-WITH-TRAIL CASE STUDIES

The Winnepesaukee, Opechee and Winnisquam (WOW) Trail Laconia, New Hampshire

Status: The WOW Trail is a work in progress. The first phase of 1.3 miles opened in 2010. When fully built, the asphalt trail will be nine miles in length.

Description: The Winnepesaukee Scenic Railroad runs seasonally between Meredith and Lakeport, N.H., along the shore of Lake Winnepesaukee. The train passes through Weirs Beach, a once-thriving tourist destination with grand hotels for summer visitors from Boston. Weirs Beach is the home of Laconia Motorcycle Week, an annual event held since 1923. At Meredith, the locomotive is uncoupled and moved to the other end of the train for the return trip to Lakeport. Fall foliage tours are particularly popular on the scenic railroad. The rail corridor is owned by the New Hampshire Department of Transportation (NHDOT). The WOW Trail is a developing trail that runs within the railroad corridor. As of 2013, 1.3 miles of trail was open for public use between the Lake Opechee Inn and Spa in Lakeport and Main Street, Laconia. Additional phases will eventually bring the trail to nine miles in length, and connect it with the BRATT Trail in Belmont.

Design: The rail-with-trail segment of the trail is .8 miles in length. The trail is 10 feet wide and asphalt. The railroad corridor is 66 feet wide, and the distance between the edge of the trail and the center of the railroad tracks averages 15 feet. The trail and railroad tracks are separated by a four-foot chain link fence through the current section. The trail organization has been working with NHDOT and the railroad to permit the use of more aesthetically-pleasing fence on future development phases. Segments of the rail and the trail run along the shore of Lake Winnepesaukee. The excursion train runs on weekends from Memorial Day through June, then daily through Labor Day, and again on weekends until the end of October. The train runs once a day, and travels at an average speed of between 10 and 15 mph.

Comments: According to Diane Hanley, past president of the nonprofit WOW Trail organization, the railroad is “tolerating the development of phase two of the trail.” The railroad participates in the trail design process on an as-needed basis, but otherwise does not aid the WOW Trail group in overcoming trail development challenges. Eventually, the trail could be developed along the railroad right-of-way all the way to Franklin. More information: www.wowtrail.org





America's Rails-with-Trails



VI. CONCLUSION

This report provides a collection of data, examples and practical tools to increase awareness of the rail-with-trail concept, and to supply trail planners and advocates with resources to advance local and state policies that supports rail-with-trail development. Findings from this study, used together with RTC's previous rail-with-trail report, *Rails-with-Trails* (2000), and USDOT's *Rails-with-Trails: Lessons Learned* (2002), should equip trail managers and advocates with a valuable set of resources to encourage rail-with-trail development in communities across the country. Rails-with-trails that are well-designed to enhance trail user safety and accessibility, and address railroad concerns, can provide many mutual benefits to communities and railroads.

Despite continued liability and safety concerns about collocating trails and active railroad corridors, our interview and survey results reveal that rail-with-trail development has increased at a steady rate, and many more projects are being planned. Furthermore, rail-with-trail facilities continue to maintain excellent safety records. In nearly two decades of studying rails-with-trails, there is only one known fatality involving a trail user and a train. Incorporating well-designed rail-with-trail development along active railroad corridors that frequently deal with pedestrian trespassers can provide a separated, safe facility to control pedestrian travel and effectively reduce dangerous or fatal accidents within the corridor.

The reported data also demonstrate that the acquisition, design, and operating characteristics of rails-with-trails continue to be very diverse. Some trails are built within feet of active railroad tracks, and others are separated from the tracks by a greater distance. Some trails exist parallel to railroad corridors with a high frequency of service and train speeds of more than 50 mph, while others experience intermittent rail service at low speeds. Some trails have constructed barriers that physically separate trail users and trains, and other trails operate safely without a separation between trail and rail. This wide variety of design and management characteristics demonstrates that rails-with-trails can be successfully planned and developed under many different environmental and political conditions.

Responses from the 88 trail managers included in this study indicate that more rails-with-trails are being developed in publicly owned corridors, including regional transit and light rail systems. This may be a growing trend as more communities explore ways to develop and improve well-connected and accessible multi-modal transportation systems.

While many of the liability reduction and risk management tools presented in *Rails-with-Trails: Lessons Learned* remain unchanged, amendments to some states' Recreational Use Statutes demonstrate new state legislative efforts to encourage rail-with-trail development. Additionally, policies implemented by state agencies and regional authorities, and the development of specific design guidelines or standards that accommodate trail users while addressing the concerns of the railroad, point to an increased awareness of the value of rails-with-trails.

More communities across the U.S. are seeking ways to encourage active transportation by developing safe and accessible bicycle, pedestrian and trail systems. Rails-with-trails can be vital to creating and completing trail networks.



Eastern Promenade Trail, Maine
(Rails-to-Trails Conservancy)



Cedar Lake Trail, Minn. (Simon Blenski)



Trolley Trail, Iowa (Michael Johns)



Springfield River Walk, Mass.
(Rails-to-Trails Conservancy)



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VII. APPENDICES — LIST OF RAILS-WITH-TRAILS

Trail Name	State	County	Included in This Report	Total Trail Length	Rail-with-Trail Length
Chase Trail	AK	Matanuska-Susitna	✓	14	9
Tony Knowles Coastal Trail	AK	Anchorage	✓	11	1.25
Frisco Trail	AR	Washington	✓	1.3	0.4
Route 66 Trail	AZ	Coconino	✓	4.9	3.56
Alton Ave to Orange Street Bike Trail	CA	Orange	✓	1.8	1.8
Bear Creek Trail (Merced)	CA	Merced		3.6	0.5
Cal Park Hill Tunnel	CA	Marin		1.1	1.1
Carlsbad Coastal Rail Trail	CA	San Diego	✓	0.7	0.7
Chico State Bike Path	CA	Butte		2	1.9
Escondido-San Marcos Inland Rail Trail	CA	San Diego	✓	6.5	6.5
Fillmore Trail	CA	Ventura	✓	1.4	1.4
Folsom Parkway Rail-Trail	CA	Sacramento	✓	5	5
Foss Creek Pathway	CA	Sonoma		0.6	0.6
Goshen Trail	CA	Tulare		5	5
Lincoln Hill Pathway	CA	Marin		1.4	1.2
Linear Park	CA	San Diego		1.1	1.1
Manteca Tidewater Bikeway	CA	San Joaquin	✓	3.4	1
Martin Luther King, Jr. Promenade	CA	San Diego	✓	0.75	0.75
Mission City Bike Trail	CA	Los Angeles	✓	2.9	2.9
Napa Valley Vine Trail (Napa)	CA	Napa		1.8	1.8
Napa Valley Vine Trail (Yountville)	CA	Napa		0.85	0.85
Oceanside Coastal Rail Trail	CA	San Diego	✓	1	1
Old US 40 Bike Path	CA	Yolo	✓	8.4	4.8
Richmond Greenway	CA	Contra Costa	✓	2	1.36
Rose Canyon Bicycle Path	CA	San Diego	✓	1.1	1.1
Sacramento River Parkway Trail	CA	Sacramento	✓	4	2.5
San Clemente Beach Trail	CA	Orange	✓	2.3	2.3
San Francisco Bay Trail (Pinole, Hercules)	CA	Contra Costa	✓	10	2.13
San Luis Obispo Railroad Safety Trail	CA	San Luis Obispo	✓	1.5	1.5
Santa Clara River Trail (Chuck Pontius Commuter Rail Trail)	CA	Los Angeles	✓	7.1	2.5
Santa Maria Valley Railroad Trail	CA	Santa Barbara	✓	1.2	0.23
Sierra Highway Bike Path	CA	Los Angeles		7.1	7.1
Solana Beach Coastal Rail Trail	CA	San Diego	✓	1.7	1.7
Walnut Trail	CA	Orange	✓	3.3	3.3
Watts Towers Crescent Greenway	CA	Los Angeles	✓	0.2	0.2
Westminster Hoover Street Trail	CA	Orange	✓	2	2
Animas River Trail	CO	La Plata	✓	7	2
Mason Trail	CO	Larimer	✓	4.5	4.5
New Santa Fe Regional Trail	CO	El Paso	✓	20	4.6
Power Trail	CO	Larimer	✓	3.89	3.89
UCAR Multi-Use Path	CO	Boulder		0.3	0.07
Yampa River Core Trail	CO	Routt	✓	7	0.82



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Trail Name	State	County	Included in This Report	Total Trail Length	Rail-with-Trail Length
Metropolitan Branch Trail	DC, MD	Montgomery, Washington	✓	8	1.61
James F. Hall Trail	DE	New Castle		1.76	1
John Yarbrough Linear Park Trail	FL	Lee		6	6
M-Path	FL	Dade	✓	9.4	9.4
Silver Comet Trail	GA	Cobb, Paulding, Polk	✓	61.5	10
Stone Mountain Trail	GA	De Kalb, Fulton	✓	19	3.5
Linn Creek Recreational Trail	IA	Marshall	✓	10	1
Prairie Farmer Recreational Trail	IA	Howard, Winneshiek		20	0.7
Trolley Trail	IA	Cerro Gordo		6.2	0.33
Chain O' Lakes Bike Path	IL	Lake		3.2	1.6
East Prairie Bicycle Trail	IL	Piatt		1	1
Great River Trail	IL	Carroll, Rock Island, Whiteside		60	28
Green Bay Trail	IL	Cook, Lake		8.9	6.29
Illinois Prairie Path	IL	Cook, Du Page, Kane	✓	57.4	2
MetroBikeLink Trail	IL	St. Clair		6.9	6.2
Robert McClory Bike Path (formerly North Shore Bike Path)	IL	Kenosha, WI, Lake		26.5	11.2
Rock River Recreation Path	IL	Winnebago	✓	10	7
Skokie Valley Trail	IL	Cook, Lake		9.8	9
Virgil Gilman Trail	IL	Kane, Kendall		11.5	1.8
Wauaponsee Glacial Trail	IL	Will		22.3	0.6
Cardinal Greenway (Muncie Section)	IN	Delaware, Randolph	✓	27.25	0.6
Dearborn Trails (Aurora, Lawrenceburg, Greendale)	IN	Dearborn		5.4	2.9
Industrial Heritage Trail	IN	Howard		2.6	2.6
Little Turtle Waterway	IN	Cass		1	0.5
MapleHeart Trail	IN	Elkhart	✓	4.8	2
Paradise Spring Riverwalk	IN	Wabash		0.75	0.75
Polly Grimshaw Trail	IN	Monroe		0.65	0.65
Sweetser Switch Trail	IN	Grant		3	2.6
Wabash & Erie Canal Trail (Evansville)	IN	Vanderburgh		1	1
Winona Interurban Trail	IN	Elkhart		3.14	2.6
Gary L. Haller National Recreation Trail (Mill Creek Streamway Park)	KS	Johnson	✓	17	5
Whistle Stop Park	KS	Morton		1.8	0.91
Louisville Riverwalk	KY	Jefferson		8.3	1.88
South Elkhorn Trail	KY	Fayette		0.5	0.5
Mississippi River Trail (New Orleans Levee Top Trail)	LA	Orleans	✓	21	1
Connecticut Riverwalk and Bikeway	MA	Hampden	✓	3.7	2
Manhan Rail-Trail	MA	Hampshire	✓	9	0.8
Norwottuck Rail-Trail (Mass Central Section)	MA	Hampshire	✓	10	1.5
Shining Sea Bikeway	MA	Barnstable	✓	10.7	0.07
Southwest Corridor Park (Pierre Lallement Bike Path)	MA	Suffolk		3.9	1.89
Allegheny Highlands Trail of Maryland—Great Allegheny Passage	MD	Allegany		22	11.5

VII. APPENDICES — LIST OF RAILS-WITH-TRAILS

Trail Name	State	County	Included in This Report	Total Trail Length	Rail-with-Trail Length
Eastern Promenade Trail	ME	Cumberland	✓	2.1	1.8
Ellsworth Rail Trail	ME	Hancock	✓	1.6	1.6
Kennebec River Rail Trail	ME	Cumberland, Kennebec, Sagadahoc		6.5	6
Sebago to the Sea Trail	ME	Cumberland		28	8
Traverse Area Recreation Trail (TART)	MI	Grand Traverse	✓	10.5	10.5
Duluth Lakewalk	MN	St. Louis	✓	7	7
Hiawatha Trail	MN	Hennepin		4.7	4.7
North Cedar Lake Regional Trail/Cedar Lake Trail	MN	Hennepin	✓	7.9	7.9
Bitterroot Branch Trail	MT	Missoula	✓	2.17	2.17
Great Northern Historical Trail	MT	Flathead		22	0.5
Charlotte Trolley Trail (Charlotte Trolley Rail-with-Trail)	NC	Mecklenburg	✓	3.3	3.3
Libba Cotten Bikeway	NC	Orange	✓	0.38	0.38
Marcia H. Cloninger Rail-Trail	NC	Lincoln	✓	1.7	0.15
St. Joe Trail	NE	Hall		2.91	1.2
Winnepesaukee River Trail	NH	Belknap, Merrimack		5.1	2
WOW Trail	NH	Belknap	✓	1.3	1
Traction Line Recreation Trail	NJ	Morris	✓	3.2	3.2
Santa Fe Rail-Trail	NM	Santa Fe	✓	17	17
Union Pacific Railroad Trail	NV	Clark	✓	4.5	4.5
Saranac Lake Recreational Path	NY	Franklin		0.52	0.52
Camp Chase Rail-Trail	OH	Franklin, Madison	✓	5.5	5.5
Celina Coldwater Bikeway	OH	Mercer	✓	4.61	4.61
Hockhocking Adena Bikeway	OH	Athens	✓	20.3	1.5
North Coast Inland Trail—Sandusky/Ottawa County (Bellevue to Elmore)	OH	Ottawa, Sandusky	✓	26	12
Portage Hike and Bike Trail	OH	Portage		9	5.5
Simon Kenton Trail (Urbana-Bellefontaine Connector)	OH	Champaign, Clark	✓	1.25	1.2
University Park Bike-Hike Trail	OH	Lucas		6.3	4.18
Wright Brothers Huffman Prairie Bikeway	OH	Greene, Montgomery	✓	4.58	3.6
Zane's Landing Trail	OH	Muskingum	✓	3	3
Stavich Bicycle Trail	OH	Mahoning	✓	2.9	2.9
Katy Trail (Oklahoma City)	OK	Oklahoma		6.3	1.2
Central Ashland Bikepath	OR	Jackson	✓	1.8	1.8
I-205 Multi-Use Path	OR	Clackamas, Multnomah		18.3	11.3
Logging Road Trail	OR	Clackamas		3.5	1
Springwater Corridor	OR	Clackamas, Multnomah		21.5	3.43
Arboretum Trail	PA	Allegheny	✓	0.8	0.8
Clarion-Little Toby Creek Trail	PA	Clearfield, Elk, Jefferson	✓	19	2
D & L Trail (Lehigh Gorge State Park Trail)	PA	Carbon, Luzerne	✓	25.7	6.8
Five Star Trail	PA	Westmoreland	✓	7.75	6.1
Heritage Rail Trail County Park	PA	York		21.1	10
Hoodlebug Trail	PA	Indiana		10.5	0.5



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Trail Name	State	County	Included in This Report	Total Trail Length	Rail-with-Trail Length
Luzerne County Rail-Trail	PA	Lackawanna, Luzerne		1.8	1.8
McClintock Trail	PA	Venango	✓	2	1.5
Montour Trail—Westland Branch	PA	Washington	✓	3	3
Neversink Connector Trail	PA	Berks		1.2	0.3
Pine Creek Rail Trail/Jersey Shore Connector	PA	Lycoming, Tioga	✓	62	0.47
Stavich Bicycle Trail	PA	Lawrence	✓	7	7
Schuylkill River Trail (Thun Trail)	PA	Berks, Montgomery	✓	18.3	3
Schuylkill River Trail (Valley Forge to Philadelphia)	PA	Montgomery, Philadelphia	✓	27	1.4
Three Rivers Heritage Trail (South Side)	PA	Allegheny	✓	6	6
Blackstone River Bikeway	RI	Providence	✓	11.8	5
Richland Creek Greenway	TN	Davidson	✓	5	0.5
Tennessee Central Heritage Rail Trail	TN	Putnam		0.5	0.5
Bicentennial Hike and Bike Trail	TX	Hidalgo	✓	4	2
Cotton Belt Trail	TX	Tarrant	✓	11.2	11.2
Denton Branch Rail-Trail (Trinity Trails System)	TX	Denton		8.6	8.6
Lance Armstrong Bikeway (Crosstown Greenway)	TX	Travis		4.6	0.25
Legacy Parkway Trail	UT	Davis		14	0.6
Porter Rockwell Trail	UT	Salt Lake	✓	10.7	10.7
Virginia Capital Trail	VA	Charles City, James City, Richmond City		15.8	0.5
Island Line Rail Trail	VT	Chittenden, Grand Isle	✓	12.5	1.5
Burke-Gilman Trail	WA	King		17	1.72
Chehalis Western Trail	WA	Thurston		20.5	1.12
Cowlitz River Trail	WA	Cowlitz		2.5	2.5
Duwamish Bikeway	WA	King		2.95	1.75
East Aberdeen Waterfront Walkway	WA	Grays Harbor		1.6	0.5
Elliot Bay Trail (Terminal 91 Bike Path)	WA	King		3.35	0.7
Fish Lake Trail	WA	Spokane		10	5.7
Grand Avenue Greenway	WA	Whitman		1.7	1.7
Lower Yakima Valley Pathway	WA	Yakima		14	6.36
Pullman Riverwalk	WA	Whitman	✓	0.42	0.42
Bugline Trail	WI	Waukesha		12	1.88
Campus Drive Pedestrian Bike Path	WI	Dane		1.5	1.5
La Crosse River State Trail	WI	La Crosse, Monroe	✓	22	22
MRK Trail (Racine County Bikepath system)	WI	Racine		5	5
New Berlin Recreation Trail	WI	Waukesha		7	7
Peace Trail	WI	Rock	✓	7	7
Rock River Parkway Trail	WI	Rock		2.4	0.73
Southwest Commuter Path	WI	Dane	✓	5.6	1.15
TOTALS				1397	555

VII. APPENDICES — SUMMARY OF ONLINE RESOURCES

The report references several additional resources that, due to their extensive nature, are available on our website at www.railstotrails.org/railwithtrail. A summary of these online resources is provided below.

- ▶ Individual survey and interview responses—Detailed responses for each of the 88 rails-with-trails included in this study are compiled in a comprehensive table. Use this table to learn more about trail characteristics, corridor conditions and the railroad owner/operators.
- ▶ Recreational Use Statutes (RUS)—An updated RUS list for all 50 states and the District of Columbia. Includes link to each state's RUS.
- ▶ Legal Agreements—More than a dozen examples of legal agreements between trail managing agencies and railroad companies.
- ▶ Rail-with-Trail Feasibility Studies—Several sample feasibility studies and rail-with-trail planning documents provide examples of design techniques, trail route alignments, and suggestions for funding trail development.
- ▶ Image Library—A growing photo catalog provides images of rails-with-trails from across the country.
- ▶ Rail-with-Trail List—List of known rails-with-trails included in RTC's database, with links to trail descriptions on our trail-finder website, www.trailink.com.

Southwest Commuter Path, Wis. (Rails-to-Trails Conservancy)





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1. For more information on the railroad abandonment process, visit RTC's Trail Building Toolbox: www.railstotrails.org/ourWork/trailBuilding/toolbox/index.html
2. <http://community.railstotrails.org/media/p/4751.aspx>
3. RTC has developed and manages the most comprehensive database of information about rail-trails in existence. The database houses thousands of records relating to railroad corridors, open trails, and trails in development, with data on rail-trails dating back to 1969 and information on railbanked corridors from 1986 forward. Trail-related information is gathered by online monitoring of trail progress in the news and other internet sources and through our large network of trail managers, advocates and users. Maintaining communication with hundreds of local and state trail professionals and enthusiasts has allowed RTC to collect, continuously update and validate rail-trail information.
4. *NCRA Policy and Procedures Manual: Trail Projects on the NWP Line Rights-of-Way: Design, Construction, Safety, Operations, and Maintenance Guidelines*. (2009) www.mendocinocog.org/pdf/Rail-Trail/NCRA%20Trail_Guidelines_8-5-09.pdf
5. www.metroinktrains.com/pdfs/EngineeringConstruction/Rail_with_Trail_Design_Guidelines.pdf
6. www.dot.ca.gov/hq/traffops/survey/pedestrian/TR_MAY0405.pdf
7. Bondurant, J. and Thompson, L. (2009). *Trail Planning for California Communities*. Salano Press Books. Point Arena, Calif.
8. <http://ict.illinois.edu/publications/report%20files/FHWA-ICT-13-013.pdf>
9. <http://community.railstotrails.org/media/p/35414.aspx>
10. <http://community.railstotrails.org/media/p/35412.aspx>
11. <http://community.railstotrails.org/media/p/35413.aspx>
12. Railroad classification system is defined in Section IV.
13. See page 20 of CSX's *Public Project Information* (2005), www.csx.com/share/wwwcsx_mura/assets/File/Community/CSXPublicPolicyManual_3.24.11.pdf
14. Section 7.2 of *BNSF Railway and Union Pacific Railroad: Guidelines for Railroad Grade Separation Projects* (2007), www.uprr.com/aboutup/operations/specs/attachments/grade_separation.pdf
15. MassDOT rail-with-trail policy: <http://community.railstotrails.org/media/p/35411.aspx>
16. http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/on_the_fly_download.aspx
17. <http://oli.org>
18. 14 Maine Revised Statutes Annotated § 159-A. See Liability Reduction Tools Box.
19. Code of Virginia, § 29.1-509
20. Alaska Statutes, § 09.65.200(a); 68 P.S. §§ 477-1 to 477-8.
21. *Stone v. York Haven Power Co.*, 749 A.2d 452, 456 (Pa. 2000)
22. *Estate of Haykin v. City of Bellingham*, No. 67713-6-I (Wash App. Div. 1, Oct. 15, 2012) (unpublished opinion).
23. 42 Pa.C.S.A § 8339.1(a)
24. www.fra.dot.gov/eLib/Details/L03623
25. CA Civil Code § 846.1
26. See, e.g., *Chicago & N.W. Transp. Co. V. Hurst Excavating, Inc.*, 498 F. Supp. 1, 4 (N.D. Iowa 1980) (relying on Section 1 of Article VII of the Iowa Constitution)
27. For example, Oregon law provides authority for the parks department to indemnify "an owner of private land adjacent to an Oregon recreation trail... for damage clearly caused to the land of the owner, and property therein, by users of such trail and which such landowner has not been able to recover from the user causing such damage..." Oregon Rev. Stat. § 390.980.
28. Alaska Statutes, § 42.40.420.
29. Detailed survey responses available at www.railstotrails.org/railwithtrail.
30. www.crossalert.com
31. The Transportation Investment Generating Economic Recovery (TIGER Discretionary Grant program) is a federal funding program administered by USDOT.
32. "*Clarion/Little Toby Rail-with-Trail Feasibility Study*, Elk County, Pennsylvania," by Alta Planning & Design, includes a full technical analysis of the rail-with-trail segment.



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