



**GOVERNOR'S WORKFORCE INVESTMENT BOARD  
MINING AND MATERIALS SECTOR COUNCIL**  
**Strategic Plan**

**SECTOR COUNCIL INFORMATION**

|                 |   |
|-----------------|---|
| Sector:         | <b>GWIB Mining and Materials Sector Council</b> |
| Chair Person:   | Dana Pray                                       |
| Document Title: | Strategic Plan, 2013                            |

**OVERVIEW**

*This section should provide a brief synopsis of the project/requirements.*

The Mining and Materials Sector Council was created to support the Governor's Workforce Investment Board in identifying workforce needs, job training and educational programs that would best meet regional economic development goals for the industry. This requires continued industry collaboration with education partners and industry stakeholders.

**GOALS**

*This section should provide high level goals of the Strategic Plan.*

Develop a GWIB Mining and Materials Sector Council Strategic Plan to identify jobs in the Mining and Materials industry and to support Mining and Materials industry businesses in meeting their human resource needs. Also, develop initiatives necessary to support this goal.

**SCOPE OF WORK AND DELIVERABLES**

*The plan should be broken down into the following: defined Objective, Strategy (to meet the objective) and Action(s) (tied to the Strategy)*

| Objective 1.  | Strategy  | Action Plan  |
|---|---|--|
| Maintain communication with the Governor's Office of Economic Development to determine the workforce training needs of companies moving to or expanding in the state. | Maintain active engagement with GOED.   | Have the collaboration of the GOED Industry Specialist on the Council.   |
| Objective 2.  | Strategy  | Action Plan  |
| Identify the critical jobs, skills and competencies needed by the workforce for the industry sector.  | Survey of the employers in the industry to identify critical jobs that are difficult to fill and estimate the number of those jobs that will need to be filled each year for the next five years. | Focus on those jobs that are the most critical in terms of need and ability to fill.<br><br>Employers will need to define career pathways, skills required for each and identify what certifications would be appropriate for various levels in a career pathway. Employers need to adopt industry recognized certifications and put these in place.   |
| Objective 3.  | Strategy  | Action Plan  |
| Map the talent pipeline for the sector and identify where the talent needed will come from now, in the near-term and the future.                                      | Increase students graduating from high school and entering into the industry. Take advantage of unemployed workers from other industries.   | DETR should focus on how to identify unemployed candidates and provide fast track training for jobs available in the mining industry. This might entail having a better and more comprehensive database of available jobs and matching unemployed to those jobs. At a minimum, it will mean a lot of communication and brainstorming with industry employers on how to match the jobs to the unemployed.<br><br>Develop career pathways. |
| Objective 4.  | Strategy  | Action Plan  |
| Analyze and apply workforce intelligence to recommend sector-wide strategies to improve the talent pipeline.  | Gain input on workforce issues and opportunities from the Sector Council and industry employers.  | Hold a workshop on August 15, 2013 to discuss the workforce shortage and all of the issues that impact the mining industry in having an adequate and skilled workforce.  |

**SCOPE OF WORK AND DELIVERABLES**

*The plan should be broken down into the following: defined Objective, Strategy (to meet the objective) and Action(s) (tied to the Strategy)*

|  |  |  |
|--|--|--|
|  |  | <p>Communities in the mining region must continue to find ways to make the region attractive to a workforce recruited outside of the area. Recruit whole family, help spouses and children with adjustments. Recruit in other smaller communities rather than urban areas. Adequate and affordable housing must exist. Amenities and services are expected by workers from larger urban areas. Adequate child care. Jobs for spouses.</p> <p>Develop a list of best practices relevant to the strategies from the workshop.</p> <p>DETR to provide us with turnover rates for the industry which Jeremy is working on.</p> |
| Objective 5.   | Strategy   | Action Plan  |
| <p>Review and recommend workforce development funded training curriculum, activities and credential certifications for Mining and Materials.</p> | <p>K-12 Education must be changed to include more focus on Career and Technical education because currently employers are reluctant to hire a student graduating from high school and frequently those students must take remediation courses in order to proceed with education or careers.</p> | <p>Complete Statewide CTE Inventory for K-12 and Higher Education.</p> <p>Determine what CTE courses should exist in K-12 and what at College level.</p> <p>Change K-12 to include more CTE.</p> <p>Ensure students are learning basic reading, writing and math at levels that will not require remediation. Teach soft skills to all students at an appropriate grade level; Work ethic, communication, appearance, etc. Teach students what careers are available to them and in particular within their communities. This should include careers, opportunities and requirements for those careers.</p>                |

**SCOPE OF WORK AND DELIVERABLES**

*The plan should be broken down into the following: defined Objective, Strategy (to meet the objective) and Action(s) (tied to the Strategy)*

|  |  |   |
|--|--|---|
|  |  | <p>Teach more curriculum for career and technical education. Obtain and provide nationally recognized certifications.</p> <p>Find school(s) willing to take on a pilot program and implement the recommended curriculum changes.</p> <p>Elko County completed an inventory and the Dream it Do it program completed some in other communities. Perhaps we can use their template and extend it to a statewide effort.</p> <p>Expand the GBC MTC Program.</p>  |
| Objective 6.   | Strategy   | Action Plan   |
| <p>Identify and apply for federal funding available for job training and education programs.</p> | <p>Because Great Basin College is a critical resource for the region and must be funded adequately to not only continue providing CTE but also to expand, identify federal funding sources to help GBC expand its program.</p> | <p>Diversify and secure funding for MTC and other CTE programs both now and for the future. Identify permanent funding sources to restore, maintain and expand GBC funding as a whole. Expand the MTC program – include more welding and instrumentation. Market to students in all schools throughout the state and perhaps in surrounding states. Identify and provide industry recognized certifications that are recognized throughout the nation at appropriate levels of completed courses.</p> <p>Ansara Martino, DETR Grants &amp; Policy Analyst, and Todd Valline, Grants Subcommittee Chairperson, will seek federal funding sources in support of industry's workforce development needs.</p> |
| Objective 7.   | Strategy   | Action Plan   |

**SCOPE OF WORK AND DELIVERABLES**

*The plan should be broken down into the following: defined Objective, Strategy (to meet the objective) and Action(s) (tied to the Strategy)*

|  |   |  |
|--|---|--|
| Generate public and private resources (including, but not limited to, grants) to support the sector's work and projects.                               | As Council identifies workforce development needs, identify public and private resources to help provide funding. | Ansara Martino, DETR Grants & Policy Analyst, and Todd Valline, Grants Subcommittee Chairperson, will seek public and private resources. |
| Objective 8.   | Strategy  | Action Plan  |
| Report to the Governor's Workforce Investment Board the findings of the council and provide guidance for training policy formation and implementation. | Attend GWIB quarterly meetings to report the findings of the Council and provide industry guidance.               | Dana Pray, MMSC will report the findings of the council and its recommendations for training and education policies to GWIB.             |

**STRATEGIC PLAN TIME LINE**

*This section should provide a timeline for the completion of the project*

|  |   |
|--|---|
| Expected timeline for Strategic Plan completion? | Six (6) months. Due by September 30, 2013.<br>Note: Updates due each September 30 <sup>th</sup> . |
|--|---|

**TASKS/ASSIGNMENTS**

*This section should provide information regarding tasks/ assignments, specify which member or group within the Council is responsible for its completion, and include a specific timeline for the completion of the assignments*

| <b>Objective – Task/Assignment:</b>  | <b>Assigned to:</b>                         | <b>Completion Time:</b> |
|--|---|-------------------------|
| Objective 1:<br>Maintain communication with GOED to determine workforce training needs of companies        | Todd Valline                                | Ongoing                 |
| Objective 2:<br>Inventory critical jobs and their demanded skill sets and competencies                     | Dana Pray/Nancy Gray                        | Complete                |
| Objective 3:<br>Map talent pipeline and identify what is needed now, in the near-term and in the future    | Dana Pray/Nancy Gray                        | Complete                |
| Objective 4:<br>Analyze workforce intelligence to develop policies & strategies to improve talent pipeline | Strategic plan/Best Practices sub-committee |                         |
| Objective 5:<br>Review and recommend workforce development training  | ALL   |                         |

**TASKS/ASSIGNMENTS**

*This section should provide information regarding tasks/ assignments, specify which member or group within the Council is responsible for its completion, and include a specific timeline for the completion of the assignments*

|  |                       |  |
|--|-----------------------|--|
| curriculum, activities and credential certifications   |                       |  |
| Objective 6:<br>Identify and apply for federal funding sources for training and education                              | DETR                  |  |
| Objective 7:<br>Generate resources to support sector's work and projects   | DETR                  |  |
| Objective 8:<br>Report the findings of the council and its recommendations for training and education policies to GWIB | Dana Pray, MMSC Chair |  |

**GENERAL INFORMATION/COMMENTS**

*Provide any additional information/comments/documents for review that should be included in the Strategic Plan.*

**IMPORTANT NOTE:** Please bear in mind the following document is in "VERY ROUGH DRAFT" form at this point. It is intended as a discussion point and will be updated and revised after this meeting (MMSC 9-4-13 meeting). The strategic planning sub-committee felt that it was very important to provide the outcome of the workshop to the sector council for discussion and approval. Furthermore the document is a living document and will continue to evolve as we complete additional steps of the plan.

**OVERVIEW**

The Mining and Materials Sector Council was created to support the Governor's Workforce Investment Board in identifying workforce needs, job training and educational programs that would best meet regional economic development goals for the industry. This requires continued industry collaboration with education partners and industry stakeholders.

The goals and objectives provided to the MMSC are being addressed through strategic planning. This document will be updated and expanded as the planning effort progresses. The goals and objectives that follow are addressed through a series of tasks that when finished, will provide strategies and implementation recommendations for addressing both short term and long term workforce requirements in the mining and materials industry.

**GLOSSARY OF TERMS**

GWIB – Governor's Workforce Investment Board – A Board created by the Governor of Nevada to address workforce issues that provides guidance and direction through the Department of Employment Training and Rehabilitation.

DETR – Department of Employment, Training and Rehabilitation – DETR is a state agency that reports to the Governor and the GWIB and is responsible for Nevada's workforce policies and

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practices which includes a variety of disciplines and responsibilities.

GOED – Governor's Office of Economic Development – GOED is responsible for Economic Development for the State of Nevada and sets statewide direction through strategic planning and legislation.

MMSC – Mining and Materials Sector Council – A council created by the GWIB and DETR to develop a strategic plan for workforce in the mining and materials sector.

WSU – Workforce Solutions Unit

GBC – Great Basin College

DIDI or Dream it Do it – A program created by the national manufacturers association that provides major changes to education to focus on workforce training

MTC – Maintenance Training Cooperative

CTE – Career and Technical Education

K-12 – Kindergarten through 12<sup>th</sup> grade

NNDA – Northern Nevada Development Authority

DOE – Department of Education (State of Nevada)

NSHE – Nevada System of Higher Education – Community Colleges and Universities Also referred to as Higher Education

**INFORMATION GATHERING**

The Mining and Materials Sector Council began working on a strategic plan in April of 2013. Several assignments were made and sub-committees created. The sub-committees are contained in **Exhibit A**.

One of the first tasks included a survey of the employers in the industry to identify critical jobs that are difficult to fill and estimate the number of those jobs that will need to be filled each year for the next five years. The outcome of that effort is included as **Exhibit B**. With hundreds of jobs in the Mining industry, the sector council focused on those jobs that are the most critical in terms of need and ability to fill.

An industry workshop was held on August 15, 2013 to gain input on workforce issues and opportunities. The Sector Council and industry employers were invited. The outcome of the workshop is reflected in the issues and opportunities sections that follow.

**Issues**

The morning session was spent talking about the workforce shortage and all of the issues that impact

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the mining industry in having an adequate and skilled workforce. Input received included the following in no particular order;

- Lack of local workforce with the necessary skills, everyone that wants a job has one
- Do hire students from the MTC program but can only train so many entry level positions at a time, training takes senior level staff away from their jobs
- Nevada requires two years to get a certification that can be obtained in one year in other states. This forces students out of the state for their certifications and in order to obtain certifications that are nationally accepted standards
- GBC is currently at maximum capacity for the MTC program with both faculty and facilities.
- If we are able to hire an experienced employee locally it is because we are getting them from another industry employer which leaves them short.
- Some classes are creating a bottle neck for students in the MTC program where there are a limited number of classes available.
- GBC's funding continues to be reduced which is affecting their ability to train enough workers for the industry. There is a grave concern about the future as more funding cuts are to take place next year. GBC can only endure short term solutions for so long before they will be forced to make major cuts to programs.
- GBC must produce a larger number of MTC graduates and at higher levels
- High schools are not offering enough technical education classes and/or there is no standard and transferable certification.
- Students don't know what careers are available to them, particularly at the appropriate age to start making decisions early in K-12 on what classes to take.
- Students are lacking in soft skills when they graduate and require remediation before college or working. Basic reading, writing, and math are lacking.
- Soft skills such as being on time, dressing appropriately, communicating and a variety of other basic life skills are inadequate for college or work. Employers need mature workers and prefer those who have completed GBC's MTC program, high school graduates tend not to be very mature.
- Still have a high percentage of students who are told to avoid mining and a community that doesn't understand what mining is and what jobs are available. The boom and bust myth is also being perpetuated as a reason to not work in the mining industry.
- Need a consistent ongoing marketing program in K-12 of jobs that are available in their community. Need to devote more than one day a year to explore careers.
- The industry needs to define critical jobs and provide career pathways in order for schools to build curriculums accordingly.
- Recruiting from out of the area is difficult for the following reasons;
  - Moving to a rural location where there are less amenities and services
  - Housing is expensive and many cannot afford the expensive homes and apartments being built



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- People do not want to live in motel rooms waiting for housing to become available
- Spouses cannot find gainful employment – mid level jobs are few and child care is very difficult to find.
- Many non-locals end up being transient, traveling home on weekends and living in temporary quarters during the work week.
- Marketing and research funding does not exist to recruit students to the MTC program from schools throughout the state. Perhaps we should market to surrounding states as well?
- Out of state or area candidate retention, need demographics for successful relocation

### **Opportunities**

The afternoon session focused on assets and opportunities to resolve our workforce shortages. GBC is a great resource and one that has always produced the skills the mining industry requires. Continued funding cuts concern the industry as they feel the MTC programs should be expanded. The mining industry continues to do their fair share to fund these programs.

Specific strategies to produce the workforce we need include several areas; K-12, Higher education, employers, communities and the MMSC/DETR. Each is discussed below.

### **K-12 Education**

K-12 Education must be changed to include more focus on Career and Technical education. Currently, employers are reluctant to hire a student graduating from high school and frequently those students must take remediation courses in order to proceed with education or careers.

- Ensure students are learning basic reading, writing and math at levels that will not require remediation.
- Teach soft skills to all students at an appropriate grade level; Work ethic, communication, appearance, etc.
- Teach students what careers are available to them and in particular within their communities. This should include careers, opportunities and requirements for those careers.
- Teach more curriculum for career and technical education
- Obtain and provide nationally recognized certifications

### **Great Basin College**

Great Basin College is a critical resource for the region and must be funded adequately to not only continue providing CTE but also to expand;

- Diversify and secure funding for MTC and other CTE programs both now and for the future.
- Identify permanent funding sources to restore, maintain and expand GBC funding as a whole.
- Expand the MTC program – include more welding and instrumentation
- Market to students in all schools throughout the state and perhaps in surrounding states.
- Identify and provide industry recognized certifications that are recognized throughout the nation at appropriate levels of completed courses.

### **Industry Employers**

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Employers will need to make changes as well in order for the above to work.

- Employers will need to define career pathways, skills required for each and identify what certifications would be appropriate for various levels in a career pathway.
- Employers need to adopt industry recognized certifications and put these in place.
- Recruit whole family, help spouses and children with adjustments
- Recruit in other smaller communities rather than urban areas.

### **Mining Region communities**

Communities in the mining region must continue to find ways to make the region attractive to a workforce recruited outside of the area.

- Adequate and affordable housing must exist
- Amenities and services are expected by workers from larger urban areas
- Adequate child care
- Jobs for spouses

### **Mining and Materials Sector Council/DETR**

- The Mining and Materials Sector Council must take what they have learned and compare notes with the other sector councils to determine where there are overlaps and similar information. The sector councils may need to produce an overall plan that represents all sectors.
- We also need to understand which jobs may be jobs that are used in other industries and if so, what the magnitude of need is when we add all industry needs over the next five years.
- We think that all sectors would benefit from doing a statewide inventory for CTE programs at both K-12 and higher education. Elko County completed an inventory and the Dream it Do it program completed some in other communities. Perhaps we can use their template and extend it to a statewide effort.
- We also asked the DETR to provide us with turnover rates for the industry which Jeremy is working on. We sent him examples provided by Bill Sims of Humboldt County.
- We talked about how we might take advantage of unemployed workers from other industries. DETR should focus on how to identify unemployed candidates and provide fast track training for jobs available in the mining industry. This might entail having a better and more comprehensive database of available jobs and matching unemployed to those jobs. At a minimum, it will mean a lot of communication and brainstorming with industry employers on how to match the jobs to the unemployed.

### **NEXT STEPS**

Some of the opportunities and strategies discussed previously have far reaching impacts and cannot be accomplished without the participation of others. At a minimum, items we are proposing will likely require changes at the state level in the Department of Education, Legislature and Governor's office. We will also need to find school(s) willing to take on a pilot program and implement the recommended curriculum changes. There is more work necessary to determine to what extent others will need to

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be involved and what will need to be done.

The next step in our planning effort will be to explore more detail from the opportunities identified in the workshop. This section lists the tasks to be accomplished as a result of the workshop and assigns those tasks to the various sub-committees. Upon completion of these tasks, we will summarize again and provide a new list of tasks to be completed and ultimately a final report with recommended strategies for the WFIB. The tasks are also listed in the order in which they should be completed.

**Tasks to be completed:****Complete Statewide CTE Inventory for K-12 and Higher Education – Assign to Education and Training sub-committee**

- Every sector council will need this information; Elko County completed this effort two years ago but should be updated. The NNDA and Dream it do it initiative have completed this inventory in some other counties. We should utilize what already exists and complete throughout the state as needed. Perhaps we can reach out to the Department of Education and the Board of Regents to assist.

**Determine what CTE courses should exist in K-12 and what at College level – Assign to Education and Training sub-committee**

- Identify all CTE courses that would be desirable
- Compare the desired courses with actual course offerings in K-12 and colleges
- Identify gaps and desired new courses
- Identify what courses should be offered in K-12 and college

**Develop a list of best practices relevant to the strategies from the workshop – Assign to Best Practices sub-committee**

- We have the dream it do it initiative as a best practice, it will need to be documented and included as a best practice. Documentation needs to be a summary of what the program is and how it provides solutions to our strategies.
- We also have the program that was implemented in Winnemucca associated with learning about college which must also be summarized and included on the list
- Research other programs throughout the nation that have been implemented and are successful workforce initiatives in education.
- Determine which programs might fit, if they can be obtained. We know at this point that the Dream it Do it model will work for much of the opportunities but there may be other solutions or better ones than DIDI.

**Develop career pathways – Assign to Industry Employers sub-committee**

- Work with employers in the industry to develop career pathways and job descriptions for each critical job (utilize the ones done by the Dream it Do it project as a starting point)

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- Identify what industry recognized certifications would be helpful and at what points in the career ladder they should exist.
- Work with the sub-committee on the K-12 and GBC expansions to identify skills and training required.

### **Expand the GBC MTC Program – Assign to Education and Training, CTE sub-committee**

- Plan for expanding the MTC program for more instrumentation, welding and other classes causing a bottle neck. This plan must include all of the elements needed and cost estimates to complete; # teachers, facilities, equipment, etc.
- Utilize the numbers from the employer surveys and determine how many students will need to be trained yearly. Work with others to determine how many other industries require those skills as well and modify the number of jobs needed accordingly.
- Identify what other colleges throughout Nevada are providing the same training as GBC and how many students they can train.
- Be prepared to work with other sector councils to address on a larger scale and statewide.
- Explore funding sources to restore GBC's funding and expanded funded for the above

### **Change K-12 to include more CTE – Assign to Education and Training, K-12 sub-committee**

- Identify what is required to change the curriculum
- Identify specific skills to be taught and at what grades
- Identify how basic skills such as reading, writing and math are improved to eliminate the need for remediation after high school
- Identify what industry recognized standards exist and what classes will be required to work toward those for each critical job.
- Develop proposed new classes and changes to the existing curriculums
- Identify high level estimated costs and changes required to implement the revised curriculum
- Find a pilot school willing to implement the new curriculum
- Identify all the details associated with the pilot program including performance measures to monitor progress and success
- Identify what is required to gain approval and implement the pilot program

Each sub-committee should be prepared to provide a status report of their progress at the regular monthly meetings of the MMSC. We fully expect that there will be revisions and additions to these task lists as work begins and more detail is discovered.

## APPENDIX

Exhibit A – List of sub-committees

Exhibit B – Employer survey of critical jobs and estimate of number needed

**BUSINESS REFERENCES/GUIDELINE**

*For review embedded is the Sector Councils Bylaws as a reference and guideline to this Strategic Plan.*



Sector Council  
By-Laws - Final versic