



Helping your community plan for the future

North Dakota Communities Acutely Impacted by Oil and Gas Development: Parshall Housing Demand Analysis

**Final Report
December 20, 2010**

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Study timeframe August—December 2010

North Dakota Communities Acutely Impacted by Oil and Gas Development

Introduction

Purpose

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis is a large-scale research project conducted to inform decision-makers about housing needs given the magnitude, trajectory, and sustainability of oil and gas development in northwest North Dakota. As such, the study has many stakeholders and given the evolving nature of the Bakken and Three Forks “plays” the report authors have had to reconcile many facts and opinions in order to develop models that best reflect reality and model likely futures. Nonetheless, the purpose of the study is to document and demonstrate permanent ongoing housing needs in the northwest North Dakota communities of Parshall, New Town, Stanley, Tioga, Watford City, and Williston for the next 20 years at five-year intervals.

Study Delimitations

Delimitations are the boundaries that confine the study’s extent in time, space, and subject matter. *North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis* is restricted to northwest North Dakota in particular the North Dakota Bakken/Three Forks footprint. An understanding of the extent of this footprint was derived from a *Bakken Drilling/Spacing and Well Spot Basemap* issued by the Oil and Gas Division of North Dakota’s Department of Mineral Resources in mid-November, 2010.

While a number of oil and gas impacted cities in northwest North Dakota were invited to join the study, the study was capped at six cities. The participating cities are Parshall, New Town, Stanley, Tioga, Watford City, and Williston. Furthermore, the study’s boundaries were fixed at these cities’ current city limits.

The study’s time frame was set to cover a 20-year span (2010 to 2030) featuring snapshots at five-year increments—2010, 2015, 2020, 2025 and 2030. The populations reported for the six cities are forecasted population potentials based on oil and gas drilling and production. Housing needs are determined for permanent ongoing population rather than short-term housing needs for transient workers.

Study Limitations

Limitations are weaknesses and this study has several. First, this study was completed in a short time window. Data collection, analysis, and report generation occurred between September and December, 2010. Second, the Bakken//Three Forks oil and gas play is very dynamic and its potential is not yet fully known. Third, one of the documents necessary to complete the study, an oil and gas occupation and employment study was late. Fourth, this study’s population forecasts assume all of the six study cities can absorb their

proportionate population potential. Fifth, the study does not include current or future temporary and permanent population increases from infrastructure construction projects, oil and gas construction projects, development of other industries, or development of other mineral formations.

Methodology

While the study's time dimension extends from 2010 to 2030, the actual study was more complex. Given that the 2010 census has not been released, it was necessary to determine a baseline 2010 population and demographic profile for each of the six study cities. The derived 2010 population baseline is in effect a count of each city's housing and includes those living in temporary quarters and those living in permanent housing. This baseline served as a performance milestone reported in an interim report circulated October 18, 2010.

The next challenge was to develop an understanding of Bakken/Three Forks oil and gas drilling, production, extent (footprint), duration, and lifecycle. While determining each city's 2010 population relied on visits, phone calls, and data requests to many individual informants across northwest North Dakota, this part of the study depended on gathering expert opinions from a small number of highly placed state and industry informants. Since industry estimates of the Bakken/Three Forks potential are so diverse, information supplied by Mr. Lynn Helms, Director of North Dakota's Oil and Gas Division, Department of Mineral Resources was used as the primary source to build a model of oil and gas development-driven population growth. This model was first derived for the entire Bakken/Three Forks footprint and recognizes permanent employment from primary, secondary, and induced sources. (Induced employment is employment needed to supply services to the primary and secondary sectors. Induced employment has been referred to as "the butchers, bakers, and candlestick makers.") These permanent employees were then converted to an estimate of household population.

The Bakken/Three Forks play has distinct lifecycle phases.

- Phase One is underway now and involves drilling to secure leaseholds. According to Director Helms, this phase should be completed by 2014 with the drilling of 7,000 wells.
- Phase Two has started in some districts and is pattern drilling, that is, drilling a number of wells to best exploit the oil and gas potential of a defined acreage.
- Phase Three is the production phase and has begun for completed wells. A key characteristic of the Bakken formation is that production output is gas-driven and total fluids recovered decline rapidly after the first years of production.

Phase Two pattern drilling information supplied by Director Helms spanned an upper and lower bound of 28,000 pattern wells to 14,000 pattern wells. To refine this spread three population scenarios were developed, one based on a Bakken/Three Forks expected pattern drilling of 21,000 wells as well as a pessimistic 14,000 wells and the optimistic 28,000 wells.

Total Phase One and Phase Two wells are a pessimistic 21,000 total wells (7,000 Phase One wells plus 14,000 Phase Two wells), an expected 28,000 total wells (7,000 Phase One wells plus 21,000 Phase Two wells), and an optimistic 35,000 total wells (7,000 Phase One wells plus 28,000 Phase Two wells).

The lifecycle phases, declining fluid production, and three pattern drilling options were incorporated into a unified model and population potentials for each of the six cities were determined. This is the brief report circulated December 6, 2010.

Again, population potentials are expected city populations if new comers can be accommodated. If a community falters and cannot provide housing, its share will live in those communities that can.

The final challenge was to allocate each city's population potential based on permanent employment projected at five-year intervals across key housing-related variables. These include the following.

- Housing projections by tenure and by type. (Tenure refers to renting versus owning and type includes single family, multi-family, and mobile homes. It is assumed that each city's housing tenure and type will normalize to pre-Bakken/Three Forks conditions. That is, while a city may in 2010 have a higher percentage of mobile homes than in 2000, by 2030 the percentage of mobile homes will be similar to what the city hosted in 2000.)
- Population by age cohort. (Population by age cohort reports cohorts in five-year increments and was derived by aging the current population, adding new comers at a ratio of 25 percent in cohorts 40 years and older and 75 percent to cohorts spanning zero to 39 years. Finally cohort increases and decreases were figured by applying North Dakota birth and mortality rates.)
- Households by age. (Households by age was determined using information developed in the first two variables described above to allocate householders to three age categories –young householders, 15 to 39 years of age; middle years householders, 40 to 64 years of age; and retired householders, 65 years and older— to three tenure categories owner, renter, and total households.)
- Household income by percent. (Known household median incomes and poverty rates for 2000 and 2010 anchored projections of future poverty rates and median incomes. Here it is assumed that over time poverty rates will fall to Mercer County, ND's current level (7.2 percent) since Mercer County reflects a mature extractive industrial base. It is assumed that median incomes and poverty thresholds will rise with the consumer price index (CPI). Median incomes should stabilize as less overtime will be paid as the oil and gas industry normalizes.)
- Household income by number of households. (This representation converts household income by percent to the number of households in particular income categories.)
- Households by affordable rent/mortgage. (This representation reports the level of rent affordable by the number of households in income categories. It assumes affordable rent and an affordable mortgage is 30 percent of household income.)

- Households by size. (Households by size report the number of individuals living in a household. These households were allocated across renter households and owner households.)

In addition, a model estimating new construction rental rates was generated. This model estimates the rental rates needed to pay back a multi-family apartment building in five, ten, 15, 20, and 25 years and is intended to provide an understanding of market-rate rent and investor time horizons.

Overall Findings for the Bakken/Three Forks Footprint

It is an exciting time to live in northwest North Dakota. Jobs are readily available and the population is growing rapidly. Newcomers are younger than the region's typical resident and the population mix is changing. In future years more attention will be commanded by the needs of younger households rather than older households. For example, school-aged cohorts will increase strongly. Since the 2000 census, median household incomes have zoomed and rates of poverty have dropped dramatically.

Since the 2000 census, over 23,000 people have been attracted to northwest North Dakota. While this is favorable given the region's long history of population decline, it is important to understand the region 20 years into the future so that over building does not occur. Given the three pattern drilling options (14,000, 21,000 and 28,000 wells), at 2030, the permanent population of the Bakken/Three Forks footprint would be approximately 92,500, 106,000, or 128,500 people respectively. However this permanent population is similar to that of the Bakken/Three Forks footprint attained at 2018.

The rig-related transient population of the Bakken/Three Forks footprint will be significantly higher. Rig-related transients (including, direct, secondary, and induced workers) add approximately 6,250 people to the overall Bakken/Three Forks footprint before leaving with the end of pattern drilling.

The buildup and relative decline of population presents challenges and opportunities across northwest North Dakota. While a stable core of housing is needed to house the region's ongoing permanent population, a large population will need decent housing all during Phase Two. Second, infrastructure and services needs to be funded at levels that service not only the region's ongoing permanent population but meet the needs of the large permanent and transient population experienced before pattern drilling ends.

Creative housing solutions of all types are needed. Crew camps providing controlled, safe, decent, and all-weather housing must be encouraged. Semi-permanent housing solutions are a must. Permanent housing that conforms to the oil and gas lifecycle should be pursued.

Given 2010 construction costs, market rate rents for new two-bedroom apartments easily top \$1200.00. Since little construction has occurred in prior decades and the large demand associated with Phase Two pattern drilling and construction projects, apartment rents

will remain high. Affordability is an issue across the region since only about half of the region's households can afford new market rate housing.

North Dakota decision makers need to monitor oil and gas activity, infrastructure and construction projects, and other new industries, and be prepared to act depending on the scenario that unfolds. The Bakken/Three Forks is dynamic and the future is still uncertain.

Report Organization

Each city's report is organized in the following manner. An executive summary highlighting key findings and concerns is followed by a recommendation section. After the recommendation comes Appendix A, Graphs and Tables. Here data elements for the city's population, housing units, mix of housing units, householders by age cohort, households by income, housing affordability by household income, and households by size are reported. Again, these customized data tables are constructed using the expected pattern drilling value of 21,000 wells (28,000 total wells). Also included in Appendix A is a model that develops market-rate rents for new apartment construction given paybacks set at five, ten, 15, 20, and 25 years. Appendix B is the interim report used to determine the city's 2010 population. This population includes transients as well as permanent people residing within the city's boundary, rental stock and rental rate information. Appendix C includes any materials received after December 6, 2010 about the city's infrastructure needed given population potentials.

Parshall

Executive Summary

While the future is bright, if pattern drilling in the Bakken/Three Forks conforms to the expected 21,000 pattern wells, particular measures need to be taken. That is, Parshall must plan for accommodating a sustainable population in permanent housing units and accommodating a peak population in temporary and semi-permanent housing. At 2030 the city's population and housing units are equivalent to the population and associated housing units expected in 2018. That is, Parshall's 2018 and 2030 permanent population will be approximately 1,600 people requiring just over 660 total housing units.

The median age of Parshall is already younger than that of many cities in northwest North Dakota. In the case of Parshall the median age cohort will remain at 30 to 34 years to 2025 and rise to 35 to 39 years at 2030. Age demographic have important implications. First, those cohorts associated with primary and secondary education (five to nine years, ten to 14 years, and 15 to 19 years) will increase by 37 percent between 2000 and 2030. Second, those 65 years and older will decline in percent terms but remain approximately constant in absolute terms from 2010 to 2030.

Parshall is a much wealthier city in 2010 than in 2000. At the 2000 census Parshall's median household income was \$24,500. By 2010 its median household income increased to \$44,900. While the oil and gas industry is responsible for this increase, in subsequent years

it is expected that employment will normalize and less overtime will be paid. Induced employment likely pays less well than does the oil and gas industry so it is likely that the city's median will only rise with the consumer price index. Using this logic by 2030 Parshall's median household income will be approximately \$57,000.

In the next years Parshall will see a dramatic decline in the rate of poverty. Nonetheless, affordability of housing will be an issue in Parshall. Applying North Dakota Housing Finance Agency's rule of thumb, a median household income of \$44,900 will allow for a suggested 30 percent rent payment of \$1,123 per month. Since so few buildings have been constructed in the city in recent years, older buildings that should command lower rents are not available and new construction costs require rents that exceed this amount to payback an apartment building's cost in 20 years. (See Appendix A.)

Recommendations

As a general recommendation, decision makers need to monitor oil and gas activity to understand the sort of drilling scenario that develops. The city must plan to accommodate its peak population with temporary and semi-permanent housing and must plan to accommodate its sustainable population with permanent housing options. Some moderate overbuilding is healthy and will trigger the removal of less desirable housing and housing types.

If possible, Parshall should control and rationalize contiguous developments by annexations and by enlarging its extra-territorial zone. A very real possibility is that Parshall will be unable to accommodate its share of new employees and these people will gravitate to those communities that can.

In addition to permanent housing, Parshall needs to encourage the development of more temporary or semi-permanent housing that can be withdrawn or converted to other uses as temporary workers are no longer needed and if permanent employment falls. Thus, pressure must be placed on industry to provide crew camps that provide all-weather, safe, decent, and controlled housing for temporary construction and drilling-related employees.

A style of housing that might prove useful for oil and gas impacted cities is one designed for the oil and gas drilling/production lifecycle. Such housing might consist of attached single-story suites that initially are intended for extended-stay use. As need dictates, two of these suites could be joined as an apartment. Later as need dictates, the apartments could be sold as condos.

Currently there is little need for additional market-rate senior housing in Parshall. Parshall will need infrastructure that accommodates a younger rather than older population.

Housing affordability is an issue in Parshall. New construction is expensive and is affordable for those whose earnings are above the city's median income level. The city needs subsidized housing for its poor and lower income earners. Those who do not qualify for subsidized housing and do not earn incomes approaching the city's median are under extreme pressure.

Given the large budget deficits and national debt, aid from the federal government will be limited. Solutions for affordable housing must be sought at the upcoming North Dakota Legislative session since market mechanisms will fail those earning below median incomes. A possible state-level solution would be housing tax credits. Housing tax credits would be superior to a simple appropriation since the state's input is magnified. Instead of an unmatched appropriation, the state's input is foregone tax collections leveraged with private tax-payer funds paid to receive the tax credit benefit.

A final recommendation is this. *North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis* contains a wealth of data that can be mined by a variety of stakeholders to understand Parshall at 2010 and into the future. With this as a guide, fitting solutions can be crafted for many of the challenges facing the city.

Appendix A: Graphs and Tables



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**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis:
Parshall Graphs and Tables**

December 20, 2010

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**North Dakota Communities Acutely Impacted
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Housing Demand Analysis**

- Purpose of study
 - To inform decision-makers about permanent housing needs given the magnitude, trajectory, and sustainability of oil and gas development in northwest ND

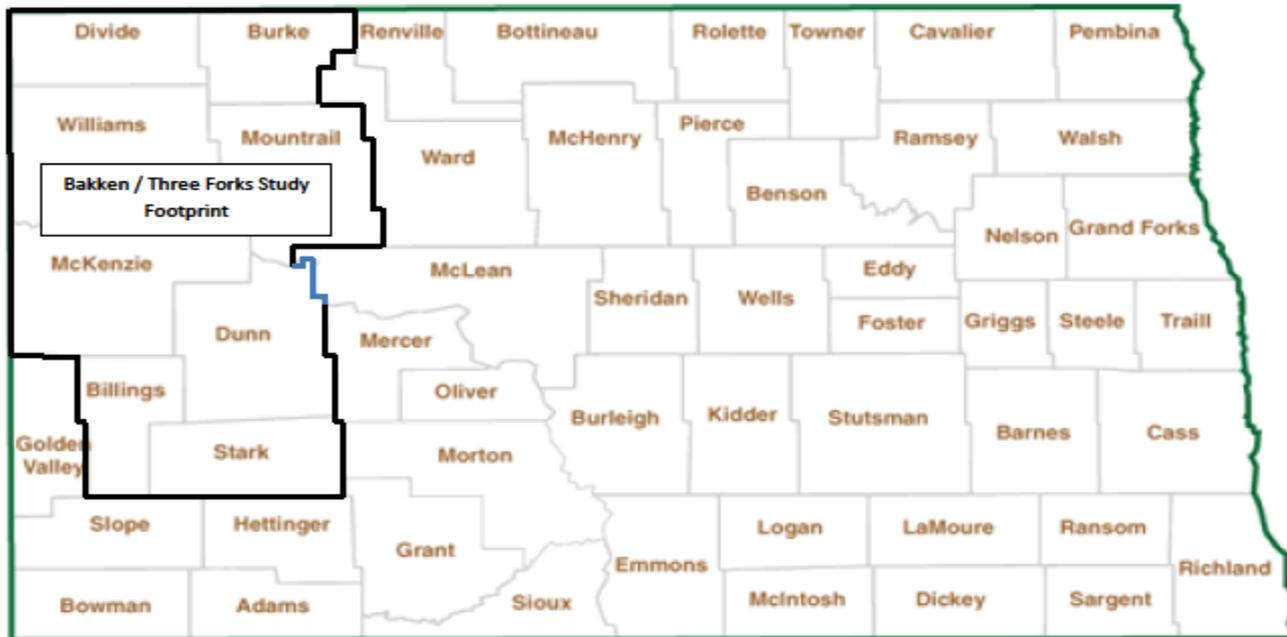
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- Study boundaries
 - Northwest North Dakota
 - ND Bakken/Three Forks footprint
 - Parshall, New Town, Stanley, Tioga, Watford City, and Williston – city limits
 - Twenty year span (2010 to 2030 in five-year increments)
 - Population potentials based on drilling and production
 - Housing needs of permanent population

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- Study limitations
 - Short time frame (Sept.-Dec. 2010)
 - Dynamic situation
 - Workforce Needs Study late
 - Population forecasts assume all cities can absorb their proportionate population potential
 - Study does not include current or future temporary and permanent population increases from
 - Infrastructure construction projects
 - Oil/gas construction projects
 - Development of other industries
 - Development of other mineral formations

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

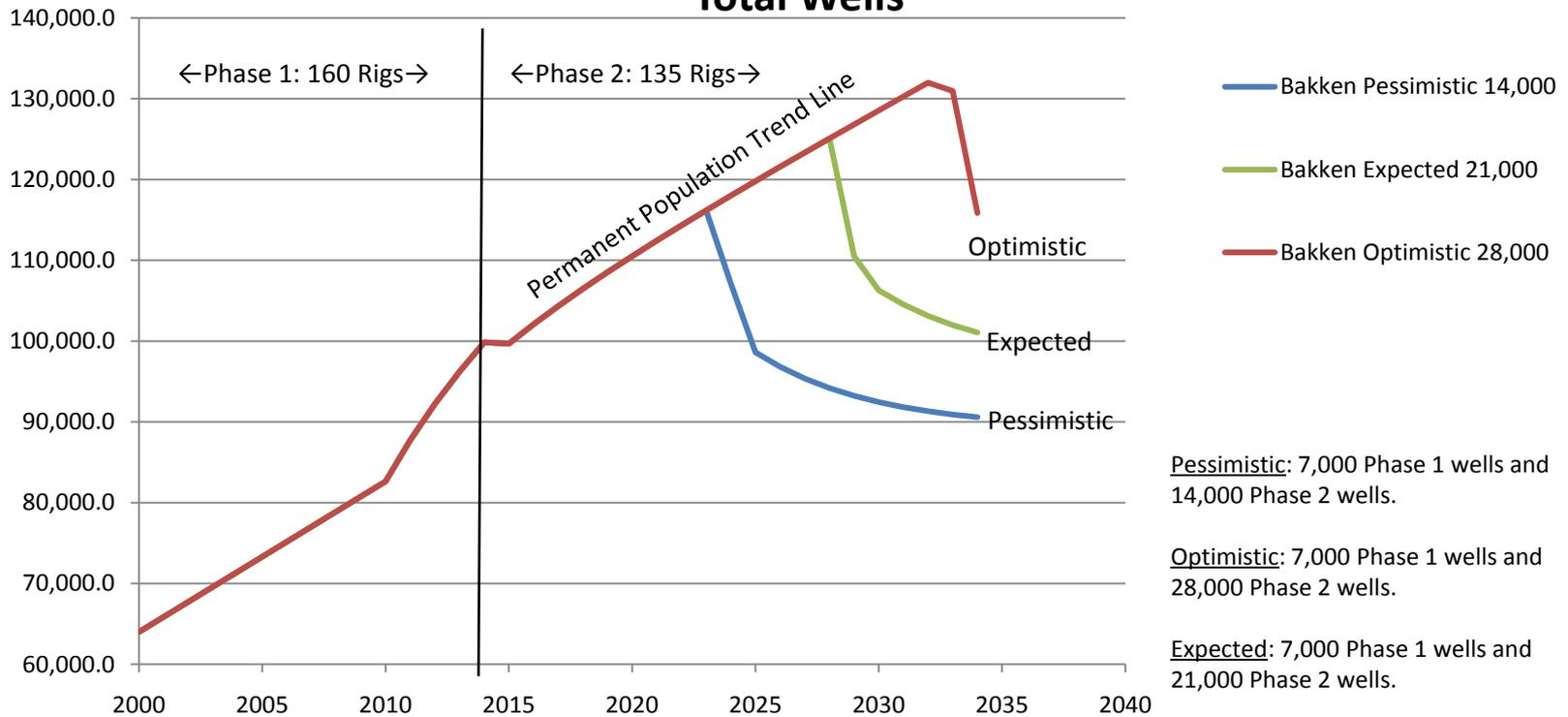


North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- Bakken/Three Forks Population Forecast Based on Total Wells
 - Phase One: 7,000 wells completed 2014
 - Phase Two: Three scenarios
 - 14,000 pattern wells completed 2024-2025 (21,000 total wells)
 - 21,000 pattern wells completed 2029-2030 (28,000 total wells)
 - 28,000 pattern wells completed 2033-2034 (35,000 total wells)
 - Production
 - Permanent population includes permanent drilling-related and production-related primary, secondary, and induced workers with households
 - Transient population includes temporary drilling-related primary, secondary, and induced populations; does not include transient construction-related impacts

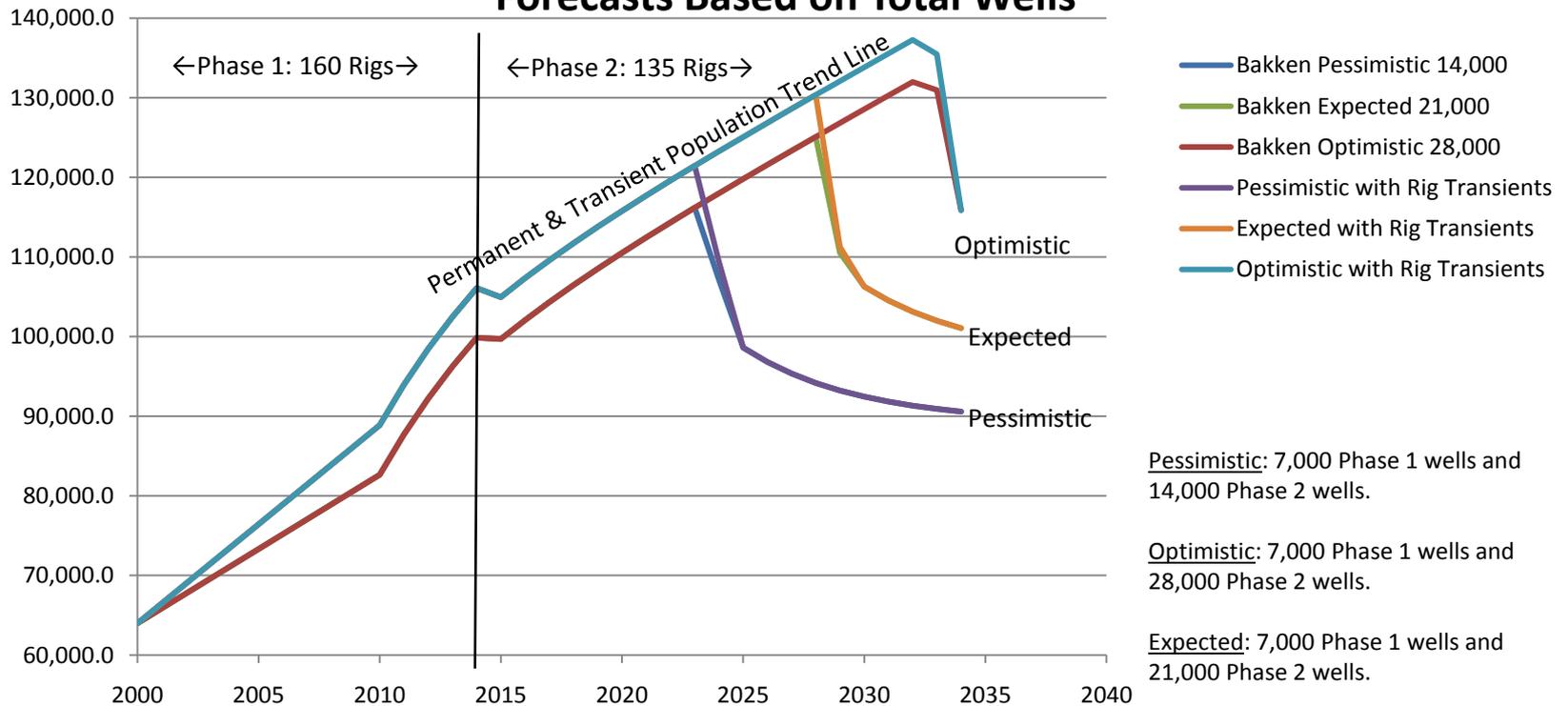
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Bakken / Three Forks Permanent Population Forecasts Based on Total Wells



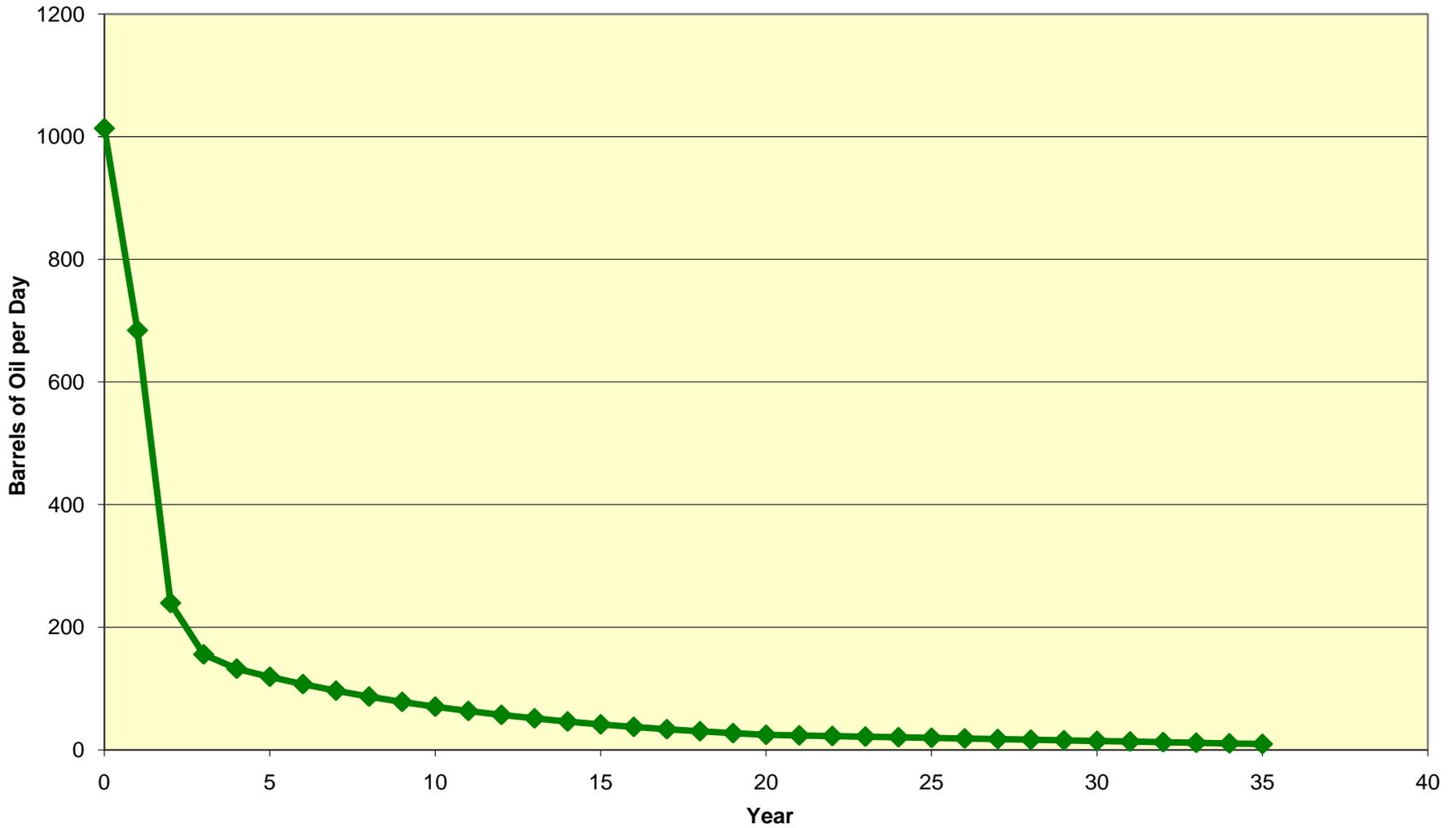
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Bakken / Three Forks Permanent and Transient Population Forecasts Based on Total Wells



Typical Bakken Well Production

Source: Lynn Helms, ND Oil and Gas Division

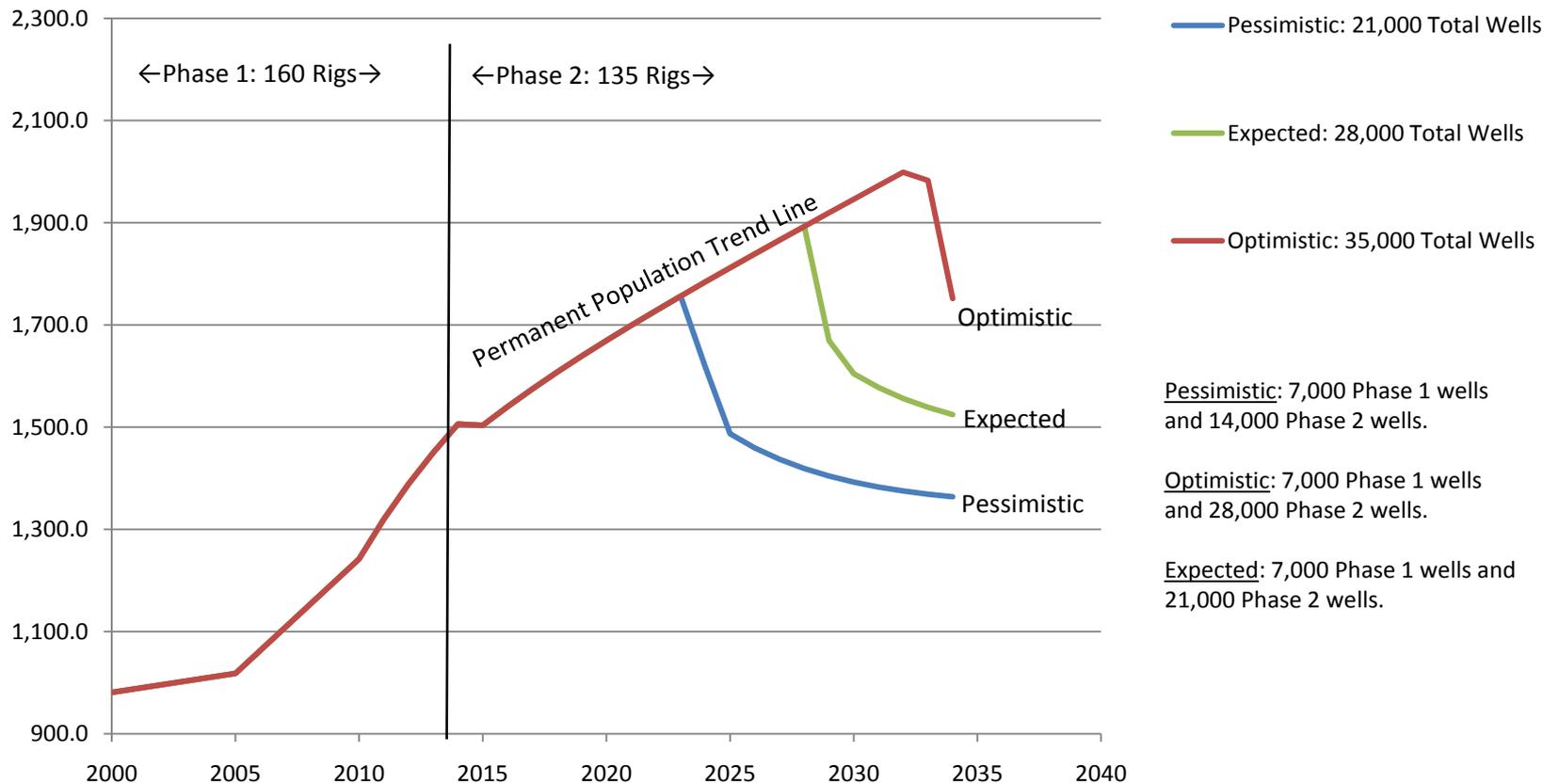


**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- **City Population Potential Based on Rigs and Wells**
 - Parshall
 - Allocation based on ND Bakken/Three Forks footprint population potential

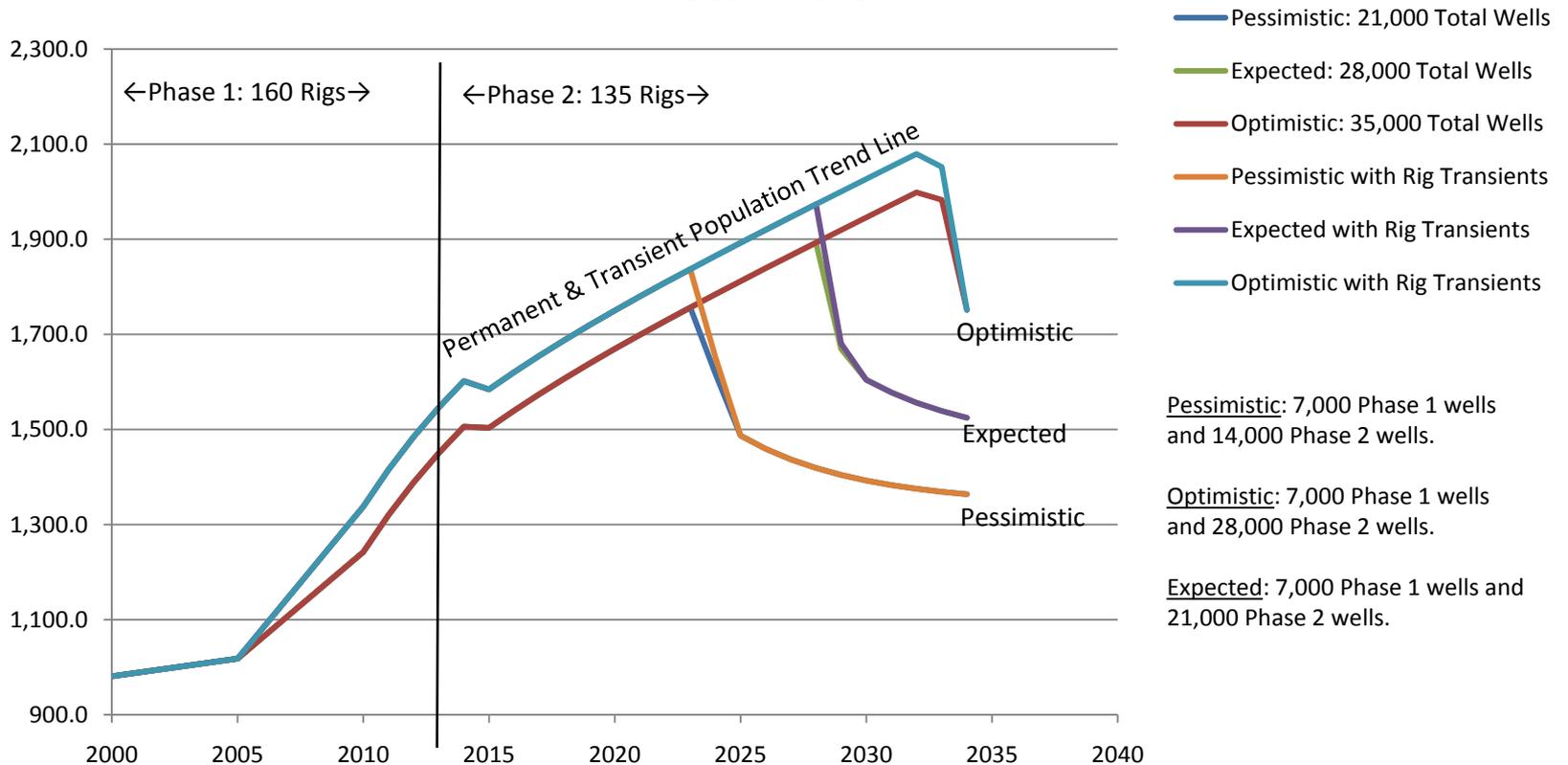
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Permanent Population Potential Based on Total Wells



North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Permanent and Transient Population Potential Based on Total Wells



**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- Parshall permanent population proportion based on...
 - Rig count of 160 through Phase One
 - Rig count of 135 through Phase Two
 - Phase Two 21,000 expected wells
 - Production recognizes rapid decline of total fluids per well

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- **Housing Projections by Tenure by Type**
 - Tenure (rent/own) and housing types (single family, multi-family, and mobile home)
 - Assume tenure and type will normalize to pre-Bakken/Three Forks percentages

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Housing Projections By Tenure By Type					
	2010	2015	2020	2025	2030
Population:	1,242	1,503	1,669	1,812	1,604
Single Family Units	362	459	521	573	495
SF Owned	252	319	362	399	344
SF Rented	110	140	159	175	151
Multi Family Units	75	94	105	114	97
MF Owned	3	4	4	5	4
MF Rented	72	90	101	109	93
Mobile Home Units	46	61	71	81	72
MH Owned	21	28	33	37	33
MH Rented	25	32	38	43	39
Total Units	483	614	697	768	664
% SF Units	74.95%	74.85%	74.74%	74.64%	74.54%
% MF Units	15.53%	15.29%	15.06%	14.82%	14.59%
% MH Units	9.52%	9.86%	10.20%	10.54%	10.88%

Forecasted permanent population based on 21,000 Phase Two wells

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- Population by Age Cohorts
 - Aged existing population cohorts
 - Added new comers
 - 75 percent 0-39 years
 - 25 percent 40 years and older
 - Applied ND birth and death rates

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Population By Age Cohorts						
	2000	2010	2015	2020	2025	2030
Total Population:	981	1,242	1,503	1,669	1,812	1,604
Age Cohorts						
0-5 years	98	66	111	120	127	100
5- 9 years	84	61	82	122	131	109
10-14 years	88	142	98	94	131	114
15-19 years	76	122	173	120	106	116
20-24 years	60	110	150	191	138	87
25-29 years	55	97	134	166	207	110
30-34 years	53	81	117	148	180	182
35-39 years	61	80	101	129	160	157
40-44 years	61	53	93	112	139	140
45-49 years	56	61	61	97	117	126
50-54 years	52	61	69	66	100	106
55-59 years	37	56	67	73	69	91
60-64 years	20	52	62	70	75	60
65-69 years	37	37	53	61	68	63
70-74 years	47	20	36	51	59	57
75-79 years	30	37	20	31	42	44
80-84 years	30	47	35	19	26	32
85-89 years	17	30	27	20	11	13
90 years and older	19	30	18	15	11	5
% Error	0.00%	0.00%	0.17%	2.04%	4.53%	6.76%
Median Age Cohort:	30-34 years	35-39 years				

Forecasted permanent population based on 21,000 Phase Two wells

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- Households by Age
 - Age cohorts of householders
 - Allocated across rent/own

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Households By Age					
	2010	2015	2020	2025	2030
Total Population:	1,242	1,503	1,669	1,812	1,604
All Households					
15-39 years	243	340	384	403	312
40-64 years	140	178	213	255	250
65 years and older	100	96	100	110	102
Total All Household Units	483	614	697	768	664
Owner Households					
15-39 years	139	195	220	231	179
40-64 years	80	102	122	146	144
65 years and older	57	55	57	63	59
Total Owner Household Units	276	352	399	440	382
Renter Households					
15-39 years	104	145	164	172	133
40-64 years	60	76	91	109	106
65 years and older	43	41	42	47	43
Total Renter Household Units	207	262	297	328	282

Forecasted permanent population based on 21,000 Phase Two wells

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- **Household Income by Percent**
 - Began with current county-level median incomes and poverty rates
 - Assumed median incomes and poverty threshold rise with Consumer Price Index (CPI)
 - Assumed poverty will fall to Mercer Co. levels

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Household Income by Percent						
	2000	2010	2015	2020	2025	2030
Total Population:	981	1,242	1,503	1,669	1,812	1,604
Indexed Poverty Level:	\$15,469	\$13,696	\$14,538	\$15,431	\$16,379	\$17,386
Indexed Median:	\$24,500	\$44,900	\$47,659	\$50,588	\$53,697	\$56,998
Below Poverty	31.40%	14.00%	12.30%	10.60%	8.90%	7.20%
Poverty to \$19,999	7%	8.54%	7.40%	6.19%	4.90%	3.54%
\$20,000-\$24,999	11.96%	8.18%	8.48%	8.78%	9.10%	9.42%
\$25,000-\$29,999	8.59%	5.87%	6.08%	6.31%	6.53%	6.76%
\$30,000-\$34,999	9.20%	6.29%	6.52%	6.76%	7.00%	7.25%
\$35,000-\$39,999	6.13%	4.19%	4.35%	4.50%	4.67%	4.83%
\$40,000-\$44,999	4.29%	2.93%	3.04%	3.15%	3.27%	3.38%
\$45,000-\$49,999	6.13%	14.49%	15.02%	15.57%	16.13%	16.70%
\$50,000-\$54,999	3.37%	7.97%	8.26%	8.56%	8.87%	9.19%
\$55,000-\$74,999	4.91%	11.59%	12.02%	12.45%	12.90%	13.36%
\$75,000-\$99,999	4.29%	10.14%	10.52%	10.90%	11.29%	11.69%
\$100,000-\$124,999	0.92%	2.17%	2.25%	2.34%	2.42%	2.51%
\$125,000-\$149,999	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
\$150,000-\$199,999	0.61%	1.45%	1.50%	1.56%	1.61%	1.67%
\$200,000 or more	0.92%	2.17%	2.25%	2.34%	2.42%	2.51%
Total %	100%	100%	100%	100%	100%	100%

Forecasted permanent population based on 21,000 Phase Two wells

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- Household Income by Number of Households
 - Applied percentages of household income to number of household to determine number of households at particular income categories

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Household Income by Number of Households					
	2010	2015	2020	2025	2030
Total Population:	1,242	1,503	1,669	1,812	1,604
Below Poverty	68	76	74	68	48
Poverty to \$19,999	41	45	43	38	24
\$20,000-\$24,999	39	52	61	70	63
\$25,000-\$29,999	28	37	44	50	45
\$30,000-\$34,999	30	40	47	54	48
\$35,000-\$39,999	20	27	31	36	32
\$40,000-\$44,999	14	19	22	25	22
\$45,000-\$49,999	70	92	109	124	111
\$50,000-\$54,999	39	51	60	68	61
\$55,000-\$74,999	56	74	87	99	89
\$75,000-\$99,999	49	65	76	87	78
\$100,000-\$124,999	11	14	16	19	17
\$125,000-\$149,999	0	0	0	0	0
\$150,000-\$199,999	7	9	11	12	11
\$200,000 or more	11	14	16	19	17
Total Households:	483	614	697	768	664

Forecasted permanent population based on 21,000 Phase Two wells

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- **Households by Affordable Rent/Mortgages**
 - Number of households in each income category and affordable rent/mortgage
 - Affordable rent 30% of income; affordable mortgage assumed to be same

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Households by Affordable Rent/Mortgage					
	2010	2015	2020	2025	2030
Total Population:	1,242	1,503	1,669	1,812	1,604
Affordable Rent/Mortgage (30%):					
Less than \$500	109	121	117	106	71
\$500 to \$625	39	52	61	70	63
\$625 to \$750	28	37	44	50	45
\$750 to \$875	30	40	47	54	48
\$875 to \$1000	20	27	31	36	32
\$1000 to \$1125	14	19	22	25	22
\$1125 to \$1250	70	92	109	124	111
\$1250 to \$1375	39	51	60	68	61
\$1375 to \$1875	56	74	87	99	89
\$1875 to \$2500	49	65	76	87	78
\$2500 to \$3125	11	14	16	19	17
\$3125 to \$3750	0	0	0	0	0
\$3750 to \$5000	7	9	11	12	11
Greater than \$5000	11	14	16	19	17
Total Households:	483	614	697	768	664

Forecasted permanent population based on 21,000 Phase Two wells

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- **Model Estimating New Construction Rental Rates**
 - Rental rates necessary to pay back eight-plex built using 2010 constructions costs
 - At five, ten, 15, 20 and 25 years

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Appendix A: Model Estimating New Construction Rental Rates (Example of an 8-plex)

Structure		Lot & Site Development	
			Enter 'land' value:
		Land:	\$40,000.00
	Enter first 2:	Grading, graveling, paving, water, sewer, storm sewer, curb, sidewalks, landscaping, and design fees (2)	
Square Feet Per Unit:	750		
Number of Units:	8		
Construction per Sq Ft: (1,4)	\$127.50		\$80,000.00
Contractor Fees (Included):	\$0.00		
Architect Fees (7%) (1,4):	\$0.00	Enter Per Unit Upgrades:	
Total Costs per Sq Ft:	\$127.50	\$10,000.00	
Grand Total Construction:	\$765,000.00	Total Lot & Improvements:	\$120,000.00

Enter APR for building loan: (4d) 6.50%

Per Unit Monthly (4)

Monthly amortization per unit (4d)		Maint Fees (4a)	Mgmt Fees (4b)	Utility Costs (4c)	Taxes (6,6a,6b)	Insurance (4f,5)	Grand Total Per Unit *
5 year payback	(2,164.51)	216.45	151.52	67.23	126.55	31.67	\$2,757.91
10 year payback	(1,256.12)	125.61	87.93	67.23	126.55	31.67	\$1,695.11
15 year payback	(963.66)	96.37	67.46	67.23	126.55	31.67	\$1,352.93
20 year payback	(824.79)	82.48	57.74	67.23	126.55	31.67	\$1,190.45
25 year payback	(746.95)	74.69	52.29	67.23	126.55	31.67	\$1,099.37

* Per unit rental rates assume a simple break even scenario. Any developer equity position is assumed to have an ROI equal to the APR of the loan.

Sources:

(1) Wayne Whitty - 852-4850: Construction fees \$180 per sq ft with 7% architect fees

(2) Ryan Ackerman - 852-6363

(3) Lon Drevecky - 837-8737 - Left message on 9/27/2010

(4) Bruce Walker - 852-0136: Construction costs (including contractor and architect fees) are about \$127.50 per sq ft.

(4a) Approximate Maintenance Fees: 10% of rents collected

(4b) Approximate Management Fees: 7% of rents collected

(4c) Approximate Fuel Costs: 9% of rents collected

(4d) Terms are running about 6.5% for up to 25 years. Lenders do not go beyond 25 years.

(4e) Taxes are running 1.7% to 1.8% of assessed value

(4f) Examples: \$1857 for a 5plex (\$371 per unit per year); \$14000 for a 36plex (\$389 per unit per year)

(5) Kim Albert: Insurance is age-dependent (newer=cheaper)

(6) Kevin Ternes - 857-4160, Minot City Assessor: Fair Market Value runs approximately 85% to 90% of total new construction and development costs

(6a) Assessed value is allotted a 'leeway' of 5% of market value.

(6b) Taxes are 1.7% of assessed value.

**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

- **Household by Size**
 - Rental and owner households allocated based on number living in household

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Parshall Households by Size					
	2010	2015	2020	2025	2030
Population:	1,242	1,503	1,669	1,812	1,604
Total Owned Units	276	351	399	441	382
1-person household	86	109	124	137	118
2-person household	115	146	166	184	159
3-person household	51	65	74	82	71
4-person household	10	13	15	17	14
5-person household	6	8	9	10	9
6-person household	4	5	6	6	5
7-person household	3	4	5	6	5
Total Rented Units	207	262	297	327	282
1-person household	74	94	107	117	101
2-person household	43	55	62	68	59
3-person household	35	45	51	56	48
4-person household	25	32	36	40	34
5-person household	15	19	22	24	21
6-person household	10	13	14	16	14
7-person household	4	5	6	6	5
% Error:	5.11%	1.30%	-0.47%	-1.72%	0.21%

Forecasted permanent population based on 21,000 Phase Two wells

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- Caveats

- Monitor oil and gas developments to understand unfolding scenarios
- Oil and gas resources are finite. Production in the Bakken/Three Forks will end
- In northwest ND population due to oil and gas will not increase forever; there will be significant fall-offs
- New technology will affect all factors of the oil/gas industry including labor
- Rig numbers are fluid and influenced by
 - Economics
 - Politics/regulations

North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- Press inquiries should be directed to
 - Mr. Mike Anderson, Director, North Dakota Housing Finance Agency ,
Bismarck, ND, 701-328-8080, maanders@ndhfa.org
- Technical inquiries should be directed to
 - James Ondracek, Ph.D., ondracek@srt.com

Appendix B: Interim Report from October 18, 2010



North Dakota Communities Acutely Impacted by Oil and Gas Development

City of Parshall

Housing Interim Report: Cumulative Data and Snapshot at the end of 2010

Ondracek, Witwer, and Bertsch

October 18, 2010

Contact Information:
James Ondracek, PhD
701-838-2645
ondracek@srt.com

Total Population in 2000 and 2010

Type	2000	Chg from 2000-2010	2010
Single Family units	281	+81 (2)	362
Avg. Household Size S.F.	2.7226323	(1)	1.8612905
Multi Family units	55	+20 (2)	75
Avg. Household Size M.F.	3.1594837	(1)	2.0881801
Mobile Home units	41	+5 (2)	46
Avg. Household Size M.H.	2.877686	(1)	1
Total population in housing	931.24		1164
Group Quarters	50		50
Totals	981.24		1214
Cumulative % change from 2010			23.74%

- (1) The average size of households have declined due to such factors as aging, child maturation, and other household considerations.
- (2) This represents the number of additional units since 2000 (e.g. building permits, HUD data, and observations/interviews).

Additional Population Adjustments:				2010
"Double Up" @ 1% (National Avg)				12.141974
Informal RV Parking @ 1% Single Family Homes (units)				3.62
Informal RV Parking population				5.9723612
RV Parks in City (2010 only).				8.2491176
Motel Dwellers (2010 only).				29.696823
Skid Shacks (2010 only).				0
Total 2010 population:				1270.2577
Cumulative % change from 2010				29.45%

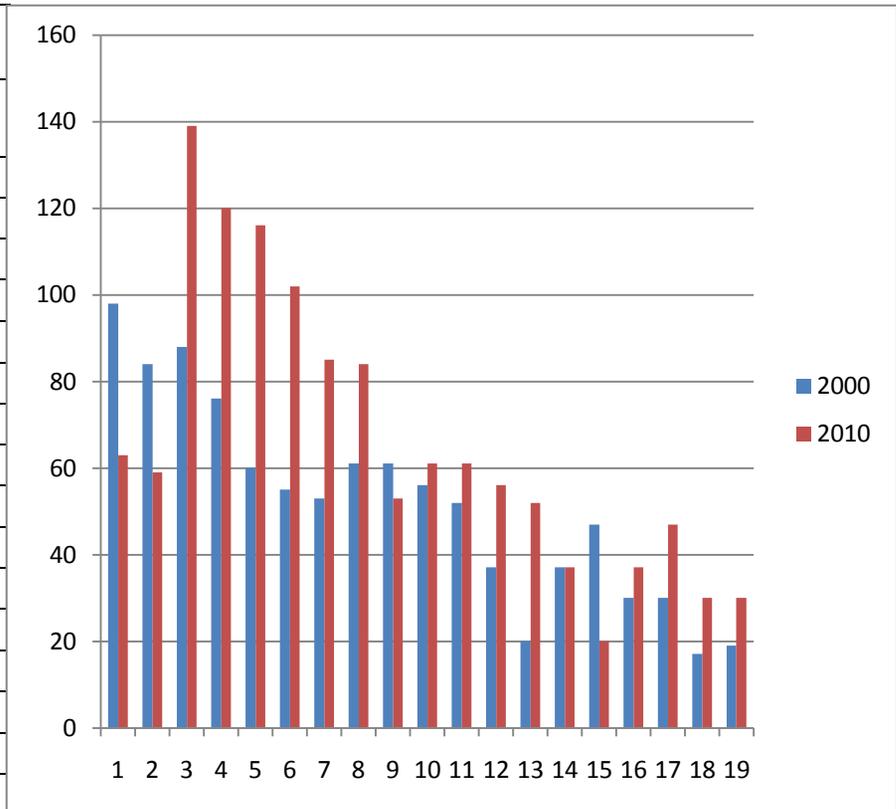
Housing Units by Age: 2000 to 2010

Median Year Built: All Owned		1955	1975.47593
Median Year Built: All Rentals		1973	1979.84837
		2000	End of 2010
Single Family % Owned		69.55%	69.55%
Single Family % Rented		30.45%	30.45%
Multi Family % Owned		4.17%	4.17%
Multi Family % Rented		95.83%	95.83%
Mobile Home % Owned		46.34%	46.34%
Mobile Home % Rented		53.66%	53.66%
Total Single Family Units		281	362
	# owned	195.43	251.761317
	# rented	85.572	110.238683
	Avg Age S.F. Owned	45	35.1546961
	Avg Age S.F. Rented	27	21.1823204
	Avg Age all S.F.	39.519	30.899734
Total Multi Family Units		55	75
	# owned	2.2917	3.125
	# rented	52.708	71.875
	Avg Age M.F. Owned	45	33.2666667
	Avg Age M.F. Rented	27	20.0666667
	Avg Age all M.F.	27.75	20.6166667
Total Mobile Homes		41	46
	# owned	19	21.3170732
	# rented	22	24.6829268

	Avg Age M.H. Owned	45	40.2173913
	Avg Age M.H. Rented	27	24.173913
	Avg Age all M.H.	35.341	31.6086957

Age Cohorts at 2000 and 2010

Category	Age Cohorts	2000	% of total	2010 Shifted	2010 Adj
1	0-5 years	98	9.99%	17	63
2	5- 9 years	84	8.56%	19	59
3	10-14 years	88	8.97%	98	139
4	15-19 years	76	7.75%	84	120
5	20-24 years	60	6.12%	88	116
6	25-29 years	55	5.61%	76	102
7	30-34 years	53	5.40%	60	85
8	35-39 years	61	6.22%	55	84
9	40-44 years	61	6.22%	53	53
10	45-49 years	56	5.71%	61	61
11	50-54 years	52	5.30%	61	61
12	55-59 years	37	3.77%	56	56
13	60-64 years	20	2.04%	52	52
14	65-69 years	37	3.77%	37	37
15	70-74 years	47	4.79%	20	20
16	75-79 years	30	3.06%	37	37
17	80-84 years	30	3.06%	47	47
18	85-89 years	17	1.73%	30	30
19	90 years and older	19	1.94%	30	30
		981		981	1252



Error: 1.44%

By Tenure By Type at 2010

Error = 0.00%

Total		1270.257684		
Single Family Dwellers		827.0598504	Population	Units
	SF Owners		575.198003	251.7613169
	SF Renters		251.8618474	110.2386831
Multi Family Dwellers		189.5828393		
	MF Owners		7.899284969	3.125
	MF Renters		181.6835543	71.875
Mobile Home Dwellers		147.4921584		
	MH Owners		68.35002464	21.31707317
	MH Renters		79.14213379	24.68292683
Group Quarters Dwellers		50	Renters	
Double Up Dwellers		12.14197408	Renters	
1% Informal RV Dwellers		5.972361162	Renters	
RV Dwellers		8.249117627	Renters	
Motel Dwellers		29.69682346	Renters	
Skid Shack Dwellers		0	Renters	
Total Renters:		618.7478119	48.71%	
Total Owners:		651.4473126	51.29%	
Total Owned Units		276.20339		
Total Rented SF MF & MH Units		206.79661		
Total Rented Motel,Skid Shacks,RV Spaces		23		

Householder by Age in 2000 and 2010

All Householder by Age	2000	% of Total	2010	% of Total
15-24 years	20	5.90%	25	5.08%
25-34 years	53	15.63%	80	16.26%
35-44 years	74	21.83%	134	27.24%
45-54 years	58	17.11%	74	15.04%
55-64 years	32	9.44%	58	11.79%
65-74 years	54	15.93%	32	6.50%
75-84 years	35	10.32%	54	10.98%
85 years and older	13	3.83%	35	7.11%
		This method	492	
		HUM method	483	
		Error	1.83%	
Owner Householder by Age	2000	% of Total	2010	% of Total
15-24 years	4	2.07%	5	1.02%
25-34 years	14	7.25%	21	4.27%
35-44 years	38	19.69%	69	14.02%
45-54 years	37	19.17%	47	9.55%
55-64 years	22	11.40%	40	8.13%
65-74 years	36	18.65%	21	4.27%
75-84 years	34	17.62%	52	10.57%
85 years and older	8	4.15%	22	4.47%
Renter Householder by Age	2000	% of Total	2010	% of Total
15-24 years	16	10.96%	20	4.07%
25-34 years	39	26.71%	59	11.99%
35-44 years	36	24.66%	65	13.21%
45-54 years	21	14.38%	27	5.49%
55-64 years	10	6.85%	18	3.66%
65-74 years	18	12.33%	11	2.24%

75-84 years	1	0.68%	2	0.41%
85 years and older	5	3.42%	13	2.64%

Household Income Levels by Percentage

	2000	Cumulative 2000	2010	Cumulative 2010
Below Poverty	31.40%	31.40%	14.00%	14.00%
Poverty to \$19,999	7.24%	38.65%	8.54%	22.54%
\$20,000-\$24,999	11.96%	50.61%	8.18%	30.71%
\$25,000-\$29,999	8.59%	59.20%	5.87%	36.58%
\$30,000-\$34,999	9.20%	68.40%	6.29%	42.87%
\$35,000-\$39,999	6.13%	74.54%	4.19%	47.07%
\$40,000-\$44,999	4.29%	78.83%	2.93%	50.00%
\$45,000-\$49,999	6.13%	84.97%	14.49%	64.49%
\$50,000-\$59,999	3.37%	88.34%	7.97%	72.46%
\$60,000-\$74,999	4.91%	93.25%	11.59%	84.06%
\$75,000-\$99,999	4.29%	97.54%	10.14%	94.20%
\$100,000- \$124,999	0.92%	98.46%	2.17%	96.38%
\$125,000- \$149,999	0.00%	98.46%	0.00%	96.38%
\$150,000- \$199,999	0.61%	99.08%	1.45%	97.83%
\$200,000 or more	0.92%	100.00%	2.17%	100.00%

Households by Size

	2000		2010	
Owner Household Size	Units	Percent	Units	Percent
Total owner occupied housing units	193	100.00%	276.203	100.00%
1-person household	50	25.91%	107.663	38.98%
2-person household	71	36.79%	152.881	55.35%
3-person household	30	15.54%	6.52454	2.36%
4-person household	24	12.44%	5.21963	1.89%
5-person household	12	6.22%	2.60982	0.94%
6-person household	3	1.55%	0.65245	0.24%
7-person household	3	1.55%	0.65245	0.24%
	2000		2010	
Renter Household Size	Units	Percent	Units	Percent
Total renter occupied housing units	146	100.00%	206.797	100.00%
1-person household	39	26.71%	97.068	46.94%
2-person household	22	15.07%	54.7563	26.48%
3-person household	26	17.81%	16.8151	8.13%
4-person household	26	17.81%	16.8151	8.13%
5-person household	17	11.64%	10.9945	5.32%
6-person household	11	7.53%	7.11407	3.44%
7-person household	5	3.42%	3.23367	1.56%

Building Permits by Year: 2000 through 2010

	HUD (1)	Corrected (2)
2010 single family		8
2010 multiple unit		20
2010 mobile home		5
2009 single family	4	4
2009 multiple unit	0	0
2009 mobile home		0
2008 single family	5	5
2008 multiple unit	0	0
2008 mobile home		0
2007 single family	6	6
2007 multiple unit	0	0
2007 mobile home		0
2006 single family	8	8
2006 multiple unit	0	0
2006 mobile home		0
2005 single family	9	9
2005 multiple unit	0	0
2005 mobile home		0
2004 single family	9	9
2004 multiple unit	0	0
2004 mobile home		0
2003 single family	8	8
2003 multiple unit	0	0
2003 mobile home		0
2002 single family	8	8
2002 multiple unit	0	0
2002 mobile home		0

2001 single family	8	8
2001 multiple unit	0	0
2001 mobile home		0
2000 single family	8	8
2000 multiple unit	0	0
2000 mobile home		0
total 2000-2010 all units		106
total 2000-2010 single family		81
total 2000-2010 multiple unit		20
total 2000-2010 mobile home		5

(1) <http://socds.huduser.org/permits/index.html>

(2) Building permit records, observations and interviews

2010 Rents

City of Parshall Market-Rent Levels

Condition	Single family home	Multi-family apartment (One- bedroom unit)	Multi-family apartment (Two bedroom unit)	Multi-family apartment (Three bedroom unit)	Multi-family apartment (Four bedroom unit)	Mobile home	Mobile home court rental	RV court rental
Existing (facility/building)	\$250-800/mo.	\$425/mo.	\$525/mo.	\$600/mo.	---	<\$750/mo.	Unknown	Unknown
New (facility/building constructed 2007 or later)	---	---	---	---	---	---	---	---

Source: Ondracek, Witwer, & Bertsch

Vacancy Rates

All rental properties are fully absorbed at 2010. See Appendix A.

Model Estimating New Construction Rental Rates (Example of an 8-plex)

Structure		Lot & Site Development	
			Enter 'land' value: \$40,000.00
		Land:	
	Enter first 2:	Grading, graveling, paving, water, sewer, storm sewer, curb, sidewalks, landscaping, and design fees (2)	Enter Per Unit Upgrades: \$10,000.00
Square Feet Per Unit:	861		
Number of Units:	8		
Construction per Sq Ft: (1,4)	\$127.50		
Contractor Fees (Included):	\$0.00		\$80,000.00
Architect Fees (7%) (1,4):	\$0.00		
Total Costs per Sq Ft:	\$127.50		
Grand Total Construction:	\$878,220.00	Total Lot & Improvements:	\$120,000.00

Enter APR for building loan: (4d) **6.50%**

Per Unit Monthly (4)

Monthly amortization per unit		Maint Fees (4a)	Mgmt Fees (4b)	Utility Costs (4c)	Taxes (4e)	Insurance (4f,5)	Total Per Unit
5 year payback	(2,441.42)	244.14	170.90	219.73	42.72	31.67	\$3,150.57
10 year payback	(1,416.82)	141.68	99.18	127.51	24.79	31.67	\$1,841.66
15 year payback	(1,086.95)	108.69	76.09	97.83	19.02	31.67	\$1,420.24
20 year payback	(930.31)	93.03	65.12	83.73	16.28	31.67	\$1,220.13
25 year payback	(842.51)	84.25	58.98	75.83	14.74	31.67	\$1,107.97

(1) Wayne Whitty - 852-4850: Construction fees \$180 per sq ft with 7% architect fees

(2) Ryan Ackerman - 852-6363

(3) Lon Drevecky - 837-8737 - Left message on 9/27/2010

(4) Bruce Walker - 852-0136: Construction costs (including contractor and architect fees) are about \$127.50 per sq ft.

(4a) Approximate Maintenance Fees: 10% of rents collected

(4b) Approximate Management Fees: 7% of rents collected

(4c) Approximate Fuel Costs: 9% of rents collected

(4d) Terms are running about 6.5% for up to 25 years.

(4e) Taxes are running 1.7% to 1.8% of assessed value

(4f) Examples: \$1857 for a 5plex (\$371 per unit per year); \$14000 for a 36plex (\$389 per unit per year)

(5) Insurance is age-dependent (newer=cheaper)

Discussion of Developments and Developable Land

City of Parshall: Developments and Developable Land

	Number of lots	Type	Owner/identifier	Description	Comments
Commercial					
Industrial					
Residential					
City of Parshall	2 (6 total, 4 undevelopable)				

Source: Richard Bolkan, Mayor of Parshall

According to Richard Bolkan, Mayor of Parshall, Kadermas, Lee, and Jackson on behalf of the city is studying the feasibility of placing an industrial park on the east side of Parshall on 160 acres owned by Duane Risen. The Nelson family has been approached to sell a quarter section (160 acres) northwest of Parshall and Bud Zwaltney has been approached about selling farmland south of Cenex near Questar Oil Company's office. Land near Parshall is selling for approximately \$5000.00 per acre. According to Alfred Christianson, 40 acres north of the Hill Top Mobile Home Court is being developed for a mix of 40 MH and RV slots; the developers are on rural water but are seeking annexation so that city sewer will be available. The city maintains a one-mile Extra-Territorial Area (ETA).

Property Values

Mountrail County Home Sales

Home sales	2010*	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Number of sales	63	46	32	54	33	34	34	37	37	47	53
Average Value	\$78,292	\$60,546	\$52,507	\$56,047	\$58,259	\$33,271	\$34,532	\$37,497	\$32,820	\$34,435	\$37,136
Sales volume	\$4,932,400	\$2,785,136	\$1,680,235	\$3,026,550	\$1,922,550	\$1,131,200	\$1,174,075	\$1,387,400	\$1,214,350	\$1,618,460	\$1,968,210

Source: ND State Tax Office

*2010 data is tabulated from the first two quarters of 2010

Mountrail County Lot Sales

Lot sales	2010*	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Number of sales	11	22	18	14	7	4	6	4	7	6	3
Average Value	\$17,980	\$16,773	\$12,483	\$19,450	\$10,821	\$9,225	\$13,033	\$13,225	\$12,000	\$8,433	\$3,083
Sales volume	\$197,775	\$369,000	\$224,700	\$272,300	\$75,750	\$36,900	\$78,200	\$52,900	\$84,000	\$50,000	\$9,250

Source: ND State Tax Office

*2010 data is tabulated from the first two quarters of 2010

Mountrail County Mobile Home Sales

Mobile home sales		2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Number of sales	14	18	27	14	6	16	17	17	12	7	18
Average Value	2010*	\$22,500	\$16,750	\$30,811	\$18,000	\$16,388	\$13,168	\$10,796	\$14,471	\$5,571	\$12,881
Sales volume	\$459,826	\$448,905	\$692,381	\$431,354	\$18,000	\$262,213	\$223,860	\$183,526	\$173,655	\$39,000	\$231,871

Source: ND State Tax Office

*2010 data is tabulated from the first two quarters of 2010

Parshall Home Sales

Home sales	2010	2009	2008	2007	2006	2005
Number of sales	---	1	2	4	4	2
Average value		\$28,000	\$57,500	\$43,875	\$67,000	\$85,500
Median value			\$57,500	\$41,500	\$79,000	\$85,500
Maximum price			\$65,000	\$62,500	\$85,000	\$91,500
Minimum price			\$50,000	\$30,000	\$25,000	\$79,500

Source: Carrie Montoya, Watne Realty, Minot, ND; Multi-List Service accessed October 1, 2010

Parshall Lot Sales

Lot sales	2010	2009	2008	2007	2006	2005
Number of sales	---	---	---	---	---	---
Average Value						

Source: Carrie Montoya, Watne Realty, Minot, ND; Multi-List Service accessed October 1, 2010

Parshall Existing Residential Homes for Sale as of October 1, 2010

Description	Asking Price	Status
Three (3) lots with home; home to be demolished	\$45,000	On market
Single family	\$140,000	Pending

Source: Carrie Montoya, Watne Realty, Minot, ND; Multi-List Service accessed October 1, 2010

Discussion of City of Parshall Infrastructure

Awaiting Report

City of Parshall Utility Rates

Awaiting Report

Appendix A

Housing Particulars

City of Parshall Subsidized, Low-Income Tax Credit, Market-Rate, and Income Targeted/Moderate Income Apartments

City identifier and age	Contact	Units	Efficiency	1-bedroom	2-bedroom	3-bedroom	4-bedrooms	Garage	Current rent, waiting list, number of calls in last week	Number living in the building; percent under 18	Percent permanent; percent temporary	Renter (company or individual)	Notes	Comments	Type
Subsidized															
Parkside Apartments 1998	Kim Wood, manager 862-2379 862-2042	8		3	3	2		0	\$30% AGI; \$900 max. for 3-bed; advertised last month and had 12 applicants	26/16; 60 % under 18 years	100%	Individual	Usually when advertise an opening may only get one completed application; most recently rec'd 12 applications	One apartment is open but is receiving minor repairs; will be filled from the waiting list	Subsidized 30% AGI (very low income) Families, Elderly and Disabled USDA
Market															
Apartments by high school Ask Apartments	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	5											Apartments by high school		Market
Apartments by nursing home Ask Apartments	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	8											Apartments by nursing home		Market
Apartments by nursing home Ask Apartments	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	7											Apartments by nursing home		Market

	Total for Ask Parshall	20		13	4	3		0	\$600/mo—3bed; \$525/mo—2bed; \$425/mo—1bed; rent includes heat, electric, water, sewer, and garbage; just raised the rent in Parshall; 30-40 on list; 0 calls last week	Only know the numbers on the lease. Most are singles; a couple have children	75%/25%	Individual		Currently have two open apartments; will fill immediately from the list	Market
Post Office Apartments 1940s MN owner	Kim Wood, manager 862-2379	4		4				0	\$525/month. Includes water, sewer, and garbage; 12 on waiting list; 3 calls in the last week	4/0	100%	individual	Apartments over post office	One unit to a man from Holland; he hasn't been in Parshall for over a year?	Market; rent recently increased to \$525
Income Targeted/Moderate Income (Provided for Employees)															
Parshall Public School 2008	Steve Cascadem, Superintendent 701-862-3129	2 Duplex			1	1		0	\$300—2-bed; \$350—3-bed; utilities not included; could rent for \$800-\$900/mo	2/0	100%/0%	Individual	Full basement		Income Targeted/Moderate Income (Provided for Employees) Subsidized by Parshall Public School; could rent for \$900-\$1,000
Rental Units Under Construction															
Bayview Townhomes Parshall	Lutheran Social Services Jessica Thomasson 701-271-3201	12			4	8		12	\$491-\$705 (income) \$750-\$995 (market); said to be a 400 on list			Individual		Ready for occupancy November 2010	Mixed income (4 @ 80% AMI)

Bayview Apartments Parshall	Lutheran Social Services Jessica Thomasson 701-271-3201	8			8			8	\$521 (income) and \$700 (market); said to be a 400 on list			Individual		Ready for occupancy December 2010	Mixed income (3 @ 80% AMI)
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Source: Richard Bolkan, Mayor of Parshall; Named contacts

City of Parshall Mobile Home Courts and Recreational Vehicle Courts

City identifier and age	Contact	Lots MH; RV	Lot rental MH	Lot rental RV	Amenities	Current vacancy rate MH; RV	Number living in the court; percent under 18	Percent permanent; percent temporary	Renter (company or individual)	Rental mobile homes for rent—go to next table; future plans
NE Segment (formerly Hilltop) (http://www.mobilehomeparkstore.com) Developed by Boeing; once owned by Bill Woods; now owned by Three Affiliated Tribes (TAT); originally had 200 MH spaces. According to Mr. Christianson the court now has approx. 20 MHs and they are arranged across the original spaces and only about the number of units currently installed have working water and sewers	Tried to contact TAT Housing; no answer Hilltop, PO Box 7, Parshall, ND Alfred Chrisitianson, City of Parshall 701-862-3744	22 MH; 5 RV counted from https://maps.google.com	Unknown	Unknown		According to Christianson, full for condition to sewer and water hookups				Likely the court is some years away from accepting additional MHs and RVs
Brendel's Bay (http://brendlesbayresort.com)	Harley Rath 701-862-3611	247 total lots; most owned MH/RV lots for vacationers; 46 rental spaces for RVs and Skid Shacks with water, sewer and electric; 13 rental RV spaces with electricity only, 10 cabins, 5 cabins are year-round rentals		Declined to comment about rental rates; get calls every day in the fall since people are needing winter quarters		Currently nearly all 46 RV/Skid Shack spaces are occupied; some number of the 13 electric only spaces are occupied; all 5 all-weather cabins are occupied		Of the 5 cabins and 59 RV/Skid Shack spaces all are temporary	Individual and company; company skid shacks	No. Expect half the RVs to leave as winter progresses; Will keep RV spaces open all winter

Potential Mobile Home Court Developments	Alfred Christianson, City of Parshall 701-862-3744	20 acres (40 spots) N. of Hilltop is being developed for MH and RV spaces by a private developer; expect some mix of permanent MH and RV spaces—perhaps 20 MH and 20 RV								
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Source: Tom Huus, Parshall City Council; Alfred Christianson, City of Parshall Maintenance Supervisor

City of Parshall Mobile Home Rentals

City identifier and age	Contact	Rental mobile home and age	Size (single/dbl; bedrooms)	Mobile home rental rate; does this include the lot rent?	Current rent, waiting list, number of calls in last week	Number living in the mobile home; percent under 18	Percent permanent; percent temporary	Renter (company or individual)	Notes	Comments
Zwaltney	Bud and Joan Zwaltney 701-862-3551	Single wide and two RV spaces	2	Yes, \$750 includes the mobile home and two RV spaces	\$750 for MH and two RV spaces; no list	2 in mobile home 1 in each RV for a total of 4; no children	0%/100%; leased by the construction company finishing the Questar building	Company	The RV spaces are seasonal only	

Source: Joan Zwaltney

City of Parshall Rental Houses

City identifier and age	Contact	1-bedroom	2-bedroom	3-bedroom	4-bedrooms	5-bedrooms	Garage	Current rent, waiting list, number of calls in last week	Number living in the building; percent under 18	Percent permanent; percent temporary	Renter (company or individual)	Notes	Comments
Dennis and Sheila Steele Main Street 2-story 1940s-1960s	Dennis and Sheila Steele 701-862-3703			X			1	\$300/mo. could rent for \$1500/mo; no list; 5-6 calls in the last week	1/0	100%	Individual	Long-term tenant	Market; could rent for \$1500 to 3-4 occupants
Dennis and Sheila Steele Near elementary school 1940s-1960s	Dennis and Sheila Steele 701-862-3703		X				0	\$300/mo. could rent for \$500/mo; no list; 5-6 calls in the last week	4/3; 75%	100%	Individual	Long-term tenant; women with three children	Market; could rent for \$500 to 2 occupants

Dennis and Sheila Steele Near elementary school 1940s-1960s	Dennis and Sheila Steele 701-862-3703		X				0	\$300/mo. could rent for \$500/mo; no list; 5-6 calls in the last week	1/0	100%	Individual	Long-term tenant	Market; could rent for \$500 to 2 occupants
Patti Jo Kraft Older home	Patty Jo Kraft 701-862-3844		X				0	\$250; no list; had 10 calls when it was open last month; no calls this week	2/1	100%	Individual		Market; rented in August 2010 for \$250
Keith and Barb Kruger Older home	Barb Kruger 701-862-3882			X			0	\$800; 3 on list; no calls	3/0	0%/100%	Company		Market \$800
Income Targeted/Moderate Income (Provided for Employees)													
Parshall Public School 2010	Steve Cascadem, Supt., 701-862-3129		X				0	\$325; utilities not included; could rent for \$800-\$900/mo	1/0	100%	Individual	School teacher	Subsidized; could rent for \$800-\$900
Parshall Public School 2010	Steve Cascadem, Supt., 701-862-3129		X				0	\$325; utilities not included; could rent for \$800-\$900/mo	1/0	100%	Individual	School teacher	Subsidized; could rent for \$800-\$900
Parshall Public School 2010	Steve Cascadem, Supt., 701-862-3129		X				0	\$325; utilities not included; could rent for \$800-\$900/mo	1/0	100%	Individual	School teacher	Subsidized; could rent for \$800-\$900
Parshall Public School Older home	Steve Cascadem, Supt., 701-862-3129		X				1	\$200; utilities not included; could rent for \$700-\$800/mo	2/0	100%	Individual	School teacher	Subsidized; could rent for \$700-\$800
Parshall Public School Remodeled	Steve Cascadem, Supt., 701-862-3129			X			1	\$300; utilities not included; could rent for \$800-\$900/mo	2/0	100%	Individual	School teacher	Subsidized; could rent for \$800-\$900
Parshall Public School	Steve Cascadem, Supt., 701-862-3129				X		3	\$300; utilities not included; could rent for \$1,200-\$1,500	4/1	100%	Individual	School teacher	Subsidized; could rent for \$1,200-\$1,500

Parshall Public School	Steve Cascadem, Supt., 701-862-3129				X		1	\$300; utilities not included; could rent for \$1,200-\$1,500	2/0	100%	Individual	School teacher	Subsidized; could rent for \$1,200-\$1,500/mo
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Source: Sheila Steele, Mountrail County Housing Authority; Steve Cascadem, Parshall Public Schools

City of Parshall Man Camps/Temporary Recreational Vehicle Courts and Trailer Courts

Identifier	Contact	Type	Permitted units*	Permitted* capacity (individuals)	Company	Amenities	Current occupancy rate	Percent permanent; percent temporary	Open closed	Rate	Notes
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City of Parshall Senior Apartments

City identifier and age	Contact	Units	Efficiency	1-bedroom	2-bedroom	Garage	Rent and waiting list	Current vacancy rate	Historic vacancy rate	Comments	Type
Good Samaritan Society Rockview at Parshall	Carol Zacher 701-862-3138	30 beds						4/30; 26 beds filled	High vacancy rate; this is best census in years		Nursing home; Parshall has no senior apartments

Source: Carol Zacher, Good Samaritan Society Rockview at Parshall

City of Parshall Motels, Hotels, and Sleeping Rooms

City identifier age	Contact	Units	1-bed	2-bed	3-bed	Rental rate	Occupancy	Number in building	Traveler/workers percentages	Spot; long term percentages	Renter (company or individual)	Notes	Type
Parshall Motor Inn	Jeanette Cecil 701-862-3127	15	7	8		\$60/night plus \$5 for each extra person	92%-99%	26	13%/87%; reserve two rooms for travelers	6 (40%) /9 (60%) long term	4 company 9 individual; 25% company		Market
Parshall Motor Inn Cabins	Jeanette Cecil 701-862-3127	2		2		\$60/night plus \$5 for each extra person	92%-99%	6	0%100%	90% long term	25% company		Market

NE Segment Trailer Court (formerly Hilltop Trailer Court) Cabins	Jeanette Cecil 701-862-3127	3		3		\$60/night plus \$5 for each extra person	92%-99%	8	0%/100%	90% long term	25% company		Market
Brendle's Bay (http://brendlesbayresort.com)	Harley Rath 701-862-3611	3?				\$100/night for up to 3 people with \$15/night for additional people from http://brendlesbayresort.com							Market

Source: Richard Bolkan, Mayor of Parshall; Named contacts