

A photograph of an oil field with several pumpjacks (jack-o'-lanterns) in the foreground and middle ground. The pumpjacks are yellow and black, with long walking beams and counterweights. In the background, there are large black storage tanks and a small white building. The sky is blue with some light clouds. The foreground is a green field.

Family and Family Business: Thoughts on Life in the Bakken

Dr. Glenn Muske
Dr. Margaret Fitzgerald

Why the Interest in the Bakken?

- Brief history of NC-1030 and our recent work in disasters
- Redefine disaster as a disruption in the normal environment in which consumers and the family business operates
 - How rapid and extensive change influences both of these along with the larger community
 - Creates consumer, economic, regulatory and societal issues
- Bakken - Natural lab, good context to study disruption (positive and negative) in a large area
 - Watford City anticipated growth - 1400 residents (2008) to ??15,000 (2015)
 - Williston anticipate growth – 25,915 (2012) to 31,143 (2014) – 20%
 - Petroleum industry is \$6.6 billion or 12.3% of state's total economic activity

Disruption brings:

- Population changes (growth, diversity,); housing; cost of food/consumer goods; employment (services) ; environmental concerns; safety; etc.
- Examples:
 - People who can no longer afford to live in their apartments as rents have skyrocketed.
 - Williston – Head start, located in an old school building, was kicked out as the school system needed the building back to handle growth
 - Environmental - spills, train wrecks, dust, traffic
 - Yet income and wealth is making up for the yucky stuff
 - Plus children have the opportunity to return home, to the farm/ranch/area

Additional Examples

- Income inequality
 - Avg ND salary - \$48,740
 - Bakken avg salary - \$90,171
- Issues and inequality based on roles:
 - Land owner
 - Mineral owner
 - Actual person using the land
- Native American



SASKATCHEWAN

Regina ★

Winnipeg ★

CANADA

MANITOBA

**BAKKEN SHALE
FORMATION**

U.S.

Bainville ●

Williston ●

Sidney ●

NORTH DAKOTA

MONTANA

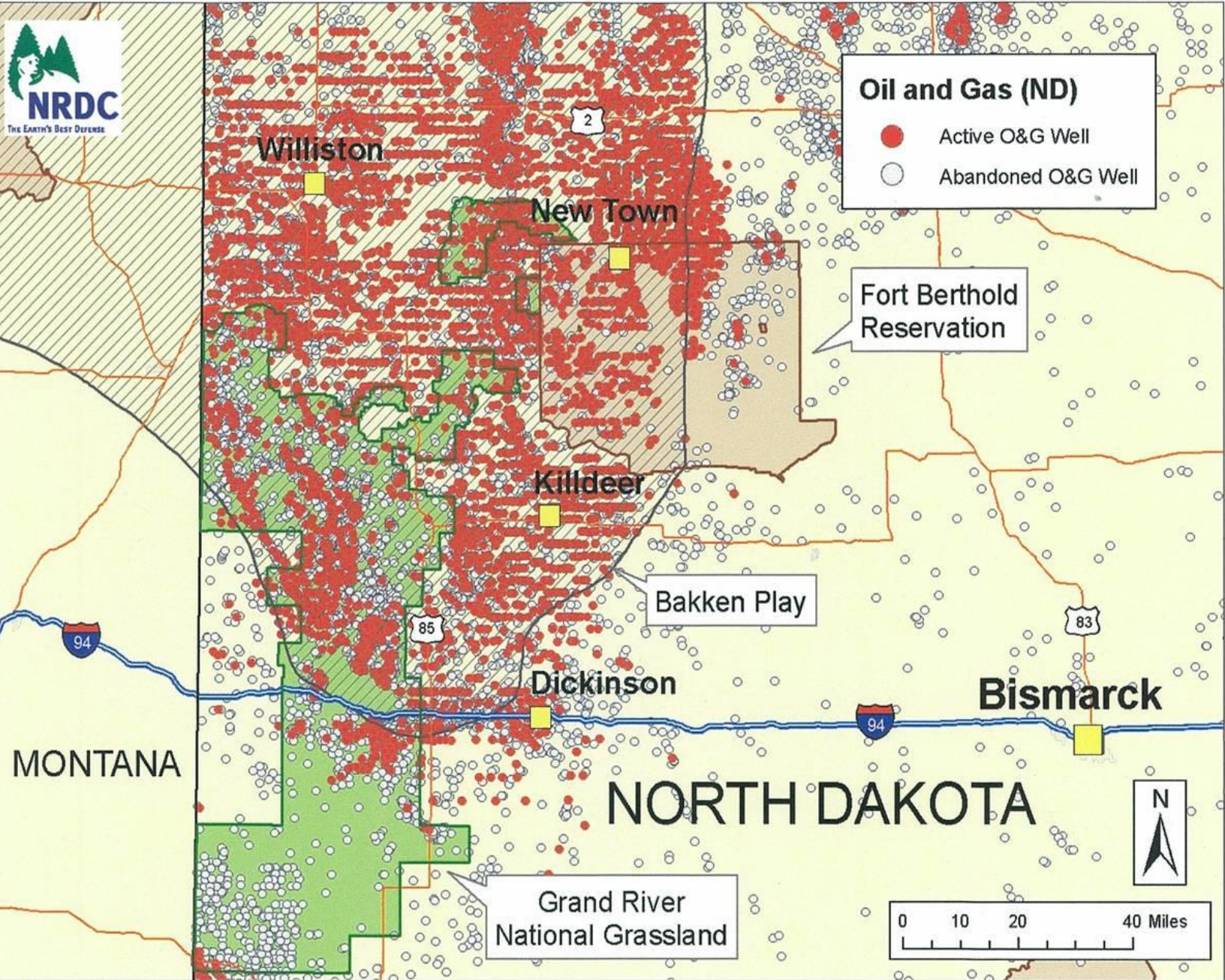
Bismarck ★

WILLISTON

100 mi
100 km

BASIN

SOUTH DAKOTA

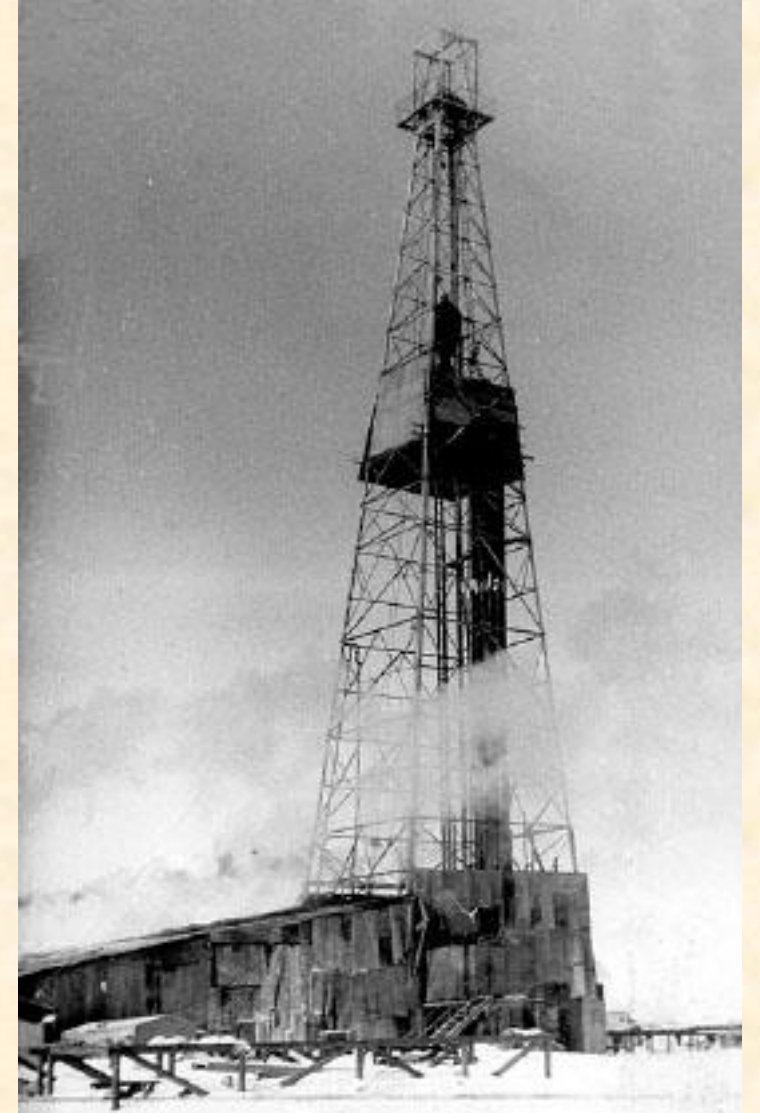


Active Drilling Rigs – 1/7/2015 – 166
5/13/2015 - 63

PRODUCING OIL WELLS

12/2007 12/2013 11/2014

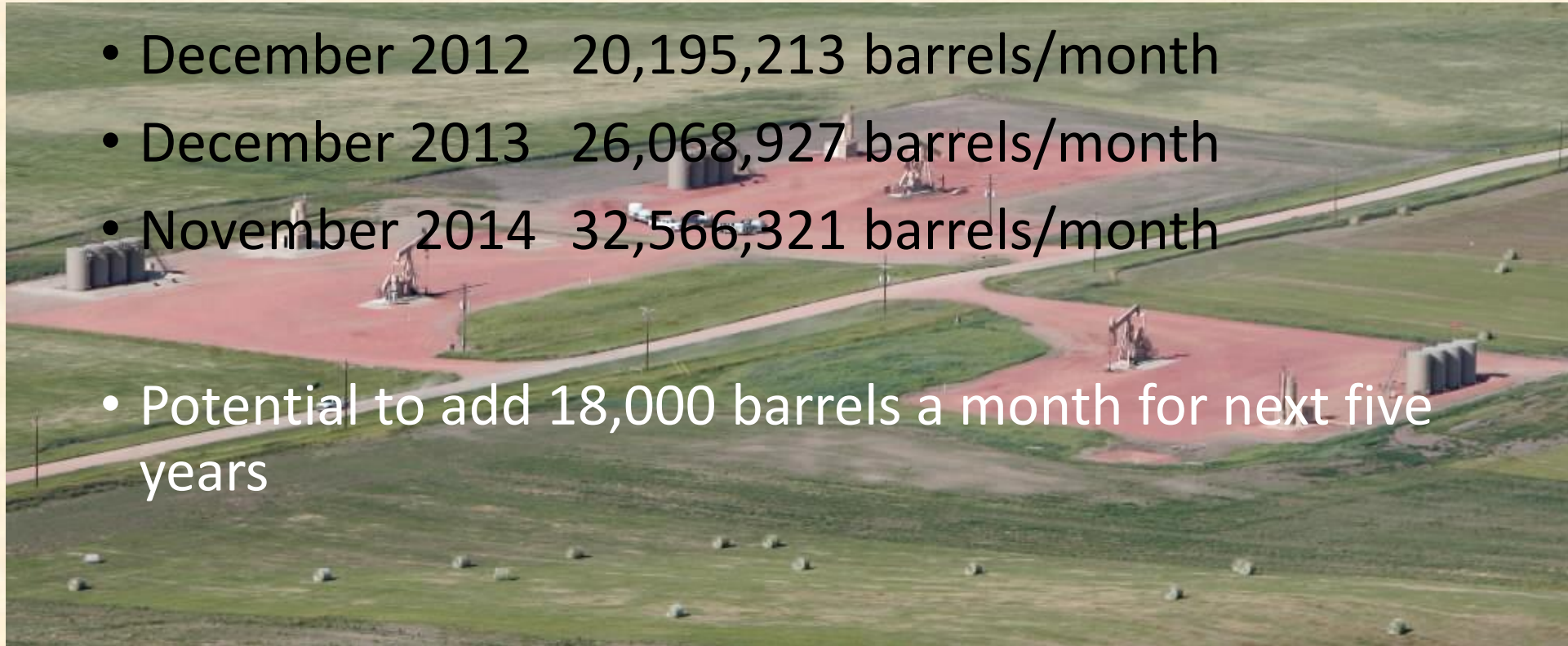
State of North Dakota 3,854 10,015 11,942



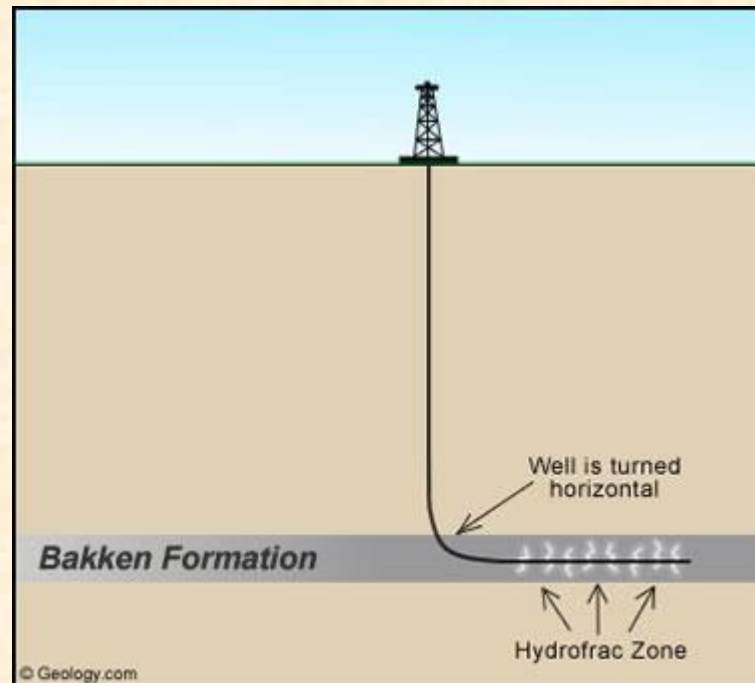
ND Monthly Oil Production

- December 2007 3,744,093 barrels/month
- December 2010 9,387,522 barrels/month
- December 2011 12,717,522 barrels/month
- December 2012 20,195,213 barrels/month
- December 2013 26,068,927 barrels/month
- November 2014 32,566,321 barrels/month

- Potential to add 18,000 barrels a month for next five years



FRACKING



<http://geology.com/articles/bakken-formation.shtml>

The Changes – 2009 to 2015

- <http://money.cnn.com/2015/02/04/news/economy/oil-boom-infrastructure/>
- Largest per-capita spending gain in nation (2009-2012) – \$32,780 to \$44,029
 - Rank 4th in nation
- ND unemployment rate - 2.7% in June of 2014 - lowest in the nation. Rugaber, StarTribune, August 7, 2014
 - March, 2015 – 3.1 – 2nd in nation
- Issues: Cost of food and housing; Infrastructure; Environment; Public Services such as schools, emergency services and health care systems; Crime
- The oil boom has brought economic prosperity, people, jobs, new businesses, improved infrastructure, services, etc.

Population

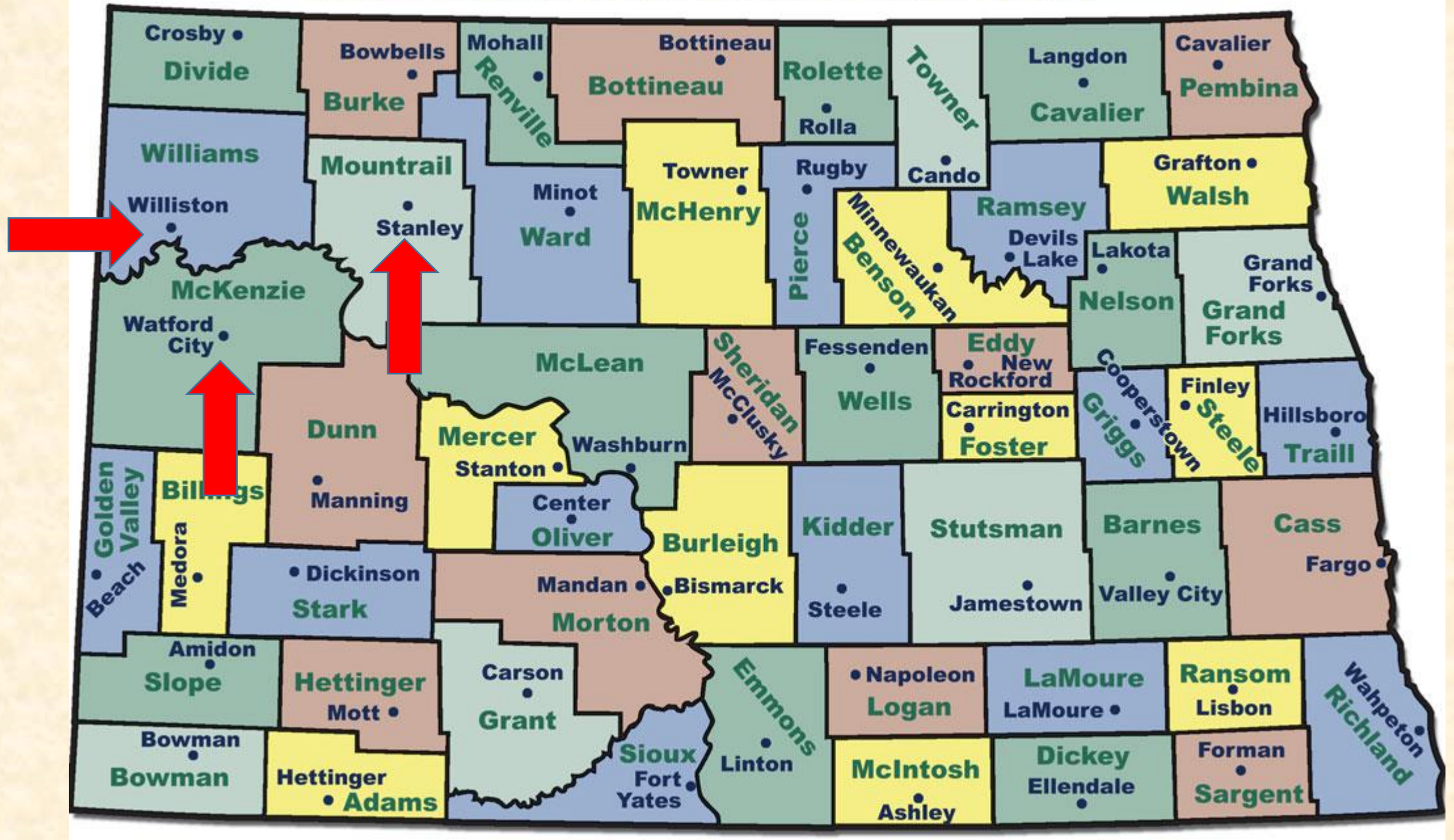
- North Dakota - highest rate of in-migration of any state in the recent year, particularly for males under 35 years of age (North Dakota Census Office, ND Department of Commerce).
- Nation's fastest growing metropolitan areas - Fargo and Bismarck, ND ranked 4th and 5th, respectively (ND Department of Commerce, 2014).
- Three of the top five micro areas (of at least 10,000 people, but less than 50,000) in the nation are in North Dakota with Williston being 1st, Dickinson 2nd and Minot as 5th.
- Two North Dakota counties were ranked among the nation's fastest growing counties with a population of 10,000 or more. Williams County was ranked the fastest growing county in the nation, with Stark County ranked as 4th.
- State population reached an all-time high, the population is 723,393 residents (see <http://www.census.gov/> for a complete report).

Managing in the Bakken

- Businesses

- Community/Family

NORTH DAKOTA COUNTIES AND COUNTY SEATS

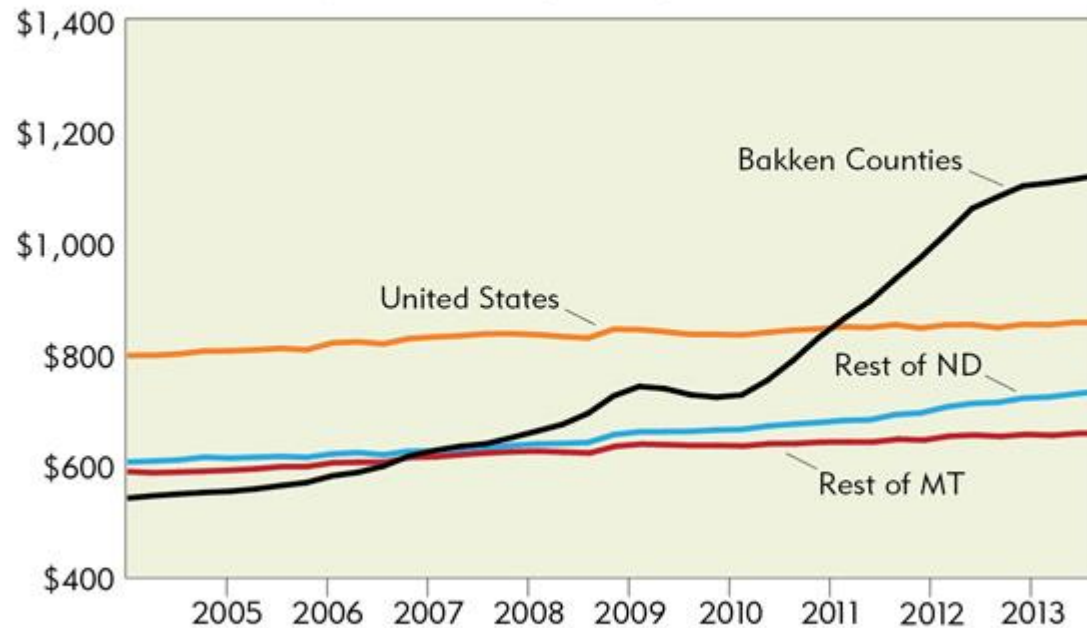


Issues for Business Owners

Chart 4

Recent weekly wage increases easing

4-quarter moving average in 2013 dollars

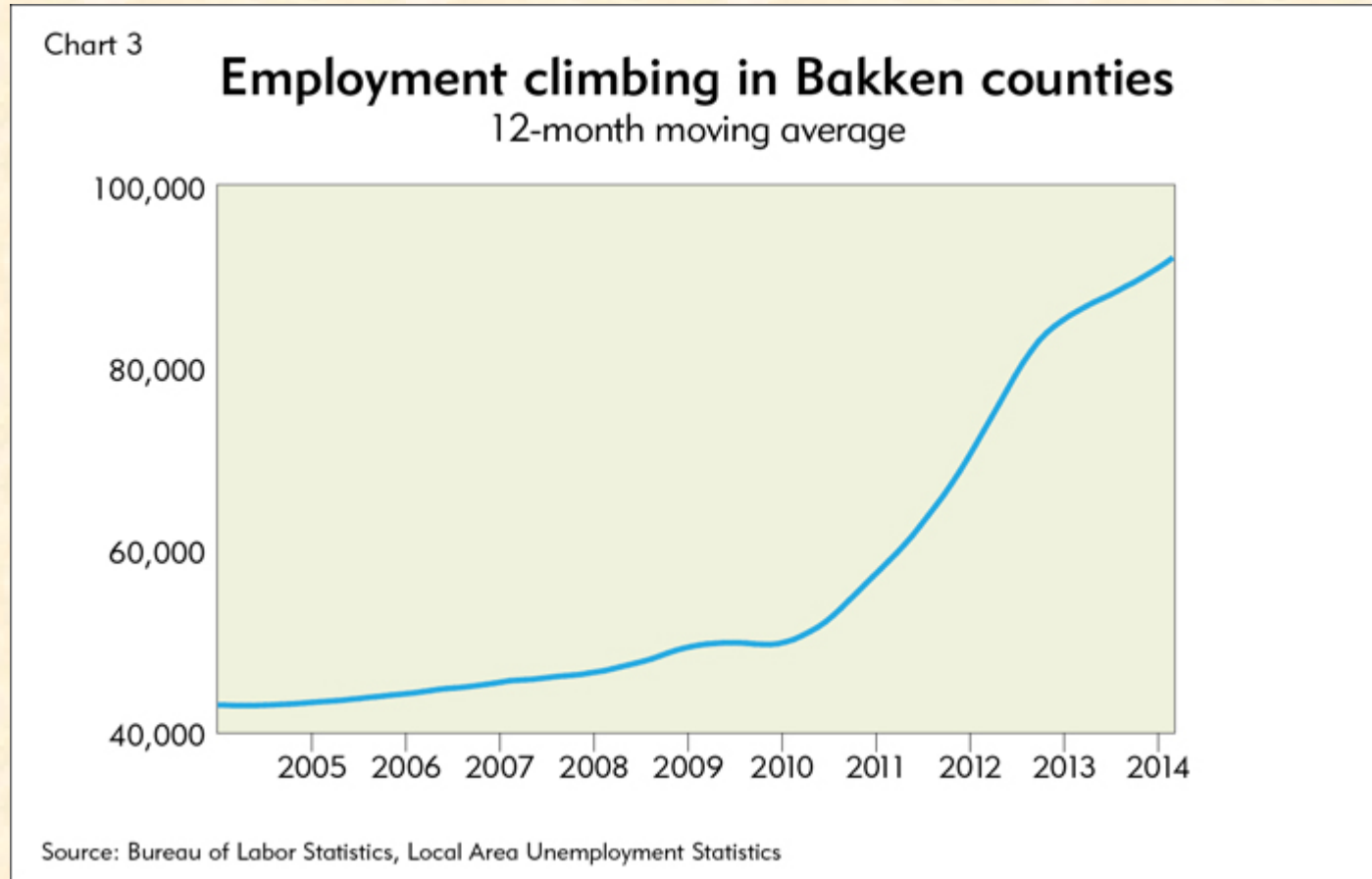


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Comments from Business Owners

- When Taco John's put a sign up in the window advertising \$16/hour, it changed the entire wage structure. You have to pay more.
- It provides jobs.
- Allowed my kids/my classmates to come home.
- Higher costs for everyone.
- Had businesses who were struggling. Now everyone is busy.
- Lots of stores are chains. Independent owners are selling out.
- "I spent 8 months looking for an employee. She worked 2 days, then called to say her husband was transferred and she was leaving."

Employment



Comments from Business Owners

- Employees will leave for 50 cents more per hour. But we will take them back.
- Before the boom, “we actually did things to encourage traffic in the store.”
- “Never have a 40-hour week anymore.”
- “Not sure how many 60-hour weeks I have left in me.”
- Chains are bringing in workers from out of state for 2-week shifts.
- Have to be flexible. Some businesses are even offering housing.
- Use Craig’s list to help find employees.

PLEASE! It's
your donation that
helps keep this
park open!
Tents only in
this section.



TENT CAMPING ONLY
CAMPERS MAY USE SHOWERS
OPEN FIRES IN
FIREPLACE ONLY.



Sleeping Room \$160/day



Target Industries – Man Camp



\$3000/month



2 bedroom - \$2,100/ month

2 bedroom / 2 bath \$2,400

Anything Goes Trailer Court PRICELESS !!



\$800/month for space plus utilities

Comments from Business Owners

- New businesses, such as a landscaping business, are arriving. Before the boom, those businesses didn't exist out here.
- The Bakken premium – School bids were 1.5 times what they would have been before or are in other parts of the state.
- The Bakken premium is added to your bill when having goods delivered.
- We go through a lot more merchandise.
- Additional income allowed us to bring in additional help. We can get out of the store on occasion.



Issues Go Beyond the Bakken Borders

- Bismarck, ND
 - Shipping center, air service, housing, workers
- Grand Forks, ND
 - Manufacturing, skilled trades
- Belle Fourche, SD
 - Manufacturing
 - People/housing
 - Coming to retire or live
 - Workers live and commute to Bakken
 - Skilled trades not available as they are working in Bakken instead

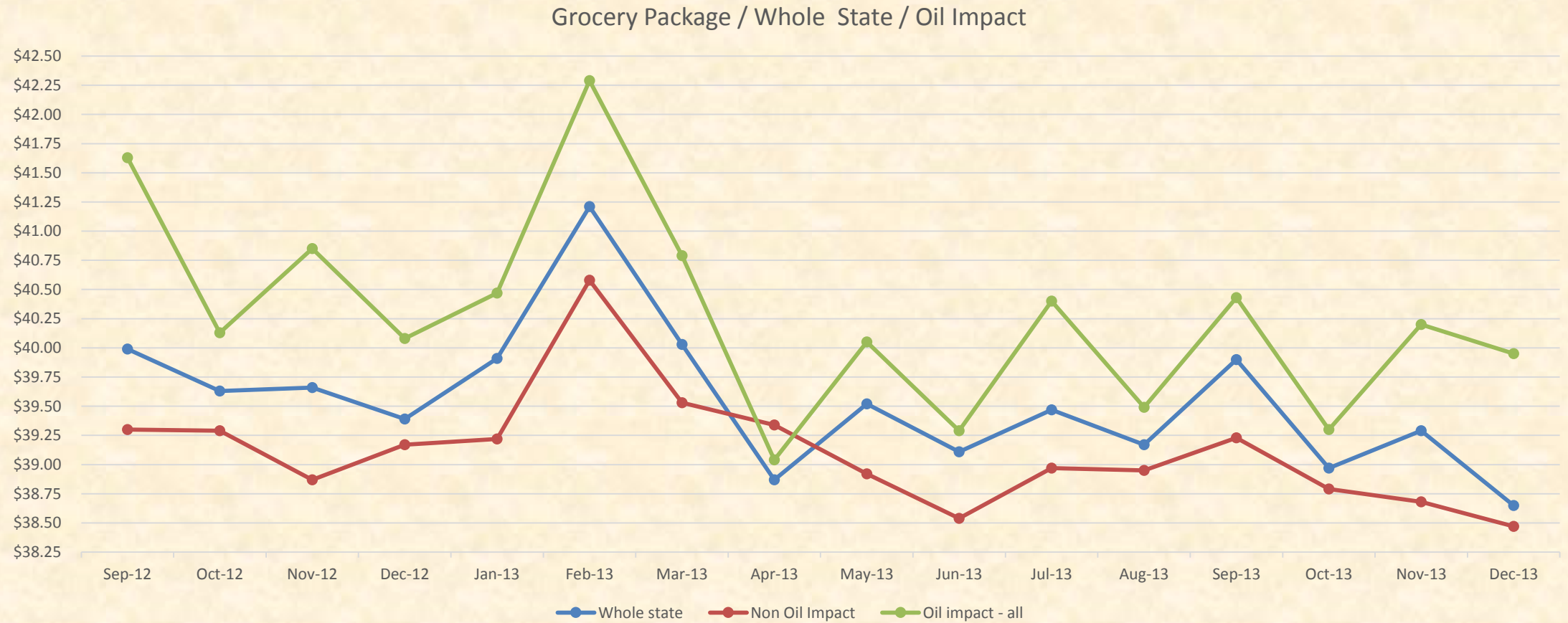
Impact on Communities

- “It’s brought good and bad.”
- We have a big, new grocery store (previous owner sold out).
- Got baseball diamond, water park, and golf course expansion. These were all part of our master plan done before the boom.
- Schools, city, police, etc. were forced into the housing business.
- Nothing is a quick as it used to be.
- When I go into a store, I used to know everyone. Now I probably don’t know 8 out of 10 people.
- We lock our doors now.

The 2 Bakkens

- Transient workers –no family or temp location – males under age 35
- Companies who are locating there – oil execs are bringing families
- Execs asked to buy local – hardware store
- “If they would stay and bring families it would be so much better – how do you create a sense of community with a fairly transient workforce”

Cost of Food and Other Goods



Trash and Dirt

auditor and acting treasurer. "They approved applying for a loan with the Bank of North Dakota for a maximum \$60 million line of credit for the law enforcement center. They approved options 2-11, as presented by ICON Architects for reductions for the Law Enforcement Center project, and the

Svihovec. "With a 1.75 percent interest rate over 10 years, the revenue commitment will be from the GPT money. The board directed Auditor Svihovec to begin the application process with the Bank of North Dakota and apply for up to a \$60 million line of credit, which means that

ing pod, which would have eliminated close to a third of the inmate beds.

"The board agreed that we needed 129 beds in the Law Enforcement Center," stated Svihovec. "Between options 2 through 11, there is about a \$3 million savings."

like we'll be able to do almost everything that we had planned over the next two years by utilizing the Bank of North Dakota loan program to finance the Law Enforcement Center

See Jail
(Continued On Page 3)



TIME TO PICK UP THE PATCH Watford City will be holding its annual "Pick Up The Patch" the week of April 27 to May 2 with the big clean-up day set for Saturday, May 2.

(Farmer Photo by Neal A. Shipman)

Watford City ready to 'Pick Up The Patch'

Last year, local volunteers picked up over 8,000 tons of trash in just one day

By Amy Robinson
Farmer Staff Writer

Watford City will host its fourth annual 'Pick Up The Patch' event from Sunday, April 26, through Saturday, May 2. Karen Holte with McKenzie County Social Services, along with the 'Pick Up The Patch' committee

According to Holte and members of the committee, roughly 100 people have shown up in the past for the Saturday event. As that number grows every year - they are hoping for even more this year.

"The more people involved, the better and the faster we can clean up," said Holte. "We can spread out and

lenge to the different businesses as well," said Holte. "We like to challenge them to do like a mile or two-mile radius to clean up around their own business. It reflects better on their business too."

For individuals and groups wanting to pick up trash during the week of the event, prior to Saturday's big

Department of Transportation," said Justin Smith, Watford City Public Works superintendent and 'Pick Up The Patch' committee member.

As one drives through the Bakken, trash can be spotted in every direction, in most all ditches, in mass quantities to a few scattered pieces. And the trash products range in any-



TAYLOR AG SERVICES CHANGES HAN
lor, owner of Taylor Ag Services, Inc. has sold Chemical Company. Taylor will remain with t
Manager.
(Farmer

Taylor Ag Serv changes owne

By Neal A. Shipman
Farmer Editor

When Kent Taylor and his father, Jim, started Taylor Aerial Spraying in 1985, little did Kent know that his small aerial spraying business would grow to be one of the largest independent agricultural retailers in western North Dakota.

"We started out with just one water truck and two Pawnee spray planes," states Taylor. "McKenzie County was in the middle of a drought and had a grasshopper epidemic. All we did for the first year was spray insecticide on grasshoppers."

By his second year in business, Taylor and his father realized that their spraying operation could become something bigger. And they decided that in addition to spraying insecticide on grasshoppers, they could use their spray planes to apply

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companies
happened

Watford man a for beating wo

*Victim suffered bruising a
body and broken orbital L*

When I buy baby formula at the new grocery store, I have to wash the tops of the cans first to get all the dirt off them.



Zoning



Schools

- Watford City -27% one year growth
- Homeless students - Living in a camper or sharing a home with another family or living in a nontraditional setting constitutes homelessness - 40% of Watford City students are classified
- Difficulty in finding staff
 - “We are a housing agency today.”



Now you
are here.

Were you
born
anywhere
near?

Stick a tack on the
map.
We want to see where
you took your first
nap.

Born in
Minut. North

Infrastructure

- Fire – From 30 to 300 calls per year in Watford City
- Ambulance
- Roads – 14% of 2014 ND fatalities occurred on 14 mile stretch
- Sewer and water

Rebuild Gravel Road

\$500,000/mile

Dust Control

\$8,000 / mile



Road Repair



Paving \$1,000,000+ / mile



Graveling - \$14,400 /mile



Environmental Impact



Quality of Life

Comments from Business Owners

- Safety—We won't let kids walk home
- Have less time with family
- Strangers all over but also brings new friends
- Traffic is terrible
- Crime – human trafficking

The Future

On Bakken's fringe, business owners needing to get creative



— Deborah Lamb and Mike Ferris, pictured Friday, April 3, 2015, own the Teachers Lounge and Old School Center in Fortuna, N.D., which has seen

Needs

- “The biggest thing that most communities need is leadership training, but how do you get people to go is the hard part.”
- ...”some training for business that show them the best way to expand what they’re offering or finding that way to compete with the big box store.”
- “...growing those leaders. It may be about finding that next person interested in owning a business, that transition from generation to generation.”

Summary

