A GUIDE TO THE VALUATION OF RECREATIONAL LAND WITH TROUT STREAMS

An Analysis of Wisconsin’s Driftless Region

By: Richard S. Larkin, SRA
CONTENTS

About the Author
Foreword
Acknowledgements
Introduction
Chapter 1 – Overview
Chapter 2 – An Introduction to Wisconsin’s Driftless Region
Chapter 3 – Anatomy of A Trout Stream
Chapter 4 – The Analysis of A Recreational Market
Chapter 5 – The Appraisal Process
Chapter 6 – Appraisal Methodologies
Chapter 7 – The Market Value Contribution of A Water Feature and Other Appraisal Considerations
Chapter 8 – Paired Data Analysis – Trout Stream vs. Non-Trout Stream Recreational Parcels
Chapter 9 – Other Appraisal Methodologies
Chapter 10 – Listings
Chapter 11 – Replicability
Chapter 12 - Conclusions
Appendices
References

Cover Photograph: Rush Creek, Crawford County, Wisconsin
ABOUT THE AUTHOR
The author, Richard S. Larkin, SRA, has been a residential real estate appraiser for over 30 years. Mr. Larkin is a graduate of the University of Wisconsin-Madison, and is a designated member of the Appraisal Institute. In addition to the appraisal of residential real estate, Mr. Larkin has also specialized in the appraisal of recreational and conservancy land for clients as diverse as the Nature Conservancy, the Wisconsin Department of Natural Resources, and various Wisconsin non-profit land trusts, as well as banks, financial institutions, attorneys, accountants, financial planners, and other private individuals. The author is not a member of Trout Unlimited, or any other trout-oriented conservation organizations. The author is also not a member of or is affiliated with the Nature Conservancy or any other conservation organization, non-profit land trust or related organization.
FOREWORD

Valuation professionals often overlook specialized property types, as assignments of this type are typically infrequent and the data is sparse in nature. However, as markets change, and more importantly, as new real estate markets emerge, along with new price and value patterns, it is incumbent upon an appraiser who works in a particular market to familiarize himself or herself with the various characteristics that affect land values in a given market.

I have noticed over the years a resurgence of interest in outdoor recreational activities in general and specifically, in fly-fishing for trout in this unique area in the State of Wisconsin. Also, an increased amount of environmental awareness appears to be taking place amongst the buying public with resulting changes in the value characteristics in the recreational market where I have trout fished, hunted and generally have enjoyed the outdoors in the past thirty years. The purpose of this guide is to provide appraisers, real estate professionals, property owners, prospective buyers and sellers with insight into not only the characteristics of a unique recreational market, but into the valuation process as well.

While appraisers deal primarily in market value, other values exist. David Michael Keating, MAI, author of The Valuation of Wetlands, noted in this 1995 Appraisal Institute Handbook, “appraisers are generally requested to estimate the market value of a specified interest in real estate such as market value of the fee simple estate.” Mr. Keating further goes on to state that other values exist. In exploring the concept of total economic value, Mr. Keating explored private interest value plus public interest value to create a total economic value. In the case of wetlands, the large amount of estimated public interest value is far in excess of private interest value. This is due to the multiple functions of wetlands in a given ecosystem, which includes a water purification, flood prevention, critical wildlife habitat, and human recreation. A possible application of this principle of total economic value applies to the valuation of recreational lands with trout streams. This is seen in terms of a trout stream representing a pure, cold, highly oxygenated, high quality water source, which benefits not only the trout and in turn the fishermen who seek them, but the surrounding ecosystem as well. This in turn, may provide a more valuable recreational amenity to property owners and recreational enthusiasts.

Therefore, while it is the intent of this Guide to provide opinions and guidance as it pertains to the appraisal of land possessing this unique water feature, we have only tapped the surface as to the total economic value of the trout stream water feature.
ACKNOWLEDGEMENTS
The appraiser would like to thank the Appraisers Research Foundation of Houston, Texas in kindly providing me with a grant to explore and analyze this unique area of real estate. Without the generosity of this organization, this Guide would never have been possible. Please visit the Appraisers Research Foundation’s website at www.appraiserresearch.org and see what other valuation guides and useful tools are available to the working appraiser and real estate professional.

The appraiser would also like to thank Mr. Henry Koltz, President of the Southeast Chapter of Trout Unlimited, for his kind and thoughtful encouragement in the pursuit of this Guide. I would also like to thank Dr. Jason Freund, Professor of Environmental Science at Carroll University in Waukesha, Wisconsin for his input. I would like to thank Thomas Cotton, of La Farge, Wisconsin, owner of Don Potter Realty and Appraisals for data and information regarding the local market. I would especially like to thank Brian Jacobs of Hometown Country Realty of La Farge, Wisconsin, Kyle Hall of Hall Realty of Viroqua, Wisconsin, and Randy Robertson of Rush Creek Realty of DeSoto, Wisconsin for access to their databases and information regarding this most unique marketplace. Without the help of these dedicated local appraisers and Realtors, this study would never have been possible. I would also like to thank local author John Motoviloff, author of Fly Fisher’s Guide to Wisconsin for his insights.

My thanks also go to the Customer Service staff at the Wisconsin Department of Natural Resources La Crosse Field Office, who promptly returned my telephone calls and email inquiries for small bits of what surely seemed to them, unusual information requests. Without their valuable assistance, this study would not have been possible.

Additionally, thanks to the staff at the Land and Water Conservation Department in Vernon County, Wisconsin for their very informative website and their granting me permission to utilize some of the diagrams and a great photograph which illustrates trout stream bank improvements. I note that the work of this Department is largely responsible for some of the high quality trout streams that we have studied in this unique area.

Lastly, I would like to thank my wife Carolyn, my office staff, and Laura Caffentzis for their tolerating the disruption of normal office procedure and endless hours of typing and retyping this Guide. Without their help, this Guide would also not have been possible.
INTRODUCTION

Working appraisers are from time to time called upon to analyze and support the contributory value of a water feature. Natural water features can take the form of lakes, ponds, rivers, streams, and creeks. Man-made water features include ponds, impoundments, wildlife scrapes, and other features for aesthetic, agricultural, wildlife management, or recreational purposes. Unique amongst these water features is the trout stream, a free-flowing, high quality water feature inhabited by trout, which are highly sought after by recreational fishermen. Trout occupy a special place in the natural world and are often seen as an indicator of environmental purity, as they can only survive in cold, relatively clean water. As an appraiser, analyzing and providing opinions of supportable market value for properties possessing this unique attribute, the purpose of this study would be to provide supportable evidence in terms of a meaningful and supportable enhancement value to this unique, water-related feature. Central in this analysis is the obtaining, analyzing, and verifying water-related market data.

Appraising real estate in specialized markets in outlying rural locations often presents the appraiser with a multiplicity of challenges. Data is often hard to come by, it is spread out geographically in nature, and often normally reliable data sources are spotty and provide incomplete information or no information at all. These markets test the appraiser and call for extra investigative skills, greater analysis, and flat out creativity. Once, many years ago, I attended a conference for residential appraisers servicing the corporate relocation industry in New York City. While attending a “Get To Know You” Reception, I struck up a conversation with an appraiser and learned that he only appraised condominiums and co-operatives on the streets overlooking Central Park. He knew his market very well, he knew the ins and outs of each building, and knew intimate details about almost every transaction. I explained to him that I covered not only a metro area, but also an outlying area of maybe a dozen counties, and also performed appraisals in outlying regions of the state with many diverse characteristics and attributes, along with numerous sub-markets. After rattling on like a typical small-town appraiser, the gentleman from New York City smiled and said, “Your job is much more interesting than mine. Mine gets downright boring.” So there you have it, the dilemma of working in lightly populated markets with few transactions, unique characteristics, and spotty data, sounded like an interesting and fascinating challenge to my urban colleague, while to me it represented a constant struggle to produce credible and supportable appraisals.

The State of Wisconsin has over 10,000 miles of stream frontage identified as trout water with more frontage being added on a yearly basis due to stream bank restoration, and other restorative efforts. Trout fishing, a traditional outdoor pastime is a popular and growing form of recreation, especially due to the increase in catch and release fishing and the increasing popularity of fly fishing. Trout fishing has always been seen in the eyes of the public as an activity conducted under pristine environmental conditions. Trout are often seen as an environmental “canary in the coal mine” with respect to water quality and other related environmental conditions. Trout can only survive in cold, oxygenated water and have minimal tolerance to pollution.

While anecdotal evidence abounds in this area as to the contributory market value of trout water versus non-trout water as it pertains to land values, queries of local brokers yield a diverse range of opinions and local appraisers also differ as to the effect of this particular water feature on the value of a given piece of property. Therefore, this guide or study has been undertaken to provide meaningful and supportable market analysis of this unique, sought-after attribute of recreational land in this unique sub-market. The purpose of this guide is twofold.

- First, to provide appraisers, Realtors, and other real estate professionals with the tools to analyze and quantify the attributes and the value characteristics of this unique cold-water resource. This
will provide appraisers with methodologies to properly value trout stream property for their clients.

- The second purpose is a bit more indirect, but valuable nonetheless. A study providing tangible value support for this unique natural water feature will provide organizations such as Trout Unlimited, local land trusts, as well as government agencies such as the Department of Natural Resources with a useful tool to show land owners that the improvement of a natural stream from a muddy, slow-moving, and often weed-choked stream into a free-flowing, tumbling, and rushing trout stream is not only an aesthetic improvement, and an ecological improvement, but a tangible addition to their property value. Owners may be more likely to allow restorative work by these organizations for not only an improvement to the environment, but for their economic benefit as well.

As is the case with any initial study, much more work, research, and analysis will need to be done in order to fully understand all of the characteristics and attributes of this unique market. This Guide is presented as first step in the analysis and quantification of the contributory value of a trout stream to the value of land in this unique area. This area was selected due to its relatively confined geographic boundaries, its changing face, from one of strictly agricultural to a mix of agricultural, residential, and recreational, and the significant amount of sales data present. As is the case of the opening of any “Pandora’s Box,” other appraisers and value professionals will likely also investigate this unique real estate market. I welcome the input and information available from those of you who also work in this unique marketplace. This Guide is intended to provide some initial steps in the valuation of this unique class of real estate and it is likely that this will not be the last guide or article written on this topic. What may affect value in Wisconsin and the Upper Midwest may not be quite the same in the Blue Ribbon trout stream country of Montana, Wyoming, Idaho, or Colorado, or for that matter, in Pennsylvania’s Spring Creek country, areas of New England, as well as areas of the Appalachian and Allegheny Mountains, where recreational markets featuring trout streams are present. This Guide, therefore, is intended as a first step in the analysis of trout stream real estate.

A 2005 study by the Outdoor Industry Foundation estimated that there are 18.2 million fly fishing participants in the United States. The survey indicated that 38% had household incomes in the $40,000 to $80,000 range while 23% had household incomes in excess of $80,000. A 2006 survey by the American Sport fishing Association estimated that over $3 billion was spent nationally for land purchases specifically for fishing. This study also indicated that the total national economic impact of recreational fishing was over $45 billion. Wisconsin’s total economic impact per this study was calculated at over $1.7 billion, well over the national per state average of $907 million. While data currently does not exist for real estate purchased in Wisconsin for fishing, the broader national data clearly suggests a significant market likely exists.

A more localized examination of the economic impacts and characteristics of the Wisconsin market from the American Sport Fishing Association, 2006 Sport Fishing Survey Revised in 2008, indicates that the State of Wisconsin is second in the total number of per capita expenditures by residents indicates a total amount spent is $599,000,000 amongst 381,000 anglers. The total expenditure in Wisconsin is 7th in the United States with the total expenditure of $1,754,000,000 spent by anglers experiencing 20,823 days fishing. While not summarized on a state-by-state basis, the survey also indicates that in 2006, approximately $3,048,000,000 was spent in the United States on land purchased for recreational sport fishing.
In the course of over 30 years of residential appraisal practice, I have appraised properties that had frontage on trout streams. In addition, I have appraisal experience with assignments for acquisition of acreage by State agencies where trout streams comprised an attribute of an acquisition parcel or an easement purchase. Changes in the marketplace over the past 30 years are trending away from agricultural practices in many rural areas. A market has emerged, whereby buyers, typically from urban areas, are purchasing parcels for residential use or recreational use in areas in the State of Wisconsin where trout streams are located. An overall appreciation of the environment also appears to be more pronounced in these markets.

One unique Wisconsin sub-market is in Wisconsin’s Driftless Region, which lies just west of the State Capital of Madison, and south of the City of La Crosse. This area terminates at the Mississippi River and the Wisconsin state line to the south. The many glaciers that changed most of Wisconsin’s landscape never touched the Driftless Region. This unique area of ancient unglaciated land types features deep valleys with clear flowing streams, and towering rock escarpments and bluffs, often rising over 500 feet from the valley floor. The area is also home to some of the last remaining large tracts of uninterrupted hardwood forest. The land has an ancient and timeless character. The valleys are more agricultural, including a large component of family farms, organic farms, and numerous farms operated by Old Order Amish families. As is always the case in an area that has been carved out of the wild, agricultural practices and logging started in the mid-19th century have changed much of the land from a mix of native prairies and woods to an agricultural region. The fortunes of local agriculture rose and fell, and today the land has transitioned away from some of the more intense agricultural practices that were seen up until the 1960s and 1970s. Today, boutique farms, small family farms, and organic farms dot the area. A significant and increasing presence of recreational land devoted to weekend getaways and recreational activities such as hunting and fishing are also noted throughout this area.

Trout fishing has always been a popular outdoor activity in this area. It is not uncommon to find country stores, cafés, and taverns displaying old black and white photographs of smiling fishermen holding large trout. The clear, free-flowing streams in this area were also once the primary source of water for cattle, horses, and other livestock, along with a source for irrigation for crops. The streams originally supported a population of native Brook Trout. Brown Trout, and later Rainbow Trout were introduced in the early 20th century. Many of these streams, however, slowly degraded over time, due to agricultural run-off, grazing, non-point pollution, over-grazing, and the general pressures associated with development.

In the 30 years I have observed this area, other changes have occurred. Agriculture has given way to an increased recreational use. While many of the trout streams that degraded over time and lost their trout populations, restoration efforts by organizations such as Trout Unlimited, local conservation organizations, the Wisconsin Department of Natural Resources, and other organizations have restored many miles of trout water, often returning many streams to a quality similar to that of pre-settlement. Some pristine, untouched streams also remain in this area. Generally, these waters are on tracts of land that have seen long family ownership and good environmental stewardship.
CHAPTER 1
Overview

Map of the Driftless Region

The State of Wisconsin has over 10,000 miles of stream frontage identified as trout water with more
frontage being added on a yearly basis due to stream bank restoration, and other restorative efforts. Trout
fishing, a traditional outdoor pastime is a popular and growing form of recreation, especially due to the
increase in catch and release fishing and the increasing popularity of fly fishing. Trout fishing has always
been seen in the eyes of the public as an activity conducted under pristine environmental conditions.
Trout are often seen as an environmental “canary in the coal mine” with respect to water quality and other
related environmental conditions. Trout can only survive in cold, oxygenated water and have minimal
tolerance to pollution.

In choosing Wisconsin Driftless Region, the appraiser notes an area which was once a sleepy backwater
with a small, but significant recreational market, which perhaps due to an increase in not only the number
of trout streams, but the quality of trout streams, has experienced a significant increase in land sales
activity over the past decade. Tracts of recreational land are shrinking in size, indicating a market for
smaller, more recreationally oriented parcels. Accompanying this change is an increase in the number of
retail establishments catering to trout fishing, the number of trout fishermen observed in the area and a
general climate of an increased awareness of this unique recreational activity. This area also benefits from
an extended trout season, which begins at the end of March. Typically, the first three months of the
season are “catch and release” with the season changing to the traditional season, which typically runs
from the first Saturday in May to the last day of September. During this period, trout may be kept. This
seven-month season is longer than many game fish seasons allowing for significant window of
opportunity for recreational trout anglers. Statewide, the Wisconsin DNR sold 136,836 inland trout stamps to fishermen during the 2008 fishing season, allowing these individuals to fish for trout in any inland stream, pond, or lake in the state.

This area is also sought-after by other recreational land users. This includes deer hunters, (In 2008, the State of Wisconsin licensed 642,419 gun deer hunters who harvested 352,601 white tailed deer. The State also licensed 259,921 bow hunters who harvested an additional 99,284 white-tailed deer.) turkey hunters, (In 2008, 208,972 turkey licenses were issued, with total state-wide harvest of 52,880 eastern wild turkeys.) upland bird hunters, and waterfowl hunters. In addition, non-consumptive recreational users have sought out this unique area for recreational activities. The Driftless area is also very popular with bicyclists, hikers, motorcyclists, bird watchers, campers, canoers, kayakers, horseback riders, and other individuals who take advantage of the winding roads, varied topography, forests, rivers, and extensive trail systems present. The Kickapoo River, locally marketed as “the crookedest river in the world,” sees on average over 10,000 recreational canoers in a typical season. This river system supports a number of canoe liveries that rent canoes and kayaks.

While it is generally held in the residential marketplace that a water feature of any type (pond, lake, stream, etc.) enhances or contributes to market value, it is the appraiser’s observation, at least anecdotally, that the presence of trout stream frontage offers an additional enhancement or value contribution. While anecdotal evidence abounds, little or no supportable, market-extracted evidence appears to exist to quantify the value effect of trout streams on a given property. The purpose of this guide, then, is to research, verify, and provide tangible market evidence as to what effect, if any, the presence of a trout stream would have on a parcel of residential or recreational acreage. A question for the appraiser then becomes “Is the trout stream itself a measurable value component to this multi-faceted recreational real estate market?”
CHAPTER 2
An Introduction to Wisconsin’s Driftless Region

Approximately 10,000 years ago, the last glaciers came through Wisconsin and terminated at a place more or less consistent with Interstate 90, leaving the southwest corner of the state un-glaciated. Unlike so much of the flat or glaciated Midwest, this area retains the landscape of very steep and narrow valleys, hillsides exhibiting exposed rock escarpments, and groves of native hardwood trees. These valleys are often the home of natural, flowing streams. These landforms, locally referred to as coulees, offer not only natural beauty, but appeal to a wide base of recreational users. A quote from The Physical Geography of Wisconsin by Wisconsin’s first state geologist, Edward Daniels, described the Coulee Country as follows:

“About one third of the surface is prairie, dotted and belted with beautiful groves of oak surrounded openings. The scenery combines every element of beauty and grandeur – sunlit prairie with its soft swells, waving grass, thousands of flowers; the somber depths of primordial forests; and castellated cliffs rising hundreds of feet, with beetling crags that a Titan might have plied for his fortress.”

The geological understructure of the area is dolomite limestone, which forms the basis for this unique ecosystem. This limestone dissolves into the underlying aquifer and in turn, feeds flowing springs that form the basis for the area’s trout streams. This water has a high alkaline content, which in turn supports a lush ecosystem. The streams often feature thick beds of aquatic vegetation, and are the home to freshwater shrimp, caddis, and scores of other aquatic creatures, making for a veritable smorgasbord for trout. These streams do not freeze during the winter, and are not unduly warm during the summer, which is ideal, as trout typically require water below 70ºFahrenheit for survival. Coulee Country streams tend to hold in the 50ºF to 60ºF range and hatches of insects occur year round. In addition, forage also includes freshwater shrimp known as scuds, crayfish, and species of minnows. Dominated by wild brown trout,
and in the headwaters, brook trout, these streams also receive stockings of rainbow trout by the Wisconsin Department of Natural Resources as well as private sportsmen’s groups.

The coulee valleys, since settlement, saw over 150 years of farming which was initially oriented to the production of grain, and transitioned into dairy farming on farms of typically 160 acres or less. Many of the areas that were heavily wooded were logged and clear-cut, which contributed to significant runoff problems. However, changes in agricultural practices, as well as an increased awareness of conservation and land stewardship, have slowly changed this area in many ways. The steeply wooded slopes that were once clear-cut, have now regrown with what are now mature native hardwood trees. Agricultural and forestry practices are now much more likely to be conducted to have less environmental impact resulting in less runoff on the streams. Green bands and conservation easements are now more common throughout the area that further protect these water resources from seasonal runoff, siltation, manure spills, and other sources of non-point pollution. Farming practices have also changed. Dairy farming is on the decline in the area, and modern dairying now utilizes much larger, corporate-style dairy farms that do not favor the coulee valleys due to their steep topography and inherent inefficiency with respect to the management of a large dairy herd. Many smaller farms, including organic farms and small boutique farms are now present.

In addition, over the last 20-25 years, a significant increase in the local Amish population has occurred. This migration of Amish, generally from Ohio and Indiana, has also changed the face of the area. The Amish are generally observed to be good stewards of the land, and their low-impact agricultural practices utilizing draft horses are thought to cause much less runoff and are seen by many as more compatible with local area trout streams.
Numerous area streams have also seen specifically targeted trout stream restoration by the Wisconsin Department of Natural Resources, Trout Unlimited, and other non-profit, sportsman’s organizations. The installation of various structures to enhance the flow and water quality is now prevalent throughout the region. “Catch and release” fishing appears to be on the increase, and the quality of much of the fishery is, per Department of Natural Resources, superior to that of pre-settlement days.
CHAPTER 3
Anatomy of a Trout Stream

“I fish because I love to. Because I love the environs where trout are found, which are invariably beautiful, and hate the environs where crowds of people are found, which are invariably ugly,” Robert Traver, author of Trout Madness. Justice Traver was a Michigan Supreme Court Justice who lived in the Upper Peninsula of Michigan, and who published some of the most insightful books on the art and philosophy of trout fishing.

Trout streams in the Driftless Region of southwestern Wisconsin typically flow toward the Wisconsin River or the Mississippi River. This is a gentle gradient typically associated with the floors of valleys. While not exhibiting dramatic waterfalls and roaring rapids, these streams tend to flow gently and drop only several feet per mile in a highly meandered fashion. These streams may range from clear, swiftly flowing headwater streams which are often no wider than 5 feet, to larger, more gently flowing, meandering streams such as the West Fork of the Kickapoo River, the Big Green River, and Black Earth Creek where widths of over 50 feet are not uncommon. Depths can range from several inches to over 10 feet, and bottom components range from freestone rock and gravel to silty mud.

**Trout Stream Classifications**

Briefly, the Wisconsin Department of Natural Resources classifies streams into 3 general categories. This was last revised February 2008. Examples of these classes of Trout Streams are shown as follows.

A Typical Driftless Region Class 1 Trout Stream
**Class 1** – High quality trout waters that have sufficient natural reproduction to sustain populations of wild trout, at or near carry capacity. Consequently, streams in this category require no stocking of hatchery trout.* These streams or stream sections are often small and may contain small or slow-growing trout, especially in the headwaters. There are 4,136 miles of Class 1 trout streams in Wisconsin and they comprise 40% of Wisconsin’s total trout stream mileage.

*A: Artificially raised trout, typically of legal size, placed in streams and lakes for fishermen to harvest.

**Class 2** – Streams in this classification may have some natural reproduction, but not enough to utilize available food and space. Therefore, stocking is required to maintain a desirable sport fishery. These streams have good survival and carryover of adult trout, often producing some fish larger than average size. There are 4,644 miles of Class 2 trout streams in Wisconsin and they comprise 45% of Wisconsin’s total trout stream mileage.

A Typical Driftless Region Class 2 Trout Stream
A Typical Driftless Region Class 3 Trout Stream

**Class 3** – These waters are marginal trout habitat with no natural reproduction occurring. They require annual stocking of trout to provide trout fishing. Generally, there is no carryover of trout from one year to the next. There are 1,591 miles of Class 3 trout streams in Wisconsin and they comprise 15% of Wisconsin’s total trout stream mileage.

All three classes of these streams are found in Wisconsin’s Driftless Region. Fishing regulations follow these classifications. Streams with self-sufficient populations tend to allow for the keeping of trout for personal use. Streams with less natural viability often are “catch and release.” In addition, a number of very high quality streams that have been specifically managed for catch and release fisheries also dot the area. These streams often require the use of artificial lures only. Examples of these ‘blue ribbon’ streams include the West Fork of the Kickapoo River, Timber Coulee, as well as specific stretches of other area streams. Catch and release fishing and fly fishing go hand-in-hand. Studies indicate that over 95% of fly-caught fish that are immediately released survived and lived to fight another day, making these trout a renewable resource. An aesthetically pleasing and technically precise pursuit, fly-fishing has increased significantly in popularity over the past decade, and has now become the number one method used to catch Driftless Country trout. The site of a lone fly fisherman fishing in the evening hatch is now a common site on Coulee Country streams. As an appraiser I note that these fly fisherman also buy real estate.

**Trout Stream Restoration**
As I indicated earlier, many of these streams have seen significant restoration work by State or private organizations. This restoration effort has led to not only the increase of miles of restored trout water, but also in the number of trout streams now available to recreational fishermen.
Access to these streams includes publicly owned stretches, easement access, and permission only access. The habitat management of a trout stream typically focuses on the health of the stream channel. Usually, the problem being tackled is too little cover, lack of depth, slow flow, and insufficient living space for trout. If you think this sounds like a construction project utilizing heavy equipment, you are correct. A stream channel is a piece of architecture and any modification is bound to involve heavy machinery and large amounts of material. Structures placed in trout streams to narrow and focus channels provide cover and depth have to last years and must survive floods, ice jams, and seasonal high water.

The following photographs show a recent trout stream restoration. These photos were taken in May of 2009, during some restorative work done on the headwaters on Elk Creek in northern Richland County by a group of Trout Unlimited volunteers, area landowners, and Department of Natural Resources stream managers.
An Unrestored Section of Elk Creek

Bank Restoration at the Headwaters
New Flow Structures in Place

Bank Restoration with Heavy Equipment
Looking at the photos you might think the stream is being destroyed. Raw banks are exposed and the streambed appears to be cluttered with debris. When the work is finished, the machinery is pulled out and
newly seeded areas begin to heal and the natural look returns. Within two seasons, it is difficult, if not impossible, to tell that the work has been done. The significant difference is below the water. That is where the trout are. The following diagrams show a variety of structures placed in trout streams to facilitate restoration. These include wind deflectors, bank covers, half-logs, riprap, and lunker structures. Other improvements to the stream include the fencing of the stream bank to keep cattle from degrading the stream bank and to allow an additional buffer between agriculture and the stream.
TROUT STREAM RESTORATION STRUCTURES

Lunker Structure – Vernon County Website Illustration

Bank Cover – Wisconsin DNR Illustration
CHAPTER 4
The Analysis of a Recreational Market

The following are some descriptions of the marketing of trout stream property in the Driftless Region.

- “Southern Wisconsin Trout Stream Waterfront Property; a deep green meadow leads through the trout stream which makes it ideal for you to drop a fly in the stream and see what’s biting. It isn’t very often that you come across a southern Wisconsin waterfront property as nice as this. Price $58,900, Crawford County, WI.”
- “Private trout stream in 20 acres, $175,000. This secluded 20+-acre parcel has 1,700’ of classic trout stream with rapids and deep pools filled with wild trout. Sculptured limestone cliffs form crystal clear pools deep enough to swim in…Privacy is insured because access is through the stream. The surrounding timbered hills shelter this parcel and provide a year-round vista of the changing seasons. The creek tumbles about 8 miles down to enter the Mississippi at the Village Creek Boat Landing.”
- “Guaranteed buildable parcels with large trout stream, southern exposure, woods and meadow; hiking trails, abundant wildlife and long range view of the Kickapoo River Valley. Excellent access to road and utilities.”
- “Timber Coulee area building site with nice stream. Build your dream home on this beautiful 10-acre valley parcel with stream running full length of the property. Paved road frontage; abundant wildlife and great trout fishing in nearby Coon Creek.”
- “This special property has it all! Nice wooded frontage on Coon Creek, a beautiful trout stream. A large spring that forms a smaller stream. Views and an excellent building site.”
- “This land has it all: trout stream (Class II), a spring, wooded land, timber value, open valley, tillable acreage, wildlife, Brown trout, south-facing building site.”

It’s a jungle out there: Parcels of all sizes, topographies, access scenarios, streams, trout streams, large trout streams, and small trout streams comprise this market. As is the case with any complicated appraisal assignment, the first step is to take a step back and re-state the problem to be solved. Going back to some of the language in Uniform Standards of Professional Appraisal Practice (USPAP) found in Standard 4 which governs Real Property Appraisal Consulting and Development, as an appraiser I would say, “The problem to be solved is what effect on value, if any, is present with the presence of a trout stream on a parcel of land in the Driftless Region of southwest Wisconsin.”

Let’s assume you have been given an appraisal assignment to value a parcel of land purchased for recreation in the Driftless Region. Your local bank is financing this parcel and you have been engaged to perform the appraisal assignment. You inspect the property, obtain all necessary legal and tax information, including its zoning. Given the fact that you are in a rural area, you would obtain some additional information such as soil information, plat data, and all of the pre-cursors to preparing an appraisal. Let us further assume you have never appraised a recreational parcel with a trout stream, and per the Uniform Standards of Professional Appraisal Practice (USPAP), you must first adhere to the Competency Rule. The Competency Rule states, “prior to accepting an assignment or entering into an agreement to perform any assignment, an appraiser must properly identify the problem to be addressed and have the knowledge and experience to complete the assignment competently; or alternatively, must:
1. Disclose the lack of knowledge and/or experience to the client before accepting the assignment;
2. Take all steps necessary or appropriate to complete the assignment competently; and
3. Describe the lack of knowledge and/or experience and the steps taken to complete the assignment competently in the report.”

Guidance from appraisal publications is scant. With the resources such as the Lum Lending Library of the Appraisal Institute yielding little, if any, information as to any previous studies regarding the value on this class of waterfront property. While high value property such as oceanfront property and property fronting on the Great Lakes, and other high value residential water related property types have received significant attention, no study or paper could be found which would aid in the analysis of trout stream property. The Appraisal Institute publication, Land Valuation: Adjustment Procedures and Assignments, by James H. Boykin, PhD, MAI, SREA, CRE, notes with respect to streams:

“The amount of frontage on a “gold medal” fishing stream usually is an important factor in the price paid for the site. In the Rocky Mountains, there is a reasonably consistent relationship in the price per lineal foot of stream frontage for larger acreage parcels. In analyzing such sales, it is important to determine the width from the centerline of the stream and whether the potential buyer’s access is limited to only one side of the stream.”

While providing some guidance, this brief information from the author is of limited use to an appraiser in this particular market area.

In practice, what many appraisers would do is to contact their local lender and disclose that they lack any knowledge and/or experience and decline the appraisal assignment. I, too, ducked assignments of this type, but being innately curious, I accepted an assignment. With respect to taking steps necessary or appropriate to complete the assignment, I first had to study the market. This involved talking to local brokers, assessors, landowners, buyers, and sellers. This provided me with a basis for analyzing a given parcel of land, and my appraisal education and knowledge provided me with the tools to competently value this class of real estate.

While the interview method alone is insufficient to prepare a competent appraisal report, interviewing knowledgeable parties can form the basis for the analysis of a given market. Often, when working in an outlying location in which I am unfamiliar, I will stop and interview local Realtors, appraisers, tax assessors, local newspaper editors, and other individuals involved in a given marketplace. In southwestern Wisconsin’s Driftless Region, this list could also include the owners of fly fishing shops, fishing guides, game wardens, and other individuals closely associated with this class of recreational real estate. Often the local fly shop, for instance, will have a message board where real estate listings are posted. These listings are also often found posted at cafés, taverns, gas stations, and hardware stores. Local fishing guides are knowledgeable of specific stream areas as to their quality, desirability, and often know landowners. The same can be said of game wardens, who in the course of enforcing the law also come across real estate transactions and speak to many property owners as well as fishermen. This ‘man on the street’ methodology has provided me with numerous insights into this specialized market. The following is a summary of an interview I performed with a southwest Wisconsin Realtor located in the heart of the Driftless Region.

The Realtor I interviewed felt that a definite enhancement was present due to the presence of a trout stream. He noted that the market had shifted away from agriculture toward recreational purchases and that
a parcel that offered a larger degree of recreational potential commanded a higher price. When queried further about trout fishing, the local Realtor noted that fly fishermen typically came from outside the area, often from as far away as the Chicago market, and were people of high income, who were willing to pay a higher price for a specific parcel of recreational real estate. Downtown Chicago is approximately 200 miles from the center of the Driftless Region in Vernon County. When pressed to quantify the value difference between parcels possessing trout stream frontage and those not possessing trout stream frontage, the Realtor indicated a broad range of $500/acre to $800/acre as a premium for the trout stream. This is not based on any specific appraisal methodology, sales analysis, or specific study, but rather his best estimate of what this attribute added to value.

I then interviewed a local tax assessor, who indicated that any water feature added to assessed value, and he further indicated that frontage on “blue ribbon trout streams” also raised assessed value over a smaller body of water. Once again, no specific reference to the State Assessment Manual was given, but rather it was the assessor’s knowledge and opinion based on years of experience.

In addition to these opinions, I sought out a local appraiser. Appraisers in rural areas face tremendous challenges. The sheer diversity of property and locations requires extensive market research and often minimal and poor quality data. Rural areas do not turn over rapidly and sales are often few and far between. When queried as the effect on value of trout streams, the local appraiser felt that there was a definite value enhancement, but noted that most parcels of this type were purchased by recreational buyers from outside of the area, and that he had little opportunity to appraise properties of this type, as none were locally financed. His opinion, though, based on the overall increase of land values in the Driftless Region, pointed toward a value enhancement due to trout stream frontage. Once again, no specific evidence or methodology was cited, but rather observation and experience formed the basis for his opinion.

Armed with this body of largely anecdotal evidence, I was able to determine that a value enhancement perhaps existed, and that it was a commonly held opinion that trout streams did indeed add to value. One individual offered his estimate of value enhancement in dollar terms, but no one could specifically cite sales or appraisals where this unique amenity had been analyzed. The next step in the analysis was to apply appropriate appraisal methodology to a complicated and little-studied valuation problem.
CHAPTER 5
The Appraisal Process

What we have learned thus far is that this relatively small, unique, area is home to an increasingly popular and distinct type of recreational land, namely, parcels of land with a trout stream. Opinions as to the contributory value of this unique feature are largely based on anecdotal evidence. Conventional wisdom tells us that a trout stream, all other things being equal, adds value. The question becomes not only how much, but how do we find out.

In his 2001 book *Land Valuation: Adjustment Procedures and Assignments*, James Boykin, PhD, MAI, SREA, CRE, wrote,

“In appraising a parcel, the appraiser must investigate in sufficient detail, regional, community, and neighborhood influences on the market appeal, utility, highest and best use, and finally value of the parcel. Each stage of the analysis must relate to the ultimate goal of ascertaining the appraised property’s highest and best use and value. In the most basic sense, a site analysis involves determining the site’s usefulness.”

We have seen that the study area, Wisconsin’s Driftless Region, has changed over time, not only physically, but also economically. This was once a largely agricultural area, where streams were seen as primarily a water source for either crops or livestock. The area has slowly reverted to more pre-settlement conditions especially with respect to an important component of local landscapes, namely trout streams. Trout and trout streams have always occupied a special place in the hearts of fisherman. Their requirements are cold, oxygenated water which limits them to only specific places. Due to an increased popularity of trout fishing, partially owing to popular films such as “A River Runs Through It” and a general increase in environmental awareness, trout fishing is a growing recreational pastime. The aesthetics of trout fishing, and especially fly-fishing, tend to favor a segment of society with the economic means to purchase recreational land.

While an abundance of anecdotal evidence exists in the marketing of trout stream real estate, the appraiser’s assignment becomes more difficult. That is, the quantification of value in terms of a supportable value contribution specific to a unique attribute. This is a complicated issue. As we have seen, all trout streams are not created equal. All lands surrounding trout streams are not created equal in terms of overall acreage, topography, configuration, cover types, access, recreational improvements and other factors. Recreational parcels are rarely uniform, and numerous influences exist which may or may not affect the value of a given parcel. As an appraiser, the primary methodologies to provide supportable opinions of market value are the three approaches. These are Sales Comparison Approach, Cost Approach, and Income Approach. Believe it or not, elements of all three may play a role in the valuation of a trout stream property.

The Sales Comparison Approach, of course, is typically held as the most reliable indicator of buyer/seller behavior, and the best tool in the valuation of vacant land. However, with respect to the other approaches, the Cost Approach may be a beneficial technique in performing a cost/benefit analysis of costly stream bank improvements on a parcel of land where trout stream rehabilitation may be a possibility. Simply put, “Can the cost of a stream bank improvement be seen in terms of a value contribution or a higher sale price in the future, once the water is returned to trout stream quality?”
With respect to an Income Approach, I note that recreational properties are often leased. The question becomes, “What greater rental amount could be obtained by a landowner seeking to lease a parcel of recreational acreage where a trout stream feature is present?”

For the purposes of this study, I will concentrate solely on the Direct Sales Comparison Approach as the best indicator of buyer/seller behavior for this class of recreational real estate. With respect to the other approaches, I note that the cost and rental data is much more fractious in nature, less available, and much more difficult to verify. While agreements have been reached between landowners and organizations such as the Department of Natural Resources (DNR) with respect to stream bank improvements and their costs, these are not readily available for analysis. Purchases of easement rights are also present in this marketplace. However, this data is also quite varied and the lease rates tend to vary on a case-by-case basis. In addition, while some recreational land leasing is occurring in the area, and in some instances appears to be increasing, lease data is not readily available, and it is further noted that this lease data is also highly fractious in nature, which is further indicative of a developing market. Therefore, I will concentrate on the Direct Sales Comparison Approach as the most reliable tool in valuing this unique class of real estate.

Typically, in the valuation of vacant land, a Direct Sales Comparison Approach is typically seen as the best measure of buyer/seller behavior. In the context of this Guide, the simple question becomes, “What is the value of a parcel of land with a trout stream feature vs. a non-trout stream?” In the solution of all complicated real estate problems, I have long been a practitioner of a methodology some might call “Keep It Simple Stupid.” If you are an appraiser experienced in the valuation of land, it is fairly easy to appreciate the numerous variables that may or may not affect market value. The analysis of the recreational trout stream market would be seen in terms of the analysis of the economic significance and characteristics in miniature. While much smaller in economic impact than more readily understood markets such as industrial land, commercial land, residential development land, and large tracts of agricultural land, a proper understanding of its economic characteristics and what drives these economic characteristics is essential for the accurate and supportable valuation of this unique class of real estate.
CHAPTER 6
Appraisal Methodologies

In analyzing the Driftless Region of southwestern Wisconsin, I noted that while the overall value levels are not particularly high, it would not be uncommon for an individual purchasing a recreational property, financed by a lending institution, to need a land appraisal. The following chapter is intended to walk through the various considerations needed to produce a credible and supportable appraisal. Numerous software packages provide the appraiser with forms for various vacant land appraisal report options, which if properly used, break down the analysis of a parcel of land into sufficient categories of salient and contributory factors. The market data analysis grid, from a commonly used land appraisal report form, is shown below.

While Land Appraisal Report Forms are fairly simple in character, they do provide an adequate number of variables to consider for adjustment purposes. As this Guide is intended to constitute “a first step” in the valuation of this class of real estate, a simple format was chosen. If you are a working appraiser, you may wish to develop your own land grid, and concentrate on those variables that constitute measurable value differences in your own particular market. While we have noted land appraisal is a complex process, it is also very possible to overcomplicate the valuation question and become mired in endless analysis of small variables. It is my opinion that the typical Land Appraisal Report grids as developed and shown above are adequate given the value characteristics of this particular marketplace and provide sufficient detail for an adequate, reasonable, and supportable analysis of a subject property and comparable sales.

At this point, I would like to take the reader on a step-by-step analysis a typical Land Appraisal Report Grid and provide some additional considerations to enable an appraiser to adequately analyze various locational and attribute factors which will in turn, lead to a reasonable and supportable adjustment methodology and a supportable opinion of market value.
**Address/Location** – Identifying both your subject property and comparable sales to be easily understood by the reader, typically a lender, is essential. Often, a parcel of land in a rural area (especially if recently subdivided) does not have an assigned address. Suggestions would include road intersections, road names, tax parcel numbers, certified survey map numbers, quarter section references, and fire numbers, along with an assigned address. The assigned address if available is always best.

The second line is typically filled in with the Township or Municipality location, and given the fact that trout streams do not necessarily respect governmental units; a county location is also suggested. I have noted that trout stream drainages often flow through a number of counties, yet their market characteristics seem to be relatively constant, indicating that the stream is the most important indicator of value. The Driftless Region’s Kickapoo River, for instance, flows through Monroe, Vernon, and Crawford Counties, yet the desirability of this river system appears to be fairly constant throughout these three county locations.

**Sale Price/Price Per Acre** – Obviously, a sale price is a sale price. With respect to the unit of measure, it is typically my experience that price per acre works best. Efforts to analyze trout streams in terms of frontage value run into the problem of a typical natural feature. Unlike large lakes, often with platted lakefront lots where frontage can be uniformly analyzed, the meandering and convoluted nature of trout streams can produce wildly differing results. In one instance, in Vernon County, I inspected a parcel with frontage on Otter Creek. Otter Creek, a Kickapoo River tributary and a Class 1 Trout Stream, is located just west of La Farge, Wisconsin. This 40-acre parcel had highly meandered stream frontage and contained nearly a mile of frontage on the creek. One of the comparables, located less than one mile away, and also located on Otter Creek, contained less than 600 feet of frontage. It sold for a similar price per acre. Therefore, in attempting to keep things simple, it is my suggestion that price per acre is the best measure of value. (As is always the case, local markets differ significantly and it is incumbent upon an appraiser to be aware of how local markets work and how land is typically bought and sold. It is not unreasonable to assume that some areas rely solely on price per front foot of stream frontage.)

**Data Source** – The obtaining of sales data in rural locations is almost always the greatest challenge. Many areas I cover, while listed in MLS, do not have complete broker participation. Some areas I have covered are served by multiple MLS systems. Rural brokerage is highly competitive as the “pieces of pie” available for the brokerage community are typically fairly small. Often brokers keep company sales books for appraisers to examine, while others keep almost no records at all. The County governments, as well as local assessors, also vary widely in their degree of sophistication as to the keeping of land records. Several of the counties I have analyzed have Internet-Accessible Register of Deeds, records with good quality usable search engines, and sophisticated GIS systems. Other counties still rely on paper records or very simplified computer systems. Advances in Internet technology have also yielded some potential data sources; however, most of these are oriented to listings. Some brokers will highlight sales on their websites and are often amenable to an email inquiry or a telephone call. It has been my experience that sales verification is best done by interviewing local brokers or buyers and sellers. A polite, business-like inquiry of a new recreational property owner has often yielded surprisingly accurate and insightful results.

**Date of Sale/Time Adjustment** – All real estate markets are cyclical. Speaking in terms of a local or statewide market, Wisconsin enjoyed a significant period of market appreciation after the slump associated with the September 11, 2001 terrorist attack and the bursting of the tech bubble. Appreciation continued to be very strong until the recession that began to take effect around the end of 2007. This
recession has resulted in the ebbing of some values and appears to be somewhat pronounced in the
recreational market, which we are studying. With respect to the recreational market, in general terms it is
noted that this is the first class of real estate to be disposed of when the economy weakens (please pay
close attention to the sales or financing concessions sections which follow). That said, it is incumbent
upon the appraiser to be very aware of the current market conditions in which they are appraising. In
addition, as sales of this type are infrequent, often forcing an appraiser to use older sales, some discussion
of time adjustments is necessary. Most appraisal textbooks speak in terms of providing paired sales
adjustments to support any market increase, or for that matter, decrease in time adjustments. As all
working appraisers know, developing paired sales is a timely process and often fruitless, due to a lack of
data.

The following example, however, is a good example of a true paired sale. In 2003, a developer purchased
a large tract of land in the Town of Freeman in Crawford County, on Sugar Creek, a Class 1 and Class 2
Trout Stream that flows into the Mississippi River. This parcel of land was subdivided into a trout stream
oriented “subdivision.” consisting of parcels on individual certified survey maps, ranging from 2 acres to
20 acres in size. The following paired sales example illustrates the market behavior in terms of price
increase during a period of strong marketability.

Lot #11 Chellevold Road, a 2.856-acre parcel in the Town of Freeman, Crawford County, Sold in
5/04 for $34,400, or $12,044/acre. The parcel fronted on Sugar Creek and was improved with a 3-
car garage at the time of sale. It was marketed as a recreational parcel for a cabin. The parcel re-
sold in September of 2005 for $38,000 or $13,305/acre with no changes to the property. This
represents an increase of approximately 9.5% over 16 months, or an annual percentage increase
of approximately 7%, or a per month increase of approximately .6% per month.

This rate of increase based on analysis of this and other pairings is indicative of the appreciation patterns
seen in this region over the years. This appreciation factor will be utilized throughout this study in making
time adjustments. I caution the reader, however, to carefully analyze their particular market. I note that
the market in the Driftless Region has slowed, in keeping with the general climate of real estate
throughout the nation, and the Upper Midwest. Appreciation has ground to a standstill. Some significant
arguments can be made for declining values. It is the author’s observation that in this particular
recreational market, only those sellers who are compelled to sell or forced to sell, are in the marketplace.
Other individuals, who may be interested in selling at some point, have withdrawn from the market until
better times return. Therefore, little if any sales data was available for this Guide that documented value
decline or patterns of price reduction. Few foreclosures were also observed in this marketplace.

The development of paired sales examples for any attribute including time, location, or physical attribute
is extremely beneficial for the working appraiser. Other significant areas of adjustment are discussed as
follows.

**Location** – In a rural recreational market, as opposed to a residential market, locational attributes such as
school systems, proximity of shopping, churches, and employment become less important. Typically
recreational properties are weekend destinations and exhibit popularity based on the recreational activities
present on the property or in the immediate area. These could include hunting, fishing, hiking, bird
watching, and other outdoor recreational activities. Proximity to other recreational venues is also
important. Attractions such as the Mississippi River, the Kickapoo Reserve, The Wisconsin River, or area
lakes are also important. Proximity or linkage to large public recreational tracts such as the Rush Creek
Natural Area, the Kickapoo Reserve, the Lower Wisconsin Riverway, and the Upper Mississippi Wildlife Refuge are also important considerations for recreational buyers. Linkage to major commuting arterials such as Interstate 90-94, Highway 18, 35, and other major linkages is not as significant a consideration as most interior locations within Wisconsin’s Driftless Region have their own uniquely poor access attributes with respect to public roadways. The Driftless Region features long, winding roads and a latticework of interior gravel roadways. As the market is recreational, and the desire of the bulk of the market appears to “get away from it all” the proximity of a busy freeway or state highway is not necessarily seen as a positive. In adjusting for location, an appraiser must do his/her local homework, consult with knowledgeable local individuals, and observe sales patterns to derive a meaningful adjustment.

**Site/View** – In considering the site and the views present, a careful analysis of the subject property and the market in general is necessary. Most of the sites in this study are recreational or weekend home sites in nature. Sites that are unsuitable for permanent structures are generally less desirable. In addition, while most rural recreational views are generally desirable, some are more desirable than others. Therefore, it is incumbent upon the appraiser to carefully analyze the views of both the subject property and comparable sales. For instance, a bluff site with trout stream frontage, and a commanding view of the Mississippi River would be considered a premium site, whereas an interior site on the same trout stream, lacking the view, might sell for less. Similarly, an interior site in a deeply wooded coulee with views of the Kickapoo Reserve, a large tract of undeveloped wooded land, and frontage on a Kickapoo tributary, would sell for a premium when compared to a site that lacked the views and overlooked working agricultural land. Therefore, when analyzing the view attribute, it is incumbent upon the appraiser to physically view all of the comparable sales.

**Site Area** – “To be used as a comparable, a land sale should have the same or similar zoning as the appraised parcel; have similar terrain, access, and public utilities; and be situated a relatively short distance from the subject property. If there are unadjusted differences for any of these features after a size adjustment has been made, the client will be left with a nonsensical conclusion of value.” Land Valuation: Adjustment Procedures & Assignments, by James H. Boykin, PhD, MAI, SREA, CRE, published by the Appraisal Institute. Boykin goes on to state, “in short, the sale site should be a reasonably close substitute for the subject site so that a prospective buyer would be indifferent about choosing one site over another.” Unfortunately, the analysis of land parcels in a rural, recreational market often requires the appraiser to analyze sites of differing sizes. In general terms, as a parcel of land’s size increases, its per unit (or per acre) value tends to decrease. The following series of sales from the Chellevold Road Development illustrates this phenomenon.

Lot 11 – Chellevold Road, Town of Freeman, Crawford County, WI; 2.856 acres, Sugar Creek frontage; sold for $48,000 in 9/2005; $13,305/acre. The property is improved with a 3-car garage.

Lot 4 Chellevold Road, Town of Freeman, Crawford County, WI, 8.47 acres, Sugar Creek frontage; sold for $32,500 in 1/2004; $3,837/acre. No improvements were present.

Lot 12 – Chellevold Road; Town of Freeman, Crawford County, WI; 19.9817 acres, Sugar Creek frontage; sold for $59,900 in 6/2007; $2,998/acre. No improvements were present.

The series above clearly demonstrates the phenomenon that as a parcel’s size decreases; its price per acre...
tends to increase. The following discussion illustrates some additional complexities with respect to analyzing these paired sales.

Unadjusted, the 2.85-acre Lot 11 sold on a per acre basis at a rate approximately 4 ½ times more than its 19.98-acre neighbor Lot 12. Some adjustments, however, would be required. Recall that the smaller parcel is improved with a 3-car garage. It is my experience that this structure, due to its utility, would add approximately $10,000 to the market value of the smaller Lot 11, resulting in an adjusted sale price of $28,000 or $9,804/acre. This sale, however, is also older than the larger 19.98-acre parcel, which sold in June of 2007. Recall that we have utilized paired sales on Chellevold Road and have identified a .6% per month appreciation rate. Applying this to the older sale, a percentage adjustment to the $28,000 adjusted sale price, indicates a positive time adjustment of a 10.8% time adjustment for the 18 months between September of 2005 and June of 2007. This yields an adjusted sales price of $31,024 or an adjusted price per acre of $10,863/acre. After these offsetting adjustments the ratio falls to approximately 3 ½ times greater price per acre for the smaller 2.85-acre parcel, for a factor of approximately 362% on a per acre basis, comparing the adjusted unit value of the 2.8-acre parcel of $10,863/acre to the unit value of the 19.98-acre parcel at $2,998/acre. This dramatic difference illustrates this principle of proportionality.

In analyzing the 8.47-acre example with the 19.98-acre jumbo lot, it is noted that both parcels were unimproved, but a significant difference in time existed. Lot 4, the 8.47-acre example, sold 42 months prior to Lot 12. Utilizing the .6% monthly appreciation provided in an earlier paired sales analysis, a 25% positive time adjustment was applied, yielding an adjusted price per acre of $4,796/acre. Lot 4 as adjusted, now shows that the 8.47-acre example sold on a per acre basis of approximately 60% higher than the 19.98-acre parcel, Lot 12. This series of physically very similar, but differently sized acreage sales, all sharing trout stream frontage, clearly demonstrates the observation that as a parcel’s size decreases, its price per acre tends to increase.

In a world made perfect for real estate appraisal analysis, we would have a development like that cited above on Chellevold Road consisting of various sized lots which were otherwise equal in character for proportional size analysis. However, the development along Chellevold Road featured 10 lots in the 2- to 3- acre class, with two jumbo lots at 8.4-acres at 19.9-acres respectively. Research indicated that this was done to achieve a fairly high density, as the smaller lots provided a greater sale price yield, and Lots 4 and 12 were platted due to the physical characteristics of the area, and the meandered character of Sugar Creek. While far from perfect, this example serves to illustrate the basic principle that as a parcel’s size decreases; its unit value tends to rise.

**Topography & Cover Types** – Previous sections of the Guide identify Wisconsin’s Driftless Region as possessing many areas of steeply sloped wooded areas through which flow trout streams. However, land in its infinite variety, exhibits a wide range in these attributes. When studying trout stream characteristics in this area, it is noted that the streams can range from rushing and tumbling freestone streams to slowly flowing, deeper bodies of water which flow through pastures and agricultural fields. Surrounding land types can range from steeply sloped coulees with exposed rock escarpments, which while attractive, are not particularly usable, to level and unremarkable pastures and agricultural production fields. Cover types can range from heavily wooded, mature, hardwood forests, to transitional, partially wooded areas (typically former pastures) to open grasslands, restored prairies, agricultural production fields, and wetlands. It becomes incumbent upon the appraiser to carefully analyze these physical attributes in valuing a parcel of trout stream land. The following example provides some support for this observation.
This particular 23.9-acre parcel is located on Copper Creek, a Class 1 Trout Stream in Crawford County. Copper Creek is highly sought after by recreational trout fishermen, and receives significant interest from individuals seeking to purchase acreage and build a recreational cabin. The parcel is located on State Highway 177, just east of Ferryville, Wisconsin and sold in December of 2007 for $59,500, or $2,489/acre, which is notably lower than many of the trout stream sales analyzed. Further investigation revealed that while possessing a significant amount of meandering frontage on Copper Creek, access to the creek from the road was entirely wetland in nature and impassable to both vehicles and even the most intrepid angler on foot. In addition, the stream bottom characteristics at this point were also very mucky and difficult to wade. The marshy area impeded easy access to the stream and the stream, while free flowing and renowned for trout fishing, was also very hard to fish.

The appraisal analysis, drawing from the folk tale “Goldilocks and the Three Bears,” indicates that a parcel should be not too steep, not too flat, but just right. This general rule also applies to cover types, access, and other factors that would affect value. It is once again incumbent upon the appraiser to do their homework.

**Other** - This is somewhat of a “catchall” category and is useful due to the significant variety seen in this highly variable class of recreational real estate. For the purpose of this study, I have intentionally avoided properties improved with year-round homes or other substantial structures. I do note, however, that many otherwise vacant land parcels are sold with recreational structures including log cabins, mobile homes, sheds, garages, which are not necessarily residences per se, but are suitable for weekend use or storage. Once again, it becomes incumbent upon the appraiser to carefully analyze any improvements present on what is marketed essentially as a land transaction. A careful analysis and inspection of both the subject property and the comparable sales will go a long way in providing the appraiser with the degree of value contribution present in a recreational structure. As an example, in the Driftless Region of southwestern Wisconsin, locally built log cabins are often present. These are simply finished structures that offer a wood stove for heat, a simple living area, simple kitchen, and a sleeping loft. The outhouse is optional. These structures are often built by local Amish craftsmen and are very popular. The following are examples of this type of structure.
Crawford County Cabins, LLC offers a 24’ x 30’ (720 SF) one-story cabin constructed of northern white pine and includes 10 windows, 2 doors, 15-log height, and a shingle roof. This cabin is available fully assembled on site for $18,900 ($26.25/SF). Additional add-ons such as an extended porch, dormers for a sleeping loft, skylights, steel roof, insulation, and other add-ons can add over $10,000 for a total price of $28,900 ($40/SF).

Other structures such as garages are constructed locally for approximately $20/SF, while pole sheds and other structures typically cost approximately $15/SF. Older structures, or structures in poor condition, which while serviceable, also contribute to the value of property, but minimally. The easiest example to analyze is a parcel of land with a newer recreational structure similar to those described above, where costs can be easily obtained and adjustments can be easily made. Other structures in varying degrees of condition and quality should be adjusted for on a case-by-case basis.

It is noted that inclusions often may consist of derelict mobile homes, shacks, and other structures that are uninhabitable. These structures are sometimes seen as a detriment to value, as many buyers see them as a disposal problem, and hence an additional cost.

**Sales Or Financing Conditions & Buyer/Seller Motivation** - Many of the transactions analyzed in this study are cash sales. The value levels observed of the Driftless Region of southwestern Wisconsin are not particularly high when compared to some of the other recreational land types in the region such as lake frontage parcels on our northern lakes or frontage on Lake Michigan or Lake Superior. Conventional financing, is present but is not common, and those properties that are financed, are often financed as part of a line of credit, home equity loan on a primary residence, and other secondary sources of financing. First mortgages are uncommon, as are land contracts. It is observed as a market grows, more and more properties will likely require conventional or some type of bank financing to facilitate a purchase.

A significant consideration relates to the cyclical nature of the real estate market and the recreational market in particular. As previously stated, when a real estate market weakens, the recreational market is possibly more severely impacted. The following example illustrates a stress sale of a parcel of prime trout
stream frontage from Wisconsin’s Driftless Region. This 40-acre parcel located on Otter Creek, a Class 1 Trout Stream just west of La Farge, Wisconsin sold as part of an auction of a series of foreclosed parcels in early 2008. A history of this transaction is presented as follows.

S3802 County Road D, Town of Webster, Vernon County, Wisconsin, 44.5 acres sold for $106,000 in March of 2009; terms of sale were cash at an auction per the Realtor. This sale translates into $2,382/acre for what would be considered a prime trout stream frontage property. Conversations with the agent as well as area property owners indicate that this parcel is one of several which became available after the foreclosure of a larger farm parcel and was offered at auction. The auction initially produced a price of $3,400/acre, and the prospective buyer at auction walked away from the transaction. The property was later re-offered to a secondary buyer who purchased the property at a discount for $2,382/acre.

This example shows the importance of verifying each transaction, specifically as it pertains to buyer and seller motivation. Sales indicative of stress or highly motivated sellers should be avoided. The same goes for sales at what seem to be abnormally high prices. Sales at extremely high prices are occasionally noted, and are typically purchased by out-of-state buyers who essentially make an impulse purchase. These, too, should be avoided.

This chapter is intended to provide the appraiser with a discussion of market data analysis and support. Discussions of units of measure, time adjustments, a discussion of locational and physical attributes, and a discussion of the value contribution of recreational improvements were presented. The author must stress that all recreational markets are different and it is incumbent upon an appraiser working in an area to become familiar with those locational and physical attributes that contribute to value. Some suggestions as to sources, including non-traditional sources for information were presented. All of these were intended to aid the appraiser in the thorough analysis of this recreational land type.
CHAPTER 7
The Market Value Contribution of A Water Feature and Other Appraisal Considerations

As we discussed in a previous chapter, the Direct Sales Comparison Approach is the most typical and applicable approach in the valuation of vacant land. This is especially true in the recreational market, where land is purchased for a specific activity. As cited in earlier sections of the Guide, the Wisconsin recreational market is dominated by outdoor activities such as hunting and fishing, bird watching, hiking, cross country skiing, and other pastimes associated with the enjoyment of nature and the out-of-doors.

What then, does a trout stream add to the value of a parcel of recreational land? As we noted, anecdotal evidence abounds indicating that it does indeed add value. The question becomes, “Does it really contribute value, and if so, how much?” How then, does the appraiser go about finding this unique attribute in terms of its contributory value? Experienced appraisers often chuckle that “Paired Sales” is the answer to all appraisal problems. Experienced appraisers also know that due to the inherent diversity of real estate, as it is inhabited by human beings with widely different needs, tastes, desires, economic capabilities, and beliefs, that a pure paired sales analysis is difficult at best, and often impossible.

In the case of our analysis of this class of the unique recreational real estate, we have already touched on the attributes such as time of sale, location, site/view, site area, topography and cover, water feature, and the classification of “other,” which is intended to cover such items such as recreational structures, outbuildings, and can include any other feature not specifically covered. The appraiser also stressed the importance of the verification of the sale in terms of any concessions or stress on the part of seller. These items are all seen as part of a market analysis and are intended to provide the appraiser with the tools...
needed to properly appraise this class of real estate. With respect to the feature that is the focus of this study, namely, the potential value contribution of a trout stream, a paired sales or paired data analysis is seen as critical.

Let us re-examine the definition of Paired Sales, or Paired Data Analysis, from the Dictionary of Real Estate Appraisal, 3rd Edition of the Appraisal Institute.

Paired data analysis. A quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique; sales or rental data on nearly identical properties are analyzed to isolate a single characteristic’s effect on value or rent.

Now, if we could only isolate a valley in southwestern Wisconsin with a trout stream which traverses a group of parcels with equal amounts of open land, forest, acreage, similar topography, similar access, similar conditions of sale, and no structures and compare it to a parcel over the ridge with a similar water feature, only lacking trout, and we would have a perfect universe. Then, of course, anyone could appraise this unique class of real estate and provide a supportable value.

To establish the groundwork for the valuation and analysis of this unique class of real estate, the following sections are intended to contain the elementary valuation of water features vs. non-water features in similar classes of recreational land.
The Value Contribution of a Water Feature
As we discussed in the previous chapters, an abundance of anecdotal data exists with respect to the value relationship being studied. However, I think it is important to take this analysis one important step backward. The following pairings illustrate the value of a water feature vs. no water at all. These pairings are intended to form the fundamental basis for the analysis. The pairings presented are also located in Wisconsin’s Driftless Region and are intended to provide support for the value contribution of a water feature, regardless of the trout stream feature. The pairings selected are all located in Vernon County, and are representative samples of the various land parcels present. It is noted that in addition to the three examples below, numerous other pairings were examined. The pairings presented were visually inspected by the author. These pairings are presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Acreage</th>
<th>Water Feature</th>
<th>SPP/AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy T, Tn of Kickapoo</td>
<td>$21,000</td>
<td>5/2005</td>
<td>6.55 acres</td>
<td>Small Spring Creek</td>
<td>$3,206/AC</td>
</tr>
<tr>
<td>Ghelf Rd, Tn of Wheatland</td>
<td>$18,000</td>
<td>5/2006</td>
<td>6.01 acres</td>
<td>None</td>
<td>$2,995/AC</td>
</tr>
</tbody>
</table>

The Highway T parcel is improved with a small spring creek. The parcels are more or less physically equal, and the parcel possessing the spring creek shows a 10.3% positive price difference. It is noted that the spring creek was not marketed as a trout stream.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Acreage</th>
<th>Water Feature</th>
<th>SPP/AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy I, Tn of Whitestown</td>
<td>$96,000</td>
<td>7/2005</td>
<td>6.66 acres</td>
<td>Class 1 Trout Stream</td>
<td>$14,545/AC</td>
</tr>
<tr>
<td>Lot 23, Grouse Ln, Tn of Kickapoo</td>
<td>$44,000</td>
<td>3/2007</td>
<td>6.82 acres</td>
<td>None</td>
<td>$6,443/AC</td>
</tr>
</tbody>
</table>

This pairing examines two similar class prime residential wooded parcels in the 6-acre class where the most notable difference is the presence of frontage on a famous trout stream, the upper portion of the Kickapoo River. This parcel was paired with a wooded, 6.82-acre parcel on a wooded ridge-top along Grouse Lane, marketed as a cabin site. No water feature was present. The area is known as Carter Mountain, and similar view amenities are present. This pairing showed a dramatic 126% difference for the trout stream water feature parcel. This dramatic difference shows not only a significant preference for the presence of a water feature, but likely also benefits from the desirability and scarcity of frontage on a “blue ribbon” trout stream, such as the upper portion of the Kickapoo River.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Acreage</th>
<th>Water Feature</th>
<th>SPP/AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grimm Rd, Tn of Hillsboro</td>
<td>$75,240</td>
<td>8/2007</td>
<td>22 acres</td>
<td>Small Stream</td>
<td>$3,420/AC</td>
</tr>
<tr>
<td>Valley Ave, Tn of Forest</td>
<td>$84,000</td>
<td>8/2006</td>
<td>29.96 acres</td>
<td>None</td>
<td>$2,803/AC</td>
</tr>
</tbody>
</table>

The pairing of this 22-acre stream front property with a 29.96-acre non-water parcel shows an initial positive 22% preference for the parcel possessing the water feature. While varying somewhat in acreage, both are located in similar valley locations in the Driftless Region, and are physically very similar with
A Guide To The Valuation of Recreational Land With Trout Streams

respect to other attributes. This pairing, however, must also be adjusted for proportional size and the
passage of time. The Grimm Road parcel located on a small stream was a more recent sale, and somewhat
smaller than its Valley Avenue counterpart. Based on previous adjustment examples, a 7% adjustment for
time and a 5% adjustment for proportional size should be applied to this pairing. After these additional
adjustments totaling a positive 12% in favor of the Valley Avenue sale, a remaining 10% is seen favoring
the Grimm Road property, which had the small stream feature.

The pairings presented above all point toward a significant difference in the market value of those parcels
enjoying the presence of a stream. The greatest price differential was observed in two very similar
parcels, where the presence of frontage on a Class 1 Trout Stream created the greatest difference in price
and likely market preference. The unadjusted range observed from 10% to 22% is indicative of the value
contribution of a water feature. While it can be argued that the presence of the trout stream with a highly
desirable reputation is an additional value enhancement, these sales all point toward a value contribution
for a water feature. This wide range, however, calls for the appraiser to perform additional analysis of this
phenomenon with respect to value contribution.

The indicated range of what appears to be a preference or value difference for a water feature ranged from
parcels possessing a small, spring-fed stream to a large, Blue Ribbon Trout Stream. It is noted, however,
that two of the three selected examples possessed streams that were fairly small and not considered trout
streams. Even these two examples produced price preferences of approximately 10-20%. This is
indicative of the innate desirability of a water feature on a given parcel of recreational real estate. As this
market is analyzed in greater depth, it is noted that within the marketplace, additional areas of analysis
must be considered.

The appraisal of land requires the analysis of numerous variables that may potentially influence value. As
this Guide has attempted to illustrate, all bodies of water are not created equal. Differences in size,
quality, recreational potential, and other factors are potential considerations. While some waters may hold
large populations of trout, the inability of trout fishermen’s access to them due to terrain, wetland, road
access and other factors must be considered. In addition, the complexion of a trout stream often changes
from headwaters to its lower reaches. We have learned from earlier portions of the Guide that trout
streams come in many classifications ranging in the official classification of Class 1 to Class 3 in the eyes
of the Wisconsin Department of Natural Resources. It is the author’s observation that these classifications
alone are not sufficient with respect to the valuation process. While these waters may all indeed harbor
tROUT at varying points of the year, it appears that the ability to effectively fish these waters is the biggest
single characteristic. The following sections are intended to provide some guidance into the further
analysis of this highly diverse class of water feature.

An Analysis of Trout Stream Usability
It is observed that some smaller Class 1 Streams are often fishable for a short period of the season. These
are typically not as sought after as wider, more open streams where recreational fishing is not only
possible, but also much easier. Similarly, downstream sections, often classified as Class 3 Trout Streams,
are wider but are subject to occasional agricultural runoff, and tend to warm during the summer months,
during which time the trout population migrates to cooler water. Typically, these are feeder streams,
spring holes, or in areas where cold, oxygenated water is present. These streams are also not as sought
after by recreational buyers due to this characteristic. “Blue Ribbon” trout streams such as the West Fork
of the Kickapoo, Rush Creek, the Big Green, Timber Coulee, and others typically command premiums as
streams of this size are both sufficient in size, possess large populations of trout, and are fishable

A Guide To The Valuation of Recreational Land With Trout Streams
throughout the season, making them a sought-after destination by trout fishermen.

It becomes an important phase of the analysis to accurately analyze the water feature on your subject property as well as properly analyzing the water features present in the comparable sales. In addition to physical inspection, examination of the Wisconsin DNR Trout Regulations will indicate the Class of Trout Stream. Conversations with brokers will also provide some additional information. I note, however, that many bodies of water have been marketed as trout streams, which are quite marginal in nature, so be careful. An additional source of information would be local appraisers or area fishing guides. The guides who utilize these waters to make their living are perhaps the best indicators of the quality and desirability of a given stream. The following example illustrates the need for careful analysis.

A 13-acre parcel on Buck Creek Road, in the Town of Freeman, in Crawford County sold in 2005 for $3,692/acre. The property was marketed as a “beautiful getaway spot to build your dream home. Frontage gently sloping and partially wooded with Buck Creek running through part of it.” Buck Creek, per the Wisconsin DNR Trout Regulations, is listed as a Class 1 Trout Stream. Visual inspection of the property, however, revealed that the portion of Buck Creek that ran through the subject property is best described as a very small trickle of approximately 2 inches deep and three feet wide, and while very clear and showing all of the attributes of a trout stream, it is a headwater stream which is not fishable. This parcel, used in later paired sales analysis, sold for 10.3% less than a similar class property located nearby with Knapp Creek frontage, a larger desirable trout stream.
Knapp Creek Parcel (Higher Sale Price - Note Presence of Stream Bank Improvements)

**An Examination of Stream Location**

The following paired sales are intended to examine the relationship of prices paid in various locations on the same stream. As we found in some of the earlier pairings, some water designated as trout water is often, especially in its headwaters, too small to effectively fish and while technically classified as trout water, it is not seen so by the buying public as evidenced by sale prices. The same can be said for those portions of trout streams designated Class 3, which offer trout fishing for a very brief time of the year and become too warm to fish during the summer months. The following pairing attempts to examine the relationship between a parcel located on a prime fishable area of a trout stream and a parcel located on a larger, downstream section, which while much wider and deeper, was designated Class 3 and suitable for trout fishing only during the spring. Analysis of the market area indicates that the maximum price tends to be paid for the most usable and productive section of a given trout stream, and lower prices for the lower reaches of these waters which are often wider, subject to temperature fluctuations, and other characteristics such that they contain few trout during much of the year.

The following pairing examines two similar sized parcels fronting on the Kickapoo River. The downstream example, located on Larson Road in the Town of Kickapoo in the Readstown area, is on the Lower Kickapoo. The river here is fairly wide and fairly deep, murky, and has a much slower rate of flow. It is also prone to flooding. While technically still classified as a trout stream, this is a portion of the Kickapoo River that warms significantly during the summer months and is not known as prime trout water. This parcel sale was paired with an example from the Town of Whitestown, located on the Kickapoo River above the Kickapoo Reserve. The river here is fast, clear, and tumbling, and is anywhere from 20’ to 50’ wide, making it highly compatible for fly-fishing. It is also above an area highly sought after by canoeists who further affect downstream trout fishing with heavy weekend canoe traffic. This pairing is presented as follows.
Prior to adjustments, the “blue ribbon” trout stream example shows an approximately 75% positive per acre price difference when compared to the downstream example. As these parcels show a significant 3-acre size difference, a proportional size adjustment is needed. The larger 9.6-acres should be adjusted in an upward direction, as it is approximately 31% larger than its 6.6-acre counterpart. Size adjustments are not proportional, and a 20% adjustment is deemed reasonable. This 20% upward adjustment to the larger parcel, on a per acre basis, yields an adjusted per acre price of $9,964/acre, rounded.

After adjustments for proportional size, an approximate 46% price difference is seen favoring the parcel identified as having prime trout stream frontage. This rather dramatic 46% per acre price preference for the “blue ribbon” trout stream property may also reflect a premium not only for the trout stream frontage but also for the quality and reputation of the stream itself. It would be incumbent upon an appraiser active in this market to perform a little additional research to discern if an appraised property or comparable sale, both sharing a trout stream water feature, would be seen as equal, superior, or inferior in the marketplace based on this type of analysis.

A Discussion of Access
The following example of a 40-acre parcel with trout stream frontage is presented to examine the effect of convenient access. The 40-acre parcel sold in December of 2008 for $2,225/acre, which is noted in general terms to be quite a bit lower than recreational parcels studied in this acreage class. MLS data describes the property as follows.

“County Highway A, Town of Adrian, Monroe County, Wisconsin. Sold for $89,000 in 12/08. Conventional sale; 101 days on the market. Described as heavily wooded with trout stream deep in the woods, Cold Valley Creek frontage adjacent to federal hunting grounds, accessible to public hunting.”

Further analysis reveals that there is a 66’ easement to the property, and the property is accessed via a power line easement. This off-road access, which was undeveloped at time of sale, limited to foot access or a 4-wheel drive vehicle only. It is noted that this sale, at $2,225/acre is considerably lower than similar acreage class trout stream parcels and illustrates the market preference for public road access.

This parcel was paired with a more or less physically identical 40-acre parcel with public road frontage and a component of frontage on Coon Creek, a Class 1 and Class 2 trout stream in adjacent Vernon County. This pairing is presented as follows.
<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Acreage</th>
<th>Access</th>
<th>Unadjusted S/AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy A, Tn of Adrian</td>
<td>$89,000</td>
<td>12/2008</td>
<td>40 acres</td>
<td>Easement/Limited Access</td>
<td>$2,225/AC</td>
</tr>
<tr>
<td>Moen Ln, Tn of Coon</td>
<td>$110,200</td>
<td>6/2005</td>
<td>40 acres</td>
<td>Public Road</td>
<td>$2,755/AC</td>
</tr>
</tbody>
</table>

Unadjusted, these two parcels show a 23.8% difference favoring the Public Road access parcel. These two identically size parcels vary significantly, however, in date of sale. Recall from earlier discussion that the area market showed a 7% annual appreciation until the coming of the 2007 Recession. Utilizing a time adjustment factor of 10.5% to reflect 1 ½ years of appreciation, and factoring no appreciation for 2008, which was noted to be affected by the recession we are now experiencing, the Coon Creek Trout Stream example with public road frontage, after the 10.5% adjustment, produced an adjusted price per acre of $3,044/acre. This was compared to the $2,225/acre for the limited access example, which still possessed Trout Stream frontage. This difference of approximately 36.8% in favor of the easily accessible parcel, shows the role of access and convenience in the prices paid for this class of recreational real estate.

Conclusions

The findings of this chapter support the author’s observation that water features do indeed contribute, and often significantly, to the value of a given parcel of recreational real estate in Wisconsin’s Driftless Region. Examples of various acreages were studied, which all showed a price differential in favor of water frontage. One of the pairings studied, analyzing the sales of a 6-acre class, sloping, wooded parcel with Class 1 Trout Stream frontage, and a similar sized, desirable wooded, sloping, parcel with no water feature, showed a dramatic price difference. This market extracted preference for water frontage property was then studied at greater depth, as it was noted that all streams are not created equal. An analysis of usability of two bodies of water identified as trout streams, but varying significantly in physical attributes, was also studied. This example noted that the stream that was not only a trout stream, but easily fishable, commanded the premium price. Similar price differences were noted in properties with what were considered by the market to be prime trout stream frontage vs. stream frontage where trout are present only during portions of the year. Access to a stream was also studied, and convenience was noted to be a factor with respect to the price paid for parcel of land with a trout stream. While the percentage of preference varied significantly based on the example studied, it is safe to say that a tangible premium, or price increase, would be seen for a property possessing a water feature.

Many years ago, at the dawn of my appraisal career, I received a phone call from a prospective client who asked me “What is land worth?” I then launched into a lengthy explanation of why all land is not created equal, attempted to explain Highest and Best Use, zoning, demand, and some of the many factors which affect a given parcel of land’s value. I am quite sure I completely confused my prospective client. I then explained my problem to a wise, older appraiser in the area, and he said the best answer he gives is “It depends.” He further explained that this question would be similar to asking a car dealer what a car is worth. One can only imagine the sheer diversity of make, model, age, condition, mileage, etc., to realize that depends, too. What we have done, however, in this chapter, is identified some market evidence to support the basis of an increase in value for a water feature. While we learned that all water features are not created equal, and that perhaps “blue ribbon” trout streams do contribute significantly more to value, we have the beginnings of market evidence as opposed to anecdotal evidence. From this we can build our study into a more meaningful analysis at the contributory value of this unique attribute in our study area.
CHAPTER 8
Paired Data Analysis – Trout Streams vs. Non-Trout Stream Recreational Parcels

The map on the following page illustrates the number of trout streams in the Driftless Region as classified by the Wisconsin Department of Natural Resources. These maps are color coded based on their regulatory class as to whether or not they are subject to “catch and release” regulations or as to the number of trout which may be kept and what constitutes a legal sized trout in a given body of water. Closer examination of the map also shows other bodies of water not so classified. Some of these are streams that no longer hold trout, or streams with characteristics never supported a trout population.

The Driftless Region consists of a number of counties and features numerous watershed areas with streams flowing into the Mississippi River as well as the Wisconsin River. These include unnamed tributaries and smaller streams that may hold trout at various times of the year. The following streams are considered some of the major streams in the area that will be used in some of the pairings. Other streams used in the sales pairings are less noteworthy but are trout streams nonetheless. Briefly, the Kickapoo Watershed, which begins in Monroe County, and traverses generally in a southerly direction through Vernon and Crawford Counties, also contains tributaries such as Billings Creek, The West Fork of the Kickapoo, Bishop’s Branch, Camp Creek, Elk Run, Timber Coulee, Tainter Creek, and numerous others.

Grant and Iowa Counties to the south also boast a significant number of trout streams, which generally flow northward into the Wisconsin River. These include the Blue River, Castle Rock Creek, Trout Creek, Mill Creek, as well as a host of smaller trout streams. Areas of western Vernon and Crawford Counties feature streams that flow into the Mississippi River. These streams include The Bad Axe, Rush Creek, Copper Creek, and Sugar Creek. Southern Vernon and Richmond Counties also contain stream systems that generally flow into the Wisconsin River and include the Pine, Willow, Bear Valley, and others. These named streams constitute much of the “Blue Ribbon” trout water that flows through the area. Numerous other streams are present, making this region an excellent laboratory for the study of value differences between these various classes of water.
MAP OF DRIFTLESS REGION TROUT STREAMS
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
In preparing this Guide, numerous sales transactions were analyzed. As is the case with most real estate appraisal research, many sales were discarded for various reasons, including non-arm’s-length transactions, non-market financing, foreclosures, assemblages, as well as sales with multiple buildings, dwellings, or other improvements or attributes which were felt to constitute uncontrollable variables. The paired sales utilized were selected to be as similar as possible with respect to the analysis of the water feature. It was the intent of this study to control for as many variables as possible, and over 120 pairing scenarios were studied. The pairings presented on the following pages are felt to be the most representative examples of parcels with trout streams and corresponding paired parcels lacking the trout stream feature, but having some type of stream frontage. The pairings presented were selected due to their need for few adjustments in order to illustrate the market-extracted differences associated with the trout stream feature. The examples come from various areas within the Driftless Region, and are intended to illustrate the most supportable examples of paired sales.
An Analysis of Two Parcels in the 3-Acre Class

The following pairing studies two parcels in the 3-acre class, namely 2.88 acres and 2.856 acres respectively, suitable for recreational use or a weekend cabin on Sugar Creek, a Class 1 & 2 Trout Stream in Crawford County, in the Mississippi River Watershed. The appraiser visually inspected both parcels, and both contained very similar attributes with respect to slope, cover types, access, etc. Some difference in time exists between the sale of the trout stream property and the small stream property. The trout stream property benefited locationally by being approximately 5 miles east of the Mississippi River, which is felt to provide an additional recreational enhancement and was addressed in the adjustment process. It is noted that the trout stream property did not enjoy a view of the Mississippi River, a significant view amenity discussed earlier in the Guide. The trout stream property was improved with a 3-car garage, and required an adjustment of 20% on a per acre basis or approximately $7,600, which is deemed reasonable.

The trout stream parcel was paired with a similar sized recreational parcel located nearby. It enjoyed frontage on a small spring creek, locally known as a “step-over” stream. Visual inspection showed that this small body of water was only several inches deep, and while aesthetically pleasing, it was not suitable for fishing or other recreation. The paired sale is summarized as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Size in Acres</th>
<th>Water Feature</th>
<th>Price/Acre Unadjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 11, Chellevold Road,</td>
<td>$38,000</td>
<td>9/2005</td>
<td>2.856 AC</td>
<td>Class 1 &amp; 2 Trout Stream</td>
<td>$13,305/AC</td>
</tr>
<tr>
<td>Crawford Cty, WI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45946 Hwy X, Crawford Cty, WI</td>
<td>$15,900</td>
<td>1/2006</td>
<td>2.88 AC</td>
<td>Small Stream</td>
<td>$5,520/AC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The grid, which factors for market extracted attribute differences is presented as follows.
It is noted that these two very similar sized parcels sold under very similar market conditions, and no time adjustment was felt to be appropriate. After adjusting for a locational superiority and the presence of a garage structure, a 44.6% factor favoring the trout stream property is seen. It is noted that despite the need for two significant adjustments, a fairly large premium is evident with respect to the price paid for the trout stream parcel.
An Analysis of Two Parcels in the 6-Acre Class

The following pairing studies two parcels in the 6-acre class, namely 6.6 acres and 6.9 acres, suitable for recreational use in northern Vernon County and adjacent southern Monroe County. The trout stream parcel is located in the Town of Whitestown, on the upper Kickapoo River. This parcel with “Blue Ribbon” trout stream frontage was presented in earlier sections of the Guide, in other pairings. This parcel, in addition to having this trout stream frontage, is sloping, partially wooded, and extremely suitable for a recreational building site. The paired non-trout stream parcel is located in the Sparta area with frontage on the Little La Crosse River. This is not considered a “Blue Ribbon” trout stream, nor is it specifically listed in DNR regulations as a trout stream. The non-trout stream area has a level building area with some sloped area. It also contains an area of marsh, which is not particularly usable, which would be considered an inferiority. The pairing is presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Size in Acres</th>
<th>Water Feature</th>
<th>Price/Acre Unadjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy I, Tn of Whitestown, Vernon Cty</td>
<td>$96,000</td>
<td>7/2006</td>
<td>6.6 AC</td>
<td>Class 1 Trout Stream</td>
<td>$14,545/AC</td>
</tr>
<tr>
<td>Icebox Road, Tn of Sparta, Monroe Cty</td>
<td>$65,000</td>
<td>1/2007</td>
<td>6.9 AC</td>
<td>Unclassified Stream</td>
<td>$9,420/AC</td>
</tr>
</tbody>
</table>

The grid, which factors for market extracted differences, is presented as follows.

<table>
<thead>
<tr>
<th>Address</th>
<th>Adj. Price</th>
<th>Adj. $/Ac</th>
<th>Description</th>
<th>Adj. $/Ac</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy I, Tn of Whitestown</td>
<td>96,000</td>
<td>14,545/AC</td>
<td>Rural-very good</td>
<td>65,000</td>
<td>Rural-very good</td>
</tr>
<tr>
<td>Icebox Road, Tn of Sparta</td>
<td>65,000</td>
<td>9,420/AC</td>
<td>Blg. Site-superior</td>
<td></td>
<td>Blg. Site-very good +10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.6 acres</td>
<td>6.9 acres</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sloped/P1. wooded</td>
<td></td>
<td>Slope/h1/marsh/p1. wood +10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Class 1 trout stream</td>
<td></td>
<td>Unclassified stream</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assume cash/conv.</td>
<td></td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assume none</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>X Plus</td>
<td>Minus $20%</td>
<td>Gross 0.0%</td>
<td></td>
<td>Net 0.0% $11,304/ac</td>
</tr>
</tbody>
</table>

After an adjustment process factoring for the Whitestown property’s location and view of the Kickapoo Reserve, which is felt to be a desirable locational attribute, and a corresponding adjustment for its
superior physical characteristics, the Icebox Road parcel, located on an unclassified stream, produced an indicated value of subject of $11,304/acre. When compared to the Town of Whitestown parcel, with frontage on a Class 1 Trout Stream, a percentage difference favoring the Class 1 Trout Stream parcel of 28.67% is seen after an adjustment process.
An Analysis of Two Parcels in the 12-Acre Class
The following less dramatic pairing studies two parcels in the 12-acre class suitable for recreation use in Crawford County, in the Mississippi River Watershed. The appraiser visually inspected both parcels and both contained very similar attributes with respect to slope, cover types, etc. It is noted that some time difference exists between the trout stream property and the small stream property. However, it is felt that the weaker market conditions in 2008 offset any appreciation that occurred in 2005 and 2007 in the small stream example. The pairing is summarized as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Size in Acres</th>
<th>Water Feature</th>
<th>Price/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>42537 Sleepy Hollow Rd, Crawford Cty, WI</td>
<td>$50,000</td>
<td>4/2008</td>
<td>12.28 AC</td>
<td>Class 1 &amp; 2 Trout Stream</td>
<td>$4,072/AC</td>
</tr>
<tr>
<td>58238 Buck Creek Rd, Crawford Cty, WI</td>
<td>$48,000</td>
<td>9/2005</td>
<td>13 AC</td>
<td>Small Stream</td>
<td>$3,692/AC</td>
</tr>
</tbody>
</table>

The grid, which factors for market extracted attribute differences is presented as follows.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Subject Property</th>
<th>COMPARABLE NO. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>42537 Sleepy Hollow Rd, Tn. of Clayton</td>
<td>58238 Buck Creek Road, Town of Freeman</td>
</tr>
<tr>
<td>Proximity to Subj.</td>
<td></td>
<td>5 miles W</td>
</tr>
<tr>
<td>Sales Price</td>
<td>$50,000</td>
<td>$48,000</td>
</tr>
<tr>
<td>Price</td>
<td>$4,072/ac</td>
<td>$3,692/ac</td>
</tr>
<tr>
<td>MLS</td>
<td></td>
<td>MLS</td>
</tr>
<tr>
<td>Date of Sale and Time Adjustment</td>
<td>4/2008</td>
<td>9/2005</td>
</tr>
<tr>
<td>Location</td>
<td>Rural-good</td>
<td>Rural-good</td>
</tr>
<tr>
<td>Site/View</td>
<td>Recreational-good</td>
<td>Recreational-good</td>
</tr>
<tr>
<td>Size Area</td>
<td>12.28 acres</td>
<td>13 acres</td>
</tr>
<tr>
<td>Topo/cover</td>
<td>Slope to level/pt. wooded</td>
<td>Slope to level/pt. wooded</td>
</tr>
<tr>
<td>Water feature</td>
<td>Knapp Creek</td>
<td>Small stream</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales or Financing Concessions</td>
<td>Cash</td>
<td>Cash/conv.</td>
</tr>
<tr>
<td>Net Adj. (Total)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Indicated Value of Subject</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The Knapp Creek sale, which exhibited a sale price of $4,072/acre, revealed on physical inspection, a significant section of improved stream frontage, including areas highly suitable for fly fishing. The Buck Creek parcel, based on physical inspection, was a desirable, attractive, recreational parcel. However, Buck Creek, where it flows through the comparable sale parcel, was very small and shallow in nature, and while identified as a trout stream, was largely overgrown, shallow, and was not easily fishable. While it
may contain trout during portions of the year, it is not feasible to fish this stream based on the appraiser’s walking of the property.

These sales, when compared, exhibit a 10.3% price difference in favor of the Knapp Creek property. The parcels are very close in size and location, and share similar physical attributes. The only noticeable difference is the presence of the more usable Knapp Creek vs. the much smaller Buck Creek, which based on physical inspection, is a small, overgrown stream where it crosses the paired parcel. Due to the lack of adjustments, this is perhaps one of the clearest paired sales examples.
An Analysis of Two Parcels in the 20-Acre Class

This pairing involves two parcels consisting of 19.9-acres and 29.2-acres respectively. Both are located in similar Driftless Region valleys in areas oriented to the Mississippi River. The property located on Chellevold Road in the Town of Freeman, exhibited frontage on Sugar Creek, a Class 1 and Class 2 Trout Stream. The paired parcel on Knutson Road exhibited frontage on Baker Creek, which is a Kickapoo River tributary located in Crawford County. Baker Creek, while classified as a trout stream, based on the inspection of the paired property, is narrow, brushy and very shallow where it flows through the paired property. It is not particularly suitable for trout fishing, and while it may contain trout at various times of the year, it is very shallow and not particularly fishable. Both properties sold during 2007 and were felt to be locationally similar and were otherwise desirable recreational sites. The Baker Creek frontage was improved with a small, older, 1,660 SF recreational cabin and a pole building in poor condition. These improvements were felt to provide some contributory value. The pairing is presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Size in Acres</th>
<th>Water Feature</th>
<th>Price/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 12, Chellevold Road, Tn of Freeman, Crawford Cty, WI</td>
<td>$59,900</td>
<td>6/2007</td>
<td>19.9 AC</td>
<td>Class 1 &amp; 2 Trout Stream</td>
<td>$2,998/AC</td>
</tr>
<tr>
<td>13098 Knutson Road, Crawford Cty, WI</td>
<td>$95,000</td>
<td>1/2007</td>
<td>29.2 AC</td>
<td>Small Stream</td>
<td>$3,186/AC</td>
</tr>
</tbody>
</table>

The grid, which factors for market extracted attribute differences is presented as follows.
After adjustments, the analysis of the two parcels, including significant adjustments for proportional size, and the presence of a recreational cabin reveals a 6.9% difference in favor of the Chellevold Road trout stream parcel example. Visual inspection reveals Sugar Creek at the point where it flows into the sale, is a wide, usable trout stream suitable for fly-fishing as well as a recreational building site. The Baker Creek example located on Knutson Road, while attractive, features a small stream, which is heavily overgrown and which may be suitable for fishing at some times of the year, but would generally not be considered particularly usable. This pairing after adjustment showed a 6.9% value factor in favor of the Sugar Creek trout stream parcel.
A Pairing Of Two Parcels In The 20-Acre to 30-Acre Class
This pairing involves two parcels consisting of 20.1-acres and 34.41-acres respectively. Both are located in a similar Driftless Region of Grant County, and both enjoy a significant water feature. The property identified as having a trout stream consists of having 20 acres overlooking Fennimore Creek. Fennimore Creek, a branch of Castle Rock Creek, is a renowned “catch and release” spring creek known for fly-fishing and the presence of trophy trout. The paired example is located on Walnut Dell Road in the Town of Platteville, on a 30-acre parcel of similar physical characteristics. It contains frontage on a small creek that is not listed as a trout stream, nor marketed as a trout stream. The pairing is presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Size in Acres</th>
<th>Water Feature</th>
<th>Price/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Rock Rd, Tn of Castle Rock, Grant Cty, WI</td>
<td>$100,000</td>
<td>9/2008</td>
<td>20.1 AC</td>
<td>Class 1 Trout Stream</td>
<td>$5,000/AC</td>
</tr>
<tr>
<td>Walnut Dell Rd, Tn of Platteville, Grant Cty, WI</td>
<td>$90,000</td>
<td>10/2008</td>
<td>30 AC</td>
<td>Unclassified Stream</td>
<td>$3,000/AC</td>
</tr>
</tbody>
</table>

The grid, which factors for market extracted attribute differences is presented as follows.

Analysis of these two pairings shows only the need for a proportional size adjustment, as both parcels are similar locationally, physically, and are traversed by a stream. The trout stream property located on Fennimore Creek perhaps possesses an additional premium due to the reputation of the trout stream. However, the sales are otherwise physically very similar, and after adjustment a difference of 44.2% favoring the trout stream parcel is noted. This would be similar but much less dramatic than the “Blue Ribbon” Kickapoo River example located in the Town of Whitestown and utilized in earlier pairings.
An Analysis of Two Parcels in the 40-Acre Class

The following pairing studies two parcels in the 40-acre class, namely 35 and 45 acres, of parcels suitable for recreational and agricultural use in Vernon County in the Kickapoo Watershed. The appraiser visually inspected both parcels and note that both contain more or less equal portions of sloping, wooded coulee land, and level or low-lying stream bottom devoted to either agriculture or prairie. Both sold in 2008, and neither was improved with a significant structure. This pairing is presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Acreage</th>
<th>Water Feature</th>
<th>Price/Acre Unadjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>E9710 Harrison Hollow Road, Liberty, Vernon Cty, WI</td>
<td>$185,000</td>
<td>6/2008</td>
<td>45 AC</td>
<td>Class 2 Trout Stream</td>
<td>$4,111/AC</td>
</tr>
<tr>
<td>E10597 S. Elk Run Rd., Liberty, Vernon Cty, WI</td>
<td>$97,500</td>
<td>8/2008</td>
<td>35.05 AC</td>
<td>Small Stream</td>
<td>$2,782/AC</td>
</tr>
</tbody>
</table>

The grid, which factors for market-extracted attribute differences is presented as follows.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Subject Property</th>
<th>COMPARABLE NO. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>E9710 Harrison Hollow Rd, Tn. of Liberty</td>
<td>E10597 Elk Run Road, Tn. of Liberty</td>
</tr>
<tr>
<td>Proximity to Subj.</td>
<td>5 miles NE</td>
<td></td>
</tr>
<tr>
<td>Sales Price</td>
<td>$185,000</td>
<td>$97,500</td>
</tr>
<tr>
<td>Price</td>
<td>$4,111/acr</td>
<td>$2,782/acr</td>
</tr>
<tr>
<td>Data Source</td>
<td>MLS/seller</td>
<td>MLS #1023420</td>
</tr>
<tr>
<td>Date of Sale and</td>
<td>June 2008</td>
<td>August 2008</td>
</tr>
<tr>
<td>Time Adjustment</td>
<td>Description</td>
<td>Description</td>
</tr>
<tr>
<td>Location</td>
<td>Rural-good</td>
<td>Rural-good</td>
</tr>
<tr>
<td>Site/View</td>
<td>Recreational-good</td>
<td>Recreational-good</td>
</tr>
<tr>
<td>Site Area</td>
<td>45 acres</td>
<td>35.05 acres</td>
</tr>
<tr>
<td>Topo/cover</td>
<td>Slope to Lvl/Ptl. wooded</td>
<td>Slope to Lvl/Ptl. wooded</td>
</tr>
<tr>
<td>Water feature</td>
<td>&quot;Stepover&quot; stream</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
<td>Shed-no value</td>
</tr>
<tr>
<td>Sales or Financing</td>
<td>Cash/Conventional</td>
<td>Cash/Conventional</td>
</tr>
<tr>
<td>Concessions</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Net Adj. (Total)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicated Value of Subject</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An analysis of these two pairings shows first the need for one adjustment. Both parcels are similar locationally, physically, and are traversed by a stream. The Harrison Hollow Road property has the Class 2 Trout Stream, Harrison Creek, meandering through its lower reaches. The Elk Run Road has a small, spring-fed step over stream, a tributary of Elk Run, also flowing through its lower reaches. Frontage
components were deemed similar with respect to water frontage. Both parcels had an adequate amount of public road frontage for access. After the application of a single size adjustment, a difference of 64% was seen favoring the Harrison Hollow Road parcel, which benefited from a Class 2 Trout Stream. Conversations with the seller of the Harrison Hollow property indicate that the property was purchased by a local individual who sought the property primarily for recreational purposes, namely hunting and fishing, but intended someday to build a home. This conversation indicated that some buyer motivation may have been present.
An Analysis of Two Parcels in the 80-Acre Class

The following pairing studies two parcels in the 80-acre class, namely 75 acres and 80 acres, of parcels suitable for recreational use in Richland County and neighboring Iowa County. The appraiser inspected both parcels and notes that both contain more or less equal parcels of sloping, wooded land and level or low-lying stream bottom. Both were purchased for recreational purposes. One contained frontage on Laxey Creek, a small class 1 and 2 trout stream. This pairing is presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Acreage</th>
<th>Water Feature</th>
<th>Price/Acre Unadjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cave Rd, Tn of Linden, Iowa Cty, WI</td>
<td>$289,000</td>
<td>10/2007</td>
<td>80 AC</td>
<td>Class 1 &amp; 2 Trout Stream</td>
<td>$3,612/AC</td>
</tr>
<tr>
<td>12086 Welker Hollow Rd, Tn of Forest, Richland Cty, WI</td>
<td>$225,100</td>
<td>11/2008</td>
<td>75 AC</td>
<td>Small Stream</td>
<td>$3,001/AC</td>
</tr>
</tbody>
</table>

The grid, which factors for market-extracted attribute differences, is presented as follows.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Subject Property</th>
<th>Comparable No. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Welker Hollow Rd, Tn. of Forest</td>
<td>Cave Road, Tn. of Linden</td>
</tr>
<tr>
<td>Proximity to Subj.</td>
<td>15 miles SW</td>
<td></td>
</tr>
<tr>
<td>Sales Price</td>
<td>$225,100</td>
<td>$289,000</td>
</tr>
<tr>
<td>Price</td>
<td>$3001/acre</td>
<td>$3,613</td>
</tr>
<tr>
<td>MLS Source</td>
<td>MLS#961220</td>
<td>MLS#1489199</td>
</tr>
<tr>
<td>Location</td>
<td>Rural-good</td>
<td>Rural-good</td>
</tr>
<tr>
<td>Site/View</td>
<td>Recreational/residential,gd</td>
<td>Recreational/residential,gd</td>
</tr>
<tr>
<td>Site Area</td>
<td>75 acres</td>
<td>80 acres</td>
</tr>
<tr>
<td>Topo/cover</td>
<td>Rolling/ Pt. wooded</td>
<td>Rolling/ Pt. wooded</td>
</tr>
<tr>
<td>Water feature</td>
<td>&quot;Stepover&quot; stream</td>
<td>Trout stream</td>
</tr>
<tr>
<td>Other</td>
<td>Small cabin</td>
<td></td>
</tr>
<tr>
<td>Sales or Financing Concessions</td>
<td>Cash/conv.</td>
<td>Cash</td>
</tr>
<tr>
<td>Net Adj. (Total)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Indicated Value of Subject</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After an adjustment process, and noting only one adjustment was needed, an approximate 26.47% difference is noted favoring the trout stream property. This parcel was improved with a small weekend recreational cabin, similar to those described in earlier sections of the Guide. Assuming a cost new of approximately $20,000 as indicated in earlier chapters in the Guide, offset significantly for what is felt to be physical depreciation, a contributory per acre factor of +5% was utilized in the grid. This was felt to be reasonable for this small, but usable structure in average condition. Both parcels were mostly wooded, with the significant difference being the presence of a named trout stream vs. a small, step-over stream.
An Analysis of Two Parcels in the 150-Acre Class

The second pairing involves two parcels consisting of 146.45 acres and 156 acres respectively. Both are located in similar Driftless Region valleys and were purchased for recreational use. The appraiser visually inspected both parcels and note that both contain similar portions of agricultural land, wooded land, and a lower-lying stream bottom area devoted to agriculture or prairie restoration. It is noted that a difference is noted in time of sale and some improvements were located on the properties. This pairing is presented as follows.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Price</th>
<th>Sale Date</th>
<th>Size in Acres</th>
<th>Water Feature</th>
<th>Price/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weber &amp; Hornby Rd, Vernon Cty, WI</td>
<td>$445,000</td>
<td>8/2007</td>
<td>146.45 AC</td>
<td>Class 1 Trout Stream</td>
<td>$3,034/AC</td>
</tr>
<tr>
<td>Lombard Rd, Town of Webster, Vernon Cty, WI</td>
<td>$283,000</td>
<td>4/2005</td>
<td>156 AC</td>
<td>Small Stream</td>
<td>$1,814/AC</td>
</tr>
</tbody>
</table>

The grid which tends to factor for the market-extracted differences, is presented as follows.

The parcel located at Weber and Hornby Roads in the Town of Sterling consisted of 146.45 acres, which sold in August of 2007. This was a site consisting of heavily wooded slopes and rolling to level agricultural land with frontage on Hornby Creek, a free-flowing Class 1 Trout Stream. The property was improved at time of sale with a 34’ by 70’ frame bank barn, a 28’ by 42’ pre-engineered machine shed, and an older 24’ by 140’ tobacco shed. Some of the land was under cultivation.
The Hornby Creek parcel was paired with a 156-acre parcel located in the Town of Webster, 15 miles to the northwest. This parcel was also physically similar involving areas of sloping, hilly woodlands, and areas of agricultural production fields. This property also benefited from a small spring-fed stream, which is not named and forms a tributary of the West Fork of the Kickapoo River. This stream is a “step over” stream and is very shallow. The property was improved with a 14’ by 60’ mobile home in very poor condition (no contributory value), a 40’ by 64’ metal pole shed, and a 48’ by 52’ metal pole shed. There is also a new well and septic system. These improvements were felt to be the equivalent of the agricultural outbuildings possessed by the Hornby Creek property and no adjustment was needed. The appraiser adjusted 10% for the passage of time between April of 2005 and August of 2007, which was felt to be reasonable. After adjustment, the property with the small, unnamed stream showed an adjusted indicated value of subject of $1,995/acre. When compared to the 146.45-acre property with the frontage on Hornby Creek, a difference of 52% is seen.

It is noted that this rather dramatic difference, favoring the Hornby Creek parcel, is also perhaps indicative of a premium paid for the presence of Class 1 trout water, which is typically not found in parcels of this size.

**Conclusions**

The eight pairings presented, ranging in size from approximately 3-acres to over 150-acres, have shown significantly higher values on a price per acre basis for trout stream parcels. The differences for the parcels ranged from 6.9% to in one pairing, a whopping 64% with the more dramatic differences seen in those parcels offering Class 1 Trout Water when compared to a non-trout stream or small spring creek. Due to the diversity of the parcels studied and the wide range of time, location, physical attribute, acreage, improvements, and other factors, the eight pairings, while felt to be the best available, still provide some potential additional intangibles which may also affect value in the positive direction for the trout stream parcels. We have already seen that Class 1 water seems to command a significant premium, while Class 2 waters and other waters identified do not. Non-trout water, when compared to trout water, however, consistently seems to sell well below trout stream parcels in terms of price per acre.

To draw conclusions as to a uniform adjustment for a trout stream based on this small body of pairings, would not in my opinion be good appraisal practice. However, drawing from the lowest examples, which ranged from approximately 7% to 10% favoring the trout stream parcels, the base of an initial adjustment can be seen. Certainly in the absence of locally developed paired sales, an appraiser valuing trout stream property in the upper Midwest could begin in the 5% to 10% range. Some of the more dramatic examples derived from comparing small streams to “Blue Ribbon” trout streams would likely be less applicable in areas where this class of trout stream does not exist. What the paired sales exercise proves is a consistent pattern of desirability and added value to the trout stream feature. Additional contributory values may be present, based on the trout streams reputation, productivity, and other factors that are somewhat more intangible than the mere physical presence of a water feature. The wide range in positive difference also hints at other mitigating variables that were not evident to this appraiser. Possibilities for additional features that may effect the value of a given parcel in addition to the trout stream or water feature could include the quality of deer hunting, turkey hunting, potential for future subdivision potential, buyer motivation and other factors. As indicated in earlier sections of the Guide, this represents a first attempt to “get our hands around” this unique feature. As is the case with any land market, other mitigating variables are likely present. The following chapters deal with some other methods of analysis for the unique trout stream feature.
CHAPTER 9
Other Appraisal Methodologies

The previous chapter examined a series of paired sales selected due to their need for the fewest adjustments possible. In total, over 40 pairings were examined. Many of these required significant adjustments for a variety of locational and attribute differences, time differences, proportional size, and the presence of structures such as cabins, barns, pole buildings, etc. Many of these pairings were discarded due to the need for too many adjustments.

It is my opinion that the recreational real estate market in Wisconsin’s Driftless Region produces an insufficient amount of sales to perform meaningful statistical analysis such as regression analysis and other statistical methodologies. The presence of 40 pairings, based on approximately 145 sales gathered over a 4 year period may tempt a statistically oriented appraiser to explore a more sophisticated, statistically based appraisal methodology. It must be noted, however, that this body of sales represents a highly diverse group of properties, many requiring significant adjustments. The inability to control for multiple potentially contributory variables tends to lead me away from a more sophisticated statistical analysis. However, simple graphic presentations of the data do point toward some interesting and potentially meaningful value trends with respect to these property types.

Generally, it is held that as the size of a parcel increases, the unit value decreases. This decline tends to occur at an exponential rate rather than on a linear basis. The unit value change typically corresponds to the rate of change rather than the dollar amount of change per unit. Appraisers seeking to quantify adjustments or analyze differences such as trout stream vs. non-trout stream may also rely on techniques such as regression analysis. Regression analysis is a useful tool when large bodies of data are available for meaningful statistical analysis. Other methods include interpolation, along with a simple graphing and curve plotting.

A simple Scatter Graph is presented as follows. This graph uses the three classes of acreage sales, namely no water feature, non-trout stream frontage, and trout stream frontage, for parcels ranging from approximately 3 acres to 180 acres. The Scatter Graph appears to show the typical curvilinear “hockey stick curve” often associated with the study of the sale prices of increasingly large land parcels. As previously stated, it is typically held that as a parcel’s size increases, its unit price tends to decrease. This is supported by the Scatter Graph findings.
The Scatter Graph presented above shows an interesting correlation indicating a pattern of higher prices paid for parcels possessing trout stream frontage. The beginnings of the “hockey stick” curve appear to be present. Some evidence of the premium prices noted in earlier sections of the Guide also appears to be present.

The Scatter Graph shows some interesting and significant price differences based on the distribution of the 145 sales. In order to examine trend lines, the plotting capability of the Excel spreadsheet was used, as shown on the following page.
A Guide To The Valuation of Recreational Land With Trout Streams
In analyzing the results of the graphing of the three classes of land sales, it becomes apparent that the trout stream water feature is most noticeable as a value contribution in parcels of 50 acres or less, and dropped off as parcel sizes increase. It is even more noticeable in the small parcels below 10 acres in size. In this acreage range, the distribution of sales tends to point toward a much more noticeable value contribution of the trout stream feature when compared to non-trout water. A trend toward premium prices and smaller parcels enjoying Class 1 Trout Stream frontage also appears to be evident. It is noted in general terms that as a parcel’s size increases, the significance of the trout stream feature tends to decline, and all of the parcels tend to behave more or less equally at sizes approaching the 100 acre class into the 200 acre class, which were the largest sales utilized. Conversations with area appraisers and brokers indicate that as a parcel’s size increases, the presence of additional recreational potential takes hold. Recall earlier discussions of the large number of deer hunters and turkey hunters as well as other recreational users present in this area. It is likely that these constitute a significant number of the purchasers of the larger parcels of recreational land. Parcels purchased in the 100 and 200 acre class are often purchased primarily for hunting, and the trout stream feature, while present, may not impact the price paid per acre as much as that seen in smaller parcels, as demonstrated by the graph.

The graphic data, however, does present an interesting possibility for further study. I caution other appraisers, however, who are keen to use regression analysis and other statistical tools that variables must be carefully controlled and studied properly to produce meaningful results. I note that some of the dramatic variances seen in the paired sales presented in Chapter 8 varied widely, but always in a positive direction with respect to the trout stream property. As land is highly diverse in character, other mitigating variables, which we were not able to discern, may be present. In addition, the motivation of buyers seeking this class of real estate may also vary based on the origin of the buyer.

In Wisconsin, the role of the mythical “Chicago buyer” is always seen by local sellers as well as Realtors as the source of very high purchase prices. This would be the subject of another interesting study. It is my opinion that the data presented could be further refined in order to perform a more meaningful statistical analysis. The presence of repeat sales of the same parcel would have been most interesting. Sadly, none were present for this guide.

In the preparation of a regression analysis, the death is in the details. The failure to control for the potential multitude of meaningful variables could lead to meaningless results. I caution anyone attempting to analyze large bodies of data with respect to trout stream features that many pitfalls and unforeseen variables may be present which may further effect results and the analysis. I think it was Mark Twain who said, “There are lies, damn lies, and statistics.”
CHAPTER 10
Listings

The book, Land Valuation: Adjustments, Procedures, and Assignments, by James H. Boykin, PhD, MAI, CREA, SRA, offers significant guidance and insight into the use of property listings in the overall analysis of land values. While some appraisers dislike using listings as a gauge of the market, as these are not closed and consummated sales, listings do provide additional value corroboration and provide a reliable indicator of seller expectation. In addition, listings, offered by experienced and skilled Realtors, often illustrate locational and physical attributes that are targeted to a certain segment of the market. Listings also give a sense of how strong or weak the market is for a given class of land, as days on market are often provided. Patterns of sale prices to listing prices can also be employed as an additional adjustment. The list-to-sell ratio is a useful tool in analyzing a listing that could function as an additional indicator and basis of support for an opinion of value. The following examples illustrate how Realtors utilize listings to target their particular market.

- County Highway A, Richland Center, Wisconsin; the 36 Forest Creek Acres, over 600’ of frontage on Class 2 Trout Stream, easy access off paved county road into near-level fields, pasture and crp landed planted to hardwoods. Approximately 7 acres teeming with deer, turkey, and towering rock outcroppings. Hunt, fish, build or retreat to the country for as little as $109,900. Asking price: $3,053/acre.

- 35 Acres on the Kickapoo River, $155,000. This quiet, country location has a large meadow with a year-round spring creek flowing through it. The building site has a 54’ x 24’ pole building with concrete floor and porch on an elevated, shaded, timbered plateau overlooking the pasture and the Kickapoo River. The 2,300’ of frontage consists of mostly old growth maple and oak on a high bank along the river. This park-like setting would be perfect for canoeing, camping, fishing, or just relaxing in the deep shade or watching your cares drift away. Asking price: $4,429/acre.

- Lot 1, Highway I, Clyde, Iowa County; 40 acres; Asking price $228,000. This parcel has excellent hunting and fishing. One of the better trout streams (Otter Creek) runs through the property. Several potholes and standing water with ducks and geese. Only a few miles from the Wisconsin River and the tourist area of Spring Green. Asking price: $5,700/acre.

- Trout Fishermen!!! Here’s a truly unique property with over 1 mile of some of the best trout fishing in the United States. These 168 acres more or less are where the West Fork of the Kickapoo River and the Seas Branch Creek converge. This highly sought after area lures anglers from throughout the United States and other parts of the world. There are approximately 4,000’ of the West Fork of the Kickapoo, and over 2,000’ of the Seas Branch. Road access to the building sites is off County Highway Y. This property has about 5 acres of woods (some of the timber is very mature), and approximately 40 acres of tillable cropland. Much of the remainder would be considered pasture. Look at the pictures and give us a call today! Asking price $539,900. Asking price: $3,214/acre.

While intended as a sales and marketing tool, the appraiser’s use of listings provides not only examples of seller expectation, but will also enable the appraiser to analyze those highlighted areas which are intended to reach a specific market. In addition, the examination of days on market as well as eventual list-to-sell
ratios is a valuable tool in gauging the strength or weakness of a given marketplace. While not a primary source of information, the analysis of listings provides an importance source of secondary support for an opinion of market value.

An example of another listing highlighting the Driftless Region trout stream feature is presented as follows.

**Badaxe River Acreage, 30 acres, $105,000, taxes $571 per year**

*#1147*

Enjoy fish in the pools, game at the heights, and the music of the gentle river that cascades along a rocky shoreline on its way to the “Big River.” This scenic river will both captivate and soothe you. The gentle sound of tumbling water will comfort you. Your troubles and cares will drift away as you sit back on a peaceful riverbank and enjoy this remarkable 1000’ waterfront paradise. Build that dream home or cabin on this unique acreage. Beautiful views from a wooded setting overlooking a pristine valley. Underground electric and phone along with hardtop access make this build ready. It is getting harder and harder to truly find the ultimate in water and privacy. This is it. Rather than simply reading and dreaming about your perfect getaway, why don’t you come and see this……Before……………………….. It’s gone.
CHAPTER 11
Replicability

The validity of any appraisal study dealing with a topic such as contributory values is best supported by replicability in other market areas. The Driftless Region of southwestern Wisconsin was chosen due to its unique nature and numerous examples of high quality trout streams along with other streams, which do not support a trout population. As seen in the previous examples, a significant but varying degree of difference is paid in the marketplace for this unique amenity. The replicability of this market phenomenon was briefly studied in Allamakee, Iowa, located just across the Mississippi River from Crawford and Vernon County. This area is also driftless in character, and shows the potential for the appraiser to perform a similar market study. It is noted in general that land values are lower than that seen on the Wisconsin side of the Mississippi River and fewer trout streams are present.

The following sale on Village Creek Road, southwest of Lansing, Iowa, in Allamakee County, from 2009, illustrates both the marketing and the price level of trout stream real estate.

37 acres on Village Creek Road, sold for $125,250 ($4,175/acre). Sale is described as “extraordinary scenic wooded parcel with beautiful winding spring stream. A panoramic hilltop meadow surrounded by woods sloping down to a secluded valley with Village Creek tributary flowing by.” Both the price per acre indicated and the Realtor’s marketing for the trout stream parcel are seen as very similar to the examples noted in Wisconsin’s Driftless Region.

The following listings from Allamakee County are presented as follows. These listings also illustrate the targeting of the trout stream amenity and the asking prices per acre are similar to the observed prices in Wisconsin’s Driftless Region.
This secluded 20+ acre parcel has 1700 feet of classic trout stream with rapids and deep pools full of wild trout. Sculptured limestone cliffs form crystal clear pools deep enough to swim in.

There's a perfect spot for that getaway cabin on a bench that overlooks a bend of the stream so you can see both up and down. Property is divided between mature forest and a level meadow of lush prairie grasses, perfect for horses. Open area along the creek would be a great place for fly fishing for native browns and rainbows.

Privacy is ensured because access is through the stream. The surrounding timbered hills shelter this parcel and provide a year round vista of the changing seasons. The creek tumbles about 8 miles down to enter the Mississippi at the Village Creek Boat Landing. This is an excellent facility and there are no fees and no waiting—a great place to start your adventure on the 240,000 acre Upper Mississippi Fish and Wildlife Refuge. It is also near the Yellow River State Forest and the 2,000 acre Lansing Wildlife Management Area. Lansing, IA 52151

This listing shows an asking price per acre of $8,750/acre, which appears to fall in line with examples across the river in Wisconsin’s Driftless Region. While an asking price, this does provide some indication of value levels in a similar market targeted for the trout stream amenity.
One can still envision the first pioneers setting foot into this hidden valley with this cascading trout stream. (Village Creek). The valley still looks much as it did then. Quiet and secluded, far from noisy highways and bustling towns. The sweet grasses studded with wild flowers billow in the gentle breezes in a level meadow building site that is surrounded by blue green oak forested hills. A new level access road ends at this appealing trout stream acreage building site. Listen to the soothing sound of tumbling spring fed waters as they rush over boulders and pause in deep pools on its way to the mighty Mississippi river 10 miles away. Places such as this are rare find. Surrender to the same spell our pioneer forefathers had when they found this enchanted hidden valley. Allamakee County in what is called the “driftless” area, a place missed by the glaciers and found by those seeking privacy and seclusion. Lansing, IA 52151
This listing indicates an asking price per acre of $4,210/acre, which is on the lower end of those trout stream prices seen in the neighboring Wisconsin market. Further research, however, indicates that this is a fairly small stream, and access to the property is on a gravel road, which may be less desirable than paved, public road frontage.

An Internet survey of websites devoted to the marketing of recreational acreage was studied for the trout stream feature. Locations as diverse as Vermont, Pennsylvania, North Carolina, South Carolina, Michigan, Minnesota, Montana, and California all show a similar pattern of marketing highlighting the trout stream feature. While prices vary widely in these diverse locations, it is observed that when compared to other non-trout stream listings on the site, that both premium asking prices and premium sale prices are evident. None of the sites analyzed offered any guidance as to the contributory value of a trout stream, but all pointed toward trout streams as highly desirable features intended to target their marketing around this unique water attribute.

Examples of sales and listings from neighboring Iowa, where a similar Driftless Region exists, point toward a market targeting the trout stream amenity. Prices on a per acre basis from both the sales and listings appear to fall in line with those of its Wisconsin neighbor. It is noted that Iowa has some significant property tax differences, and it is further noted that this recreational market is not as developed as that seen in Wisconsin. However, the pre-cursors appear to exist to support a pattern of increased values for trout stream property. Surveys of other markets where trout fishing comprises a portion of the recreational mix, all point toward marketing that targets trout stream property, and higher prices for trout stream offerings were observed in a variety of locations as diverse as California and South Carolina. While a large volume of sales data was not available for pairings, it is apparent that this unique water feature is highly prized in a variety of markets on a nationwide scale.
CHAPTER 12
Conclusions

The study of sales of parcels possessing streams and specifically parcels with trout streams, points to a positive value contribution for this unique natural amenity in Wisconsin’s Driftless Region. This region comprising all or parts of five counties is home to a number of watersheds and streams ranging from tiny, spring-fed streams to large, tumbling freestone springs, to large, slow-flowing streams, most of which support populations of trout. In this Guide, we attempted to illustrate that while a value contribution appears to be present, it must be carefully studied and supported in order to be properly quantified in terms of appraisal methodology. Wide variations in this value contribution have been seen, and I have attempted to consider and discuss other attributes that may further affect value. The eight pairings presented showed a positive value contribution ranging from as little as 6.8% to as much as 64% for trout stream parcels. The complexity of this analysis included a discussion of the location of a parcel on a particular trout stream, issues such as a trout stream’s particular class, fishability, access, and reputation. Additional attributes which may effect value were discussed such as future development potential, potential hunting opportunities or other recreational pursuits, and a variety of other factors that could also effect value. It is interesting to note that the eight pairings presented were, despite their wide range in positive value contribution, the clearest examples from a pool of over 145 sales. This, in the author’s opinion, is indicative of the complexity of this market.

In addition to the paired sales analysis, the role of listings was discussed, and some simple Scatter Graphs and Trend Line Graphs were presented. All of them point toward a positive value contribution for trout streams. As expected, the trend lines show a diminished effect as the acreage rises and other variables such as the presence of additional recreational activity potential kicks in. In addition, a small amount of data from neighboring Iowa, as well as some initial survey data from other national markets where trout streams constitute a portion of the recreational real estate market was also discussed. All of them point toward a positive value feature with respect to this unique class of real estate.

Recall that the intent of this guide was to first determine if a supportable value contribution was present for trout streams. The probability of this value contribution seemed likely, but this was largely based on anecdotal evidence. By applying accepted appraisal techniques and confining the analysis to a unique and confined geographical region, the Wisconsin Driftless Region, some answers appeared. The application of these techniques to sales data obtained from this region showed fairly clearly, that a value contribution does exist. It appears to exist in varying proportions and also appears to be further influenced by additional factors and considerations which an appraiser must analyze to produce a credible result.

So then, what must be considered to adequately value a piece of real estate where a trout stream is present? While significant differences exist in the various locations where trout streams are present, some basic considerations, similar to the adjustment areas used in the sales grids should be considered. These are summarized as follows:

**Location:** What are the overall value characteristics of the subject property and comparable sales? Does land in Blue County typically sell for more than land in Green County? Often differences can exist due to unforeseen conditions such as property taxes or land use restrictions.
Site: Are you analyzing a parcel suitable for recreation only or a site where a home or cabin can be built? What kinds of recreation are possible on the site in addition to trout fishing? Is the parcel also in an area known for trophy deer hunting or another activity which may be popular in your area?

View: This is more important for a parcel suitable for cabin or a second home. What views does the parcel enjoy? Recall, I discussed parcels where a panoramic view of the Mississippi river commanded a premium over and above any additional contribution associated with a trout stream. Does your parcel or your comparables overlook dramatic forested hills, or a pasture full of Holstein dairy cows of the muddy smelly variety?

Parcel size: Remember this simple relationship, as a parcels size increases, its unit value unit price typically decreases. Simply, 50 acre parcels are probably not good comparisons for 5 acre ones.

Topography: Very flat is typically seen as dull while dramatically steep is usually seen as an access or usability issue. In the Driftless Region market parcels somewhere in the middle of the extremes were considered the most desirable. Study your market for preferences.

Cover: Trees always add value, right? Well, it depends. Wooded parcels, especially those with mature native hardwoods or conifers are generally considered desirable. Parcels which are heavily wooded to the point of being overgrown to the point of making fishing difficult are usually a different story. My advice when inspecting either the subject or comparables is to walk the stream bank. Also look for evidence of foot traffic. That can also be an indicator of the intensity of fishing activity (Some trout fishermen in the Driftless Region do not appear to be able to read no trespassing signs.).

Access: Just how easy is it to access a particular stream parcel? Remember, most people, including most recreational buyers, are lazy creatures. Easy vehicular access is considered optimal. Recall the examples of easements, lanes, and long right-of ways as factors which may depress value. In a practical sense, a recreational parcel which may offer seclusion, physical beauty, and good trout fishing which is accessible via an easement which crosses a pasture which is impassible after a summer rain might not sell for as much as a less desirable parcel with paved road frontage.

Classification and Reputation: Earlier chapters provided a great deal of discussion regarding the classification of trout streams. This classification system which was done by a state agency for management and harvest purposes also has some implications with respect to contributory value. Unfortunately this is not as simple as equating a Class 1 stream as more valuable than a Class 2. Remember, a particular stream’s value contribution is also dependant on the degree to which it can be fished. Also present is the role of a stream’s reputation. There are streams present in the Driftless Region whose reputation is a probable enhancement to the market of their streamfront parcels. Streams such as the West Fork of the Kickapoo, The Big Green River, and Timber Coulee are good examples. While the term “blue ribbon” described some streams in this guide, no such official classification is placed upon streams by the State of Wisconsin DNR or other state agency. Rather, this is an informal classification attached to various streams which are the most highly sought after and most heavily fished. Many of these streams have been the subject of fishing magazine articles. In other states, blue ribbon programs exist and can serve as a guidepost for an appraiser when performing an assignment. Once again, a little research into a particular market can go a long way.
Considerations in Other Markets: In the State of Wisconsin, the public owns the bottom of a navigable stream. This extends to the high water mark. As long as your feet are wet, the land owner, cannot deny you the use of the water. As a result anglers in Wisconsin enjoy a large amount of access to trout streams. Often a parcel with stream frontage serves as a “jumping off” spot for a landowner/fisherman to access literally miles of trout water. This ownership and access structure does not apply in all states. Having been lucky enough to have fished in the western United States, I know stream access and water rights can vary widely from state to state. These are also historically a hot button issues amongst landowners and sportsmen. For instance, in some states, use of the water is not prohibited, but walking on the stream bottom constitutes trespassing. This has given rise to the significance of driftboat fishing on some of the larger rivers out west. In addition, some states classify some of their waters as public while others are private. It is incumbent on an appraiser performing appraisal assignments in these markets to familiarize themselves with the particular ownership and access characteristics of their market.

In conclusion, just what does the presence of a trout stream add to the value of a parcel of real estate? As an experienced expert witness, I would say, “It depends.” I might be tempted to cite such sources such as “Goldilocks and the Three Bears,” Mark Twain, and others. Our simple paired sales produced an average positive contribution of 34.63%, with a median contribution of 36.54%. My appraiser’s “gut instinct,” however, tells me to go lower than these two indicators as other value contributors which potentially effect this complex recreational market may be present. Some of our research indicated that many other factors may be present in addition to the trout stream feature. Giving weight to the lower end of the indicated range of positive contributions, where factors from 6.9% to 28.7% favoring the trout stream parcel were derived, a supportable range of approximately 10% to 15% might be considered a benchmark. Sales research indicated this positive value effect was greater and more pronounced on the smaller acreage parcels studied.

As has been stressed throughout the Guide, the findings and analysis presented should be considered a first step. It is my strongest suggestion for appraisers performing this type of assignment to take this basic methodology and apply it to their local market in order to derive their own factors. As for myself, coming to the end of this Guide, I feel that a strong and supportable value contribution is present, especially on smaller streamfront parcels. However, much more research and analysis must be done, an even greater body of comparable sales and pairings must be assembled to further and more completely understand and clarify the value characteristics of this unique feature of a very special class of recreational real estate. This need for more and perhaps better research will require additional hours in the field. More pairings will require analysis and more streams will need studying. Perhaps at the end of some of these long days in the field, there might be a little time left over to go fishing.
APPENDIX 1

Tools of the Trade
The analysis and appraisal of recreational land calls for a consideration of additional tools and equipment that aid in valuation. The following is a brief summary of items I have utilized over the years that have greatly aided me in the valuation of recreational real estate.

- Local maps, Plat Books, and a highway atlas and gazetteer are a must.
- In-car GPS as well as hand-held GPS for the location of waypoints and directional assistance are very helpful if not essential.
- Binoculars, boots, and bug spray.
- A compass.
- A camera and backup camera.
- Computer-generated maps, geological survey maps, aerial photographs.
- A polite and businesslike demeanor. The interviewing of participants and knowledgeable individuals including local real estate agents is essential especially if you are from outside the area. Often you will need to access properties via easements and long driveways. Technically speaking, you may be trespassing and an appraiser who is well groomed and well dressed, carrying a clipboard and a camera, or a map and plat book, and politely inquiring of a property owner, can often obtain a wealth of data. The same goes for the interview of local real estate agents. It has been my experience that treating these individuals with the utmost of professional respect is essential. Do not make the mistake as coming off like a smart guy from the big city. This will get you nowhere. Lastly with respect to these people, it is often a good idea to offer to pay for data or at the very least, provide them with a gift or gift certificate. In western Wisconsin, a $25 gift certificate to the local sporting goods store has yielded an untold wealth of data and cooperation not only on your recreational land assignments but other assignments as well.
APPENDIX 2

The following chart obtained from the Wisconsin Department of Natural Resources shows the problems and remedies for trout stream management. The various stream improvements were discussed in earlier sections of the Guide.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>REMEDY</th>
<th>EXPECTED IMPROVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough shelter or living space</td>
<td>Bank cover, half-logs, wing deflector</td>
<td>Cover increases, predation &amp; competition increase; channel deepens, pools form</td>
</tr>
<tr>
<td>Stream overgrown with trees &amp; shrubs</td>
<td>Brushing</td>
<td>Sunlight reaches stream, more food produced, banks stabilize</td>
</tr>
<tr>
<td>Stream banks eroding</td>
<td>Brushing, riprap, fencing, cattle crossing watering area</td>
<td>Banks stabilize, water clears; other benefits seen in deeper channel, more cover</td>
</tr>
<tr>
<td>Poor spawning success</td>
<td>Wing deflector, remove barriers to groundwater and tributary flow; narrow and deepen channel</td>
<td>Silt scoured from gravel bed</td>
</tr>
<tr>
<td>Water too warm</td>
<td>Remove barriers to groundwater and tributary flow, narrow and deepen channel</td>
<td>Colder water, more stable flow</td>
</tr>
<tr>
<td>Pollution, floods, erosion degrade habitat</td>
<td>Watershed management</td>
<td>Water quality and stream channel more suitable for trout</td>
</tr>
</tbody>
</table>

This table can also provide an appraiser with some additional useful information which can be used in analyzing a stream parcel. While the information is not enough to make the appraiser a trout stream restoration expert, it provides basic information and description to aid in the analysis of a stream.
REFERENCES


RSL:Inc

\Unitm\my files\09rsl-A Guide to Valuation-Trout Streams.doc