Agrium

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Chris W. Tworek
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April 1, 2004

Commissioner Tom Irwin
Alaska Department of Natural Resources
550 West 7th Avenue, Suite 1400
Anchorage, Alaska 99501

Dear Commissioner Irwin

Agrium U.S., Inc. (Agrium) is pleased to submit the following proposal in response to the "Invitation to Submit Expressions of Interest, Cook Inlet Royalty in Kind Gas", issued by the Alaska Department of Natural Resources. In addition to the expression of interest, also enclosed is a report prepared by the McDowell Group entitled "The Economic Impact of Closing Agrium Kenai Nitrogen Operations."

Should you have any comments or questions after reviewing the proposal and accompany documents please contact me at 403-225-7468.

Yours truly,

Chris Tworek

CWT/LMP

cc: Marty Rutherford, Deputy Commissioner, Ak. Department of Natural Resources
William Nebesky, Ak. Department of Natural Resources
Rob Rennie, Agrium
Bill Boycott, Agrium
Lisa Parker, Agrium
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Agrium U.S. Inc. Response to State of Alaska
Expression of Interest
Purchase of Cook Inlet Royalty In Kind Gas

Interest and rationale for purchasing state royalty-in-kind gas

Agrium U.S. Inc. ("Agrium") has an immediate and long-term need for natural gas in the Cook Inlet. Since 2001 Agrium's Kenai facility has experienced a 30% decline in production due to an inability to secure adequate gas supply. Agrium has projected it may have to cease operations at the Kenai facility by the end of 2005 if it is unable to purchase a sufficient quantity of natural gas to operate the facility.

The sale of Royalty in Kind (RIK) gas to Agrium could provide a portion of the gas required to run the Kenai facility. The sale of RIK gas to Agrium would also help prevent the loss of Alaska's largest natural gas based value-added industry. As further explained in the attached report by the McDowell Group, entitled "The Economic Impact of Closing Agrium Kenai Nitrogen Operations", using RIK gas to maintain operations at the Kenai facility could have the following benefits:

1. **Maintenance of significant economic benefit to the State**
   The Kenai facility provides an economic multiplier of over $9 for every mcf of gas consumed at the plant. At 2003 reduced operating levels of approximately 70% this equates to over $350 M/year of benefit to the Alaska economy.

2. **Preservation of significant employment levels on the Kenai Peninsula**
   Operation of the Agrium plant results in over 650 direct and indirect jobs. Agrium provides year-round, high-paying, skilled manufacturing jobs with over $30M/year in payroll expense.

3. **Infrastructure – Impact on consumer cost**
   If the Kenai plant were to shut down, the seasonal swing in total Cook Inlet gas production would increase dramatically. This would result in additional cost to

the consumer for their gas as the cost of infrastructure will then be borne by fewer customers. The increased seasonality may also result in (i) additional costs for storage facilities, and (ii) operational difficulties at those wells that are shut in during periods of decreased demand. Both of these events would increase costs, which would ultimately be passed on to the consumer.

4. **Exploration and development of gas in the Cook Inlet**

   The sale of RIK gas to Agrium would act as a catalyst to spur new gas development in the Cook Inlet. By increasing demand for gas it would stimulate gas exploration and development activity. This would enhance the economic well-being of the oil and gas industry in the Cook Inlet. Conversely, if the Kenai facility were to shut down there would be a triple impact of 1) decreased demand, 2) increased available supply and 3) elimination of the only market accessible to new entrants. Collectively these would have a severe negative affect on future developments by the oil and gas industry in the Cook Inlet.

By Alaska economic standards, Agrium's facility is exceptional for its combination of high pay levels, amount of in-state purchases, and the degree of value-added manufacturing that occurs prior to export. If Agrium were unable to secure a sufficient gas supply, operations at the plant would be further curtailed or ceased thereby resulting in potential job losses and reduced purchases of local goods and services. In the event of the closure of the fertilizer plant, it is most likely this would lead to serious social consequences.

Length of time and effective date of contracts

Agrium believes that a total term of eleven or more years would be appropriate for the purchase of RIK gas by Agrium. This would be accomplished through the execution of a short-term agreement followed by a long-term agreement. We believe this is necessary to achieve two very distinct objectives:

- Continued facility operations until a long term RIK gas contract is approved by the Alaska State Legislature; and

- Long term operation of the facility until alternate gas supplies can be secured.

Agrium requires a timely source of committed long-term gas supplies to provide stability to the plant and the ability to make significant longer-term decisions on items such as staffing, capital investments at the Kenai plant and other potential exploration and production (E&P) decisions.

Because any agreement over one year requires legislative approval, Agrium believes it appropriate and necessary to begin the process with a short-term (one-year or less) agreement, to be effective as soon as possible. This is essential to provide gas to the Kenai plant in a timely enough manner to ensure survival of the facility. The time required for full legislative approval of a long-term contract could be too late to provide sufficient quantities of natural gas to operate the plant at minimal capacity.

A long-term (minimum ten year) contract would follow and become effective prior to expiry of the short-term contract.

Volume of gas Agrium seeks to purchase

Agrium could consume effectively all available RIK gas in the Cook Inlet. To achieve the optimal impact for both Agrium and the State, however, it would be beneficial to have a mechanism whereby Agrium could opt out of RIK gas on certain fields, such as those fields where Agrium is already receiving the gas under our Gas Sales Agreement with Unocal. Any arrangement to opt out would be in accordance with the notice provisions in existing legislation, regulations, leases and units, as applicable.

Price provisions or parameters to be considered

Agrium requires a gas supply priced so it can be internationally competitive in the fertilizer industry. On any RIK gas received, Agrium would expect to keep the State whole on the value it receives today.

Individual fields and leases to be considered

Initially, Agrium believes all fields should be considered for purchase of RIK gas. To achieve the optimal impact for both Agrium and the State, however, it would be beneficial to have a mechanism whereby Agrium could opt out of RIK gas on certain fields, such as those fields where Agrium is already receiving the gas under our Gas Sales Agreement with Unocal. Any arrangement to opt out would be in accordance with the notice provisions in existing legislation, regulations, leases and units, as applicable.

Transportation considerations

Agrium believes that transportation of the RIK gas could represent the largest impediment to the sale of any RIK gas. Many of the pipelines that would transport the RIK gas are not common carriers and would not be available to all potential purchasers of RIK gas on an equitable basis. Agrium would seek the State's support in having all required lines designated common carriers in a timely manner. Agrium's expectation is this would be achieved no later than the commencement of any RIK gas sales.

Institutional and commercial factors

Agrium expects the sale of RIK gas would create additional demand for gas and thus stimulate gas exploration and development activity in the Cook Inlet. This would enhance the economic well being of the oil and gas industry and the Cook Inlet economy in general.

The awarding of an RIK gas contract to a party other than Agrium could jeopardize Agrium's existing gas supply by: 1) reducing the available gas supply to the plant through the loss of the royalty share of gas currently provided under the Gas Sales Agreement with Unocal; and 2) interrupting other commercial gas purchases by Agrium. Both could hasten the demise of the Kenai plant.

If the Kenai plant were to shut down, in addition to the loss of employment and other lost economic benefits, the seasonal swing in total Cook Inlet gas production would increase dramatically. This would result in additional cost to the consumer for their gas, as the

cost of infrastructure will be borne by fewer customers. The increased seasonality may also result in operational difficulties at some wells that may need to be shut-in during periods of decreased demand.

Potential public advantages and disadvantages

Advantages

The sale of RIK gas to Agrium would provide a portion of the gas required to run the Kenai facility. Continued operation would:

- Maintain significant employment levels on the Kenai Peninsula – 230 direct and over 400 indirect jobs.
- Help prevent the loss of Alaska's largest natural gas based value-added industry.
- Result in a large economic benefit to the businesses and residents of Alaska because of its current economic multiplier of over $9.00 /mcf.
- Serve as a catalyst to development by creating additional demand for gas and stimulate continued gas exploration and development activity in the Cook Inlet.

The sale of RIK gas to Agrium will result in no incremental environmental impacts.

The sale of RIK gas to Agrium will result in no incremental effects on land use or social infrastructure (schools, public safety).

Disadvantages

The sale of RIK gas to others could hasten the demise of the Kenai plant, which would result in:

- The loss of all the above – jobs, tax revenues, community investments, purchases from Alaska businesses.
- Lost exploration & production opportunities as the current activities could be seriously curtailed.
- Reduced exports to Pacific Rim markets.
- No growth in Kenai Peninsula economy.
- Setback in Alaska's efforts to add value to its natural resources before export.
- A conflicting message to businesses looking to invest in Alaska.

The Economic Impact of Closing Agrium Kenai Nitrogen Operations

DRAFT REPORT

PREPARED FOR:
Agrium U.S. Inc.

McDowell GROUP

Research-Based Consulting

Juneau
Anchorage

March 2004

The Economic Impact of Closing Agrium Kenai Nitrogen Operations

Draft Report

PREPARED FOR:
Agrium U.S. Inc.

PREPARED BY:

McDowell GROUP

Anchorage • Juneau

March 2004

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Agrium U.S. Inc. contracted with McDowell Group, an Alaska research-based consulting firm, to quantify the economic impact of closing down Agrium Kenai Nitrogen Operations on the Kenai Peninsula Borough and the Alaska economy. This report details the study findings of the economic role of Agrium's production on the Kenai Peninsula and Alaska, and then assesses the impact if this production stopped and the plant closed.

Agrium Kenai Nitrogen Operations is one of Alaska's few major manufacturing operations and contributes significantly to Alaska's economy by adding value to Cook Inlet natural gas production. The Agrium complex is located near Nikiski on the Kenai Peninsula, 10 miles north of Kenai. In 2003, Agrium reported an average annual employment of 264. With a June 2003 downsizing, the plant's current employment is 230. The plant is the United States' second largest producer of ammonia and urea. It consists of two urea and two ammonia plants, a tidewater port facility, and a power cogeneration facility. In 2003, the Kenai plants produced 1.6 million metric tons of anhydrous ammonia and urea. For feedstock, the plant used approximately 110 million cubic feet of Cook Inlet natural gas daily (or 40 billion cubic feet annually). Virtually all of Agrium's Kenai production is destined for overseas markets. Agrium's total gross sales in 2003 were $220 million.

Summary of Role in the Economy

Economic Output

- Total economic output in Alaska related to Agrium operations was $374 million in 2003. Economic output is the gross sale of Agrium's production plus the impacts of company and employee spending in support of Agrium's operations.
- For every one thousand cubic feet (Mcf) of Cook Inlet natural gas used by Agrium for feedstock and power generation, over $9 in total Alaska economic output is generated.
- In 2003, Agrium spent $77 million on goods and services provided by almost 400 Alaska companies. Purchases were made from gas producers, construction contractors, engineering firms, environmental service firms, utility companies, retail and wholesale businesses, and other types of businesses.

Employment and Payroll

- Total Alaska impacts include 685 Alaska jobs (2003 average of 264 direct plus 421 indirect and induced jobs) and $42 million in payroll ($22 million in direct wages plus $20 million in indirect and induced payroll).
- Agrium provides year-round, high-paying skilled manufacturing jobs.

- The Agrium operation also accounts – directly and indirectly – for an estimated 2 percent of the population, 4 percent of employment, and 7 percent of wage and salary income in the Kenai Peninsula Borough.
- Agrium's work force is virtually 100 percent resident in the Kenai Peninsula area. This fact, in turn, directs household spending locally, as opposed to other income sectors that have significant non-resident components. According to the Alaska Department of Labor and Workforce Development, in 2002, non-residents held 21 percent of the private sector jobs in the Kenai Peninsula Borough.

Community Involvement

- In 2003, Agrium contributed $195,000 to 43 non-profit organizations or programs, most of them located in the Kenai area. Seven other organizations received in-kind support.
- Charitable giving was provided to local schools' athletic and academic programs, youth activities, community services and civic organizations, environmental programs, senior services, and other health and economic development programs.
- Agrium participated in 17 membership organizations, including industry and business support organizations.

Government Revenues

- The Kenai Peninsula Borough receives $2 million in industrial property tax from Agrium, an estimated minimum of $0.2 million in residential property tax from Agrium's employees' dwellings, and $1 million in state funding support for Agrium family school-age children's education – a total of $3 million in direct revenue.

Table 1
Summary of Statewide Agrium Kenai Nitrogen Operations
Economic Impacts, 2003

	Direct Impacts	Multiplier Effect	Indirect and Induced Impacts	Total Impacts
Economic Impacts				
Output	$220 million	1.7	$154 million	$374 million
Economic value of Agrium production per MCF of natural gas feedstock				$9.35/Mcf
Employment	264 jobs	2.6	421 jobs	685 jobs
Payroll	$22 million	1.9	$20 million	$42 million
AK goods & services purchased	$77 million			

(Table continues next page)

Table 2
Summary of Agrium's Economic Impacts on the Kenai Peninsula Borough, 2003

	Direct Impacts	Multiplier Effect	Indirect and Induced Impacts	Total Impacts
Kenai Peninsula Borough Employment and Payroll				
KPB Employment	264 jobs	2.2	317 jobs	580 jobs
Employment (% of KPB 2002 total)				3%
Payroll	$22 million	1.6	$13 million	$35 million
Wage and salary income (% of KPB 2002 total)				6%
Revenue to Kenai Peninsula Borough (KPB)				
Agrium industrial property tax	$2.2 million			
Agrium employee property tax	$0.2 million			
State revenue to KPB School District for Agrium dependents	$1.1 million			
Total revenue to KPB	$3.5 million			
Social Impacts				
Total population impacts (direct and indirect)				1,250 total 2.4% of KPB
Student enrollment (Agrium children as % of total KPB District enrollment)	2.5%			
Number of charities supported	50			

Economic Impacts of Agrium Closure

Alaska's Plant Closure Case Studies

Based on profiles of two Alaska communities – Ketchikan and Wrangell – that have lost important manufacturing facilities, a community in Alaska experiencing a similar loss can expect some or all of the following:

- Immediate loss of some of the community's highest paying, year-round jobs.
- Some immediate population loss, but also gradual, long-term population decline.
- Declining average wages as manufacturing jobs are not replaced in the local economy or are replaced by lower paying service sector jobs.
- Declining business sales and sales tax revenues.
- Declining property tax base that results in declining tax revenues.

- Increased tax burden on residents and businesses that remain and/or cuts in local government services.

- Economic consequences much greater than just the direct jobs lost with the closure if there is no growth elsewhere in the economy.

Kenai Peninsula Borough Impacts from Agrium's Closure

The Borough would experience both direct and indirect impacts on its economy. Based on current employment figures, estimates of direct impacts include:

- Immediate loss of 230 jobs and $19 million in annual payroll.

- Borough-wide employment dropping by 1.3 percent and payroll by 3.2 percent.

- Average monthly wage for the Borough dropping by 1.9 percent.

- Immediate loss of $2 million in property tax revenues, representing 5 percent of the Borough's total property tax revenues.

- 43 non-profit organizations losing $195,000 in contributions, perhaps more when including contributions made directly by Agrium employees.

- Immediate loss of $77 million in business sales.

Using multipliers for the Kenai Peninsula Borough (employment and payroll multipliers of 2.2 and 1.6 respectively), estimates of indirect impacts on the Borough include the potential loss of about 280 support sector jobs and $11 million in annual support sector payroll.

Statewide Impacts from Agrium's Closure

Based on current employment figures (230 employees) and statewide multipliers, Agrium's closure could result in a loss of a total 600 jobs and $36 million in payroll statewide. Agrium's closure could also affect the Alaska economy in the following ways:

- Natural gas production in Cook Inlet would be deferred by an estimated 40 billion cubic feet per year. This deferred production would result in immediate loss of state revenue from Cook Inlet gas royalty and severance taxes. It is estimated this loss of state revenue would be $11.6 million.

- Alaska's exports would immediately drop by 7 percent, a value of $200 million.

- Alaska's manufacturing base would suffer from a significant loss in high-paying, year-round, resident jobs. Loss of these jobs would continue a trend that has important long-term implications, including the out-migration of young people who cannot find viable employment.

- Finally, closure of the Agrium plant would represent a major step back in Alaska's effort to add value to its natural resources before shipping to outside markets. Economic development efforts in Alaska are all about adding value to resources, creating family-wage jobs for Alaskans, and providing a local tax base to support essential public services. Agrium brings all of these to Alaska.

Scope of Work

The purpose of this study is to measure the economic role of Agrium's production of urea and anhydrous ammonia at its Kenai plant on the economies of the Kenai Peninsula Borough and Alaska in 2003 and the potential economic impact if production at the plant were to close. The study includes:

The Role in Alaska's Economy

- A brief overview of Agrium's activities in Alaska
- Agrium direct spending for goods and services in Alaska
- Borough government revenues from Agrium
- Direct employment and annual payroll
- Agrium's donations to charities and membership organizations
- Indirect and induced payroll and employment from Agrium direct spending.

Closure Impacts

- A brief overview of socioeconomic impacts on employment, government revenue, export markets, and other components of the economy.

Methodology

Several methodologies were used to produce this study, including primary research, secondary data collection, interviews with Agrium representatives and borough government officials, and use of predictive econometric models. The economic data was collected from several official sources.

Agrium Expenditures

In order to estimate Agrium spending, the study team utilized data on Alaska vendor spending by location and by industrial classification.

The vendor data was reviewed and aggregated into 10 sectors:

- Natural Resources (including natural gas production)
- Manufacturing
- Trade, Transportation and Utilities
- Information

- Financial Activities
- Professional and Business Services
- Educational and Health Services
- Leisure and Hospitality
- Construction
- Other Services
- Government

Donations to charitable causes and payments to membership organizations were provided by Agrium U.S.

Government Revenue

Agrium U.S. provided information concerning tax and fee revenue paid to the Borough government, and 2003 corporate tax filings and other fees to the state. The Kenai Peninsula Borough provided additional supporting data on property and sales taxes.

Employment and Payroll

Direct employment and aggregate payroll data were derived from official Alaska Department of Labor and Workforce Development reports that Agrium files with the state and data provided directly by Agrium. Use of the state database allows for direct comparisons to all other official employment and payroll data for the Kenai Peninsula Borough and for accurate econometric modeling results. Full-time, part-time, and seasonal employment is accounted for in this database.

Indirect and Induced Economic Impacts

The study team used the IMPLAN econometric models for the nitrogenous and phosphatic fertilizer manufacture sector in the Kenai Peninsula Borough to estimate indirect impacts from Agrium output at the Borough and statewide level. To verify the relevancy of the IMPLAN model, the study team used the known direct expenditures provided by Agrium to evaluate the relationships between Agrium-related activities and other businesses in Kenai Peninsula Borough. The direct, indirect, and induced impacts on output, employment, and payroll were aggregated to obtain total impact. Dividing total impact by direct impact produces a multiplier.

Background on Agrium Kenai Nitrogen Operations

Agrium contributes to Alaska's economy by adding value to Cook Inlet natural gas production. In September 2000, Unocal completed the sale of its agricultural products business, including its subsidiary, Alaska Nitrogen Products LLC (ANP) to Calgary-based Agrium Inc. Unocal's Alaska oil and gas business unit continues to supply natural gas to Agrium from Cook Inlet fields and onshore production facilities as part of a 1998 agreement. The agreement expires in 2009. The Agrium Kenai Nitrogen Operations complex is located near Nikiski, 10 miles north of Kenai. When it was built in 1968, it consisted of one urea and one ammonia plant. Production started in 1969. In 1977, the complex doubled in size, adding another urea and ammonia plant with supporting utilities.

Currently, the Kenai plant is the United States' second largest producer of ammonia and urea (after CF Industries' Louisiana operations). The Agrium Kenai Nitrogen Operations complex has an annual production capacity of nearly 2 million metric tons. In 2003, the Kenai plants produced 1.6 metric tons of anhydrous ammonia and urea. For feedstock, the plant uses approximately 110 million cubic feet of natural gas daily. In 2003, Agrium's sales totaled $220 million.

Virtually all of Agrium's Kenai production is destined for overseas markets, including South Korea, Mexico, Taiwan, Thailand, Australia, Chile, New Zealand, and the Philippines. Within Alaska, product is distributed and sold in small quantities. In 2003, Agrium's exports represented 7.3 percent of all Alaska exports for all products.

Agrium spent $101 million in Alaska in 2003. Direct impacts include the money actually spent by Agrium in its normal business activity for payroll for Agrium's direct employees, goods and services, government taxes and fees, and charitable contributions. The components of these four types of direct spending, including direct employment, are described in the following sections.

Direct Employment and Payroll

All of Agrium's Alaska employees live on the Kenai Peninsula. In 2003, Agrium employed an annual average of 264 workers in the Kenai Peninsula, earning an annual $21.8 million in wages. When adding employee benefits, total payroll and benefits expenditures are $29.5 million. While it is beyond the scope of this study to capture the economic impacts of employee benefits, it is assumed that some portion of the $7.6 million Agrium spends on employee benefits remains in Alaska. For example, Agrium's employee benefit expenditures circulate in the Alaska economy when employees' health care and retirement payments are made locally to those retirees remaining in the area.

According to the Alaska Department of Labor and Workforce Development, in 2002, Agrium was the third largest private employer in the Kenai Peninsula Borough. Peak Oilfield Service Company is the largest private employer. Safeway/Eagle Stores' employment was the second highest employer, but their payroll would be substantially smaller than Agrium's payroll (payroll data by individual company is not publicly available). When public employers are included, Agrium Kenai Nitrogen Operations was the seventh largest employer.

With the June 2003 restructure of Agrium and the loss of positions, it is expected that Alaska Department of Labor and Workforce Development 2003 data may show that Agrium has fallen to fourth or fifth largest private employer in the Kenai Peninsula Borough.

Table 3
The Top 10 Private Employers in the Kenai Peninsula Borough, 2002

Company	Annual Average Employment
Peak Oilfield Services Company	349
Safeway/Eagle Stores	331
Agrium Kenai Nitrogen Operations	**297**
Frontier Community Services	278
Fred Meyer	225
Alaska Petroleum Contractors	209
Union Oil of California	177
Tesoro Alaskan Petroleum Company	176
Veco Alaska	161
South Peninsula Behavior Health Services Inc.	143

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

In 2002, Alaska Department of Labor and Workforce Development data shows that Agrium's employment peaked in March and April (302 and 301 positions, respectively). 2003 data shows the drop from June employment of 283 to July's employment of 241 positions, resulting from the restructure. Full-year data for 2003 was not available at the time this study was produced.

Approximately two-thirds of Agrium employees are assigned to maintenance and operations, while the remaining third are technical, supervisory, and management staff. Maintenance employees include: millwrights and machinists, welders and pipe fitters, general craftsman, instrument and electrical technicians, and warehouse supply workers.

As shown in the table below, Agrium employees are among the highest paid workers in the Kenai Peninsula, making two and half times higher the average wage paid in the Borough.

Table 4
Agrium Kenai Nitrogen Operations, 2003 and Kenai Peninsula Borough
Annual Average Monthly Employment and Earnings, by Industry, 2002

Industry	Annual Average Monthly Employment	Average Monthly Earnings*	Average Annual Earnings*
Agrium Kenai Nitrogen Operations	**264**	**$6,882**	**$82,582**
Natural resource and mining	1149	5,717	68,604
Oil and gas extraction	239	9,943	119,316
Construction	1,200	3,395	40,740
Manufacturing	1077	4,080	48,960
Trade, transportation and utilities	3,579	2,463	29,556
Information	262	3,071	36,852
Financial activities	445	2,351	28,212
Professional and business services	830	2,141	25,692
Health and education services	1,346	1,959	23,508
Leisure and hospitality	2,191	1,175	14,100
Other services	772	1,316	15,792
Federal government	428	4,273	51,276
State government	1,085	3,113	37,356
Local government	3,025	2,988	35,856
All industries average	**17,628***	**$2,798**	**$33,576**

*Subtotals do not add up to total because not all subtotals for every industry categories available are presented.
Source: Agrium Kenai Nitrogen Operations, Alaska Department of Labor and Workforce Development

In the process of manufacturing urea and ammonia, Agrium spent approximately $77.1 million on Alaska goods and services during 2003.

This spending was distributed among 384 Alaska businesses from nearly all sectors of the economy. Eighty-four percent of the Alaska vendor spending occurred in the Kenai Peninsula Borough. The single largest category ($60.9 million) was purchases of natural gas used in feedstock and power generation. Purchases of trade, transportation and utilities (new construction and maintenance) represent a distant second largest expenditure category ($6.6 million). Third in line are purchases for construction and oilfield services ($6.0 million). The table below provides total direct purchases of Alaska goods and services by expenditure category.

Table 5
Agrium Expenditures on Goods and Services in Alaska, by Expenditure Category, 2003

Category	Spending ($)
Natural Gas	$60,930,559
Trade, transportation and utilities	6,627,139
Construction	6,015,497
Other natural resources	1,720,003
Professional and business services	1,133,596
Manufacturing	454,401
Information	158,582
Educational and health services	31,499
Leisure and hospitality	30,738
Financial activities	18,530
Total Local Purchases of Goods and Services	**$77,120,545**

Figures do not include charitable spending, membership organizations or payment to governments.
Source: Agrium Kenai Nitrogen Operations, McDowell Group compilations

Taxes

Agrium pays taxes and fees directly to the Kenai Peninsula Borough. Local borough taxes paid by Agrium include property tax for facilities owned and operated by Agrium to manufacture urea and ammonia; that is, their production facilities and transportation facilities. The total tax revenues paid to the Kenai Peninsula Borough in 2003 based on the assessed value of Agrium's plant and equipment was $2.2 million, representing 5 percent of Kenai Peninsula Borough's total property tax receipts ($41.7 million).

Agrium also paid $221,000 in 2003 estimated corporation tax payments and $111,800 for other services to the State of Alaska.[1]

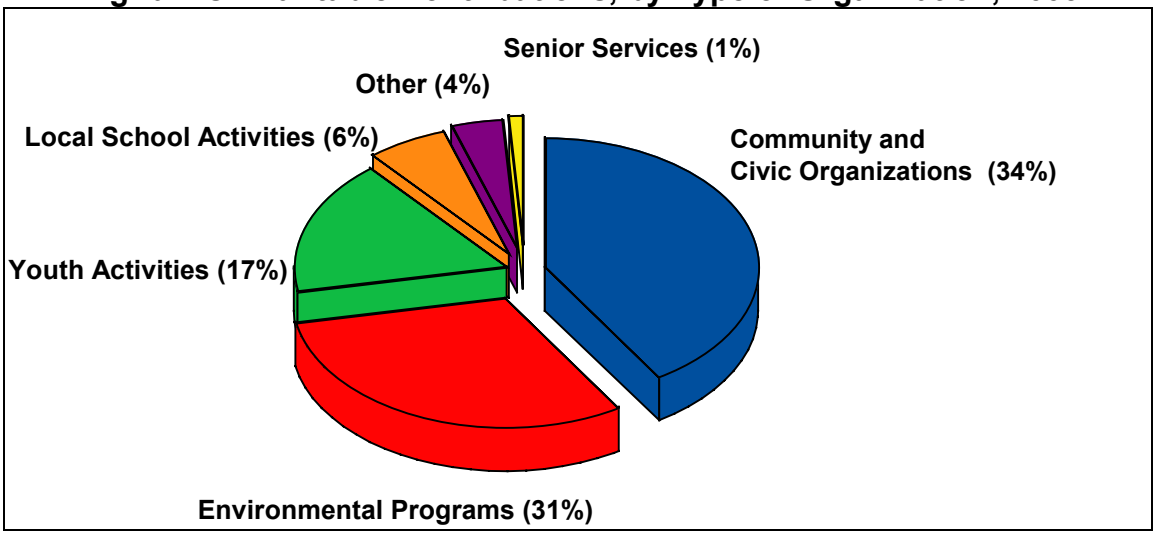
[1] Final corporation tax figure to be finalized in the summer of 2004.

Charitable Contributions and Membership Organizations

Agrium had an additional impact of $194,740 on the local and Alaska economies through its charitable donations paid to local organizations. In 2003, Agrium made cash contributions to 43 non-profit charitable organizations in Nikiski, Kenai, Soldotna, Sterling, and Anchorage. Agrium also provided in-kind support to seven organizations on the Kenai Peninsula.

These non-profit organizations ranged from local school programs (in 22 different sports and academic activities), youth athletic and academic programs (17 activities), community services and civic organizations (16), environmental programs (1), senior services (2), and a variety of other health, sport, and economic development programs (9).

Figure 1
Agrium's Charitable Contributions, by Type of Organization, 2003



Source: Agrium Kenai Nitrogen Operations

Agrium Kenai Nitrogen Operations matched dollar-to-dollar its employees' contributions to the United Way of Kenai. In 2003, the total contribution to United Way, including employee contributions, was $59,700. Agrium is also a co-sponsor of the *Caring for the Kenai* program. This program challenges high schools students to create, invent, or improve ways to better care for the Kenai Peninsula's environment.

While it is unclear how these charitable donations are distributed within the state, it is likely that a significant portion remains in the Kenai Peninsula. In-kind donations made by Agrium and its employees were not captured in this study, but it is known that some employees are actively giving back to their community, through volunteering and provision of skills, equipment, and material.

Agrium supported 17 membership organizations located in Kenai, Soldotna, North Pole, and Anchorage by giving $20,100 in membership support.

As Agrium-related spending circulates through the economy, it creates additional jobs and income for Kenai Peninsula and Alaska residents. These indirect output, employment, and earnings impacts are discussed in the following section.

Summary of Direct Spending

Agrium's total 2003 direct spending in Alaska was $101 million. This amount was used to pay its employee's payroll, local property taxes, purchases of Alaska goods and services, and charitable contributions.

Table 6
Summary of Direct Spending in Alaska by Agrium, 2003

Category	Value
Total employee payroll	$22 million
Total Agrium payments to Kenai Peninsula Borough	$2.2 million
Purchases of goods and services	$77 million
Charitable giving	$195,000
Total Direct Spending	**$101 million**

In addition to the $220 million in gross sales of Agrium's 2003 production, an average of 264 jobs and $21.8 million in total annual payroll resulting from direct employment, Agrium Kenai Nitrogen Operations also indirectly creates sales, jobs and earnings through the Kenai Peninsula and Alaska support sectors. This activity is often referred to as a "ripple effect" or a "multiplier impact."

Using the example of employment impacts, additional jobs are created in two ways. First, local spending by Agrium on services and supplies creates jobs in the businesses providing those services and supplies. These jobs are termed "indirect" jobs. Second, spending by Agrium employees in local stores and with local service providers (i.e., banks, doctors, auto repair shops, etc.) also creates jobs. These are termed "induced" jobs. Commonly, indirect and induced impacts are lumped together under the label of indirect employment.

Indirect employment (including induced) can be estimated using multipliers. By applying a multiplier to known direct employment, total employment (direct plus indirect) can be calculated. In Alaska, multipliers are typically between 1.5 and 2.5, meaning that the total (direct and indirect) employment impact of a business that employs 100 workers is between 150 and 250 jobs. In other words, for every direct job, one-half to 1.5 additional jobs are created in the support sector. Payroll impacts are estimated in the same way.

As Agrium spends money locally on goods and services, new earnings are created. Multipliers reflect the fact that money circulates through an economy at different rates depending upon the type of business at which money is spent and the economy in question. The magnitude of the output, employment, and earnings multipliers depends on, first, how much money the employer spends locally on goods and services, the average salary of employees, and the residency of those employees. Because Agrium spends over $85 million in the Alaska economy and supports high-paying jobs located in the Kenai Peninsula, the multiplier impact of Agrium is higher than the multiplier for most of Alaska's industries, with the notable exception of oil and gas production.

Calculating multipliers that apply specifically to Agrium Kenai Nitrogen Operations would require complex econometric modeling of the Kenai Peninsula Borough that is far beyond the scope of this study. However, using IMPLAN, a predictive model of local and state economies, it is possible to calculate reasonable estimates of multiplier impacts.

For the Kenai Peninsula Borough, IMPLAN produces multipliers for more than 500 industrial categories. For the nitrogenous fertilizer manufacturing sector in the Kenai Peninsula Borough, IMPLAN reports an output multiplier of 1.5, and employment and earnings multipliers of 2.2 and 1.6, respectively. Statewide multipliers are 1.7 for output, 2.6 for employment, and 1.9 for earnings.

Indirect and Induced Output Impacts

In 2003, Agrium's gross sales were $220 million. The gross sales of Agrium's production plus the indirect and induced impacts of spending in support of Agrium's operations -- an additional $154 million -- results in a total estimated statewide economic output of $374 million.

In 2003, Agrium purchased 40 billion cubic feet of Cook Inlet natural gas. For every thousand cubic feet (Mcf) of Cook Inlet natural gas used by Agrium for feedstock and power generation, $9.35 in total economic output is generated.

Indirect and Induced Employment and Earning Impacts

Applying a statewide employment multiplier of 2.6 and an earnings multiplier of 1.9 to Agrium's 264 direct jobs and $22 million in annual payroll, Agrium's total employment and payroll impact on the Alaska economy is estimated at 685 direct, indirect and induced jobs and $42 million in direct, indirect, and induced payroll (including 421 indirect and induced jobs, and $20 million indirect and induced payroll).

In the Kenai Peninsula Borough alone, Agrium creates a total of 580 jobs and $35 million in annual payroll, based on the multipliers described above. When factoring in the total direct, indirect, and induced employment and payroll impacts, Agrium's total payroll supports 5.9 percent of total Kenai Peninsula Borough payroll, and 3.2 percent of total Kenai Peninsula Borough employment.

Socioeconomic Impacts

Population

Based on the relationship between the employment and population on the Kenai Peninsula Borough, the 580 Agrium-related jobs support a population of 1,250.[2] This population impact accounts for 2.4 percent of the Kenai Peninsula Borough's total population (51,187).

Student Enrollment and Kenai Peninsula Borough School District Revenue

Agrium employees have 244 school-age dependents (between the years of 5 and 18). Assuming most of these dependents are enrolled in public schools in the Kenai Peninsula, Agrium's families accounted for 2.5 percent of Kenai Peninsula Borough School District school enrollment (9,697) in the 2002/2003 school year.

[2] 580 total jobs divided by the labor participation rate for Kenai Peninsula Borough (46.5 percent).

According to the School District, the State of Alaska provided $44.1 million to the District in FY03. On average, the District received $4,549 per student from the State of Alaska. Thus, Agrium school-age dependents accounted for $1.1 million in state revenue to the Kenai Peninsula Borough School District. When including Borough revenue ($30.7 million), federal revenue ($0.2 million), and other revenue ($0.1 million), the average per student contribution is $7,827. Therefore, Agrium school-age dependents could account for up to $1.9 million in Kenai Peninsula Borough School District General Fund revenue.

Property Tax Revenue

Property tax on employees' homes is not specifically calculated in this study. Several methods for evaluating property tax impacts were considered. Without specific data on number of homes owned or rented by Agrium employees, the study team used a more general measure. Using average taxable value for single-family units ($115,153) at the Borough mill rate of 6.5, and assuming that all Agrium employees own their own home, Agrium families pay at least $200,000 in Borough property taxes exclusive of additional service area and city taxes on residential property. Because of the high average wage for Agrium employees and the propensity of higher income earners to own higher valued homes, the actual figure, if known, could be significantly higher. In addition, this figure does not include property tax contributions by the population of homeowners affected indirectly by Agrium's activity.

Sales Tax Revenue

It is not possible to precisely calculate the Borough's sales tax collection that is due to all of Agrium's economic impacts on the Peninsula. Borough sales tax collections result from a complex system of variable taxation depending on specific location of the expenditure, per invoice limit of $500 regardless of the total value of the product purchased, expenditures by both residents and non-residents, and expenditures by Peninsula businesses and industries that are not exempt from sales taxation due to the resale provision of the sales tax code.

However, given that Agrium's total impacts account for 3 percent of total Borough employment, 6 percent of total Borough payroll and 2 percent of the Borough's population, it can be assumed that there are significant direct and indirect sales tax revenue impacts from Agrium's spending.

This section addresses the potential economic impacts of closure of the Agrium plant. The preceding chapters identified what is at stake – hundreds of jobs and millions of dollars in direct and indirect payroll, and property tax revenues. This chapter describes how the loss of the Agrium facility would ripple through the Kenai Peninsula Borough economy both in the near-term and over the long-term. It also considers the economic impact of plant closure throughout the state

The discussion begins with two case studies – profiles of communities elsewhere in Alaska that have experienced the closure of large manufacturing facilities. The case study discussion is followed by an analysis of the likely impacts in the Kenai Peninsula Borough, and elsewhere in the state, from Agrium plant closure.

Case Studies

Ketchikan

In 1996, Ketchikan Pulp Company was Ketchikan's single largest employer, with 450 employees earning $20 million in annual payroll. The mill closed in 1997, and the community entered a period of economic decline that continues today. Since the mill closed, Ketchikan's population has declined by 1,200 residents, approximately 8 percent of the community's total population. Six years after mill closure, Ketchikan's population decline continues. Between 2002 and 2003, Ketchikan lost another 150 residents.

Employment in Ketchikan in 2003 was approximately 1,000 jobs below the pre-mill closure level. The average inflation-adjusted monthly wage in Ketchikan fell from $3,050 in 1996 to $2,680 in 2002 (the latest available data). Real (inflation adjusted) payroll fell from $290 million in 1996 to approximately $215 million in 2002, a loss of 25 percent.

Gross sales have fallen from $525 million to $400 million annually, a decline of nearly 25 percent.

While Ketchikan continues to suffer significant economic fall-out from mill closure, growth in other sectors of the economy has prevented even greater decline. For example, cruise ship passenger traffic to Ketchikan increased from 500,000 passengers in 1997 to over 700,000 passengers in 2003. These 200,000 additional passengers spent $20 million in Ketchikan in 2003, providing important business sales and sales tax revenues for the community. Without this offsetting economic activity, the impact of mill closure would have been much more severe.

Other effects of mill closure in Ketchikan include declining sales and property tax revenues, declining school enrollment, increased seasonality in the local economy, and other effects.

What is noteworthy is the timing of the economic losses in Ketchikan. It has been six years since the mill closed, yet the economy continues to struggle. Further, the community has still not found the bottom of an economic downturn brought on by mill closure.

Wrangell

Until 1994, the Alaska Pulp Corporation's sawmill was Wrangell's single largest employer. The mill employed 200 workers, one-fifth of the community's wage and salary employment. Mill closure in 1994 precipitated a steady and dramatic decline in the local economy. Wrangell's population in 1994 stood at 2,754 residents. In 2003, after nine years of almost continuous decline, Wrangell's population totaled 2,113 residents. Since the mill closed the community has lost over 600 residents – 23 percent of Wrangell's population. Following are several other indicators of Wrangell's economic condition, following mill closure:

- Wage and salary employment remains 17 percent below the pre-mill closure level. The most recent data shows continuing annual decline.

- Total annual payroll remains $7 million below the pre-mill closure level, a loss of 20 percent, with continuing annual decline.

- School enrollment declined from 555 students in 1995 to approximately 400 students in the 2003-04 school year.

- Wrangell's average wage, in inflation-adjusted dollars, is 20 percent below the pre-mill closure level. The average monthly wage is $600, in terms of real purchasing power, below the 1994 level.

In summary, Wrangell's economy has yet to recover from an economic shock that occurred a decade ago. Unlike Ketchikan, Wrangell has very little economic activity to offset the continuing decline stemming from mill closure.

Case Study Summary

These case studies illustrate how plant closures can impact local economies. To summarize, a community that experiences the loss of an important manufacturing facility can expect some or all of the following:

- Immediate loss of some of the community's highest paid jobs – and year-round jobs

- Some immediate population loss, but also gradual, long-term population decline

- Declining average wages as plant jobs are not replaced in the local economy or are replaced by lower-paying service sector jobs

- Declining business sales and sales tax revenues

- Declining property tax base (manufacturing facilities typically require high levels of investment in taxable plant and equipment) which results in declining tax revenues

- Increased tax burden on residents and businesses that remain and/or cuts in local government services.

In the absence of growth elsewhere in the economy to offset the affects of plant closure, the economic consequences can be much greater than the loss of jobs at the plant.

Kenai Peninsula Borough Impacts from Agrium Plant Closure

Direct Borough Impacts

In June 2003, the Borough lost 65 jobs and nearly $5 million in annual payroll as a result of Agrium restructuring its operations. With the full closure of the Agrium plant, the Borough would immediately lose 230 jobs and $19 million in annual payroll. Borough-wide employment would drop by 1.3 percent and payroll by 3.2 percent.

With the loss of 230 jobs averaging over $80,000 in annual payroll, the Borough economy will lose some of its highest paying jobs. Plant closure will result in a decline of 1.9 percent in the Borough's average monthly wage.

The Kenai Peninsula Borough would immediately lose $2 million in property tax revenues. The assessed value of Agrium's assets includes approximately $1.4 million for the 225 acres the plant sits on and $170 million for the plant itself. While the land may retain most of its assessed value, the plant will be worth no more than its salvage value, which would likely be less than 10 percent of its operational value. The loss of $2 million in property tax revenues would represent approximately 5 percent of the Borough's total property tax revenues. Either the Borough would be forced to make significant cuts in services or other property owners would make up for the Agrium-related loss through higher tax payments.

With closure of the Agrium plant, 43 non-profit organizations would lose a combined total of $195,000 in contributions. These and other non-profits may also lose contributions made directly by Agrium employees.

Direct impacts associated with plant closure would also include lost sales for businesses that provide goods and services to Agrium. In 2003, Agrium purchased $77 million in goods and services from 384 Alaska businesses. A majority of this spending was on natural gas purchases (the impact of the loss of Agrium as a gas market is described below).

Indirect Borough Impacts

Support sector employment: Indirect impacts of plant closure could include loss of jobs in the support sector. The likelihood, timing and magnitude of these potential losses would depend on a variety of factors. The condition of the Borough economy overall is one critical factor. If the area economy is weak, the employment losses associated with plant closure could include all of the indirect and induced employment linked with Agrium. As described earlier, using employment and payroll multipliers for the Kenai Peninsula Borough, Agrium accounts for an estimated 510 jobs in the Borough economy. This figure includes direct (230 jobs), and indirect and induced employment. It would also account for $30 million in total payroll. This figure includes direct ($19 million), and indirect and induced payroll. That means that about 280 support sector jobs are at stake, along with $11 million in annual support sector payroll. These are jobs in stores, schools, doctor's offices, construction companies – jobs throughout the economy.

On the other hand, if other sectors of the economy are growing and generating additional business and personal income, employment losses in the support sector might not materialize.

According to Alaska Department of Labor data, employment in the Borough's economy has been growing slowly, at a rate of approximately 1.5 percent annually over the past five years. This slow growth trend, if it were to continue, would suggest that the Kenai Peninsula Borough might avoid the worst-case scenario associated with Agrium plant closure.

While growth elsewhere in the economy might prevent layoffs of workers in the support sector, it is nevertheless true that the economy would experience a significant opportunity cost. Suppose, for example, five years after plant closure, total borough employment is about 250 jobs below its current level. This would suggest that the economy would suffer the loss of direct Agrium jobs, but would be able to absorb the potential indirect Agrium-related losses through growth elsewhere in the economy. However, if Agrium's plant had not closed, the Borough economy would have 560 jobs more jobs than it would without Agrium. This is an important opportunity cost for the Kenai Peninsula Borough.

Housing and real estate markets: Closure of the plant and layoffs of 230 workers would result in some weakening of the local housing market. The impact on the housing market would depend on many factors, including the number of homes that would ultimately be placed on the market, interest rates (low mortgage interest rates would support home sales), and trends in sectors of the economy unrelated to Agrium. Job growth elsewhere in the economy would offset impacts on housing and real estate.

Borough taxes: As the housing and real estate market shifts in the Borough, it may also experience a loss in its residential property tax base. With a loss in payroll and spending within the Borough, it can be expected that sales tax receipts would also decrease.

Statewide Impacts of Agrium Plant Closure

Employment: Closure of the Agrium plant would have a range of statewide impacts. In terms of employment (and using statewide multipliers), at risk are the 600 jobs and $36 million in payroll dollars that are directly or indirectly linked to Agrium operations in Alaska. As described above, while the state's economy may not experience a drop in employment of 600 jobs if the Agrium plant closes, over the long-term the state's economy without Agrium would be 600 jobs smaller.

Impacts on Cook Inlet Gas Production and Markets: Overall, Cook Inlet gas production is declining. Today's production is approximately two-thirds the 300 Bcf highs of the 1980s and early 1990s. Without exploration and development of significant new fields in Cook Inlet, the Alaska Department of Natural Resources forecasts gas production to decline to just 22.5 Bcf by 2022.[3]

Marathon and Unocal are the major players in the Cook Inlet oil and gas fields. These two companies were the operators for 29 of the 42 fields and pools in 2002. Other companies operating in Cook Inlet include Forest Oil Company, Aurora Gas, LLC, Conoco/Phillips, and XTO Energy.

As part of its agreement when it sold its plant to Agrium, Unocal supplies Agrium with most of its natural gas feed stock.[4] Unocal also supplies gas to Enstar, a gas utility company, through a long-term service contract.

As the primary supplier to Agrium, Unocal would be the player most greatly affected by Agrium's closure. If Agrium were to close, Unocal's gas production would be affected. The full extent of those effects is unknown. However, if there were no immediate demand for the newly available supply, Unocal would defer its production of this gas. This would lead to deferred state royalties and production taxes (see below).

The utility markets made up largely by Enstar, Municipal Light and Power, and Chugach Electric are holding stable and currently served by long-term contracts held with Cook Inlet gas producers. It is not expected that these long-term contracts will be affected by Agrium's closure.

Currently there is no industrial market outlet for Agrium's gas supply from Unocal. The Kenai LNG plant is producing at capacity served by Marathon and ConocoPhillips production.

State revenues: Of particular importance is the impact of plant closure on State of Alaska gas production royalties and severance taxes associated with gas production for Agrium's feedstock. Determining the precise royalty and severance tax value of Agrium's gas would require a complex analysis beyond the scope of this study. It is known that Cook Inlet gas production will generate approximately $51 million in royalties and severance tax revenues to the State in 2004.

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[3] Alaska Department of Natural Resources, Division of Oil and Gas, *Alaska Oil and Gas Annual Report December 2003*, for historical years 1960 through 1987 and forecast years 2004 through 2022.

[4] Unocal Corporation – 2002 Annual Report on Form 10-K - http://www.unocal.com/annualreport/02-10-k.htm.

Using 2003 gas volumes purchased by Agrium (40 bcf) as a base and given that there is no other existing market for this volume of gas, the state would lose as much as $11.6 million in future annual state revenues from royalties and severance taxes (at a time when the State is struggling to balance its budget).[5]

In the long term, assuming Unocal deferred its production with the intention of selling this supply to another buyer at a higher price than what Agrium currently pays, the revenues to the state may be the same (in terms of present value) than what it currently receives. This, however, does nothing to mitigate the immediate loss to the state treasury.

In addition to gas royalty and production taxes, the state would also lose any future corporate tax revenue collected from Agrium.

Alaska exports: With the closure of the Agrium plant, total Alaska exports would decline by approximately 7 percent. The total value of Alaska exports of all products in 2003 was approximately $2.7 billion. That year fertilizer exports were valued at $200 million, representing 7.3 percent of total Alaska exports.

Economic development and adding value to Alaska's natural resources: Finally, closure of the Agrium plant would represent a major step back in Alaska's effort to add value to its natural resources before shipping to outside markets. Economic development efforts in Alaska are focusing on adding value to resources, creating family-wage jobs for Alaskans, and providing a local tax base to support essential public services. Agrium brings all of these to Alaska.

[5] Estimate was provided by Agrium. Assumptions include: royalties based on Unocal's reported actual royalties paid from July 2002 to June 30, 2003, Beluga royalty rate of 7 percent based on DNR data, Beluga royalty price of $1.20/mcf based on GSA pricing, price and royalty rate of "other gas" assumed to be the same as Unocal's gas, severance rate of 5 percent based on estimates of daily production rates per well and severance tax price based on GSA pricing.