



Prairie Update

A publication of Saskatchewan Watershed Authority **Volume 19 Spring 2004**

The Frenchman River Watershed, covering 700,000 hectares and rooted in ranching history, supports a population of 2,000. Unlike most waterways, which flow northeast, the "biologically rich" Frenchman drains into the Missouri and Milk River systems, providing habitat for species more typical of southern locations. This watershed is likely to be sensitive to a range of factors, including climate change, because flow has been allocated for various purposes, including U.S. commitments.

Source: Study Backgrounder



Photo: Provincial Archives

Community Based Biodiversity Study Takes Root

As he leafs through pages of the last Prairie Update, Robert Gebhardt is impressed with the initiative and progressive nature of landowners featured. "Three ranchers pictured in here are former students of mine," said Gebhardt, a retired science teacher from Eastend.

While they may be livestock producers in the Swift Current Creek Watershed, Gebhardt shares a common interest – and that's "sustainability." In broad terms, this involves reflecting on the social, economic, and environmental consequences of human activity and is part of the focus of a study called the "Frenchman River Biodiversity Project."

As a member of the project's steering committee, Gebhardt is being proactive.

This three-year study, launched in 2003, includes monitoring aquatic invertebrates, to assess watershed health. Based on community-driven research, the project is facilitated by a steering committee, which includes Eastend and Val Marie residents, as well as researchers.

"Organisms found in the river are indicators of the health of the river," said Gebhardt, noting scientific data can support the way people interact with the river – or it can indicate changes.

Dr. Glenn Sutter, Curator of Ornithology and Human Ecology for the Royal Saskatchewan Museum in Regina, co-chairs the committee with Jean Lauriault from the Canadian Museum of Nature. Dr. Sutter notes the project involves numerous partners, including three prairie universities and the Saskatchewan Watershed Authority. Modeled after the Rideau River Biodiversity Project, this initiative started with preliminary funding support from the EJLB Foundation in Montreal.

"Museums can foster this sort of study partly because we're used to working closely with the academic community and the public," said Dr. Sutter. "This project will give communities a way to gather information about their river and have a say in what happens to that information."

Tom Pearson, a landowner on the committee, is pleased data management protocols are being developed to ensure landowner confidentiality. Since producers can provide valuable input – a good working relationship is important.

"This river is fed by many different little streams. If researchers come to see me, I can take them out. Otherwise, they could end up monitoring from roadways or the bridge," he said, adding the river's health is rooted in ranching history.

"People have been doing the same thing for over a 100 years. Anywhere I've been along the river, it's hay land or grazing land. River banks are grassed and not bare – they don't erode."

Gebhardt, hoping schools will participate, concluded Saskatchewan residents need a better understanding of "local" ecology.

"If we don't pay attention to the way nature processes water – water quality is going to decline."



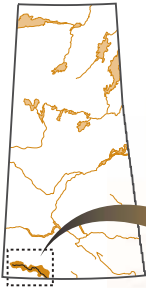
Frenchman River Watershed



Robert Gebhardt, a retired science teacher from Eastend, is a steering committee member for the Frenchman River Biodiversity Project and Eastend Community Tourism Authority. He says, "I've been associated with the Frenchman River on a backyard basis because it is, literally right outside my backyard. We've spent 28 years living right next to it in town – and all those nature things I enjoy – I can do there. I don't go on long canoe excursions but canoe up and down the river as part of bird watching or fishing. There's also a golf course across the river and I know people do swim in the river too. The town of Eastend gets its water supply from the river."



Photo: Larry Easton



Cypress Hills Provincial Park

Alberta

Cypress Lake

Ravenscrag

Chimney Coulee

South Fork

Eastend

Frenchman River

Butala Creek

Old Man on his Back Hills



Photo: Tracy Harrison



Producer field days allow landowners to exchange ideas about water and grass management. Pictured here is a watering site at the Dry Coulee Grazing Co-op. Water is pumped from the Frenchman River into a reservoir, and then gravity fed to a trough.



The Old Man on His Back Prairie and Conservation Area is one of Canada's last remaining tracts of mixed grassland. The Nature Conservancy of Canada secured the 13,100 acre property in 1996 in partnership with Saskatchewan Environment and Saskatchewan Agriculture, Food and Rural Revitalization, beginning with an initial donation by Peter and Sharon



Photo: J P Foley

Butala of their own family ranch. Recently, 50 "genetically pure" Plains Bison were reintroduced to the area. Future plans include restoring 1,000 acres of cultivated land back to natural prairie; restoring the Butala homestead, assisting landowners with native prairie stewardship; carrying out an archaeological and biological inventory; and ultimately constructing a visitor centre.



While area residents have long known the Frenchman River Valley is rich in fossils, it was the discovery of a Tyrannosaurus rex named "Scotty" that put Eastend on the map in the early 90s. The "T-Rex Discovery Centre," which features a palaeontology lab, is a major tourist attraction for the region.



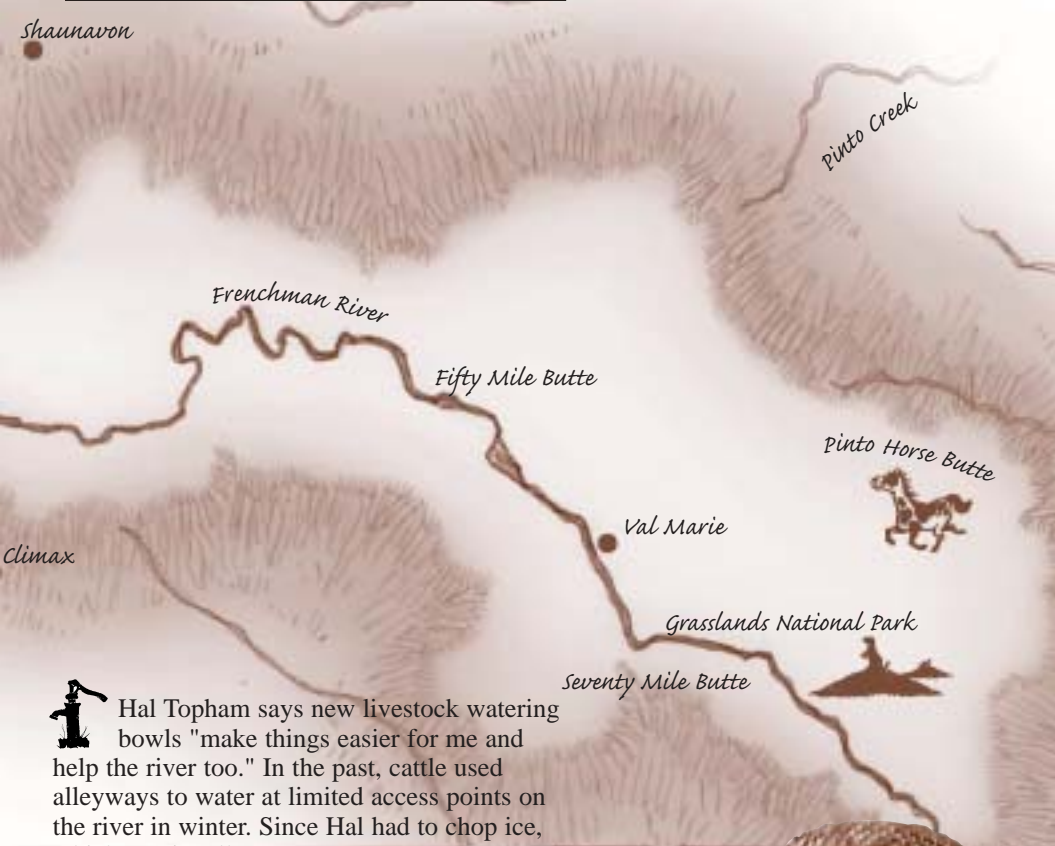
Photo: Lionel Hughes, Prairies North Magazine



Along a natural divide called "Pinto Horse Butte," Orin Balas runs cattle on an eight section native pasture, with numerous watering holes in the Frenchman River Watershed, and one dam that holds water from flowing to Old Wives Lake. Recent watering innovations that will improve livestock distribution and range condition, include a portable 'solar and wind powered' pumping system. It connects to a 'shallow-buried' seasonal pipeline, which supplies water to troughs. To utilize a field across a highway, which had no water, Orin received permission to run a pipeline through a culvert. With assistance from the Watershed Authority, through the Government of Canada Habitat Stewardship Program for Species at Risk, Orin also plans to install two new sections of pipeline and construct a fence to subdivide a field.



Photo: Larry Easton



Hal Topham says new livestock watering bowls "make things easier for me and help the river too." In the past, cattle used alleyways to water at limited access points on the river in winter. Since Hal had to chop ice, which continually froze over, this often posed management problems. He said, "It was pretty bad – you had to chop steps down for them to drink." Through the Government of Canada Habitat Stewardship Program for Species at Risk, the Watershed Authority assisted Hal with digging a shallow well, trenching a pipeline, extending power and installing two heated watering bowls.



Home to rattlesnakes and black-tailed prairie dogs, the hills and buttes around Grasslands National Park are a source of inspiration for longtime residents like Lise Perrault. To help conserve native prairie, a non-profit volunteer organization, called "Prairie Wind & Silver Sage - Friends of Grasslands National Park" was founded in the mid 90's.



Photo: Larry Easton

Landowner Values Sage-Grouse Habitat

Through the Government of Canada Habitat Stewardship Program for Species at Risk, the Saskatchewan Watershed Authority is helping landowners enhance Greater Sage-Grouse habitat. The population of this endangered species declined from an estimated 2000-3000 birds in 1987 to 250 in 1997, before increasing to approximately 550 birds in 1999. Today, avian biologists are concerned West Nile Virus may also reduce their numbers.

"If you've never seen it – it's definitely something to see."

For landowner Tom Pearson, the opportunity to watch sage grouse dance is a rewarding part of sharing the prairie with wildlife neighbors.

"I think it's a good idea to preserve that. I think most people feel the same way if 'habitat conservation' is presented in the right manner," said Pearson, who seeded 50 acres of tame forages and put up a small section of fence in 2002.

By using tame forages for early spring grazing, Pearson said he can defer grazing of the native grass along the river. "By allowing it to rejuvenate and get a little thicker – it allows birds and other wildlife to survive better."

For sage grouse in particular, this part of the province provides special habitat. While the forbs that grow in the understory of sagebrush provide critical food for chicks - the brush itself provides valuable cover and

sustenance for the species in wintertime.

For Pearson, whose operation situated 10 miles west of Eastend takes in both sides of the Frenchman River Valley, the project is a good fit.

Along with his wife Michelle, and parents Don and Darlene, he operates Tie Rail Ranches Ltd. Of their 25 quarters of land, only three quarters are farmed. The balance is native prairie or improved grass used to support their 180 head cow herd. While they started seeding down water runs years ago, they've been converting land back to permanent cover over the past six years. An additional 11 quarters of rented land is used for farming.

Aside from using 'traditional' tame forages, Pearson said cicer milk vetch, which was slow to establish but "filled in well," has been useful for fall grazing. This is also the third year they seeded corn for winter grazing - although heavy snowfall hindered the project. Last year, for a period of 27 days, they were able to put 150 cows on a



Top Photo: Michelle Pearson

45-acre field of corn, divided into three paddocks.

The river itself is also very important, since it's used for irrigation and serves as a water source for the cattle at limited access points.

Eager to share ideas with others relying on the same resources, Pearson sees the benefits of working with a variety of stakeholders. Along with being a "Prairie Steward," he is a member of the Saskatchewan Stock Grower's Association and sits on several committees including the Frenchman River Biodiversity Project and the Eastend Community Tourism Authority.

Silver Sagebrush (*Artemisia cana*)

This is a many-branched shrub with gnarled, twisted stems and shred-like bark. It is very common on lighter soils but rare in parkland areas. It has a deep, penetrating taproot. Silver leaves display hair on both sides and are occasionally toothed at the end. This plant is not palatable for cattle but is an important browse for Pronghorn Antelope and Greater Sage-Grouse.

Source: "A Land Managers Guide to Grassland Birds," is available from the Saskatchewan Watershed Authority.





What's in a Name?

West of Eastend, along a river once known as the "Whitemud," landowner Tom Pearson takes pride in a history that helped shape the region.

"My grandpa came from England in 1928 – and went to work for the guy that owned this place in 1932. I guess the big work in those days was hauling whitemud out of the hills here. While the railroad basically runs right past our front door here – they used a team and wagon to haul the mud out and dump it in rail cars bound for Medicine Hat. There it was mainly used for making ceramic sewer pipe and brick." While the pit has long been abandoned, geology students from the University of Saskatchewan still come out to "dig around." In the meantime, despite environmental and economical challenges - the family ranch still operates today. Pearson said there are still a few reminders of those early days. "We still have the log bunk house here – but we donated the original log house that my grandparents lived in to the museum. Now it sits next to it in Eastend."



Photo: Larry Easton

Yellow Umbrella Plant and Rabbit Brush: Twisted branches and large roots make rabbit brush a unique species in "badland" areas. Sometimes it may also be found in clay flats.

A Prairie Profile

The large size and dramatic courtship display of the Greater Sage-Grouse make it one of the most striking birds in North America. Males have white chests, a black patch on their bellies and long pointed tails. They also have a yellowish spot above their eyes. During courtship, males congregate at leks or strutting grounds, where they fan their tails and swell up their chests, exposing two olive/green patches of balloon-like skin that are repeatedly filled and emptied of air, making a series of "plopping" noises.

"Some mornings in spring, when we're out riding, we can hear them from half a mile away," said Terry Jensen, who along with son Tyler and brother Larry and their families, runs a cow-calf and yearling operation called the Jensen Land and Cattle Company. Six quarters of their land, adjacent to the Frenchman River, are part of the former "Bate Ranch," established in the late 1800s. To defer grazing of native prairie and improve habitat, the Jensens seeded over 200 acres of cultivated land to grass on the east side of Bate Creek, a small tributary that flows into the Frenchman River.

Jensen said along a 10-mile stretch of the river, there are approximately four leks. The one he's most familiar with is about half an acre in size. Unfortunately - the bird's courtship displays here are getting quieter.

"They've been decreasing in numbers since I was a kid. At one time, in those few spots - you'd see 50 birds. Now sometimes you might see half a dozen," said Jensen, noting "There was a bad hail storm that came through about three or four years ago - and I guess that was pretty tough on them."

With "known" leks on neighboring properties as well, Jensen said area landowners know they have a special role to play.

"We're really into ecosystem health - and actually all our neighbors are too. We've got a couple of large ranches on either side of us and they're all pretty good managers. They're not overgrazing their land - they're trying to look after it...Sage brush

in this area sometimes gets to be two feet tall. So there's quite a bit of shelter for the birds."

Editors note: This project was funded by the Government of Canada's Habitat Stewardship Program for Species at Risk.



A Family Tradition

When Saskatchewan's centennial celebrations get underway next year, Pat Hayes of Val Marie will have a milestone to celebrate too.

Since 1905, when his grandfather, Tom Hayes settled in the area, the Hayes family has been making a living off the land in the Frenchman River Watershed.

Today, the business of backgrounding calves, which are usually purchased in fall, includes his wife Trudy, children Jade, Paige and Drew - and his parents. George and Annette.

water development became another issue.

"I used to pump out of the river - but two years ago, it went dry," he said, adding that accessing groundwater was another hurdle.

"Unless you go down to the Judith Basin, which is way down there, there's no shallow water," he said, noting an ancient lake bed "runs under the flat" where they are located.

Hayes said he solved his watering problem when he bought more land in the area. "It's up off the flat just a little bit - and I knew there was a

he said. "For the way our climate is and our rainfall - it's just about dormant season grazing because most of our grasses are cool season grasses. Depending on the size of a pasture, it may be grazed anywhere from five to eight days and then it's only grazed once in that growing season. I usually try to rest one native pasture every year."

While this rotation keeps his range in healthy condition - it also provides valuable benefits for wildlife.

In the early 90s, range assessments and grassland songbird surveys were done on his property by the Saskatchewan Watershed Authority and Canadian Wildlife Service. This study compared the habitat provided through different management practices: rotational grazing and continuous grazing.

"Overall, we had more species than the continuously grazed pastures - but they had some species that we didn't have. There's certain species that seek out the shorter habitat," he said.

Impressed with the ability of biologists to survey the birds by sound instead of sight, Hayes added, "I just made the mistake of not spending a couple of mornings with them so I could identify the birds a little better too."

As a member of the Saskatchewan Stock Grower's Association, and former director in charge of environmental issues, Hayes concluded it's important for producers to "have a better idea of what's going on out there and the interactions."

Since ranching and conservation can go hand in hand - Hayes said he appreciates stewardship programs that recognize "producer initiative." I like the idea of partners coming to the ranchers and asking them what they want to do. When these operations were set up, for example, they had to have water - so where did they settle? Along creeks and rivers. It's something the general public doesn't realize - why the operations are where they are.

"Over time, we've had a number of producers making changes for the good of the environment and the good of their overall operation."



Photo: Courtesy of Pat and Trudy Hayes

While the "home place" is less than two miles southeast of Val Marie, they run their livestock on native range, located 18 miles northeast of town, just off the Continental Divide. For Hayes, native prairie and riparian area stewardship is important.

And that's why he's making changes to his 1100 head capacity feedlot.

"We're sandwiched between an irrigation project and a river," said Hayes, adding that to reduce impact on the flood plain, he built a new pen in an upland area. This was done with assistance from the Saskatchewan Watershed Authority, through Environment Canada's EcoAction fund.

"Since it can hold 200 head, it allows us to take away three pens that were kind of on a slope," he said, noting "I have room to relocate more pens if BSE lets us survive."

With corral relocation underway,

gravel seam through there so we went looking and developed a spring." With assistance from the Prairie Farm Rehabilitation Administration, this water was routed to his new pen.

"We have a mile-and-a-half of buried one-and-a-half inch line - with a submersible pump and casing at the other end," he explained.

Hayes added that water is an important part of providing feed for his cattle too. Border-dike irrigation serves 600 acres of hay land, with water being released from reservoirs up the valley.

For spring grazing, Hayes uses 1100 acres of tame forages, divided into 50-60 acre fields. Twelve quarters of native grass, divided into fields averaging 160 acres in size, is used later.

"It's usually around the first of July before we go on to our native grass,"

International Award Winner

Tom Harrison, director of Projects and Partnerships with the Saskatchewan Watershed Authority in Regina, was recently awarded the "Outstanding Achievement Award" from the Northern Great Plains Section of the Society for Range Management.

The announcement was made during the Society for Range Management's annual meeting and conference in Salt Lake City, Utah in late January.

Its membership includes land managers, range specialists, scientists and biologists from 48 countries including the United States, Canada and Mexico. The 'Northern Great Plains Section,' from which Tom received the award, includes Saskatchewan, Manitoba, North Dakota and eastern Montana.

This award is presented to members of the section for their accomplishments and contribution in the art and science of range management.

In the mid 90s, Tom was instrumental in the development of the Saskatchewan Watershed Authority's "Prairie Stewardship Program." With tremendous support from partner agencies and funders, demonstration projects were set up with landowners

interested in improving native prairie and riparian areas on their land.

The success of this program has multiplied as producers have shared their experiences with fellow landowners and taken lead roles in the development of local watershed initiatives.

From 2000-2003, cooperators in this program also won The Environmental Stewardship Award, presented annually to a Saskatchewan producer.

By working to raise the profile of landowner stewardship as an integral part of resource management in Saskatchewan – Tom has helped to strengthen the ties between the agriculture and conservation communities. This has led to changes in the way many conservation programs are implemented.



Photo: Tracy Harrison

Today, there is a greater recognition of the role land managers play in the health of the environment.

Management practices that improve production and the health of cattle also provide benefits ranging from wildlife habitat to water quality.

Tom, his wife Tracy and daughter Kaitlyn have a livestock operation near Regina Beach, Sask.

A New Stewardship Role

Ross Macdonald, a range agrologist with the Saskatchewan Watershed Authority in Weyburn, is the new president of the Northern Great Plains Section of the Society for Range Management (SRM).

Through the SRM, Ross has made numerous presentations about landowner stewardship programming in Saskatchewan. His involvement with youth has also helped to increase an awareness of range management. In the "local" Prairie Parkland Chapter of SRM, which includes Saskatchewan and Manitoba, Ross holds the position of Youth Activities Director.

He has instructed at youth range camps, helped to revive the University

of Saskatchewan Range team and has encouraged involvement in the Society of Range Management at the high school level. Every year, the international conference includes a youth forum.

This summer, Ross is helping organize a "grasslands tour" for Saskatchewan teachers during the first week of July. It will feature an investigation of the

Big Muddy Badlands, Wood Mountain, Grasslands National Park Interpretive Centre, Burrowing Owl Interpretive Centre in Moose Jaw, and Chaplin Lake, which is designated as a Western Hemispheric Shorebird Reserve.



Photo: Stacey Langlois

Along with presentations by range agrologists and biologists, who will discuss range management and the health of riparian areas - teachers will also have an opportunity to explore the native prairie ecosystem first hand and gain a better understanding of landowner stewardship and water conservation measures. Several members of the Saskatchewan Stock Grower's Association, including winners of The Environmental Stewardship Award, will discuss management practices on their own ranches.

This tour is being hosted by Agriculture in the Classroom, the Saskatchewan Watershed Authority and the Saskatchewan Prairie Conservation Action Plan and other partners. Macdonald said, "This will really tie in the role of a healthy, functioning watershed and its importance in the water cycle on a bigger scale."

Hello Voluntary Stewards!

We hope you enjoyed the historic touch of this Update. At one time, thousands of cattle, owned by a "handful" of outfits, roamed the southwest. The harsh winter climate, however, resulted in huge losses in 1906. According to the book "in Palliser's Triangle; Living in the Grasslands 1850-1930", the ZX Ranch pictured on our cover started irrigating hay crops for winter feed around 1907. To learn more about the area, check out books by authors Sharon Butala and Wallace Stegner; or www.dinocountry.com and www.parkscanada.gc.ca/pn-np/sk/grasslands. In closing, we would like to quote Lionel Hughes, editor of Prairies North Magazine: "If we claim that we are shaped by the things that surround us - the challenge is to be changed by them when we take a closer look and discover something we didn't expect."

If you have any comments or ideas about this newsletter, please contact Tracy Harrison at 787-8043 or email: tracy.harrison@swa.ca.

For specific information about the Prairie Stewardship Program, please contact Jennifer Lohmeyer at 787-8707 or email: jennifer.lohmeyer@swa.ca.

Coming Events

For information or suggestions for workshops and field days in your area, please contact the Prairie Stewardship Program representative in your area.

Moose Jaw:

Julie Korol at 694-3101

Regina:

Etienne Soulodre at 787-0661

Swift Current:

Bob Springer at 778-8301
Krista Connick at 778-8280

Yorkton:

Jason Puckett at 786-5845

Weyburn:

Ross Macdonald at 861-9893



Our Gracious Supporters

Agriculture and Agri-Food Canada through the Agriculture Institute of Management in Saskatchewan, Inc., Agricultural Environmental Stewardship Initiative, Canada-Saskatchewan Agricultural Green Plan Agreement, Canadian Adaptation and Rural Development in Saskatchewan, Canadian Agricultural Rural Communities Initiative, National Soil and Water Conservation Program and Prairie Farm Rehabilitation Administration

California Waterfowl Association, Canada Millennium Partnership Program, Canadian Wildlife Service and World Wildlife Fund (Endangered Species Recovery Fund), Department of Fisheries and Oceans Canada, Ducks Unlimited Canada, Environment Canada through Eco-ACTION, Government of Canada Habitat Stewardship Program for Species at Risk, National Fish and Wildlife Foundation (U.S.), Native Plant Society of Saskatchewan, Nature Conservancy of Canada, Nature Saskatchewan, Nebraska Game and Parks Commission, North American Wetlands Conservation Council, Partners FOR the Saskatchewan River Basin, Pheasants Forever, Inc., (U.S.), Prairie Conservation Action Plan, Saskatchewan Agriculture, Food and Rural Revitalization, Saskatchewan Energy, Saskatchewan Environment through the Fish and Wildlife Development Fund, SaskPower- Shand Greenhouse, Sask Water, TD - Canada Trust Friends of the Environment Foundation, Tennessee Wildlife Resource Agency, The Nature Conservancy (U.S.), Wildlife Habitat Canada, World Wildlife Fund, Wyoming Game and Fish Department

Pasture School For Women

June 15-16, 2004

Manitou Springs Resort and Mineral Spa

Call Janice Bruynooghe at 966-2148

Native Prairie Appreciation Week

June 20-26, 2004

"Discovering the Moose Mountains Tour"

Call Karyn Scalise at 352-0472

Grasslands Tour for Teachers

July (date to be announced)

Features stewardship projects sites and some of the province's "natural attractions."

Call Ross Macdonald at 861-9893

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