

CLEAR HILLS TRADES TRAINING PROGRAM FACILITY
Feasibility Study



ACKNOWLEDGMENTS

Clear Hills County Staff

Worsley Community

Hines Creek Community

Cleardale Community

Hines Creek Composite School

Menno Simons Community School

Worsley Central School

Mackenzie Municipal Services Agency Staff

EXECUTIVE SUMMARY

I. BACKGROUND

Clear Hills County has conducted a feasibility study in partnership with the Mackenzie Municipal Services Agency. The purpose of this report is to assess the needs for a community trades training program. The study was developed in response to previous studies which included the *2003 Economic Development Plan* and the *2008 Peace River School Division No.10 -Ward 7 (Northwest Sector) Program Planning Study Final Report*. From these studies, residents identified that various *skill-sets* needed improvement through educational programs.

Clear Hills County is currently facing low school enrolment. This is mostly attributed to the fact that students lack the desire to obtain post-secondary education. The increase in unemployment and the decline of school enrolment has created an employee/employer gap. This gap will continue to grow as employers continue to seek highly skilled and educated people in the County with a predominantly unskilled labour pool. It is also worth mentioning that the population of Clear Hills County has remained stagnant for several years, with a low 1.2% increase from 2004 to 2008. This slow growth rate is partly due to the lack of employment opportunities within the County. For example, the unemployment rate for people 15 years of age and older, has increased from 1.9% in 2001 to 2.5% in 2006.

The goal of this report is to assess the feasibility of implementing a program that would address the employee/employer gap mentioned earlier. The name of the program is called the *Clear Hills Trades Training Program Facility*. This program was developed and analysed via a cost/benefit assessment; thus making it the focal point of this project. In addition, the study also includes recommendations and strategies to implementing the Trades Training Program Facility.

A survey and series of public consultations were employed as a method for determining the feasibility of a trades training program for the County. Therefore this report outlines the methodology used to collect the data, key findings, the potential trades training program, recommendations/next steps, and cost/benefit analysis.

II. COMPONENTS

The feasibility study has four (4) components:

1. Business Assessment: A survey was designed by the Mackenzie Municipal Services Agency (MMSA) in collaboration with the Clear Hills County staff. Employers who were surveyed represent approximately 1052 jobs. Industries and businesses surveyed included:

- a. Agriculture and animal husbandry based industries: this may include livestock; crop farms, farm animal and breeding services and veterinary services.
- b. Construction: this category includes the building, developing and general constructing industries; plumbing, heating and air conditioning mechanical work, electrical work as well as interior and exterior finishing work.
- c. Mining and Excavation: this may include resource based industries including the mining of aggregates.
- d. Business and other services: This may include accounting and bookkeeping services; engineering and consulting services; and businesses not classified under other categories.

The survey identified that skills development and upgrading within the “Mechanical Trades field” was the most frequently cited area of need. Sub-programs could include auto body technician, automotive service technician, motorcycle technician, mechanics, small engines technician and welders.

Findings from the survey also support the notion that a trades training program is needed in Clear Hills County to provide a more complete in-house program. If implemented, such courses and services could compliment programs already offered at Fairview College Campus.

2. Community Session: When public consultation commenced, three sessions were held with the general public, including two with high school students and one with school principals. The outcomes of these sessions were valuable in providing an understanding of community needs.

- a. **Public Input Sessions:** Four open-ended questions were asked to identify advantages, disadvantages, constraints and the potential locations for a trades training program facility in the County.
- b. **Student Input Sessions:** Four open-ended questions were asked to students from grades 10 to 12. The focus of these sessions was on the different trades that students were possibly interested in pursuing as career choices.
- c. **School Principals Session:** A series of open-ended questions were asked of the principals. The main purpose of this session was to identify which age groups to target and solutions for implementing a trades training program.

3. Trades Training Program: This part of the report outlines the specific programs and required skills needed for mechanical trades training. It specifies the type of programming that could be offered to meet the needs of both employers and employees. It also documents the gaps in existing educational training programs offered throughout the County, as well as the need for both short-term and long-term programs.

4. Trades Training Program – Plan: For the trades training program, the following opportunities have been identified:

- awareness of a better systematic career opportunity
- create partnerships between employers and educational institutions through mentorship programs
- outreach and market the programs being offered to employers, students and the community of Clear Hills County.

In order to achieve a trades training facility in the County, it would be necessary:

- to include a annual budget for marketing and promotion
- to develop effective outreach campaigns
- to sustain robust partnerships
-

III. RECOMMENDATIONS, NEXT STEPS AND COST/BENEFIT ANALYSIS

The feasibility study acknowledges the need for a Community Trades Training Facility program in Clear Hills County. The training facility program will provide an excellent opportunity for people to either continue their training in their specific career area or to learn basic trade skills in a specific trades area. The trades training program facility will provide the platform needed to market the region's youth and their families. This program will be a career opportunity for youth and adults seeking to improve their skill-set. Based on the findings of the cost/benefit analysis, and the efforts to identify a suitable location for the program, it was determined through a series of workshops with community members and school students that the existing schools could serve as a facility for introducing a trades training program. Both Hines Creek Composite School and Worsley Central High School possess the infrastructure to house this type of program.

It is recommended the Trades Training Program be organized and marketed in conjunction with continuing education school programs or courses to reach those who are not in the school division system. It is less feasible to create a new facility with out knowing the type of demand this type of program would create, or potential funding constraints. The next steps for the project include:

- choosing a school(s)
- selection of program(s)
- reviewing school schedules
- networking local instructors
- investigating grant options

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
I. Background	i
II. Components	ii
III. Recommendations, Next Steps & Cost/Benefit Analysis	iv
TABLE OF CONTENTS	1
FEASIBILITY STUDY	2
I. Introduction	2
II. Methodology	4
III. Key Components	7
1. Business Assessment	7
2. Community Sessions	17
A. School Principals Meeting	17
B. Community Workshops	19
C. High School Students Workshops	23
3. Conclusion	25
4. Emerging Market Trends	26
IV. Training Program for the Mechanical Trades Occupations	27
V. Recommendations, Next Steps & Cost/Benefit Analysis	36
1. Recommendations	36
2. Next Steps	36
3. Cost/Benefit Analysis	37
4. Delivery of Project	39
5. Proposed Curriculum	40
VI. Conclusion	43
VII. Appendices	44
Appendix A - Survey	45
Appendix B- Poster	56

CLEAR HILLS TRADES TRAINING PROGRAM FACILITY

FEASIBILITY STUDY

I. INTRODUCTION

Clear Hills County received a grant from the Ministry of Agriculture and Rural Development to conduct a feasibility study for a Community Trades Training Program. Previous studies had already shown that there was a need to improve skills and employment opportunities for the residents of Clear Hills County. The goals of this program are to develop a highly skilled work force that can meet the demands of potential employers. It was discovered during the analysis of the study that many employers found it difficult in finding qualified workers for trades positions.

The feasibility study consisted of a component that looked at the needs of the employer versus the needs of the potential employee. The findings will set the basis for the development of a Trades Training Program facility in Clear Hills County. In addition, one section of the report reviews the cost benefits of implementing a Trades Training Program, with a focus in Mechanical trades being the area with the strongest demand within the community.

The report conducted by the Mackenzie Municipal Services Agency (MMSA) in conjunction with the support of various stakeholders, includes the following:

- I. Introduction:
 - An outline of the report and general background summary
- II. Methodology:
 - Survey format
 - description of tools used to gather data for analysis
 - Identifying the constraints and limitations with the types of tools that were used

III. Key Findings:

- Consisting of survey analysis from roughly 50 employers of key industries
- Documentation of gaps in existing trades training programs
- summarizes key findings from the survey as well as workshops conducted with community members
- identify recommended program(s)

IV. Trades Training Program Plan for (Mechanical Trades Occupations):

- set of recommendations to market the program to students
- employers and the community in general.

V. Recommendation, Next Step & Cost/Benefit Analysis

II. METHODOLOGY

1. Survey

(a). Selection of Participants: 303 employer contacts from various economic sectors were selected to complete a survey delivered through the mail (See Appendix A). To ensure a balance of respondents from all sectors, participants were chosen using the following criteria:

- General knowledge
- phone book listing
- equipment registries
- business directory
- balance of public and private sector employers

(b). Data Collection: An introductory letter was attached to the survey, outlining the objective of the survey (Appendix A). Participants were also reminded of the benefits of participating in the survey and how it would benefit the study. Participants were encouraged to respond to 34 questions that aim to identify the following:

Business Profile this section was designed to identify the type of industry each respondent came from. This part of the survey did not include a question, but was organized as a directory of businesses. The respondents were requested to provide personal and business information including name, telephone number and company addresses.

Employee Profile this section was developed to determine the ratio of employed youth with adults over a five year period (2005 to 2010) for each employer.

Company Growth this section of the survey was designed to understand how the economy had an impact on their business and to what extent.

One/two part question was formulated. If respondents agreed their business has grown, they were requested to select from a list of factors that contributed to their growth.

Overall Hiring and Training Needs

Part D of the survey was designed to understand what skills and education requirements are needed for different trades. In addition, participants were encouraged to rate youth skills and job readiness as well as their training methods.

Training Method

the last part of the survey was intended to understand how beneficial and important a trades training program would be for survey participants.

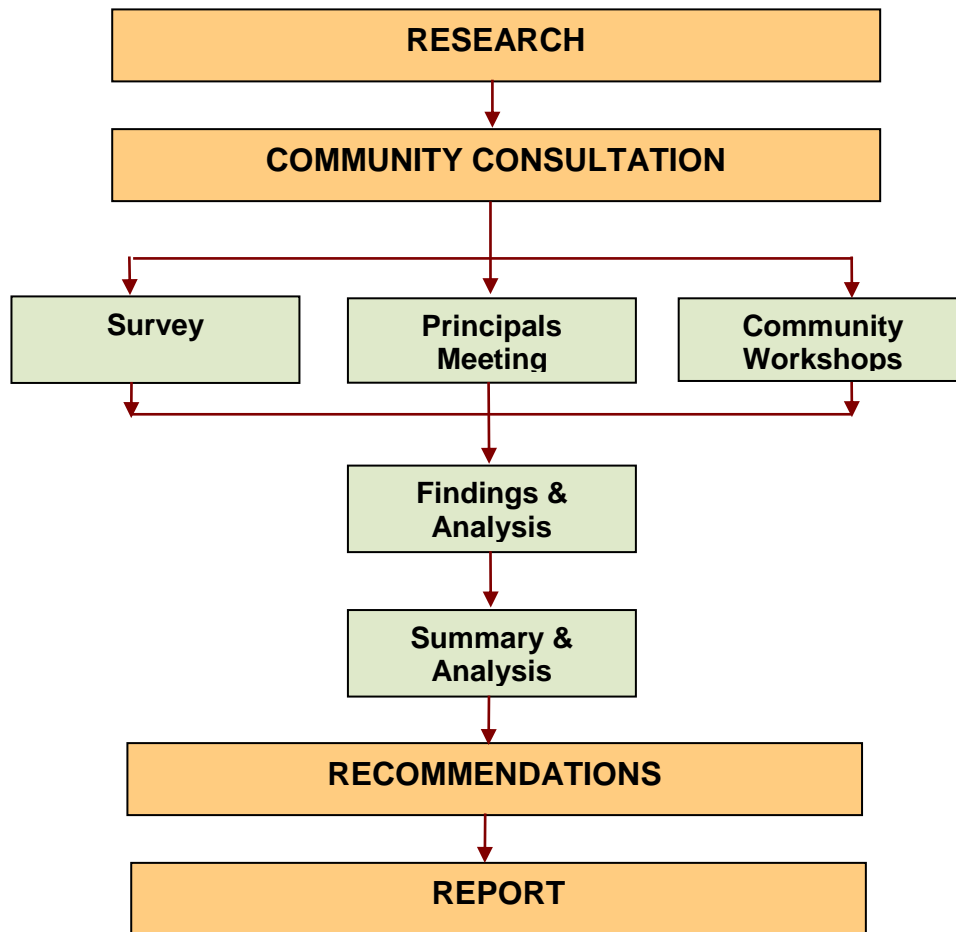
(c) Limitations: Like many methods, surveys have limitations. One of the biggest constraints is the validity and reliability of responses obtained from the questions asked in the survey. Surveys provide a verbal response by a respondent regarding the question, but the response may not represent an honest response by the respondent.

2. Community Consultation

Five (5) community meetings were held throughout the County, including (3) meetings with community members and two (2) meetings with high school students. To encourage people to participate in these public meetings, pamphlets and posters were made and posted throughout the County (See Appendix B).

3. Process

For the purpose of this study, a basic approach was followed that included research, community consultation, recommendations and report preparation (see chart below). The information shared in this report was based on community consultations including both the survey and public input from various groups.



One of the key aspects of the process as displayed in the chart was flexibility, allowing the researcher to go back and forth at any time.

III. KEY COMPONENTS

This section of the report summarizes key findings from the survey as well as workshops conducted with community members. At the end of the section, recommendations from each component of the feasibility study are provided.

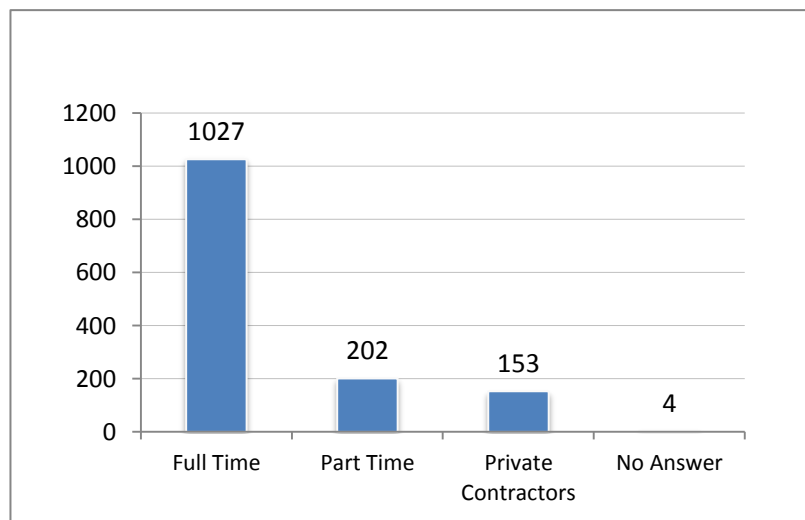
1. Business Assessment

Purpose: To determine more specifically the training requirements of key business and industry clusters and to identify gaps in existing workforce skills. Education and training programs to meet these needs are then identified.

Findings: This part provides a synthesis of the findings from the Business and Industry Survey. Considering the length of the survey produced a large amount of data results of a general nature only are reported to ensure the document is readable and not too cumbersome. All of the data gathered is available in an Excel format and is available by email to anyone who requests it.

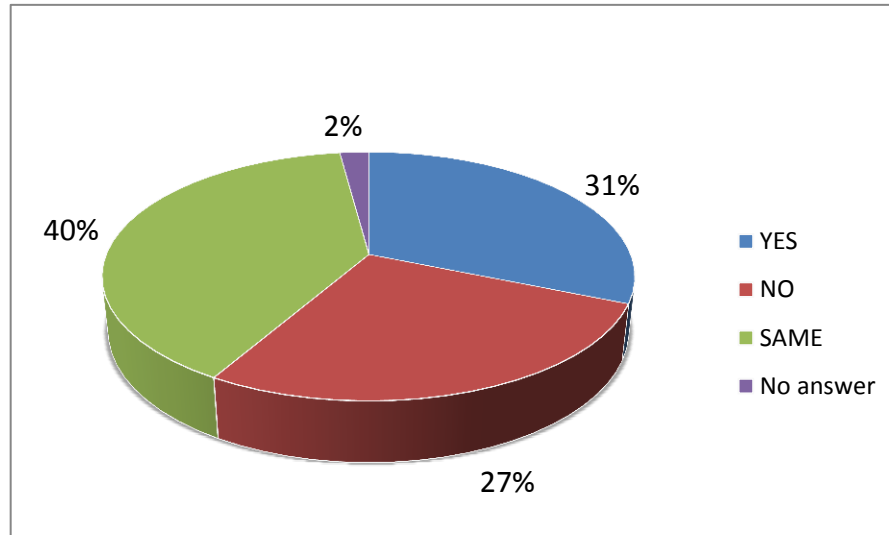
Employers Profile

- Many businesses and industries have their main offices outside the County boundaries
- The surveyed businesses and industries encompass a significant amount of employment within the Clear Hills County area, including approximately 1,027 full time jobs, 202 part-time jobs and 153 private contract jobs. This totals to 1,382 jobs in 2010.



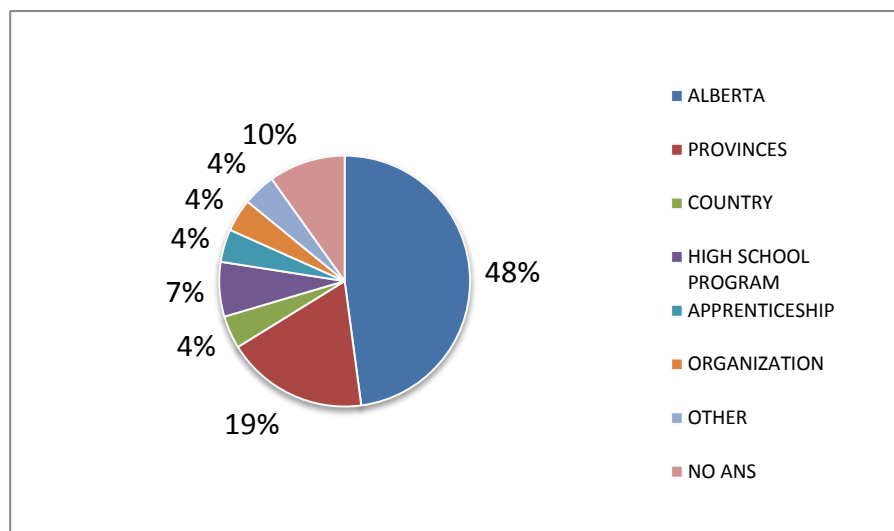
Employer Growth and Market Trends

- Approximately 31% of the industries and companies reported they are growing. 40% reported steady growth, whereas 27% indicated no growth

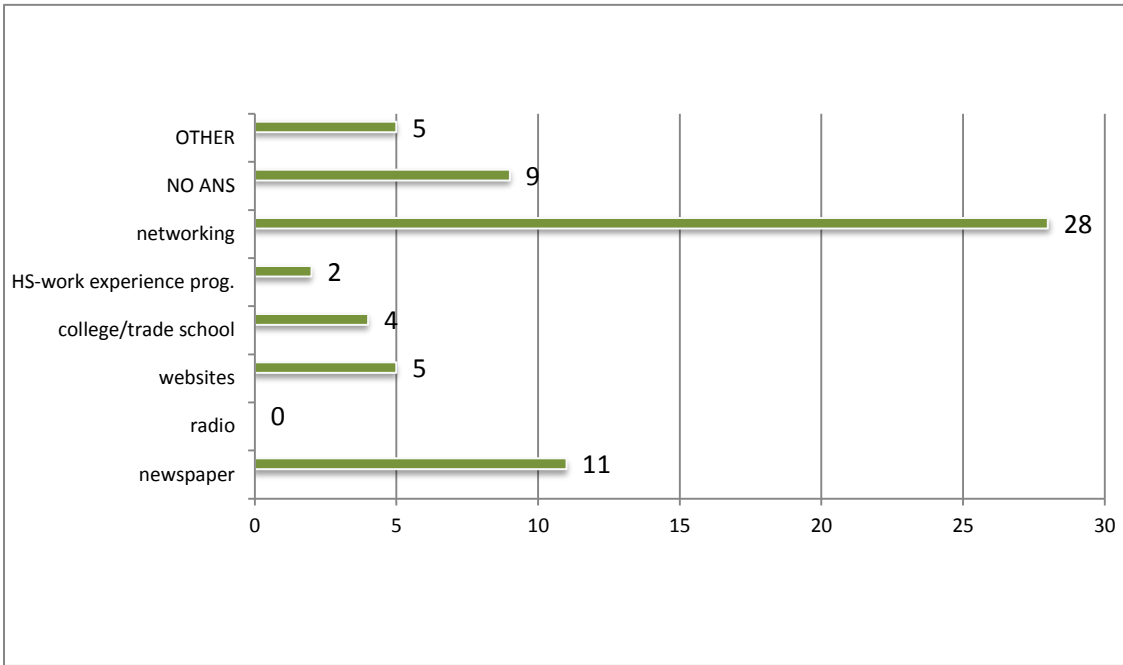


- At the time the survey was conducted, most companies were strongly affected by the economy.
- Most of the industry clusters depend on the oil and gas industry. The 2008 data census, identify the primary industry sectors as:
 - Agriculture or related industry – 41%
 - Oil and gas & petro-chemical manufacturing – 15%
- The census data also identify the lowest industrial sector corresponding to non-petro-chemical manufacturing and communication utilities – less than 1%

- Labour force is truly regional. 49% of the employers hire skilled workers from Alberta and 18% are hired from other provinces

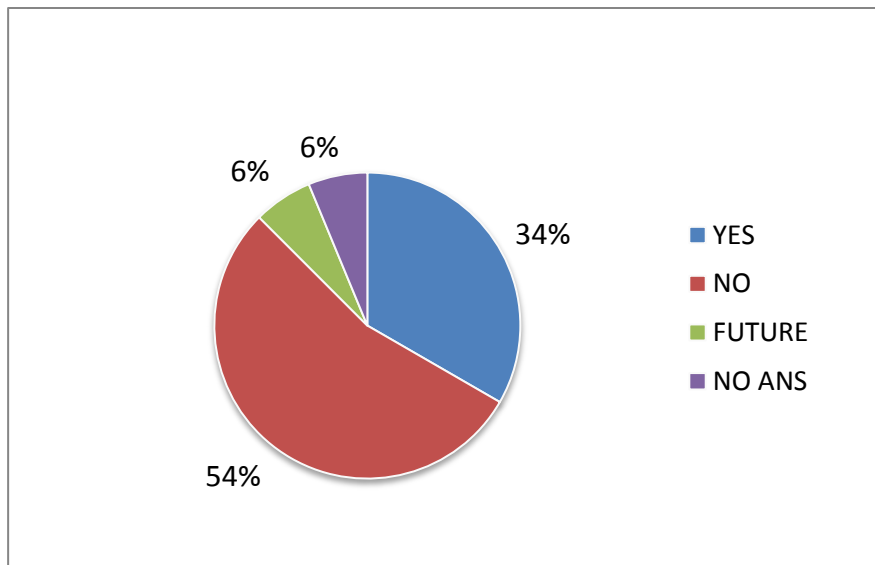


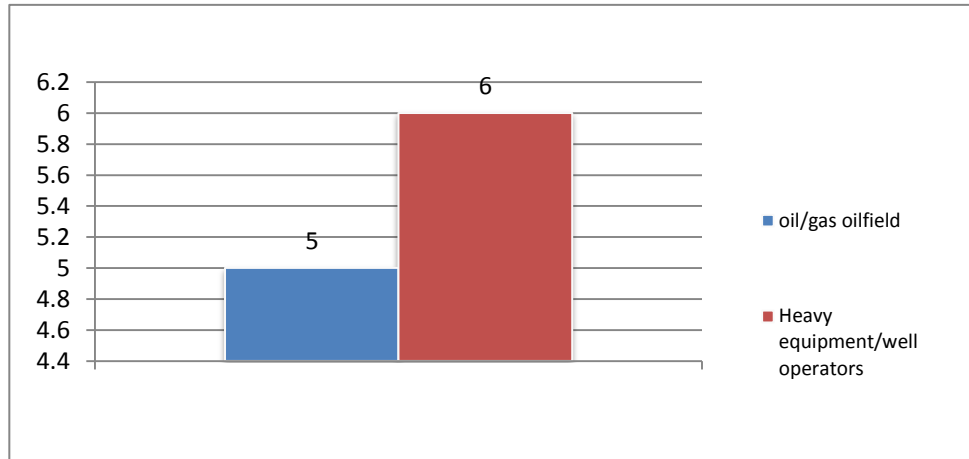
- The method most utilized to recruit employers is by “word of mouth” or networking with friends



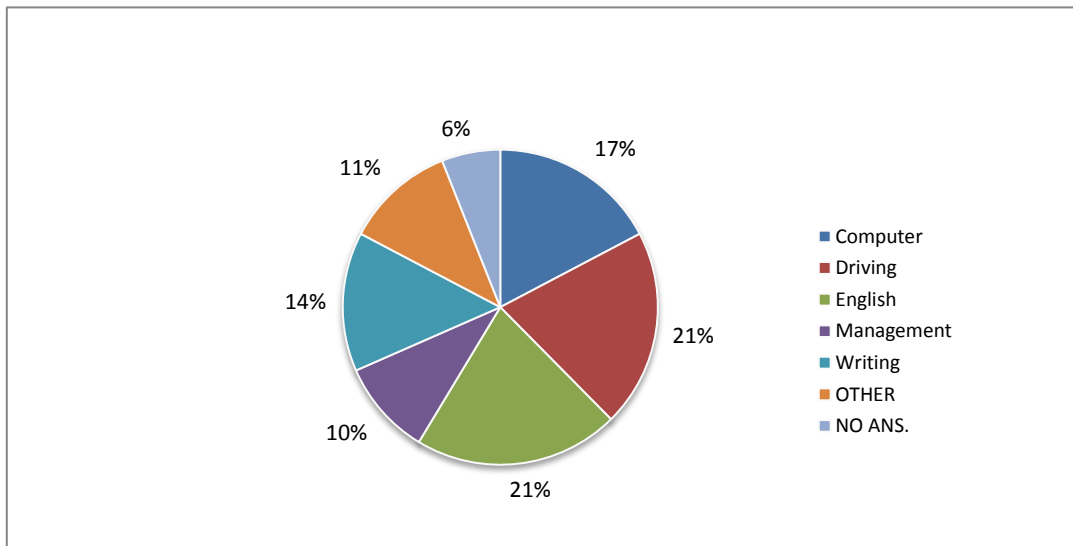
Overall Hiring Needs

- There are not a significant number of entry-level positions.
- Since most of the available positions require experience and education, 55% of the employers do not hire youth (14-17 years of age). Safety issues regarding the use of heavy equipment limits the willingness to hire youth.

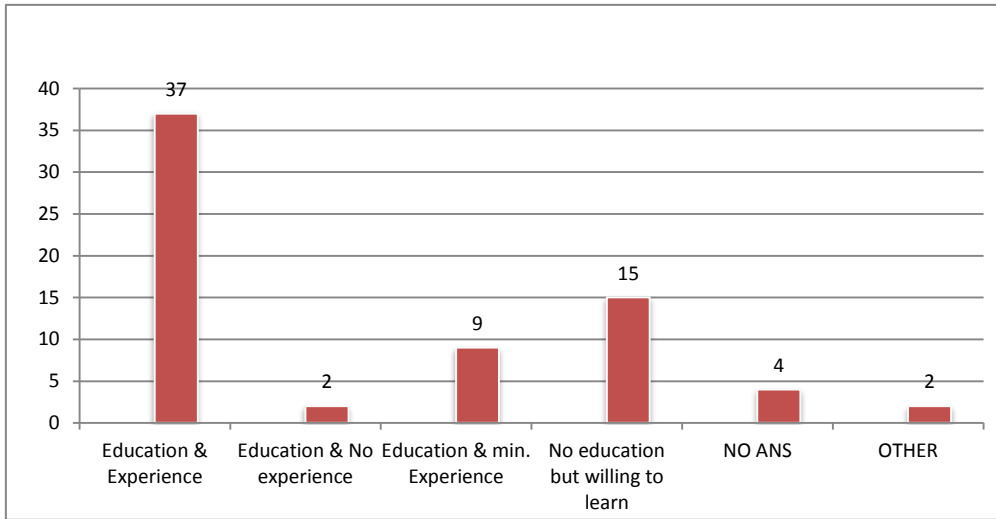
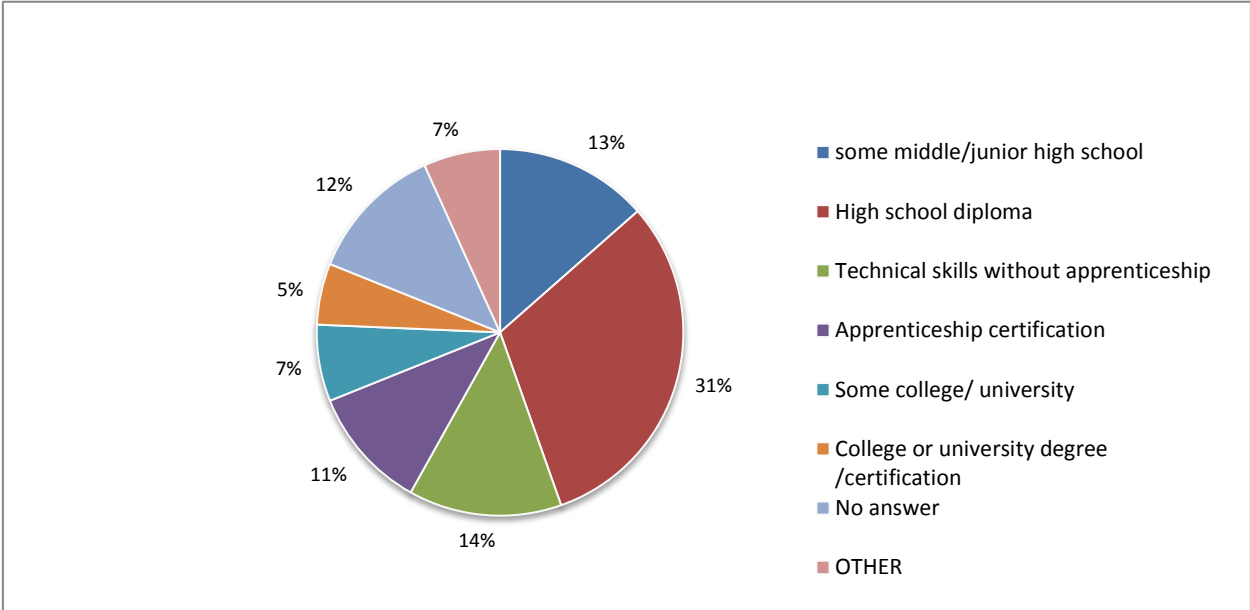




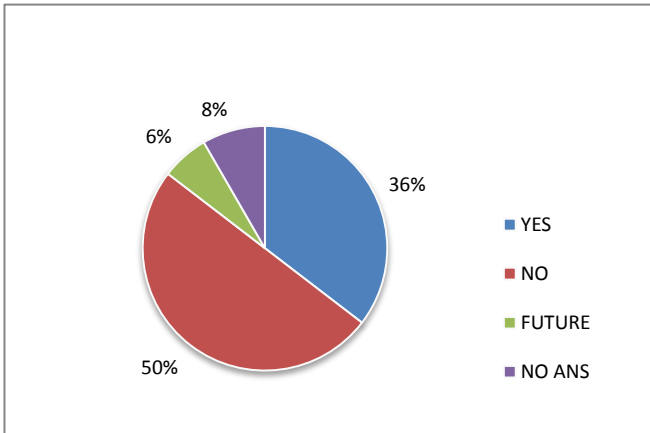
- The highest area of need for a trades training program is for skilled heavy equipment operators and within the oil and gas oilfield industry
- Other complementary skills related to these trades include English proficiency, driving experience and computer knowledge



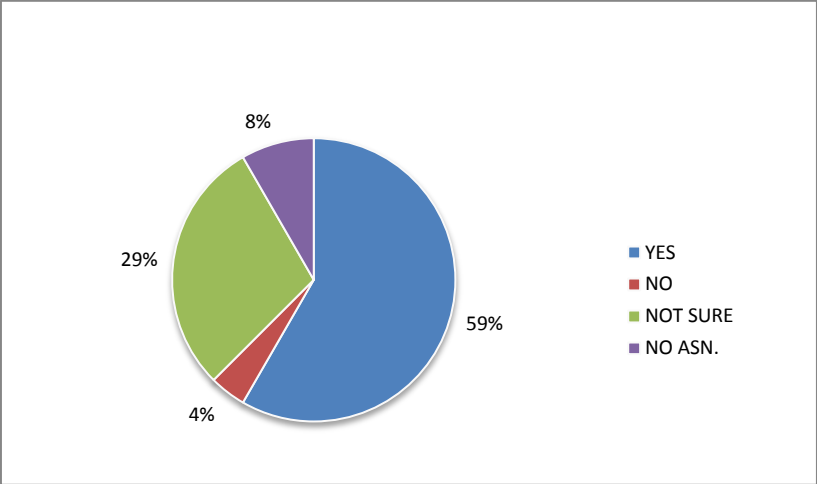
- A significant trend to highlight within many occupations is the increasing requirement to understand and utilize computers skills, especially in fields that require diagnostic services , and speciale equipment repairs.
- As for educational credentials, a high school diploma is required as a minimum for Heavy Equipment Operators. Some employers are willing to hire employees with either some high school or with technical skills without being in an apprenticeship program.
- Changes at the High School level have reduced the amount of training required for trades.



- Advancement opportunities could be limited based on responses, as the majority of respondents were from small businesses and industries
- Several employers found it difficult to find qualified tradesmen

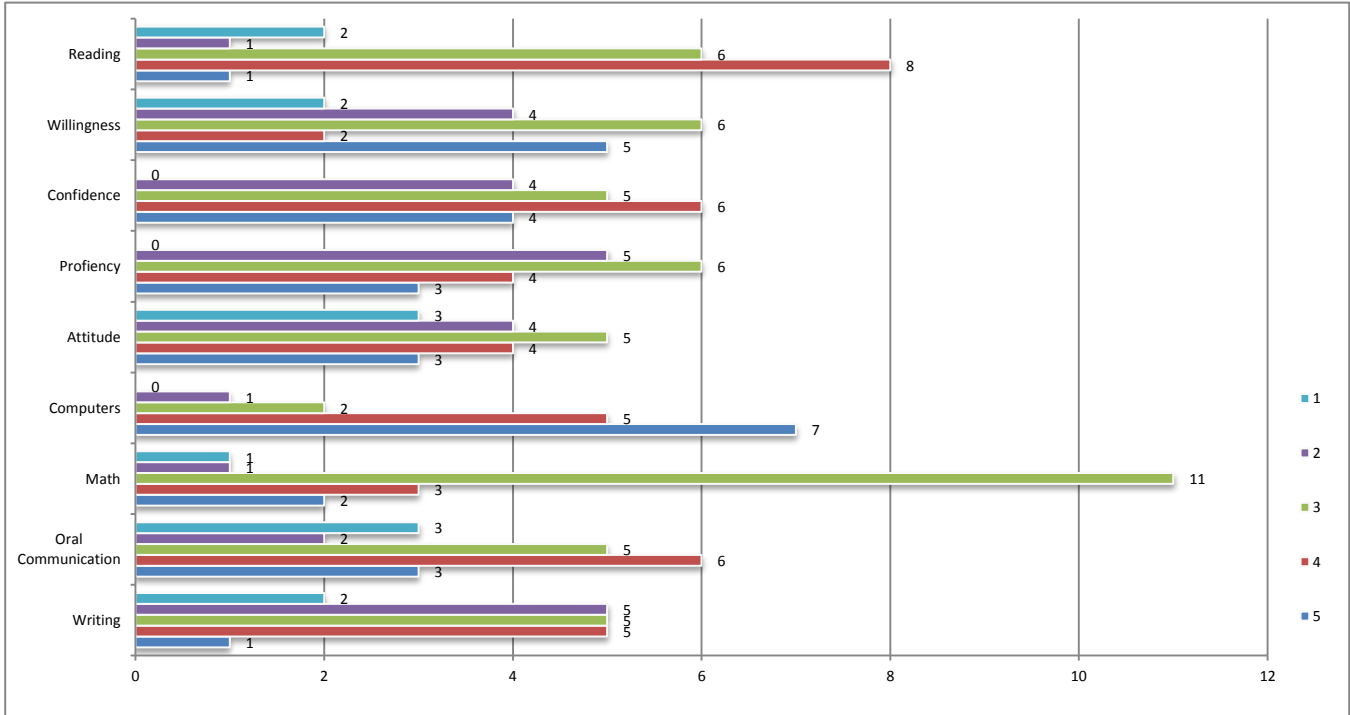


▪ 59% of the respondents preferred to hire qualified employees within the County. The “word of mouth” is the most commonly used method in recruiting employees.

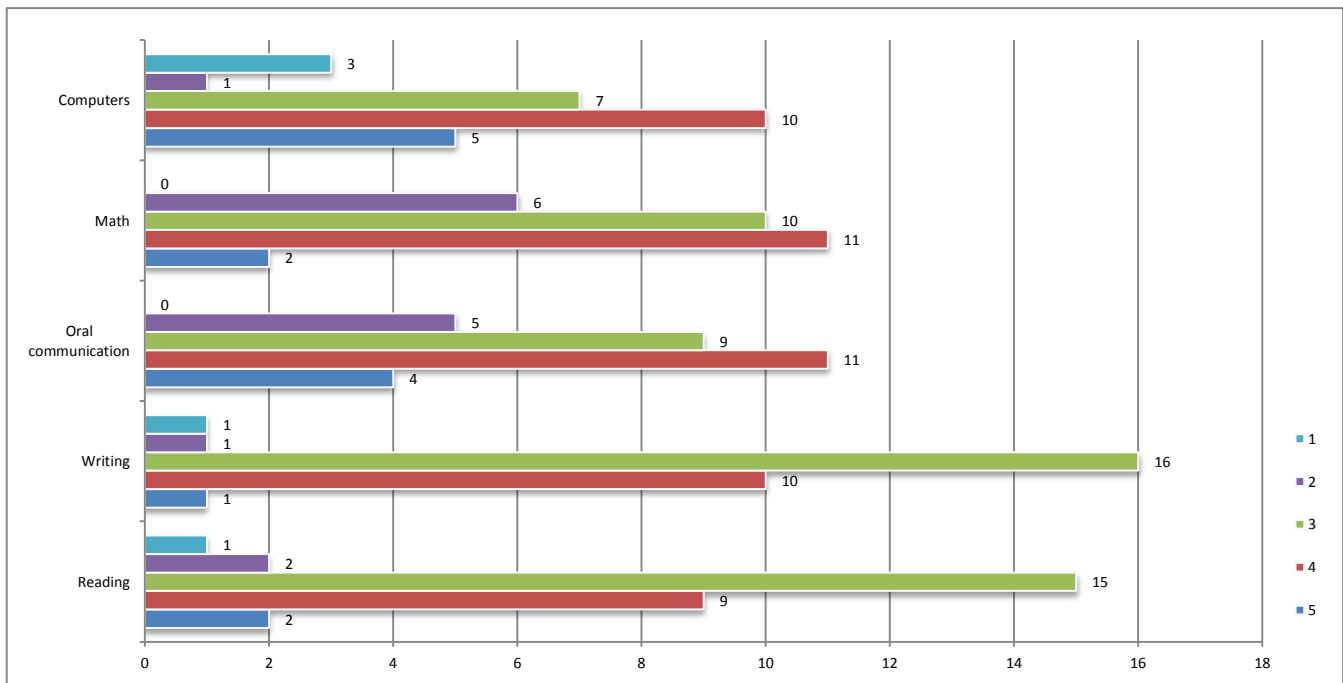


Current Training Needs

▪ There is a need for entry-level workers, especially youth. Potential youth employees need to improve their basic math skills (algebra, geometry, etc) and job readiness skills, such as a positive attitude, interpersonal skills, punctuality, among others.

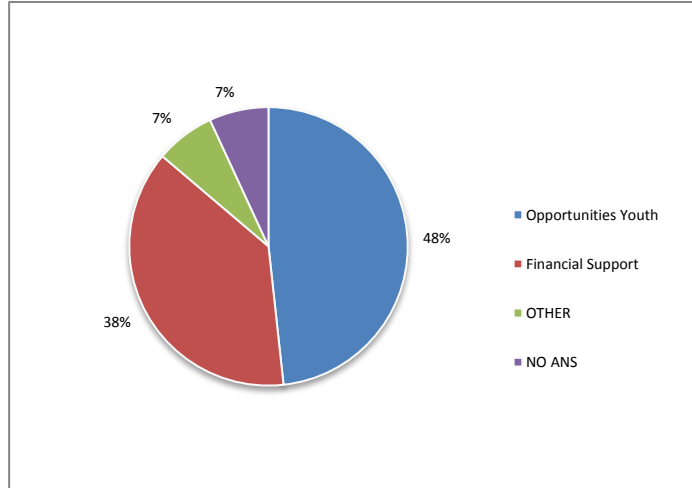


- There is also a need to improve the writing and reading skills of mature workers (above the age of 18).



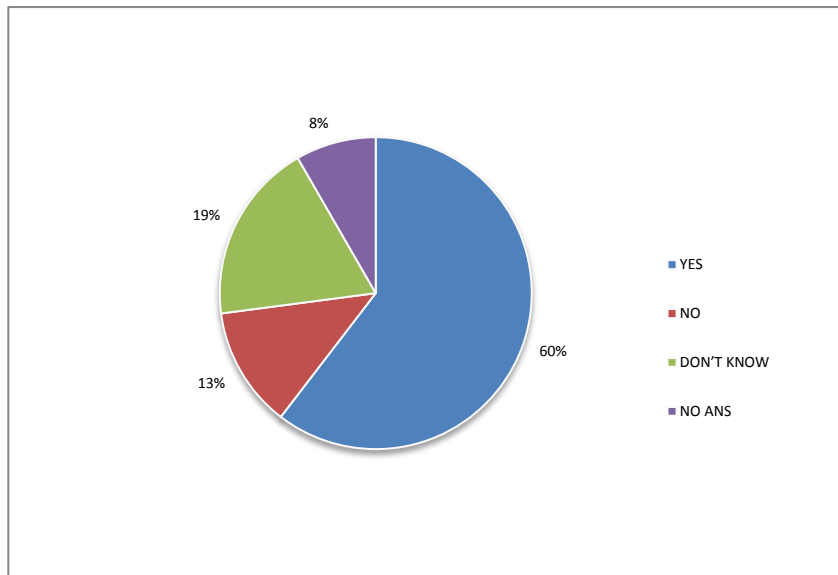
- English proficiency is very important for safety issues.
- Issues regarding safety and handling of equipment is very important, and is a factor that often limits the hiring of youth.
- Computer training is very important, especially when the majority of training is by computer, online
- Employers often used both on-site and external training, depending on needs and circumstances
- Several employers pay for individual training. Most of the required training takes place at the colleges located in the region (NAIT and Fairview Campus College.)
- There is a Heavy Equipment Operator course offered at the Grande Prairie Regional College. This course is not available at the Fairview Campus College, both limiting the ability of workers to get training and to access the program locally.

- Most of the industries support school programs through either mentoring programs or through financial means.

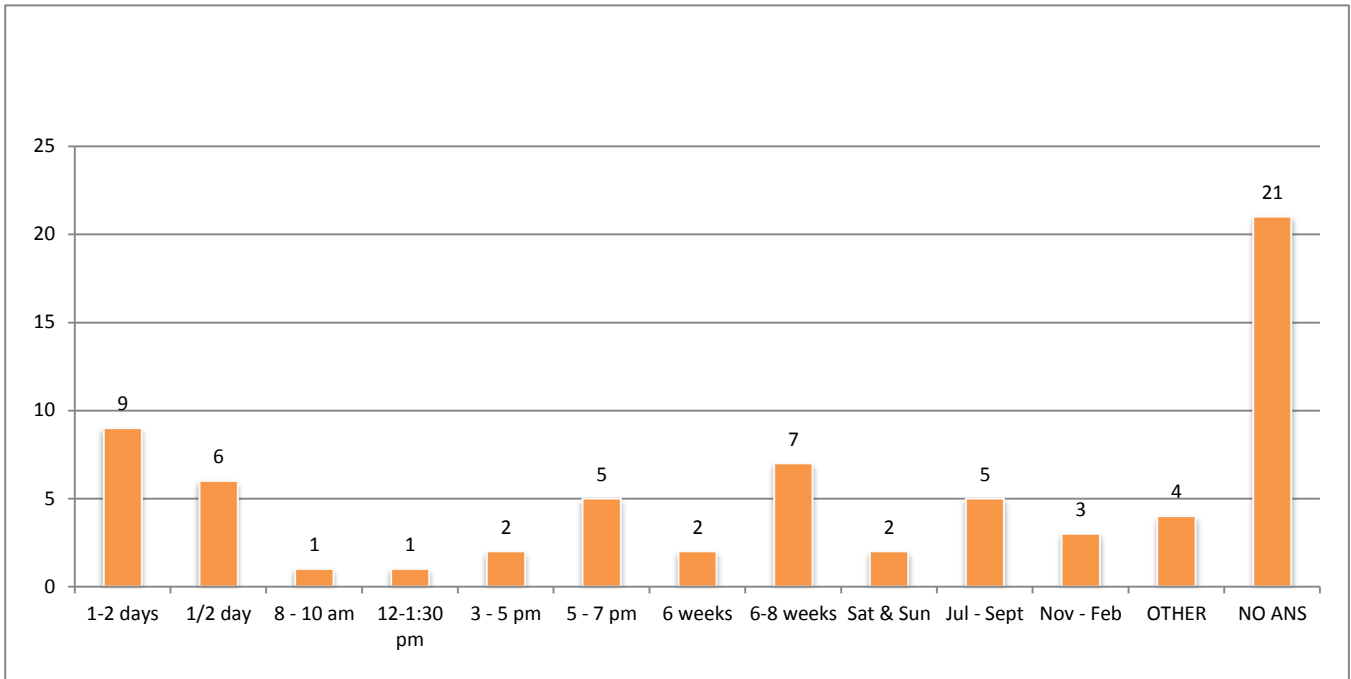


Employers Interest in a Community Trades Training Program

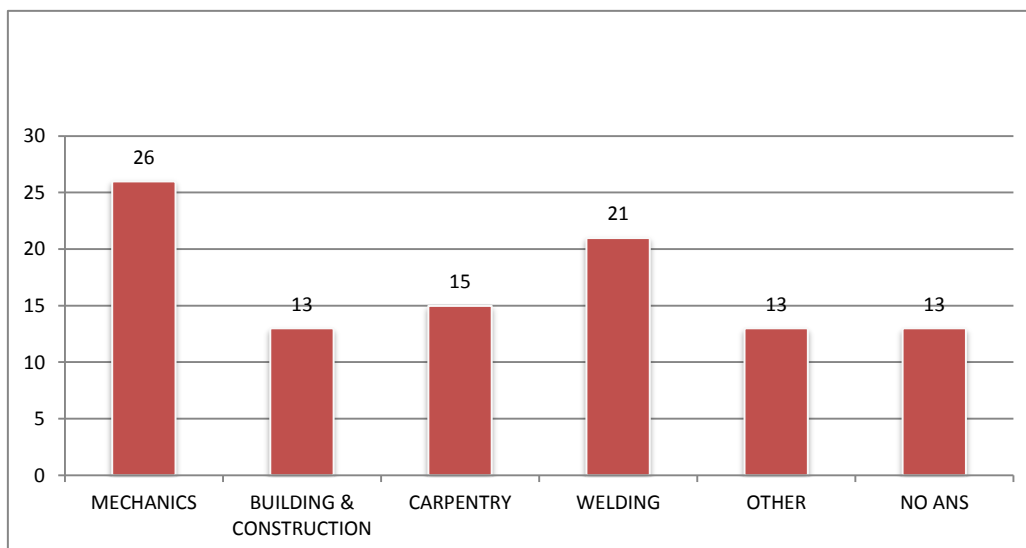
- 60% of the respondents would hire an apprenticeship who trained at a trades training facility within the County.



- Due to long work hours and the time to commute, respondents agreed that courses of 1 or 2 days or half a day in length would be preferred.
- Respondents agreed that the period from July to September are the most convenient times to access training as the peak oil season is within the winter months



- Several employers expressed interest in having a trades training facility within the County. Preferred trades include mechanics and welding



2. Community Sessions

A. *Schools Principal Meeting*

Purpose: To determine more specifically the type of training programs that meet the needs of the community as well as their requirements.

Findings: This part provides a synthesis of the findings from the meetings held with school principals from Hines Creek Composite School, Worsley Central School and Menno Simons Community School – Cleardale Colony School.

Programming

- The majority of the preferred trades are related to the main economic activities found within the region (agriculture, forestry and oil & gas). The top three trades in the Clear Hills County area are: Mechanics, Carpentry and Electrical.
- Students enrolled in the program are required to be competent in core subjects to at least grade 10 and to have excellent writing and reading skills (language proficiency).
- Literacy programs could be offered for individuals with specific language needs.

Ages

- The program could potentially target two different groups:
 - 12 – 15 years of age, still within the school system. The program would provide familiarization, orientation and immersion in trades.
 - 16 – 25 years of age, outside of the school system. The program would be oriented to provide work experience and training.

Facilities

- Mature students (out of the school system) would have the opportunity to return to school and would have an opportunity to learn skills required for specific trades.
- There are many options where the program(s) could be located. Facilities already exist throughout the area (shops and medical clinics). These provide a great opportunity to establish a program, as most of these facilities have the necessary equipment required for training in place. Another option is to utilize the school facilities located within the hamlet of Worsley and the Village of Hines Creek.

B. Community Workshop

Purpose: To determine from the community perspective how feasible a trades training program would be in the County and what trades could be offered.

Findings: This part provides a synthesis of the workshops held at the three different communities located within Clear Hills County. The findings of the community workshops are divided in two parts. The first part being the results of the workshops with parents and the second part corresponds to brainstorming sessions held with high school students from Hines Creek and Worsley.

Program Advantages

The following are the advantages of having a community trades training facility/program in the County of Clear Hills:

- The existing school facilities have good quality equipment that could be utilized for programs.
- A program of this nature would be beneficial for both the economy and the people. It will provide an incentive to keep students in school until graduation and it help provide a more skilled and experienced labour force. In addition it would also provide opportunities to all age groups.
- A community-based program would also be more accessible, thus making it convenient for students to attend.
-

Program Constrains

The following summarizes the disadvantages and constraints of having a community-based training

facility in Clear Hills County:

- The geographical location of this area is a challenge in acquiring human resources such as teachers, instructors, support staff, and students.
- Financial burden is another constraint that may affect tax payers.
- Assuming that most of the monetary funding would come from the government, accessing this funding in the future is another challenge to the success of the program.
- Fairview College is a well known institution that would be hard to compete with.
- Bussing to other locations becomes a challenge for students, since the majority of them would need parental consent, possibly becoming a concern for parents. In addition bus funding for schools is lacking.
- A big concern for parents was the notion of having both, students and adults in the same classroom. It is suggested that the clash between regular students and non-students sharing the same facilities would have bad consequences. The non-student would have a negative influence on the regular students.

Trades Program/Courses

- As it is now, there is no need for another training facility/program since there is a college in the area that offers many trades programs.

The potential top 10 trades that should be included in the program are in order of importance as follows:

1. Electrician
2. Carpenter
3. Mechanics
4. Plumbing & Heating
5. Welding
6. Heavy Equipment Operator
7. Early Childhood Development
8. Cooking
9. Commercial Cooking / Chef
10. Workplace Safety

Location

The following are proposed locations for the community trades training facility in Clear Hills County:

- All three schools (Worsley, Hines Creek and Cleardale), however, some schools may need to be upgraded. If necessary, lobby the government for school expansion.
- Central location – at the intersection of highway 64 and Eureka River.
- Utilizing existing facilities and infrastructure

such as the arena, libraries, fire hall, local business and gymnasium.

- New building
- A mobile workshop that could be utilized at all three community locations.



C. High School Students Workshop

Purpose: To determine from the students perspective how feasible a trades training program would be in the County and what trades could be offered.

Findings: This part provides a synthesis of the workshops held with high school students at the schools located in Worsley and Hines Creek.

Program Advantages

- It would be a good idea to show students what to expect in a particular career before they start working.
- The program could potentially bring opportunities and skills to people.

Program Constrains

- From the capacity point of view there are not enough students available or interested to enrol in the program. At least 15 students are necessary to run each class.
- There are not enough certified people in the community to be able to train students in the trade's field.

Trades Programs/Courses

The following courses most interest students as potentially being offered at their schools:

- Motorcycle repair
- Mechanics
- Small engines
- Technology – IT

Location

- Music
 - Animation
 - Drafting
 - Culinary
 - Hairdressing
 - Welding
 - Carpentry
-
- middle ground site between the schools
 - at all three locations
 - mobile trailer



3. Conclusion

The following is a summary of the Key Findings and the implications for a Community Trades Training Program:

- There is a large demand for training in the mechanical occupation and related sub-programs.
- There is a strong relation between economic industries and trades, this means there will be a need for mechanics and related trades to service and maintain equipment to serve the demand of these industries.
- Some employers foresee a shortage of skilled workers in the next 3 to 5 years. This is a concern for industries and businesses that do not see future skilled workers being available.
- In addition to specific technical skills, the most needed general skills for the workforce include essential basic skills including English proficiency and computer skills, as good examples. These skills need to be incorporated into the trades training course program.
- The preferred training method for many employers include in-house training within a short time frame, however, if a trades training facility was to be developed including the curriculum of in-house training, employers would be more inclined to register their staff for this training option.
- Employers also recognize the value of long-term training in the mechanical trade and other occupations, requiring in-depth training and experience in the field.

4. Emerging Market Trends

The study also analysed emerging market trends that could potentially provide significant opportunities for youth, workers and employers. If workers possessed a diversified skill-set, this means they would respond better to changes in economic conditions.

- Alberta's economy depends on its population to stimulate growth and innovation. For this reason, the provincial government is finalizing an important document¹ that will help under-represented groups be more successful in the workforce. This agreement will finance new training programs that will help Aboriginal, people with disabilities, recent immigrants and people who do not have a high school diploma.
- Industries are transitioning to high technology operations with an emphasis on increased productivity and technological efficiency, thus creating and developing products to be more competitive in the global market. Alberta is a key player as a producer and manufacturer of resources including agriculture (grain, livestock), forestry (growing, harvesting, manufacturing of wood and paper products), chemicals and fertilizers. The Alberta market is diversifying but still on a small scale.
- Addressing challenges faced by the forestry industry means identifying options to strengthen the long-term viability of this sector and help improve its competitiveness in the world market.

¹ Government of Alberta, <http://alberta.ca/home/753.cfm>

IV. TRAINING PROGRAM FOR THE MECHANICAL TRADES OCCUPATION

Purpose: The purpose of this section is to describe the types of program and/or courses that could be offered at a trades training facility. The program offered is meant to meet the needs identified in both the business assessment and the community findings. Both findings support the notion of having a trades training program in the Clear Hills County area. This program would be a collaborative effort from the existing educational institutions with the private and public sector.

Findings: This part of the document outlines the occupations that are related to the Mechanical Trades. This section also estimates job demand projections for the mechanical trades and the requirements needed to run this program. An evaluation of existing training programs and other models that offer courses in the mechanical trades were also studied, and recommendations are identified. The result of these findings came from various sources, the business assessment findings, community findings and telephone interviews with key clusters in the region.

1. Mechanical Trades – Occupation Group

The mechanical trade is a vocational trade area that encompasses an array of trades, including but not limited to: diesel mechanics, farm equipment mechanics, industrial machinery mechanics, plumbing, gasfitting, steamfitting, pipefitting, refrigeration, air conditioning, heating and ventilation. Other significant related areas include: controls, plant operations and safety codes and regulations. Overall these occupations transcend into all industry clusters.

There are other demand occupations including welding that also complement the mechanical trades.

2. Job Demand

Within the County of Clear Hills it is clear that agriculture and related industry are by far the largest employers, represented by 39% of the job sector in 2004 and 41% in 2008.

The second largest employer was oil/gas and petro chemical. This sector employs 15% of the employment population. On the contrary, forestry once considered a major employer suffered a significant decrease between 2004 and 2008.

Table 1 shows that there was a significant amount of growth in a number of sectors including the oil/gas & petro chemical manufacturing field, which saw a growth of 239%. A similar pattern was seen in the business/personal/other service sector which saw an increase of 960%. In addition to these increases, the table also identified a couple of sectors that decreased. For example the forestry and non-petro-chemical manufacturing sector saw a decrease of -48% and -98% respectively.

Table 1: Growth by Sectors

SECTORS	2004	2008	Growth	%
Agriculture or related	443	545	102	23%
Forestry	137	71	-66	-48%
Fishing/Trapping	0	7	7	100%
Mining, quarrying oil and gas extraction	0	12	12	100%
Oil/gas & petro chemical manufacturing	59	200	141	239%
Non-petro-chemical manufacturing	56	1	-55	-98%
Construction	0	68	68	100%
Transportation	90	96	6	7%
Communications/utilities	76	2	-74	-97%
Wholesale/retail trade	3	19	16	533%
Finance, insurance & real estate	37	7	-30	-81%
Business/personal/other services	10	106	96	960%
Government & public administration	48	28	-20	-42%
Education	41	66	25	61%
Health & social services	57	32	-25	-44%
Accommodations, food & beverage services	33	9	-24	-73%
Other	39	47	8	21%
TOTAL	1129	1316	187	

Job demand includes existing workers and replacement of existing workers in key industries that required the mechanical trades. Based on the Professional Workforce Scan 2010² the following summarizes employment trends for key industry sectors:

a. Agriculture and Food Processing: This sector represents regional agricultural societies and economic development organizations from the northwest area of Alberta.

<p><i>Current Employment Opportunities</i></p>	<ul style="list-style-type: none"> ▪ This particular sector is not currently linked to other areas of the economy ▪ There is a consistent market for this sector ▪ There was some employment decline in this sector due to low wages, low commodity prices and low number of farms and processing plants.
<p><i>Future employment Opportunities</i></p>	<ul style="list-style-type: none"> ▪ Overall employment opportunities have decreased over the years because of the decreasing number of agricultural producers in northern Alberta. ▪ There has been a growth in recruiting foreign employees in the area of food production
<p><i>Issues & Challenges</i></p>	<ul style="list-style-type: none"> ▪ The agriculture industry has been declining since 1999 at an annual rate of 2.6%. This decline is partly due to the shifting of family farms to big scale farming ▪ Urban economies and higher wages in other sectors of the economy, are luring young people from rural areas, creating labour issues for rural economies.
<p><i>Future Trades – High</i></p>	<ul style="list-style-type: none"> ▪ Agricultural Mechanic

² Government of Alberta, (2010). Professional Workforce Scan 2010: a multi-sector summary of employment trends across Alberta’s north. Retrieved from <http://www.nadc.gov.ab.ca/Publications/reports/Workforce-Scan-2010.pdf>

Demand

- Agricultural Technology
- Heavy Equipment Technology

b. Construction, Manufacturing and Trades: The sector is represented by: environmental consultants, development organizations, construction and machining companies.

Current Employment Opportunities

- Slow growth in employment opportunities and labour shortage in this sector
- Industries in the sector are recovering due to work in niche areas.

Future employment Opportunities

- A slow growth but recovery in the economy would bring an increase in demand for quality of workers, especially those in the trades sector.
- Since the baby boomers are retiring it could be difficult to recruit experienced workers.

Issues & Challenges

- Demographic trends including an aging population could generate labour shortages, this along with the reluctance of many workers to work on work-camps, the aging skilled workforce and the difficulty of recruiting foreign workers, could challenge the future of this sector in northern Alberta.

Future Trades – High Demand

- Automotive Service Technology
- Carpenter
- Diesel Mechanic
- Electrician
- Heavy Equipment Technology

c. Mining, Oil and Gas: The sector is represented by: mining companies, oil developer and producer associations and geomatic and survey companies.

<p><i>Current Employment Opportunities</i></p>	<ul style="list-style-type: none"> ▪ Stable oil prices have kept employment opportunities very steady ▪ Oil exploration and production has created a greater demand, keeping employment opportunities growing
<p><i>Future employment Opportunities Issues & Challenges</i></p>	<ul style="list-style-type: none"> ▪ Future growth in this sector will require a demand for trained technical personnel ▪ It has been projected an average growth of 2.2% annually from 2011 to 2013. ▪ During this period of time, it is expected an additional 3,000 jobs will be created with an increase to 148,500 total jobs by 2013 ▪ The following occupations would be in demand for the next three years: <ul style="list-style-type: none"> - . Mine service workers and operators in oil and gas drilling. - . Oil and gas drillers and related workers - . Supervisors - . Underground miners
<p><i>Future Trades – High Demand</i></p>	<ul style="list-style-type: none"> ▪ Engineering ▪ Environmental Conservation and Reclamation ▪ Environmental Engineering ▪ Environmental Technology ▪ Gas Field Operator ▪ Instrument Mechanic ▪ Millwright

The same document has also identified high demand programs for different sectors in which the “mechanical trades” follow. The following programs encompass the basic range of trades needed for the mechanical trades, identified in the survey, and also in relation to main economic drivers of the County. Note that programs highlighted were identified in the study as “hard to recruit”:

TITLE	PROGRAM
Apprentice	Agricultural Mechanic
Journeyman	Agricultural Mechanic
Diploma	Agricultural Technology
Certificate	Diesel Mechanic
Apprentice	Electrician
Journeyman	Electrician
Certificate	Gas Field Operator
Certificate	Heavy Equipment Technology
Diploma	Heavy Equipment Technology
Apprentice	Heavy Equipment Technology
Journeyman	Heavy Equipment Technology
Journeyman	Machinist
Journeyman	Millwright
Apprentice	Refrigeration Mechanic
Journeyman	Refrigeration Mechanic

3. Training Requirements

Training for the mechanical trades requires both short-term and long-term workers/students. Short-term training would provide the fundamentals and introduction to the mechanical trades at an entry level within the program’s curriculum. Long-term training would provide specialized programs related to the mechanical trade, that could include the following programs:

- diesel mechanics
- farm equipment mechanics

- plumbing
- gasfitting
- steamfitting
- pipefitting
- refrigeration
- air conditioning
- heating and ventilation
- controls
- plant operations
- safety codes and regulations

4. Training Gaps

There are many gaps in the availability of existing education and training programs for the mechanical trades program in the County. Even when some components of specific programs are offered, they are not complete. High School programs also have limitations to provide a wide range of training programs due to fulfilling other educational requirements. For example financial funding from the government and program cuts also contribute to the shortage of skilled workers in the mechanical trades. The mechanical trade program offered by Grande Prairie College is the only program in the region, being located outside the County's area.

5. Barriers

Many workers, especially youth, lack basic skills and job readiness. This has two consequences, one, workers are not willing to hire young people due to their lack of skills, and two, for young people, especially students, it is difficult to get summer jobs, internships and mentoring experiences that would help shape their skills.

6. Program Models

The most important training model occurs at the Fairview College Campus, a campus of Grande Prairie Regional College. Their offered programs include automotive service technician, carpenter, heavy equipment technician, instrument technician, motorcycle mechanic, parts technician, plumber, steamfitter-pipefitter and welder. Some of the programs

have partnerships with other companies, such as heavy equipment service technician, which is offered in partnership with Caterpillar Company.

RAP programs (Registered Apprenticeship Programs) offered at the schools, are valuable in serving as a “feeder” programs for youth wanting to enter into a college program. Another program available for students is the Career Technology Studies (CTS), which provides a strong foundation for building career pathways among students.

7. Facility Requirements

The training facility for the purpose of diesel mechanic trades program should be in the range of 1,490 square metres to 1,860 square metres. This area would be enough to provide adequate work and storage space, as well as additional space to learn how to operate and drive machinery equipment, as well as a learning area that would include a computer lab and classroom facilities.

Focusing on the subcomponents of the mechanical trades, facilities for those sub-programs required less space area than the one for the diesel mechanics instruction.

The following is a summary of key recommendations, based on the analysis in Part IV of this report. The analysis identified potential parameters for erecting a mechanical trade’s training facility for Clear Hills County. It was concluded, that due to economic constraints the specific requirements needed for a mechanical trades training facility program wouldn’t make the program feasible, however, other potential strategies were pursued which included a collaboration between local schools and Fairview College.

Throughout the analysis, it was determined that the most appropriate provider for the recommended technical trades program is Fairview College. The reason for this recommendation was based on the following.

- the courses provided, meet the Alberta Apprenticeship requirements
- existing partnerships with other educational providers

- existing facilities that meet the specific requirements
- set up of subprograms of the mechanical trades program.

Fairview College has had a lead role in providing education and workforce development in the Peace Region for decades, and has a strong demand of its services in Clear Hills County.

In addition, schools located in the County have facilities and personnel that can be utilized to provide an introduction to the Mechanical Trades program to the community.

This sub-program, in partnership with the school would be similar to the Career Technology Studies (CTS), and it could run as a “night program”. This program will have the following components:

- Introduction to Trades: In this section students will be introduced to the main trade identified in the program. The objective is to become familiar with the terminology and environment needed to pursue a career in such fields
- Co-op programs: At this level, students will get a more hands-on approach to the field to which they are studying. The objective for the student will be to provide them with exposure to the elements that encompass the fields to which they have chosen to pursue. One of the ways to approach this is by allowing students to “shadow” real tradesmen in their work environment.
- Related Course: In addition, the program would also offer upgrading skills in both English and Math to ensure students are up to appropriate standards for college.

This program will serve as the path required to pursue a further educational training program provided by Fairview College Campus.

V. RECOMMENDATION, NEXT STEPS & COST/BENEFIT ANALYSIS

Recommendations

Based on the findings that were identified throughout the study, a list of recommendations was developed by the Mackenzie Municipal Services Agency, as follows:

- Utilize existing school facilities until it becomes feasible to build an independent trades training program facility
- Conduct classes during evening hours on weekdays
- Identify potential certified trades people within the county to teach
- Identify partnership opportunities for staffing with Fairview College Campus and Grande Prairie Regional College
- Encourage online classes

Next Steps

Based on these recommendations the following steps should be taken into consideration:

- Finding the appropriate school to facilitate the program, and choosing the type of curriculum that will be implemented in each location. This report has already provided preliminary site selection by identifying Hines Creek Composite School and Worsley Central High School as potential locations. In moving forward, Council will need to initiate negotiation talks with the local school board.
- Reviewing school schedules including after school programs to minimize time conflicts.
- Formulate a staffing roster either via local trades people within the County or by hiring outside instructors. In both cases funding will be a constraint, however, it will be more feasible to implement the latter option through partnerships with existing institutions.
- Investigate grant options to help implement the program.

Cost/Benefit Analysis

For the purpose of this report a cost/benefit analysis was conducted to determine the feasibility of implementing a Trade's Training Facility Program. The analysis concluded that it would not be feasible to create an independent facility for the Trades Training Program based on the following reasons.

- **Cost/Resources:** the price of operating a program of this magnitude would require significant financial expenditures. For example, a single mechanical instructor on average makes a salary of \$52,000³ annually. If the program was to hire six instructors, staff salaries would cost approximately \$312,000 dollars, not including administration and other miscellaneous items. In addition to staffing, money would also have to be allocated towards the construction of each facility which could cost up to 3.5 million dollars.⁴ (*The following chart gives a more accurate break down of the estimated costs in 2010 dollars. It is important to note these are estimated costs, and final cost can be modified based on changes to each variable*) Though the benefit of erecting a building would support local business, the cost of manual labour and building materials would ultimately out weigh the benefits. Using an existing facility would not only cost less money but at the same time still require the assistance of a local contractor to help with the renovation of potential buildings.

³ [http://www.payscale.com/research/US/Job=Technical_Instructor_\(Mechanical\)/Salary](http://www.payscale.com/research/US/Job=Technical_Instructor_(Mechanical)/Salary) (September 14th 2010)

⁴

Building Cost (Chart Breakdown)	
Building Type	Steel Frame/Concrete
Storeys	2
Storeys Height	16
Floor Area (S.F.)	21,530 Sq. Ft
Cost per Square Foot	\$163.98
Total Building Cost	\$3,530,500.00
BREAKDOWN	COST
Substructure: Includes Standard foundation, Basement Excavation, Basement Walls, Slab on Grade	\$264,000
Shell: Floor and Roof Construction, Exterior Wall, Windows and Doors, Roof Opening, Roof Covering	\$794,000.00
Interiors: Partitions, Interior Doors, Fittings, Stair Construction, Wall Finishes, Floor Finishes Ceiling Finishes	\$571,000.00
Services: Elevators and lifts, Plumbing Fixtures, Domestic Water Distribution, Rain Water Drainage Energy Supply, Electrical Service, Lighting, Communication and Security Sprinklers, Cooling, Generating Systems	\$1,007,000.00
Equipment and Furnishings: Architectural equipment (design), laboratory equipment, counter tops, stainless steel	\$3,500.00
sub-total	\$2,639,500
Contractor's Overhead & Profit	\$660,000
Architectural Fees	\$231,000
Total Building Cost	\$3,530,500

- Funding: With respect to funding options the Alberta Government currently offers various individual grants for people pursuing higher education, however, it is unclear as to whether grants for organizations or non-profit organization (in relation to education) are available at this time. Despite this, Mackenzie Municipal Services Agency was still able to identify one grant that would be of great interest, as follows:
 - Rural Alberta's Development Fund (RADF): RADF is a non-profit company. They have a contractual agreement with the provincial government to commit 30 million dollars towards rural economic development. This grant will be available until March 31st 2014. In order to obtain a grant, an organization must demonstrate how the program/project will stimulate their local economy. In addition, the project must be completed by 2014 in order to obtain the grant.
- Location: Clear Hills County is a predominantly rural area, covering a large land area. To operate an independent facility of this nature would require bussing for those who do not own vehicles. Providing the program in an existing facility such as a school would make the program more attractive to students who may have access to the school. Another benefit is the location is known by residents in the area.
- Supply vs. Demand: It unclear as to whether the demand for such a program will be strong enough to support an independent trade training facility initially. Though we know the demographic supports a Trades Training program, what is not known is how popular it will be. Current models can only predict the demand level. In attempt to avoid wasted dollars to soon, it would be more feasible to create a strategic plan to phase in the entire program over a five year period.

Delivery of Project (Phasing in approach over a five year time frame)

The delivery of the trades training program assumes that Council approves the recommendations and next steps strategy.

Phase 1- year 1: two options that were looked at: Final option will be approved upon further investigation on the demand and accessibility of each facility

- In option 1: one school is used to conduct the curriculum
- In option 2: two schools are used to conduct two separate curriculums

It is important to understand that phase 1 is considered a trial period and will be amended after its completion in one year via a program evaluation. The program evaluation is intended to identify the program(s) strengths and weaknesses. In order to complete this process, data will be collected throughout the first year and later analysed. The conclusions that are formulated from the evaluation will be the basis for amendments.

Phase 2- year 2: Phase two will be based on the recommended changes stipulated from the project evaluation in Phase 1. Phase 2 sets the groundwork to strengthen the core program curriculum and identify other weaknesses that may hinder the program(s) growth. As the program(s) mature in nature, it is paramount that the organization gains secure funding sources from both the Alberta and Federal governments. Obtaining a secure funding tool will enable the program to formulize a stable budget for operating costs.

Phase 3- years 3 and 4: Over the next two years, progress reports will be developed to ensure the viability of the program is not compromised.

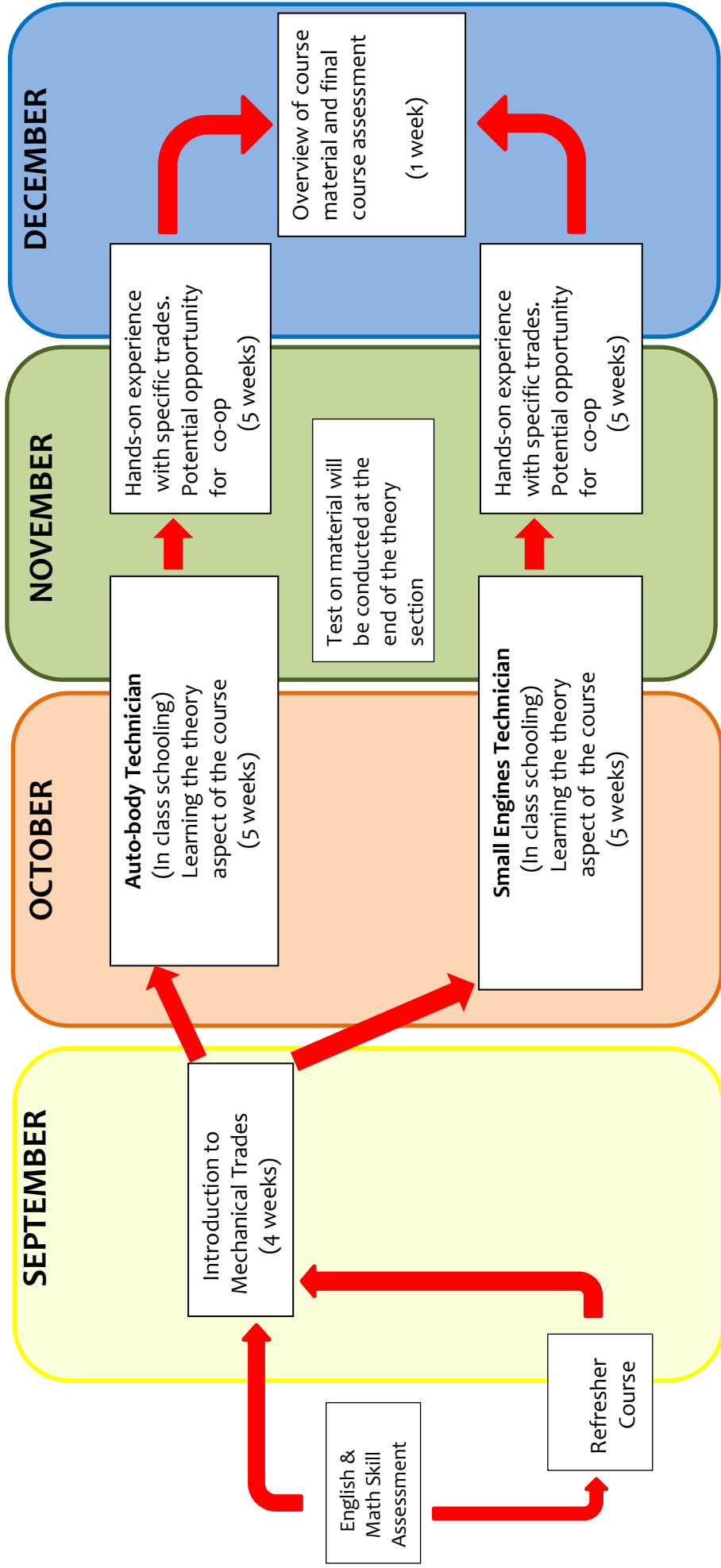
Phase 4- year 5: In phase 4, a final project evaluation will be conducted to measure the success of the program(s). A five year period was chosen so that enough data could be collected to see where first year enrolment students are in their career.

Proposed Curriculum / Program

The following identifies the curriculum the trades training program will adopt. It is important to note that this is only a proposal and is subject to change, where required. After extensive research and public consultation it was recommended the curriculum would be offered during

evening hours over a four month period. Students will have the option of enrolling in the fall (September to December) program or winter (January to April) program. Choice of semester will not affect curriculum choice nor program characteristics.

Upon enrolment, each student will be assessed on their English and Math skills to determine competency levels and if upgrading or a refresher course is required. The results of the test will also be collected for a program evaluation which will help measure the success of the project at the end of each semester year. The following diagram provides a visual understanding of how the curriculum may look. (**NOTE:** the diagram illustrates only two sub-topics, however, up to six were identified throughout the report. As the program grows, more sub-topics will be added)



VI. CONCLUSION

The purpose of this report was intended to provide the County of Clear Hills with a clear understanding on the feasibility of implementing an independent Trades Training Facility. During this process the report identified the program's target demographic and program descriptions. After an extensive amount of research it was concluded that a Trades Training Facility would only be feasible if implemented in a phasing-in process with the first phase of the program established in an existing building. It should be noted that the report provides a platform outlining next steps needed to implement the program.

VII. APPENDICES



**Trades Training Feasibility Survey
for
Business and Industry
Clear Hills County, Alberta**

Purpose of the Survey

Clear Hills County, like many other communities in northern Alberta, is concerned about economic uncertainty and low profit margins within the County. Clear Hills County is committed in planning for the future of the County by taking actions to help sustain the economy and the future of its residents. This survey is designed to help understand the potential need for a trades training program in Clear Hills County. The information gathered from the survey will help to determine what is feasible in terms of trades programming in the County.

Please complete this survey by , 2010

**This survey should take approximately 5 – 10 minutes to complete.
Your help is very much appreciated...Thank you!**

NOTE: Your personal information will not be shared, but general comments may be published. If you would like to be contacted with the results of the survey, please provide your contact information.

A. BUSINESS PROFILE

1. Name: _____
2. Company/Business Name: _____
3. Company Address: _____
4. Phone (optional): _____ Cell (optional): _____
5. Email/Website: _____

B. EMPLOYEE PROFILE

1. Number of employees **full** time: _____
2. Number of employees **part** time: _____
3. Number of employees **private contractors**: _____

Age Groups	Number of Employees in 2005	Number of Employees in 2007	Number of Employees in 2009	Number of Employees in 2010
14 yrs. & below				
15 to 19				
20 to 24				
25 to 29				
30 to 34				
35 to 39				
40 to 44				
45 to 49				
50 yrs. and over				

C. COMPANY GROWTH

1. Has your company grown in the last three (3) years?

- Yes
- No
- Remained the same

2. If **yes**, which factors have contributed to this growth?

- Employment opportunities
- Market trends
- Incentives and grants
- Other (please specify): _____

D. OVERALL HIRING AND TRAINING NEEDS

1. Is your company hiring or looking for new employees?

- Yes
- No

2. If **yes**, how many positions?

- 1 – 2
- 3 – 5
- 6 – 8
- 9 and more

3. If **not**, when do you expect to hire?

- 1 – 2 yrs.
- 3 – 4 yrs.
- 5 – 6 yrs.
- 7 and more yrs.

4. Which position(s) would your company be hiring for? (check all that apply)

- Auto body technician
- Automotive service technician
- Baker
- Boilermaker
- Butcher
- Cabinetmaker
- Carpenter
- Chef
- Clerical
- Communication technician
- Cook

Continued

- Crane and hosting equipment operator – Boom truck
- Crane and hosting equipment operator – Mobile truck
- Electrician
- Emergency/Medical service
- Floorcovering
- Gasfitter
- Gas utility operator
- Heavy equipment technician
- Ironworker
- Ironworker – Metal building systems erector
- Instrument technician
- Insulator
- Lather – Interior systems mechanic
- Machinist
- Management/Supervisory
- Millwright
- Painter and decorator
- Parts technician
- Plumber
- Power lineman
- Power systems electrician
- Outdoor power equipment technician
- Refrigeration and air conditioning mechanic
- Rig technician
- Roofer
- Sheet metal worker
- Steamfitter/Pipefitter
- Structural steel and plate fitter
- Supervisor/Foreman
- Truck driver
- Other (please specify): _____

5. What **additional skills** are needed for the positions listed above?

- Computer knowledge
- Driving experience
- English language proficiency
- Management/Supervisory
- Writing skills
- Other (please specify): _____

6. What **level of education** is required for the position(s) listed in question D.4?

- Some middle/junior high school
- High school diploma
- Technical skills without apprenticeship
- Apprenticeship certification
- Some college/university
- College or university degree/certification
- Other (please specify): _____

7. Does your company foresee a shortage of qualified workers in the next 3 to 5 years?

- Yes
- No
- Not sure

8. Do you have difficulty hiring qualified workers?

- Yes
- No

9. If **yes**, in what positions?

- Clerical
- Management/Supervisory
- Technician
- Tradesman
- Unskilled labourer
- Other (please specify): _____

10. Do you prefer to hire qualified employees within Clear Hills County?

- Yes
- No
- Not sure

11. How do you recruit or hire new employees?

- Local newspaper
- Local radio station
- Websites, job boards
- Colleges/Trades school
- High school – work experience program
- Social networking channels
- Other (please specify): _____

12. Where do you recruit or hire new employees?

- Alberta
- Other provinces
- Out of country
- High school – work experience program
- Colleges/Trades school – apprenticeship programs
- Other similar organizations
- Other (please specify): _____

13. Are there “Advancement” opportunities available in your company?

- Yes
- No
- In the near future

14. If **yes**, what type of training would be required for these opportunities?

- Online training
- Seminar courses
- Apprenticeship programs
- Other (please specify): _____

15. Does your company hire youth (age 14 to 17)?

- Yes
- No
- In the near future

16. if **yes**, on a scale of 1 to 5, with 5 being “Extremely Satisfied” and 1 being “Extremely Dissatisfied”; overall how would you rate the youth’s skills and job readiness?

SKILLS \ RATING	Extremely Satisfied (5)	(4)	(3)	(2)	Extremely Dissatisfied (1)
Reading					
Writing					
Oral Communication					
Math					
Proficiency in Computers					
Attitude					
Proficiency					
Confidence					
Willingness					
Other (specify):					

17. On a scale of 1 to 5, with 5 being “Extremely Satisfied” and 1 being “Extremely Dissatisfied”; overall how do you rate basic skills for employees above the age of 18?

SKILLS \ RATING	Extremely Satisfied (5)	(4)	(3)	(2)	Extremely Dissatisfied (1)
Reading					
Writing					
Oral Communication					
Math					
Proficiency in Computers					
Other (specify):					

18. Do you prefer to hire workers who:

- Have education and experience in the field
- Have education without experience in the field
- Have education with minimal experience in the field
- No education or experience, but willing to learn
- Other (please specify): _____

19. Which method of training does your company provide?

- On-site training
- External training
- Both
- None
- Other (please specify): _____

20. Does your company pay for training for individual employees?

- Yes
- No
- In the near future

21. If **yes**, from where do they receive training? (please specify)

- College/Trades school: _____
- On line: _____
- Organization: _____
- Other: _____

22. On a scale of 1 to 5, with 5 being “Extremely Satisfied” and 1 being “Extremely Dissatisfied”, overall how would you rate their programs?

PROGRAM \ RATING	Extremely Satisfied (5)	(4)	(3)	(2)	Extremely Dissatisfied (1)
Time class schedule					
Length of course/program					
Programs offered					
Instructors/Professors					
Other (specify):					

23. Has your company/business supported school programs?

- Yes
- No
- Do not know

24. If **yes**, how have you supported them?

- Giving opportunities to youth
- Providing financial support
- Other (please specify): _____

E. TRAINING METHOD

1. Would a trades training facility in the County be useful to your company and your hiring needs?

- Yes
- No
- Do not know

2. If **yes**, what would be your company’s preferred training method? (check all that apply)

- Seminar & workshop
- Courses
- Onsite training
- Online training
- Other (please specify): _____

3. If training was to be provided in a training facility in the County, what would be your company's preferred class time schedule? (check all that apply)

- 1 to 2 days
- ½ day
- 8:00 am to 10:00 am
- 12:00 pm to 1:30 pm
- 3:00 pm to 5:00 pm
- 5:00 pm to 7:00 pm
- 6 weeks
- 6 to 8 weeks
- Saturdays and Sundays
- July to September
- November to February
- Other (please specify): _____

4 Would you consider hiring an apprentice who trained at a trades training facility in Clear Hills County?

- Yes
- No
- Do not know

5. Which training programs would you like to see offered at a trades training facility in the County?

- Mechanics
- Building and Construction
- Carpentry
- Welding
- Other (please specify): _____

Appendix B -Poster

participate

April 2010

engage

mentor

inspire

**PARTICIPATE
TRADES FOR
SUCCESS
WORKSHOPS**

Clear Hills County together with the Mackenzie Municipal Services Agency will be hosting **Public Input Sessions**. We encourage you to **participate** in sharing **ideas** on how a local training program would benefit your **community**.

APRIL 13 at 7 PM
Hines Creek Composite School

APRIL 14 at 7 PM
Worsley Central School

APRIL 15 at 7 PM
Menno Simons Community School