



Helping your community plan for the future

North Dakota Communities Acutely Impacted by Oil and Gas Development: Stanley 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.

Stanley

Executive Summary

While the future is bright, if pattern drilling in the Bakken/Three Forks conforms to the expected 21,000 wells, particular measures need to be taken. That is, Stanley 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, Stanley's 2018 and 2030 permanent population will be approximately 2,000 people requiring about 1,000 total housing units.

The median age cohort of Stanley will fall from the 45 to 49 year age cohort at 2000 to 30 to 34 years at 2015 to 25 to 29 years at 2020 and will rebound to 30 to 34 years at 2025 and 2030. The greening of Stanley has a number of 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 over 80 percent between 2000 and 2030. Second, those 65 years and older will decline dramatically in percentage and absolute terms between 2000 and 2030.

Stanley is a much wealthier city in 2010 than in 2000. At the 2000 census Stanley's median household income was \$23,993. By 2010 its median household income zoomed to \$55,000. 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 Stanley's median household income will be over \$69,800.

In the next years Stanley will see a decline in the rate of poverty. In absolute terms the number in poverty will rise slightly. Nonetheless, affordability of housing will be an issue in Stanley. Applying North Dakota Housing Finance Agency's rule of thumb, a median household income of \$55,000 will allow for a suggested 30 percent rent payment of \$1,375 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 of about this amount to payback an apartment building's cost in 15 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, Stanley should control and rationalize contiguous developments by annexations and by enlarging its extra-territorial zone.

One of Stanley's biggest challenges is inadequate infrastructure. This must be addressed if Stanley expects to reach its population potential. A very real possibility is that Stanley will be unable to accommodate its share of new employees and these people will gravitate to those communities that can.

As time passes the mix of housing unit type (single family homes, multi-family homes, and mobile homes) will normalize with a smaller percentage and number of mobile homes, a smaller percentage of apartments, and a larger percentage and number of single family homes. However, the need for multi-family units will remain strong into the next decade.

In addition to permanent housing, Stanley 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 Stanley. Stanley will need infrastructure that accommodates a younger rather than older population.

Housing affordability is an issue in Stanley. New construction is expensive and is affordable for those whose earnings are at and 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 Stanley 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:
Stanley Graphs and Tables**

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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

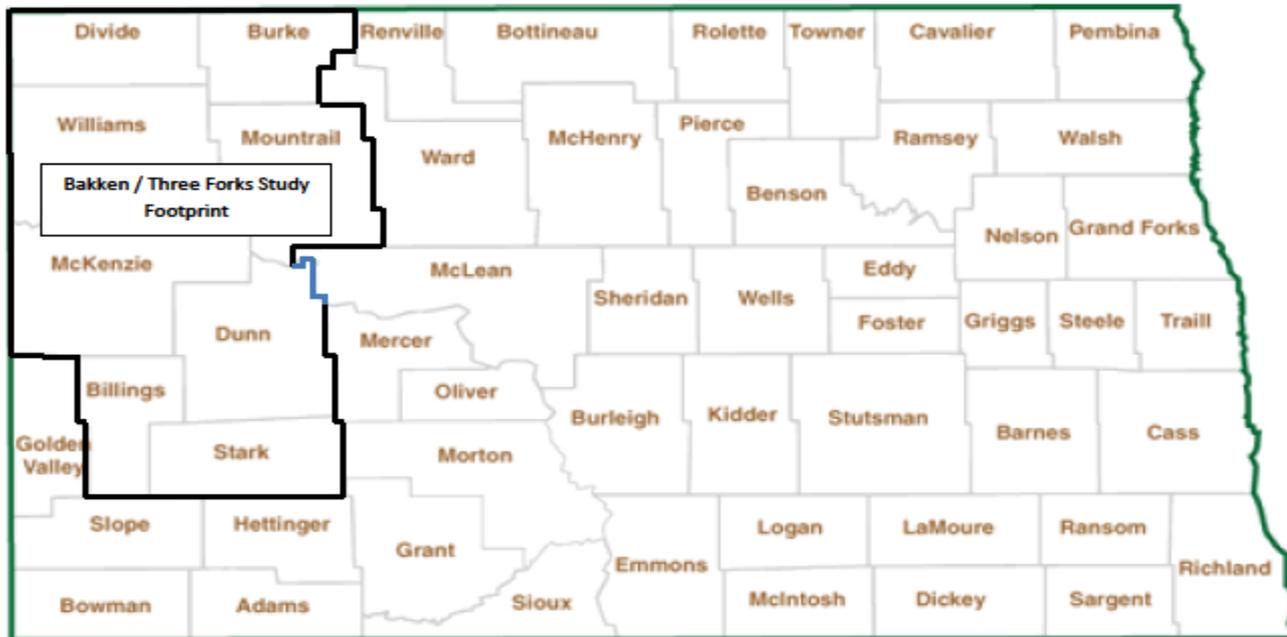
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- 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

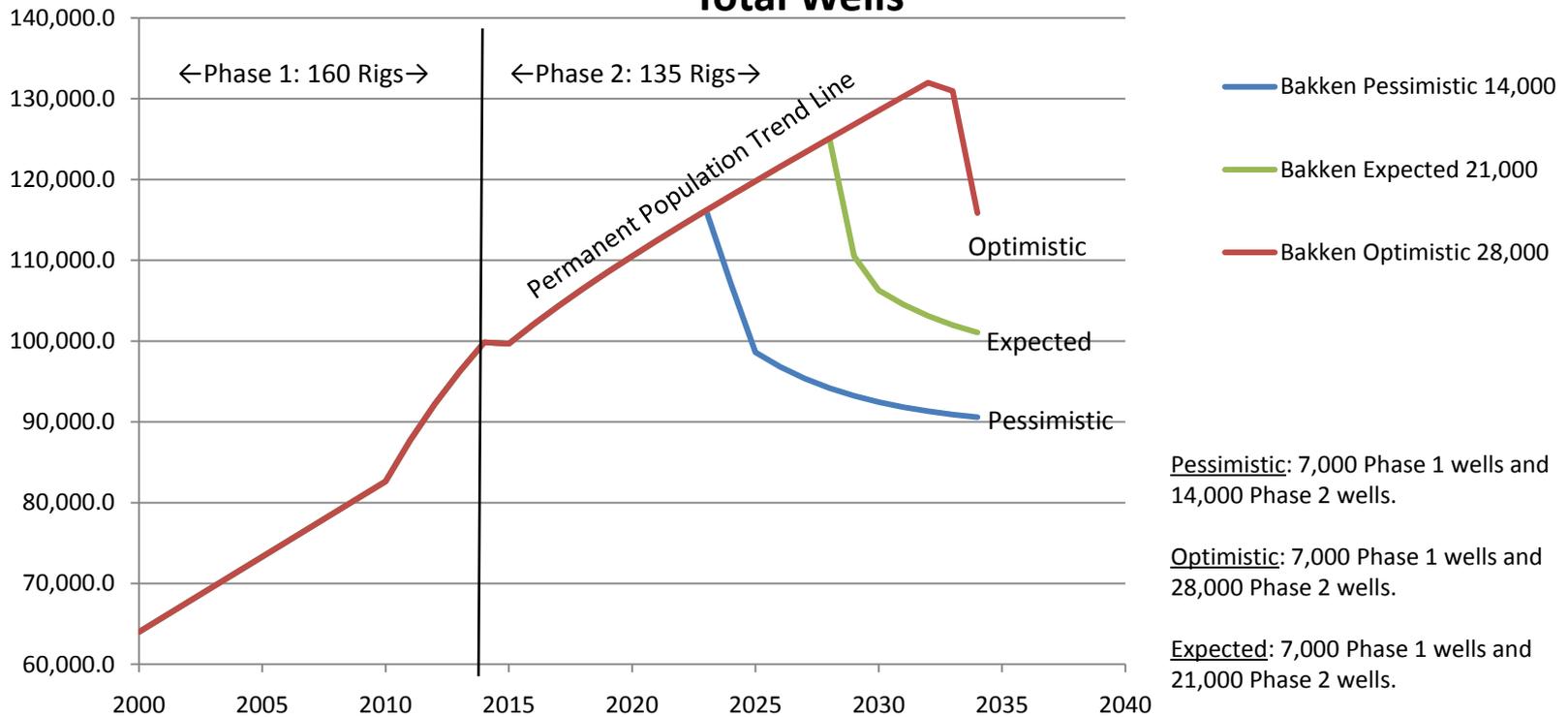


North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

- 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

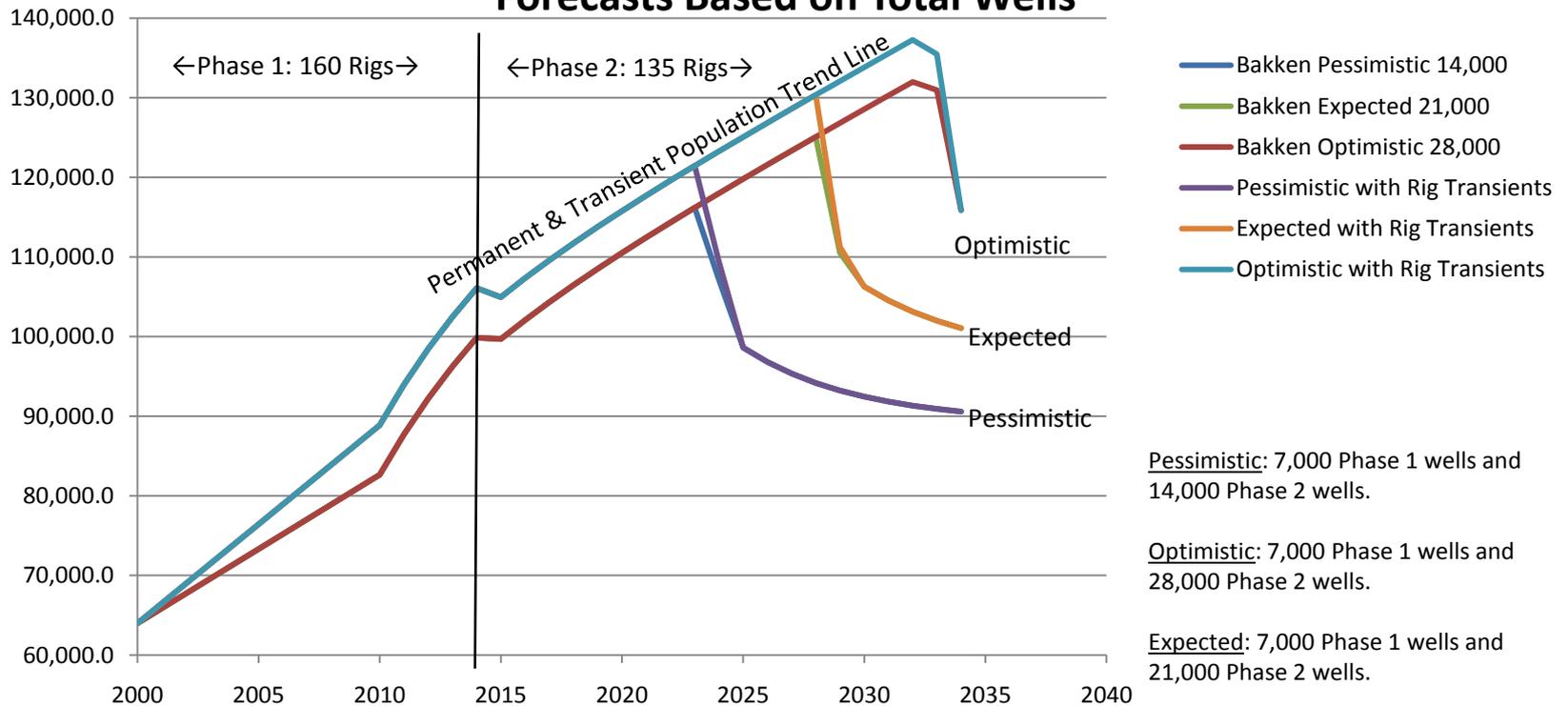
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Bakken / Three Forks Permanent Population Forecasts Based on Total Wells



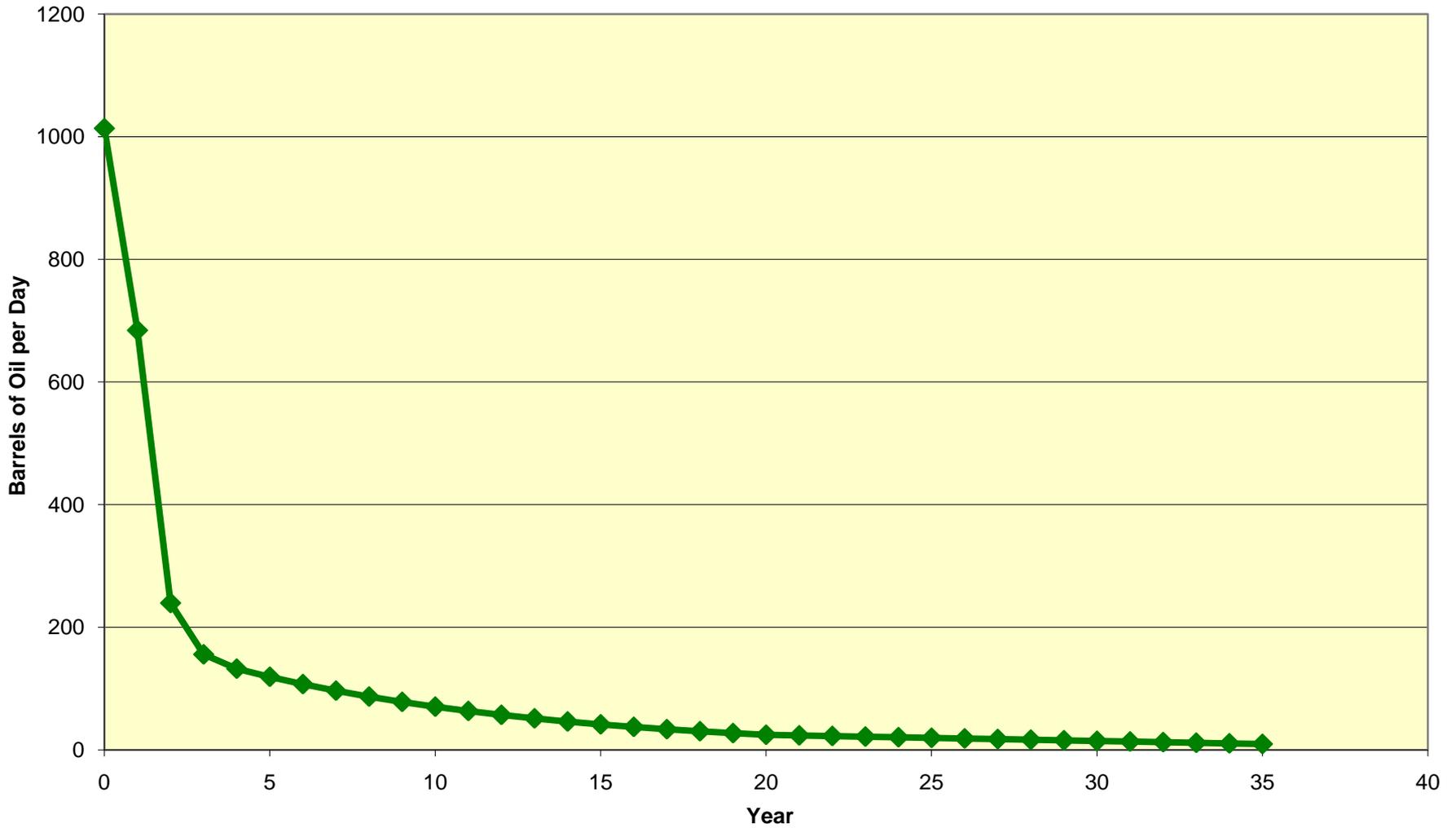
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

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



Typical Bakken Well Production

Source: Lynn Helms, ND Oil and Gas Division

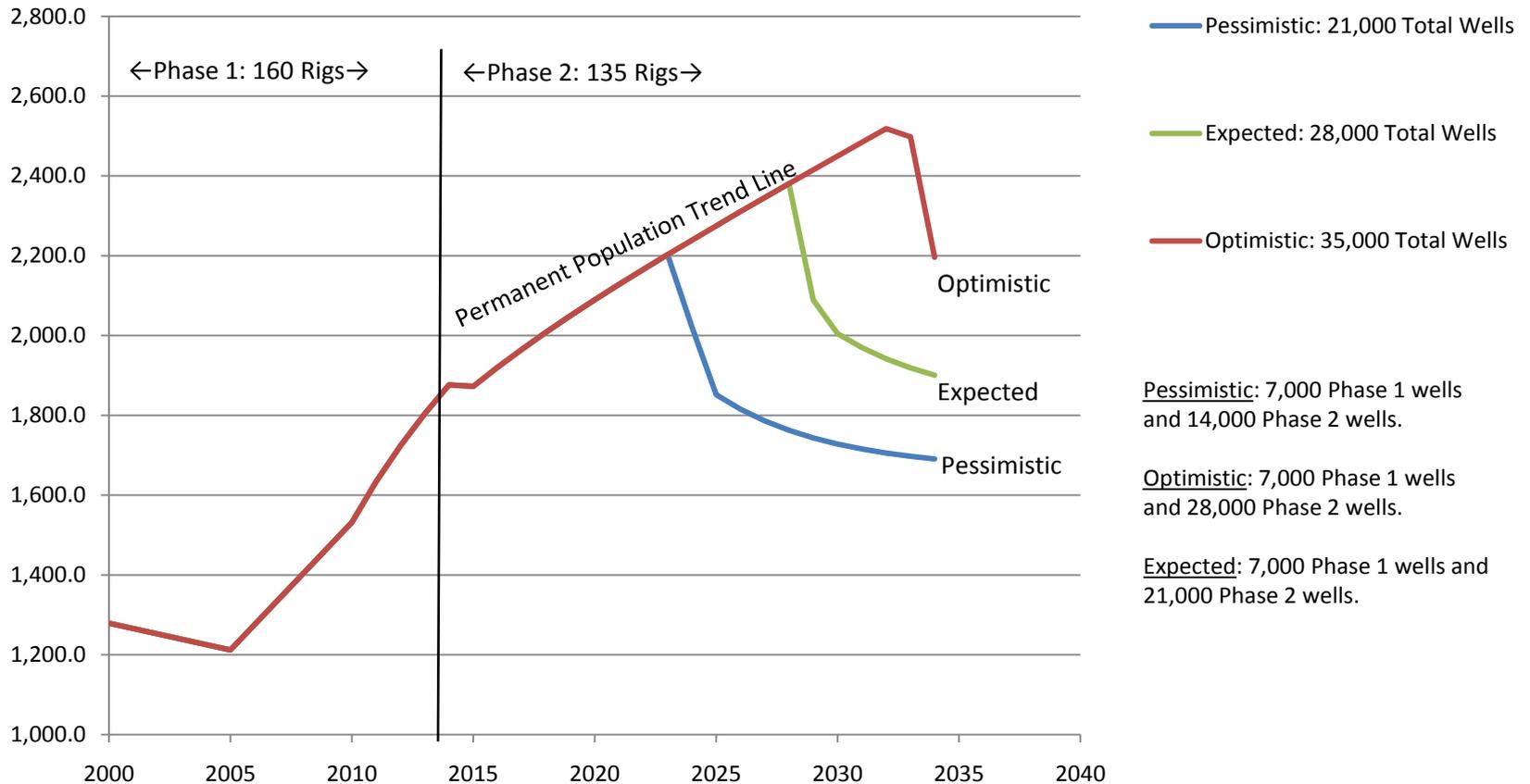


**North Dakota Communities Acutely Impacted
by Oil and Gas Development:
Housing Demand Analysis**

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

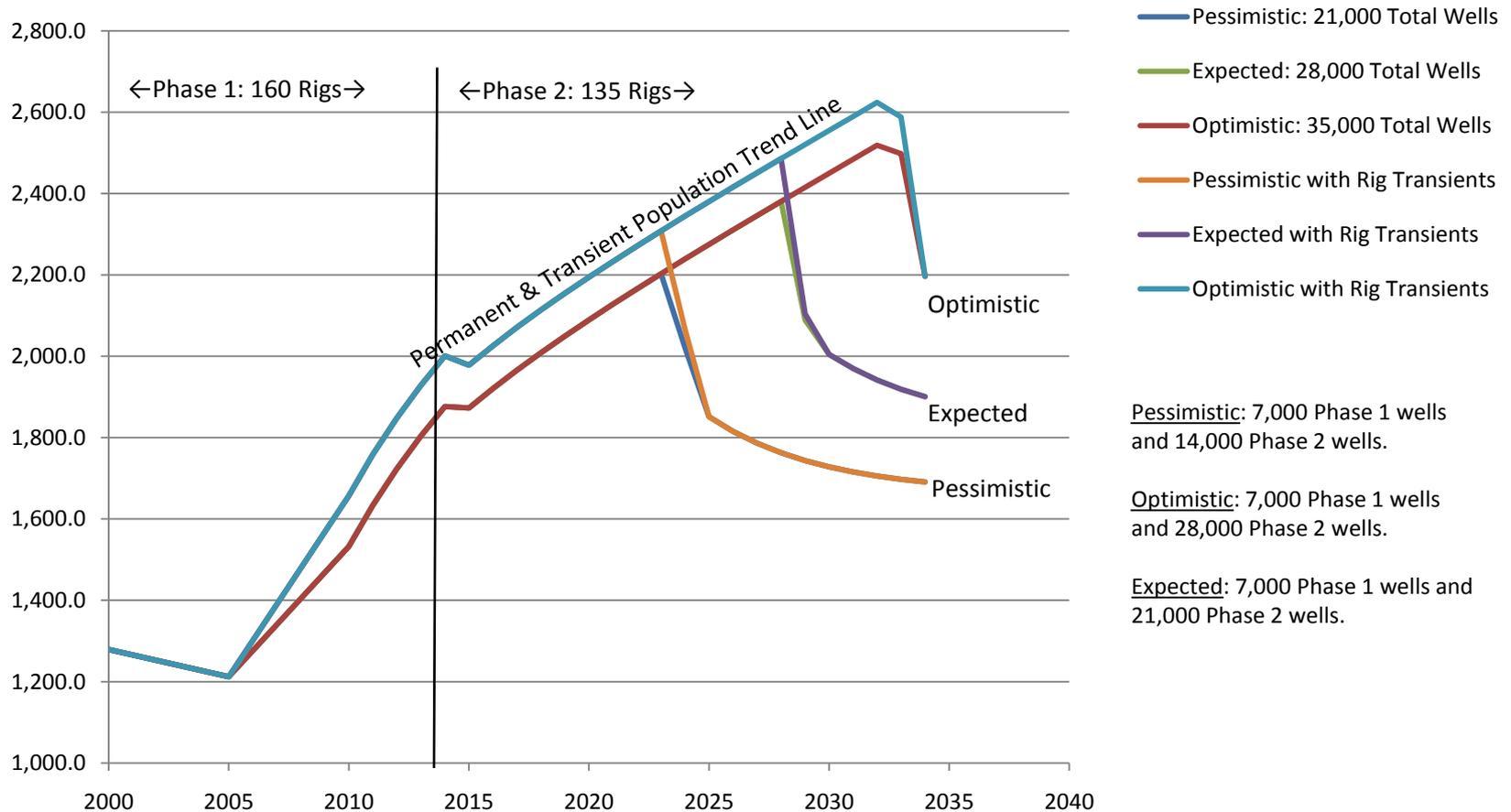
North Dakota Communities Acutely Impacted by Oil and Gas Development: Housing Demand Analysis

Stanley Population Permanent Potential Based on Total Wells



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

Stanley Population Permanent and Transient Potential Based on Total Wells



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

- Stanley 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

Stanley Housing Projections By Tenure By Type					
	2010	2015	2020	2025	2030
Population:	1,532	1,873	2,089	2,275	2,005
Single Family Units	557	695	792	881	795
SF Owned	465	580	661	735	663
SF Rented	92	115	131	146	132
Multi Family Units	162	186	195	198	163
MF Owned	18	20	21	21	18
MF Rented	144	166	174	177	145
Mobile Home Units	62	71	73	73	59
MH Owned	51	58	60	60	49
MH Rented	11	13	13	13	11
Total Units	781	951	1060	1152	1017
% SF Units	71.32%	73.03%	74.73%	76.44%	78.14%
% MF Units	20.74%	19.56%	18.38%	17.20%	16.02%
% MH Units	7.94%	7.41%	6.89%	6.36%	5.84%

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

Stanley Population By Age Cohorts						
	2000	2010	2015	2020	2025	2030
Total Population:	1279	1,532	1,873	2,089	2,275	2,005
Age Cohorts						
0-5 years	60	95	149	154	162	123
5- 9 years	74	98	128	169	173	137
10-14 years	95	131	143	150	185	147
15-19 years	77	132	175	169	168	161
20-24 years	54	91	163	200	190	141
25-29 years	44	74	116	179	218	158
30-34 years	54	64	95	130	193	190
35-39 years	68	64	85	107	141	172
40-44 years	74	54	82	97	117	123
45-49 years	86	68	61	85	101	105
50-54 years	78	74	75	66	89	91
55-59 years	61	86	81	79	69	79
60-64 years	66	78	92	86	83	59
65-69 years	71	61	78	90	84	68
70-74 years	61	66	63	75	87	69
75-79 years	78	71	59	54	63	64
80-84 years	86	61	62	51	46	47
85-89 years	50	78	36	34	28	22
90 years and older	42	86	46	21	18	14
% Error	0%	0.00%	-4.47%	-4.40%	-2.61%	-1.81%
Median Age Cohort:	45-49 years	40-44 years	30-34 years	25-29 years	30-34 years	30-34 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

Stanley Households By Age					
	2010	2015	2020	2025	2030
Total Population:	1,532	1,873	2,089	2,275	2,005
All Households					
15-39 years	275	441	546	619	535
40-64 years	233	272	287	312	298
65 years and older	273	239	226	222	184
Total All Household Units	781	952	1059	1153	1017
Owner Households					
15-39 years	188	305	382	438	384
40-64 years	159	188	201	221	214
65 years and older	187	165	158	157	132
Total Owner Household Units	534	658	741	816	730
Renter Households					
15-39 years	87	136	164	180	151
40-64 years	74	84	86	91	84
65 years and older	86	74	68	65	52
Total Renter Household Units	247	294	318	336	287

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

Stanley Household Income by Percent						
	2000	2010	2015	2020	2025	2030
Total Population:	1279	1,532	1,873	2,089	2,275	2,005
Indexed Poverty Level:	\$11,925	\$13,696	\$14,538	\$15,431	\$16,379	\$17,386
Indexed Median:	\$23,993	\$55,000	\$58,380	\$61,968	\$65,776	\$69,819
Below Poverty	18.29%	9.90%	9.23%	8.55%	7.87%	7.20%
Poverty to \$19,999	20%	10.41%	9.02%	7.54%	5.98%	4.31%
\$20,000-\$24,999	14.60%	8.75%	8.97%	9.21%	9.45%	9.71%
\$25,000-\$29,999	6.96%	4.17%	4.28%	4.39%	4.51%	4.63%
\$30,000-\$34,999	8.15%	4.88%	5.01%	5.14%	5.28%	5.42%
\$35,000-\$39,999	6.79%	4.07%	4.17%	4.28%	4.40%	4.52%
\$40,000-\$44,999	3.74%	2.24%	2.30%	2.36%	2.42%	2.48%
\$45,000-\$49,999	2.55%	1.53%	1.56%	1.61%	1.65%	1.69%
\$50,000-\$54,999	6.79%	4.07%	4.17%	4.28%	4.40%	4.52%
\$55,000-\$74,999	6.96%	27.70%	28.42%	29.17%	29.95%	30.76%
\$75,000-\$99,999	2.72%	10.81%	11.09%	11.38%	11.69%	12.00%
\$100,000-\$124,999	1.53%	6.08%	6.24%	6.40%	6.57%	6.75%
\$125,000-\$149,999	0.34%	1.35%	1.39%	1.42%	1.46%	1.50%
\$150,000-\$199,999	0.51%	2.03%	2.08%	2.13%	2.19%	2.25%
\$200,000 or more	0.51%	2.03%	2.08%	2.13%	2.19%	2.25%
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

Stanley Household Income by Number of Households					
	2010	2015	2020	2025	2030
Total Population:	1,532	1,873	2,089	2,275	2,005
Below Poverty	77	88	91	91	73
Poverty to \$19,999	81	86	80	69	44
\$20,000-\$24,999	68	85	98	109	99
\$25,000-\$29,999	33	41	46	52	47
\$30,000-\$34,999	38	48	54	61	55
\$35,000-\$39,999	32	40	45	51	46
\$40,000-\$44,999	17	22	25	28	25
\$45,000-\$49,999	12	15	17	19	17
\$50,000-\$54,999	32	40	45	51	46
\$55,000-\$74,999	216	271	309	345	313
\$75,000-\$99,999	84	106	121	135	122
\$100,000-\$124,999	47	59	68	76	69
\$125,000-\$149,999	11	13	15	17	15
\$150,000-\$199,999	16	20	23	25	23
\$200,000 or more	16	20	23	25	23
Total Households:	781	952	1059	1153	1017

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

Stanley Households by Affordable Rent/Mortgage					
	2010	2015	2020	2025	2030
Total Population:	1,532	1,873	2,089	2,275	2,005
Affordable Rent/Mortgage (30%):					
Less than \$500	159	174	170	160	117
\$500 to \$625	68	85	98	109	99
\$625 to \$750	33	41	46	52	47
\$750 to \$875	38	48	54	61	55
\$875 to \$1000	32	40	45	51	46
\$1000 to \$1125	17	22	25	28	25
\$1125 to \$1250	12	15	17	19	17
\$1250 to \$1375	32	40	45	51	46
\$1375 to \$1875	216	271	309	345	313
\$1875 to \$2500	84	106	121	135	122
\$2500 to \$3125	47	59	68	76	69
\$3125 to \$3750	11	13	15	17	15
\$3750 to \$5000	16	20	23	25	23
Greater than \$5000	16	20	23	25	23
Total Households:	781	952	1059	1153	1017

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		
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

Stanley Households by Size					
	2010	2015	2020	2025	2030
Population:	1,532	1,873	2,089	2,275	2,005
Total Owned Units	534	658	742	817	730
1-person household	194	239	269	297	265
2-person household	239	294	332	365	326
3-person household	70	87	98	107	96
4-person household	19	23	26	29	26
5-person household	10	12	13	15	13
6-person household	3	3	3	4	3
7-person household	0	0	0	0	0
Total Rented Units	247	294	318	336	288
1-person household	156	186	201	212	182
2-person household	48	57	62	65	56
3-person household	10	12	13	14	12
4-person household	12	14	15	16	14
5-person household	10	12	13	14	12
6-person household	9	10	11	12	10
7-person household	2	2	2	2	2
% Error:	-2.08%	-0.56%	0.11%	0.56%	-0.25%

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 Stanley

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 (2)	2010
Single Family units	522	+35	557
Avg. Household Size S.F.	2.1574307	(1)	1.9131933
Multi Family units	107	+55	162
Avg. Household Size M.F.	1.7919943	(1)	1.3743078
Mobile Home units	39	+23	62
Avg. Household Size M.H.	2.1504391	(1)	1.6304231
Total population in housing	1219.68		1403.6412
Group Quarters	60		60
Totals	1279.68		1463.6412
Cumulative % change from 2010			14.38%

(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).

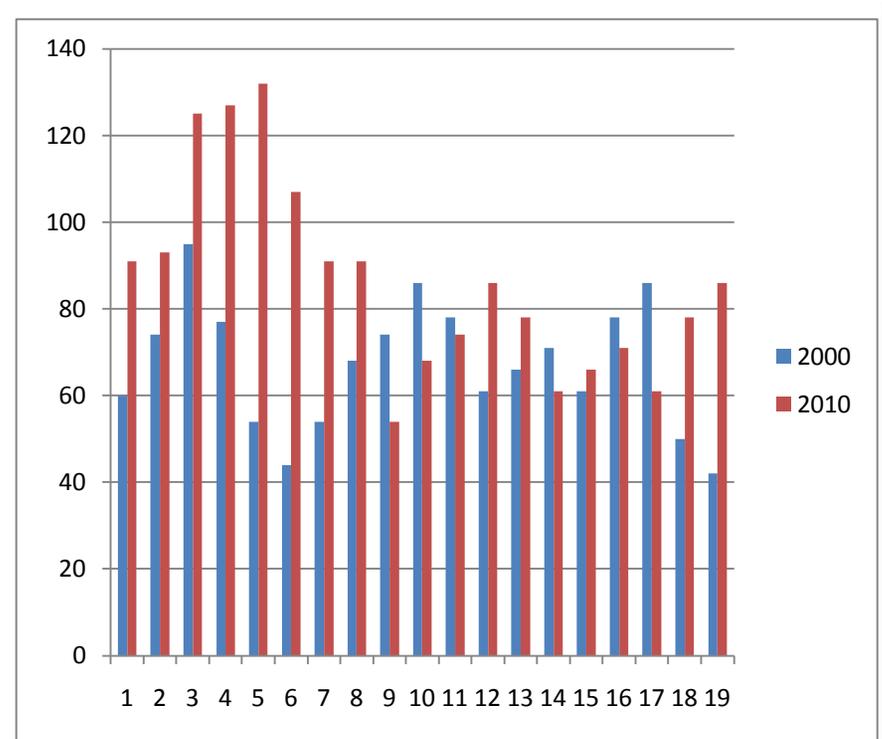
Additional Population Adjustments:			
"Double Up" @ 1% (National Avg)			14.636412
Informal RV Parking @ 1% Single Family Homes (units)			5.57
Informal RV Parking population			9.1309459
RV Parks in City (2010 only).			63.933014
Motel Dwellers (2010 only).			70.490246
Skid Shacks (2010 only).			14.753773
Total population:			1636.5856
Cumulative % change from 2010			27.89%

Housing Units by Age: 2000 to 2010			
		2000	End of 2010
Median Year Built: All Owned		1958	1973.15437
Median Year Built: All Rentals		1966	1974.85265
		2000	End of 2010
Single Family % Owned		83.44%	83.44%
Single Family % Rented		16.56%	16.56%
Multi Family % Owned		10.81%	10.81%
Multi Family % Rented		89.19%	89.19%
Mobile Home % Owned		82.05%	82.05%
Mobile Home % Rented		17.95%	17.95%
Total Single Family Units		522	557
	# owned	435.56	464.765591
	# rented	86.439	92.2344086
	Avg Age S.F. Owned	42	39.4236984
	Avg Age S.F. Rented	34	31.9263914
	Avg Age all S.F.	40.675	38.1822088
Total Multi Family Units		107	162
	# owned	11.568	17.5135135
	# rented	95.432	144.486486
	Avg Age M.F. Owned	42	28.0802469
	Avg Age M.F. Rented	34	22.7962963
	Avg Age all M.F.	34.865	23.3675342
Total Mobile Homes		39	62

	# owned	32	50.8717949
	# rented	7	11.1282051
	Avg Age M.H. Owned	42	26.7903226
	Avg Age M.H. Rented	34	21.7580645
	Avg Age all M.H.	40.564	25.8870968

Age Cohorts at 2000 and 2010

Category	Age Cohorts	2000	% of total	2010 Shifted	2010 Adj
1	0-5 years	60	4.69%	50	91
2	5- 9 years	74	5.79%	42	93
3	10-14 years	95	7.43%	60	125
4	15-19 years	77	6.02%	74	127
5	20-24 years	54	4.22%	95	132
6	25-29 years	44	3.44%	77	107
7	30-34 years	54	4.22%	54	91
8	35-39 years	68	5.32%	44	91
9	40-44 years	74	5.79%	54	54
10	45-49 years	86	6.72%	68	68
11	50-54 years	78	6.10%	74	74
12	55-59 years	61	4.77%	86	86
13	60-64 years	66	5.16%	78	78
14	65-69 years	71	5.55%	61	61
15	70-74 years	61	4.77%	66	66
16	75-79 years	78	6.10%	71	71
17	80-84 years	86	6.72%	61	61
18	85-89 years	50	3.91%	78	78
19	90 years and older	42	3.28%	86	86
		1279		1279	1640



Error: 0.21%

By Tenure By Type at 2010

Error = 0.37%

Total		1636.585599		
Single Family Dwellers		1159.512067	Population	Units
	SF Owners		967.5068427	464.7655914
	SF Renters		192.0052239	92.2344086
Multi Family Dwellers		153.2688191		
	MF Owners		16.56960207	17.51351351
	MF Renters		136.6992171	144.4864865
Mobile Home Dwellers		96.93424102		
	MH Owners		79.5357875	50.87179487
	MH Renters		17.39845352	11.12820513
Group Quarters Dwellers		60	Renters	
Double Up Dwellers		14.63641208	Renters	
1% Informal RV Dwellers		9.130945873	Renters	
RV Dwellers		63.93301419	Renters	
Motel Dwellers		70.49024642	Renters	
Skid Shack Dwellers		14.75377251	Renters	
Total Renters:		579.0472856	35.25%	
Total Owners:		1063.612232	64.75%	
Total Owned Units		533.1508998		
Total Rented SF MF & MH Units		247.8491002		
Total Rented Motel, Skid Shacks, RV Spaces		91		

Householder by Age in 2000 and 2010

All Householder by Age	2000	% of Total	2010	% of Total
15-24 years	24	4.17%	47	6.02%
25-34 years	56	9.72%	112	14.34%
35-44 years	78	13.54%	173	22.15%
45-54 years	94	16.32%	78	9.99%
55-64 years	80	13.89%	94	12.04%
65-74 years	79	13.72%	80	10.24%
75-84 years	118	20.49%	79	10.12%
85 years and older	47	8.16%	118	15.11%
		This method	781	
		HUM method	781	
		Error	0.00%	
Owner Householder by Age	2000	% of Total	2010	% of Total
15-24 years	10	2.31%	20	2.56%
25-34 years	34	7.87%	68	8.71%
35-44 years	58	13.43%	129	16.52%
45-54 years	79	18.29%	66	8.45%
55-64 years	69	15.97%	81	10.37%
65-74 years	64	14.81%	65	8.32%
75-84 years	95	21.99%	64	8.19%
85 years and older	23	5.32%	58	7.43%
Renter Householder by Age	2000	% of Total	2010	% of Total
15-24 years	14	9.72%	27	3.46%
25-34 years	22	15.28%	44	5.63%
35-44 years	20	13.89%	44	5.63%
45-54 years	15	10.42%	12	1.54%
55-64 years	11	7.64%	13	1.66%
65-74 years	15	10.42%	15	1.92%

75-84 years	23	15.97%	15	1.92%
85 years and older	24	16.67%	60	7.68%

Household Income Levels by Percentage

	2000	Cum 2000	2010	Cum 2010
Below Poverty	18.29%	18.29%	14.00%	14.00%
Poverty to \$19,999	19.57%	37.86%	10.75%	24.75%
\$20,000-\$24,999	14.60%	52.46%	9.16%	33.91%
\$25,000-\$29,999	6.96%	59.42%	4.37%	38.28%
\$30,000-\$34,999	8.15%	67.57%	5.11%	43.39%
\$35,000-\$39,999	6.79%	74.36%	4.26%	47.66%
\$40,000-\$44,999	3.74%	78.10%	2.34%	50.00%
\$45,000-\$49,999	2.55%	80.64%	5.81%	55.81%
\$50,000-\$59,999	6.79%	87.43%	15.50%	71.32%
\$60,000-\$74,999	6.96%	94.39%	15.89%	87.21%
\$75,000-\$99,999	2.72%	97.11%	6.20%	93.41%
\$100,000-\$124,999	1.53%	98.64%	3.49%	96.90%
\$125,000-\$149,999	0.34%	98.98%	0.78%	97.67%
\$150,000-\$199,999	0.51%	99.49%	1.16%	98.84%
\$200,000 or more	0.51%	100.00%	1.16%	100.00%

Households by Size

	2000		2010	
Owner Household Size	Units	Percent	Units	Percent
Total owner occupied housing units	432	100.00%	533.1509	100.00%
1-person household	138	31.94%	197.355	37.02%
2-person household	170	39.35%	243.1185	45.60%
3-person household	50	11.57%	37.3699	7.01%
4-person household	45	10.42%	33.63291	6.31%
5-person household	23	5.32%	17.19015	3.22%
6-person household	6	1.39%	4.484388	0.84%
7-person household	0	0.00%	0	0.00%
	2000		2010	
Renter Household Size	Units	Percent	Units	Percent
Total renter occupied housing units	144	100.00%	247.8491	100.00%
1-person household	91	63.19%	178.0833	71.85%
2-person household	28	19.44%	54.79485	22.11%
3-person household	6	4.17%	3.593033	1.45%
4-person household	7	4.86%	4.191871	1.69%
5-person household	6	4.17%	3.593033	1.45%
6-person household	5	3.47%	2.994194	1.21%
7-person household	1	0.69%	0.598839	0.24%

Building Permits by Year: 2000 through 2010

	HUD (1)	Corrected (2)
2010 single family		8
2010 multiple unit		31
2010 mobile home		0
2009 single family	12	8
2009 multiple unit	0	0
2009 mobile home		1
2008 single family	5	6
2008 multiple unit	16	16
2008 mobile home		17
2007 single family	6	1
2007 multiple unit	0	8
2007 mobile home		5
2006 single family	4	4
2006 multiple unit	0	0
2006 mobile home		0
2005 single family	3	3
2005 multiple unit	0	0
2005 mobile home		0
2004 single family	5	5
2004 multiple unit	0	0
2004 mobile home		0
2003 single family	0	0
2003 multiple unit	0	0
2003 mobile home		0
2002 single family	0	0
2002 multiple unit	0	0
2002 mobile home		0

2001 single family	0	0
2001 multiple unit	0	0
2001 mobile home		0
2000 single family	0	0
2000 multiple unit	0	0
2000 mobile home		0
total 2000-2010 all units		113
total 2000-2010 single family		35
total 2000-2010 multiple unit		55
total 2000-2010 mobile home		23

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

(2) Building permit records, observations and interviews

2010 Rents

City of Stanley 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)	\$370-\$800/mo.	\$450-\$525/mo.	\$330-\$900/mo.	\$700/mo.	---	---	\$600/mo.	\$14/day or \$70/week (\$294-\$460/mo)
New (facility/building constructed 2007 or later)	---	---	\$1200-\$1500/mo.	\$800/mo.	---	---	---	---

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 Stanley: Developments and Developable Land

	Number of lots	Type	Owner/identifier	Description	Comments
Commercial					
Lucy II	18	Commercial	16 sold; 2 remaining		
Industrial					
Residential					
City of Stanley	Not platted	Residential		Softball field off Highway 2	

Source: Ward Heidbreder, Stanley City Coordinator

According to Ward Heidbreder, Stanley City Coordinator, the city annexed a minimal number of lots in 2008 to allow Stanley water hook ups. In 2009 Stanley annexed between 140 and 160 acres. In 2010, 380 acres (320, 40, and 20 acres) were annexed and it is expected that 2011 will see 130 acres (30 acres and 100 acres to the west) annexed. By this time Stanley will have few growth options since it is cosseted by its airport, sewage lagoons, and landowners who will fight annexation and development. The City of Stanley maintains a one mile extra-territorial area (ETA) and has kept most man camp developments outside the one-mile ETA.

Residential Housing Developments Outside of Stanley

According to Carrie Montoya, Watne Realty, Minot, ND some development is occurring outside of Stanley. Knife River Estates is approximately three miles from Stanley and has developed thirteen (13) lots in total. One home has been built and is listed at \$239,000 with sale pending. Lots are approximately three (3) acres and retailed in the range of \$45,000 to \$50,000. Knife River Estates is zoned for manufactured and single family homes and all lots have been sold.

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	2010*	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	\$22,200	\$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

City of Stanley Home Sales

Home sales	2010	2009	2008	2007	2006	2005
Number of sales	5	5	11	10	12	1
Average value	\$140,900	\$98,800	\$75,736	\$69,690	\$59,916	\$64,291
Median value	\$116,000	\$85,000	\$73,100	\$67,500	\$58,000	\$68,000
Maximum price	\$239,000	\$150,000	\$123,000	\$123,000	\$82,000	\$100,000
Minimum price	\$66,500	\$50,000	\$35,000	\$20,000	\$25,000	\$25,000

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

City of Stanley Lot Sales

Lot sales	2010	2009	2008	2007	2006	2005
Number of sales	6		3			
Average value	\$17,667		\$13,000			

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

City of Stanley Existing Residential Homes for Sale on October 8, 2010

Description	Asking price	Status
Mobile home with lot	\$139,000	Not yet on market

Source: Carrie Montoya, Watne Realty, Minot, ND; Multi-List Service accessed October 8, 2010

Discussion of City of Stanley Infrastructure

Steven Ike, AmeriTech Engineering (ATEC) has been Stanley's City Engineer for a number of years. ATEC is currently completing several projects for the City of Stanley. The following is an outline of existing infrastructure and condition/capacity provided by Mr. Ike. Additional comments gleaned from interviews with Ward Heidbreder.

- Streets are generally in poor to new condition. Stanley has completed a number of street improvement projects in the past 10 to 12 years. A current street project is upgrading Main Street and 6th Avenue SE.
- Curb and gutter conditions vary from poor to new.
- Sidewalks conditions vary from no sidewalk to new sidewalk.

- Street lighting – No Information.
- Storm sewers are generally in good condition.
- Sanitary sewer some areas need improvements, Stanley has upgraded certain areas.
- Sewer treatment –Project in process to expand the wastewater treatment system. Current two cell facility has capacity to serve 1,466 people. A three cell system with a new 26 acre primary cell will bring capacity to serve 2,878 people.
- Garbage collection is provided by Stanley; the garbage is taken to a transfer station and hauled by Waste Management to private landfill.
- Recycling facilities – No Information.
- Landfill – Stanley has an inert landfill; municipal waste is taken to Waste Management’s landfill.
- Water supply is provided by R&T Water. According to Heidbreder, R&T had promised all water need for Stanley, but now no new hookups are allowed to the west booster station. Again according to Heidbreder, water supply for industry may be problematic.
- Water treatment is provided by R&T Water.
- Water lines—many mains have been replaced/upgraded. Some old mains need replacement.
- Parks – No Information.
- Recreation facilities – No Information.
- City offices – No Information.
- City shop – No Information.

City of Stanley Utility Rates

The City of Stanley provides water, sewer, and garbage collection services. The following rates were provided by Bev Gleave, City of Stanley Auditor.

Water Base Rate

Residential - \$8.50 per mo.

Commercial - \$11.25 per mo.

Large volume user-\$37.50 mo.

(six large volume accounts)

Water charge per 1,000 gallons

\$7.00 per 1,000 gallons inside Stanley

\$11.00 per 1,000 gallons outside city limits

Sewer
\$1.50 per 1,000 gallons of effluent

Garbage
Residential - \$15.00 per mo.
Commercial - \$22.50 per mo.
\$8.00 per dump per dumpster

\$1.50 Street lights
\$1.50 Lagoon fee

Utility Accounts

2008	739
2009	823
2010	866

Appendix A

Housing Particulars

City of Stanley 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															
Golden Manor	Sheila Steele 701-862-3383	7		7				0	30% AGI; all utilities included in rent; \$401 max. no waiting list; 5 calls in last week	9/0	100%/0%	Individual	Long-term tenants		30% AGI Section 8
Housing Authority of Mountrail County	Bud Zalvanev 701-862-3551														Family and elderly
1978															
Southside Apartments	Cheryl Weisenberger 701-628-2220 701-629-1220	8		8				0	30% AGI ; all utilities included in rent; \$735 max.; waiting listed – 8 to 10; 1 opening	8/0 1 double; all others single	Permanent until nursing home	100% individuals	Called on 9/7/2010		30% AGI with max of \$735
Wilson Apartments	Cheryl Weisenberger 701-628-2220 701-629-1220	8 2 – 4 plexes		4	4			0	30% AGI; all utilities included in rent; max \$495—2 bed and \$450—1 bed	8/0 All singles	100%/0% Permanent until nursing home	Individuals 100%	Called on 9/7/2010		30% AGI
Market															

All State Properties	Warren Anderson 701-240-2047; 701-624-2175	15			15			15	\$1300/mo.	4/0 2 units have 4 adults 3 units are singles 10 units have 2 adults 3 children in total	50%/ 50% 'permanent' defined as 5 + years	Company 100%; 4 corp. lease holders	Called on 09/03/2010		Market
Arden Thompson Multi Dwelling	701-628-2042	3		2	1			3 1-stall	\$500—1 bed; \$900--2 bed	5/0	100%/0%; all permanent	Individuals	Called on 09/03/2010		Market
Ask Apartments Building one	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	5													
Ask Apartments Building two	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	8													
Ask Apartments Building three	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	8													
Ask Apartments Building four	Ask Apartments Carolyn Stair 1-800-735-4067; 701-852-1311	4													

	Total for Ask Stanley	25		18	4	3		0	\$700/mo—3bed; \$625/mo—2 bed; \$525/mo—1 bed; rent includes heat, electric, water, sewer, and garbage; just raised the rent in Stanley; 50 on list and stopped taking names;7 calls last week	Only know the numbers on the lease. Most are singles; a couple have children	10%/90%; only 3 to 4 permanent in Stanley	Individual and company	No one is Stanley is giving up an apartment; the units are all full and have been so for some time.	The water bill from the city is high--\$1000/mo and the taxes are going up; just raised Stanley rents	Market
DLPD Dakota II	Referred to Lowell Bottrell of Anderson Bottrell law firm in Fargo: 701-235-3300 Believed to be the similar to Dakota I	16			16			0	Not disclosed; believed to be \$1200--\$1500	24/3	100% occupied Would not disclose permanent vs. temp.	Individual and company 60% corporate leases 40% individual leases			Market
Leeson Apartments	Gerald Leeson 701-453-3314	4		(1)	(3)			1 1-\$700 unit has garage	2 - 2 bed--\$700 1 - 2 bed--\$500 1 bed--\$500	6 people in total. No children	All permanent	100% individual	Called on 09/03/2010		Market
Midstate Telephone	Ryan Wilhelmi 701-628-2522	3		(1)	(2)			No	\$330 for the 2 bed (same tenant since 1991) \$450 for the 1 bedroom units	4 total. 1 in the 2 bed, 2 in of the 1 bed, and 1 in the remainin 1 bed	All permanent	Individual	No answer 9/3/2010 Left Message on 9/7/2010 Spoke to Ryan Wilhelmi on 9/7/2010		

Prairie View Terrace 2006/2007	Jim Wilhelmi, Stanley Housing Authority, 701-629-1115	8 2 4-plexes			7	1		1-stall	2 bed >\$700/mo. 3 bed >\$800/mo. 12-15 individuals on waiting list; 18 according to J. Ardahl			Individual	Filled quickly		Market (moderate rent)
Sarles Dakota I	Mark Weston 701-371-9779 (No longer affiliated. Referred to Lowell Bottrell of Anderson Bottrell law firm in Fargo: 701-235-3300	32 2 - 16 units Opened 1 st one two years ago and opened 2 nd one on Sept 1 st			32			0	Not disclosed; believed to be \$1200--\$1500	48/7 Will allow up to 4 adults per unit Most units have 2 adults Less than 8 children in total	Bldg 1 100% occupied Bldg 2 80% occupied as of 9/3/2010, anticipate 100% occupancy by 9/7/2010 Would not disclose permanent vs. temp.	Individual and company 60% corporate leases 40% individual leases	Called on 09/03/2010		Market
Income Targeted/ Moderate Income (Provided for Employees)															
City of Stanley		2 duplex			2			2 garage; and unfinished basement	\$750/mo.	Under construction			For city police officer and other city employees		Income Targeted/ Moderate Income City of Stanley sponsored

Stanley School District	701-628-3811 Kelly Koppinger, Superintendent	4 2 duplexes				4		0	\$500/mo.	7/2 One unit has 2 teachers sharing the unit; two units are individuals; one unit is mom and children	100%/0% Would like this to be temporary housing for faculty... envision them moving to owner-occupied housing in the future	Individual	Called on 9/7/2010	Reserved for faculty To be available in December, 2010	Income Targeted/ Moderate Income Stanley School District sponsored
Potential Apartment Developments															
Stanley Apartments	Lutheran Social Services Jessica Thomasson 701-271-3201	17	5	3	6	3		0						Old Stanley hospital renovation	Mixed income

Source: Bev Gleave, Stanley City Auditor; Jim Wilhelm, Stanley Housing Authority; Named contacts

City of Stanley 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)	Future plans
City of Stanley RV Park	Bev Gleave, Stanley Auditor 701-628-2225	0 MH; 15 RV		\$14 per day or \$70 per week		100% occupied	Unknown	100%/0% All temporary	Individual	None
Stonehouse RV Park 6 th Ave SW	Lila Thorlaksen 701-628-2041 Refused to answer questions	Believed to be 0 MH; 16 RV	Refused to discuss						No answer 9/3/2010 9/7/2010 9/9/2010	
Trailman Court	Marshall Olson 701-628-1672	26 MH; 0 RV	Refused to discuss			100% occupied	50/6; 12 % under 18	40%/60%	Individuals and companies	No other rentals; no plans to expand

West Side Park	Ryan Gjellstad 701-628-2940 Stanley Equipment 701-628-2950	9 MH; 7 RV Stanley Equipment, I was asked to call back...							No answer 9/3/2010 9/7/2010 9/9/2010	
Ken Schultz	Ken Schultz 701-628-2665	9 Skid Shacks; 1 RV On site for last 2+ years; RV must be out winter; adding one more skid unit; between 6 and 12 people in each unit; 2 bedroom per "skid"	\$600 per skid Rent by the unit; 4 are rented by Neighbors Oil; 6 are rented by H&P from Dickinson		None	100% occupied	54-108; 1-2; all men	100%/0% All temporary	No answer 9/3/2010 9/7/2010 Talked to on 9/9/2010	
Hamed Juma (out of city limits)	Hamed Juma 701-628-3030	0 MH; 20 RV	0	\$460 / month	None	100% occupied	35/3 35 total people; 3 children	100%/0% All Temporary	4 corp. renters; 16 individuals	None
Oakley Lee Trailer Court	No phone available?									
Potential Mobile Home Court Developments										
Farmer's Union Coop Permit for 15.2 acre court behind Cenex store on Highway 2									Lot is being developed to house FUC employees	

Source: Dennis Lindahl, Dakota Public Relations; Bev Gleave, Stanley City Auditor; Named contacts

City of Stanley 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
Income Targeted/Moderate Income (Provided for Employees)										
Stanley School District;	Kelly Koppinger, Superintendent 701-628-3811	Single wide	3	\$500 includes lot rent but not utilities	Rented to Stanley School personnel	1/0	100%/0% All permanent	Individual	Rentals were tight in Stanley before then energy boom; have had MH for 2 years	Subsidized moderate rent Could rent for two or three times the amount on the open market
Stanley School District;	Kelly Koppinger, Superintendent 701-628-3811	Single wide	3	\$500 includes lot rent but not utilities	Rented to Stanley School personnel	4/2	100%/0% All permanent	Individual	Rentals were tight in Stanley before then energy boom; have had MH for 2 years	Subsidized moderate rent Could rent for two or three times the amount on the open market

Source: Kelly Koppinger, Superintendent Stanley Schools

City of Stanley 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
1 house	1 st Baptist Church 701-628-2338												No answer 9/3/2010 9/7/2010
1 house	Conrad Fritel 701-628-2588	X					0	\$450	1/0	Permanent	Individual		
2 houses	Dave Johnson 701-628-2465												No answer 9/7/2010

1 house	Delores Kizima 701-837-9080		X				1	Was \$225 Then \$300 Then \$350 Now \$600 No pets No wait list	2/0 2 adults from Utah	Permanent	Individual		Called 9/7/2010
1 house	Don Hysjulien 701-628-2178		2				1	Undisclosed current rent , previous rent was \$350 but has gone up 12 waiting list	1/0 1 adult	Temporary	Individual		Called 9/9/2010
1 house	Gerald Leeson 701-453-3314												Not sampled
1 house	James Johnson 701-628-2645				X			Rents to family member	1 adult	Permanent	Individual	Also have MH lot, but need variance from city before can rent	Would rent for \$700/month to others
Farmstead - 1 house	James Johnson					X		Rents to family members		Permanent	Individual		Would rent to others for \$500/month
1 house	Jim Conklin 701-628-2577			X			1	\$800/month; renter pays utilities	2/0	Temporary	Individual		
1 house	Jim Conkin	X					1	\$700/month renter pays utilities	0	Temporary	Company – oil workers harder on homes	Large home. As many as 7 people were living there; 3 offered checks to hold if house became available	Originally wanted to sell. 7-10 calls per day. Bank would not provide financing to buyers- future worth of home questioned
1 house	John Niemitalo 701-628-1421												No answer 9/9/2010
1 house	Larry Matte												Not sampled
1 house	Mamie Willman 701-628-2973												No answer 9/9/2010
1 house	Mark Nesheim 701-625-2095												No answer 9/9/2010
1 house	Marvin Johnson 701-628-2719		X					Undisclosed ; rented to relatives	4/2 2 adults; 2 kids;	Permanent	individual		Called on 9/9/2010

1 house	Marvin Johnson 701-628-2719			X					Undisclosed; rented to relatives	2/0 2 adults	Permanent	individual		Called on 9/9/2010
1 house	Mitch Leupp 701-628-3191													No answer 9/9/2010
2 house	Pat Grinolds 701-628-2905													No answer 9/9/2010
5 Houses	Robert Featherer 701-333-7127													No answer 9/9/2010
1 house	Sam Fritel 701-629-1515													Try on 9/10
1 house	Tami Stewart													Not sampled
1 house	William Meiers 701-628-2361		X						\$370 per month; no waiting list,	1/0 1 man	Permanent	Individual		Called on 9/9/2010
1 house	Mike Craft 701-628-3343													Not sampled
1 house	John Anderson 701-628-3619													Not sampled
1 house	Neil Biwer 701-628-2594													Not sampled
1 house	Norman Mell 701-628-2146													Not sampled
1 house	Leroy Gunderson 701-628-2080													Not sampled
1 house	Wayne Evans 701-628-2085													Not sampled
1 house	Don Fry 701-628-1204													Not sampled
1 house	Brett Ellvanger 701-628-1339													Not sampled
1 house	Scott Evans 701-628-3441													Not sampled
1 house	Tom Fleming 701-628-2074													Not sampled
1 house	Harley Halvorson 701-628-2784													Not sampled
1 house	Todd Heidbreder 701-628-2903													Not sampled
1 house	Paula Holly 701-628-5031													Not sampled
2 houses	Cliff Skaar 701-628-2878													Not sampled

City of Stanley 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
Contractor Lodging Solutions/Target Logistics (contiguous to Painted Horse Hotel) 320-760-9520	Brian Lush 617-562-1300	All season MHs	24 MHs	48 occupants	Target Logistics; rented to Key Energy	Stanley water and sewer 24 executive trailers; each with two bedrooms; each suite rents for \$3200 (\$6400 for entire trailer)	Believed to be full		Closed (Key Energy)	\$6400 for entire trailer	Man Camp
EOG Operated by PTI Remote Site Services (beyond extra-territorial limit of Stanley)	Jude Moberly, Sales Mgr, 720-279-6363	All season units	Unknown	300 occupants (EOG) closed camp	EOG Operated by PTI Remote Site Services	Will have Stanley water; sewage is pre-treated on site and liquid is hauled to Stanley lagoon Operated by PTI ; owned by EOG			Closed EOG		Man Camp
Potential Man Camp Developments											
Target Logistics (contiguous to Painted Horse) Would like to remove 12 trailers and bring in a 60 to 100 person modular style hotel man camp	Brian Lush 617-562-1300	All season units; modular style hotel man camp	Remove 12 trailers and add 60-100 units	Loss of 24 occupants and a gain of 60 to 200 or a net gain of 36-140 occupants	Target Logistics	Stanley water and sewer			Unknown		Man Camp
EOG expansion Operated by PTI Remote Site Services (beyond extra-territorial limit of Stanley)	Jude Moberly, Sales Mgr, 720-279-6363	All season units	Unknown	200 additional occupants	EOG Operated by PTI Remote Site Services	Will have Stanley water; sewage is pre-treated on site and liquid is hauled to Stanley lagoon			Closed EOG		Man Camp

PTI Remote Site Services (beyond extra-territorial limit of Stanley)	Jude Moberly, Sales Mgr, 720-279-6363	All season units	Unknown	200 occupants; open camp	PTI owned	Stanley water; sewage to be hauled to Palermo lagoon				Open		Man Camp
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Source: Dennis Lindahl, Dakota Public Relations

City of Stanley 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
Centennial Independent Living Apartments 1990	Ardis Looch 701-628-2686	12		6	6	6	\$650—1 bed; \$750—2 bed; 8-10 on waiting list	Full	Very good rental history; usually full; low rates help		Independent Living Market

Source: Bev Gleave, Stanley City Auditor; Named contact

City of Stanley Motels, Hotels, and Sleeping Rooms

City identifier age	Contact	Units	1-bed	2-bed	Suite	Rental rate	Occupancy	Number in building	Traveler/workers percentages	Spot; long term percentages	Renter (company or individual)	Notes	Type
Stanley Motel 208 6 th Ave SW	701-628-1309	Believed to be 10 units						Believed to be 15				No answer 9-23	
The Painted Horse Motel (for sale)	Bill Rowe 701-628-3500	41	21	20		\$75/night single; \$85/night double; includes taxes; don't charge by the person	100%; even short term tenants are booked through Jan. 2011	60	0%/100%	10%/90%; none of the tenants are likely to be permanent in Stanley—truck drivers, drillers, construction workers	Individual and company; 37 rooms are rented to companies	No answer 9-23	Motel
Bull Moose Inn 615 5 th St SE http://bullmoose-inn.com/	Larry Fritel 701-628-3863				Website shows a 2 bed suite			Believed to be 2				No answer 9-23	

Triple T (20 miles out of city limits)	Fred Evans 701-628-2418											Hunting lodge—do not rent to workers will take travelers	Hunting lodge
Hotel Developments													
Legend Hotel & Lodge (under construction)	707-938-7171	73											

Source: Dennis Lindahl, Dakota Public Relations