RESOURCE REVIEW

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40 YEARS at PRUDHOE BAY

TAPS: "We didn't know it couldn't be done."

TAPS construction near the southern foothills of the Brooks Range in 1976. Oil from the North Slope and the pipeline that carried it brought great wealth to Alaska. (Photos by Carl Portman)

It was a gray, chilly morning at Prudhoe Bay on the eve of the summer solstice 40 years ago when the first oil from North America's largest oil field flowed into the Trans-Alaska Pipeline System (TAPS) for its 800-mile journey to Valdez, where it would be transported by ocean tanker to West coast refineries.

For BP and ARCO, the event on June 20, 1977 at Milepost 0 of the pipeline was the first fruits of a major move into the Arctic that began in 1968 with the discovery of the giant Prudhoe Bay oil field. That discovery has since led to the development of 24 separate North Slope oil fields, established Alaska as a world-class oil and gas province, and transformed Alaska's small economy.

At the time construction began in 1974, TAPS was the largest private construction project in the world with an estimated price tag of $900 million. When completed in 1977, final costs exceeded $8 billion. Approximately 70,000 worked on the pipeline, including a peak workforce of 28,072 in 1975.

Alaska's North Slope has now produced more than 17 billion barrels of oil since TAPS came on line 40 years ago. Through last year, the oil industry has invested more than $55 billion in Alaska and has become the undisputed foundation of the economy. Oil has funded up to 90 percent of the state's unrestricted General Fund revenues in most years and has generated more than $180 billion in total state revenue. Even at today's low oil prices, oil revenues account for approximately 67 percent of unrestricted General Fund revenues.

Furthermore, the oil industry has generated approximately one-third of Alaska jobs and accounts for about one-half of the overall economy when the spending of state revenues from oil production is factored into the equation. In other words, without oil and TAPS, Alaska's economy would be half its size or smaller. As the oil industry expanded so did Alaska's economy and basic infrastructure throughout the state.

TAPS and the oil flowing through it also led to the creation of the Permanent Fund. The fund has grown to over $59 billion and has paid out more than $18 billion in dividends to Alaskans.

While the economic impact of oil and gas activity and production in Alaska is profound, throughput in TAPS has been in a long-term decline trend since peaking at 2.1 million barrels per day in 1988 when the state accounted for more than 20 percent of domestic production.

Yet because of Prudhoe Bay and TAPS, Alaska is poised over the long term to reap a new bounty with an estimated 40 to 50 billion barrels of conventional oil remaining to be developed in onshore and offshore areas of the Arctic. However, the majority of the remaining resource is located in federal

TAPS transforms Alaska's economy
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Crew insulates a joint on the pipeline north of the Yukon River in the summer of 1976.

TAPS transforms Alaska's economy continued from page 1

A construction crew installs the outer lining on to the pipeline near Coldfoot in 1976, one-year before TAPS became operational. At far right is RDC Deputy Director Carl Portman, who worked as a Teamster during the summers of 1975 and 1976 on TAPS, first at Prudhoe Bay and later as an expediter for a construction crew, covering an area from Coldfoot to the Yukon River. "I had incredible, adventurous jobs working on the pipeline," Portman said. "It literally changed my life. I am so proud to have worked on TAPS."

offshore and onshore areas where access has been hindered or blocked either by federal policy or a complex and ever-changing regulatory regime.

On state lands, there are encouraging recent discoveries with the potential to sharply increase TAPS throughput, but ongoing unstable fiscal and constantly-changing oil tax policy could compromise Alaska's competitive position for attracting the billions of dollars of investment required to develop the new prospects and increase production.

The More Alaska Production Act of 2013 has drawn $5 billion in new investment to Alaska after making Alaska a more competitive and attractive place to invest. As a result, the volume of oil moved through TAPS increased in 2016, the first year-over-year increase since 2002. This is welcomed news for Alyeska Pipeline Service Company, TAPS' operator.

"More oil is the best long-term solution for sustaining TAPS, from a technical and operational standpoint," said Tom Barrett, Alyeska president and RDC board member. "It's also the best thing for Alaskans and our economy. Every barrel matters to us. The more throughput, the better we can plan for the continuing safe operation of the pipeline."

Alyeska employees for years have worked to anticipate and respond to escalating challenges brought on by declining flow. Lower flow means slower-moving oil, which allows more potential for cooling temperatures, ice formation in the line, and for water and wax to drop out of the flow stream and accumulate.

While Alyeska has worked to adjust to lower flows, including adding heat to the pipeline and continually modifying pipeline pigging operations, the best-case scenario is bringing more oil to TAPS, Barrett said.

The industry is working hard on that best-case scenario. In 2015, the pipeline moved 185,582,715 barrels and averaged 508,446 barrels per day. The total amount moved in 2016 was around 517,500 barrels a day – a 1.8 percent increase. Daily production in fiscal year 2017 is now forecasted to average 523,700 barrels per day, a seven percent increase from a forecast issued by the state last fall. If that estimate is accurate, it would mark the second consecutive year of increased production on the North Slope, the first time that has occurred since 1988.

"We're supportive of an external environment that encourages responsible resource development and helps us sustain TAPS' flow level and work toward future throughput increases," Barrett said.

At Alyeska's marine terminal in Valdez, there is a monument to the original designers and builders of TAPS that reads, "We didn't know it couldn't be done." Facing a Herculean project, inhospitable terrain, and political barriers, they still got their work done and built TAPS.

Forty years later, Alaska's economic lifeline has exceeded everyone's original expectations for operational durability and performance. The dawn of the next 40 years for TAPS is now on the horizon.

RDC ANNUAL MEMBERSHIP LUNCHEON SET FOR JUNE 28

Hal Quinn, President and CEO of the National Mining Association, will address *New Direction for American Mining and Energy Policy* when he addresses the 42nd Annual Membership Luncheon of the Resource Development Council on Wednesday, June 28th at the Dena'ina Convention Center in Anchorage.

Quinn will address U.S. energy policy, critical minerals, and what the mining and coal industry expects under the Trump administration, and how Alaska's Congressional delegation is positioned to help advance many of the important issues facing America's mining and energy industries.

The Annual Membership Luncheon is one of the largest business events held in Alaska. To sponsor or register for the event, please visit akrdc.org/annual-meeting..

RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

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From left to right are Kati Capozzi, Carl Portman, and Marleanna Hall.

RESOURCE DEVELOPMENT COUNCIL

is an Alaskan, non-profit, membership-funded organization comprised of individuals and companies from Alaska's oil and gas, mining, timber, tourism, and fisheries industries. RDC's purpose is to link these diverse industries together to encourage a strong, diversified private sector and grow Alaska through responsible resource development.

ALASKA FIRST

A Message from the Executive Director

Opponents of responsible resource development projects across Alaska are growing in number. Sadly, I believe their efforts are misguided, and often don't look to the facts.

We have many examples of success stories in Alaska, but we are remiss to boast about it. I would venture to guess that most people in America don't know that all five of Alaska's large metal mines were permitted since the passage of the National Environmental Policy Act and the Clean Water Act. I would go even as far to say most people don't know the Trans-Alaska Pipeline System has safely transported 17 billion barrels of Alaskan oil.

When it comes to renewables, our fisheries are the best managed in the world. Our forest products industry, which was once a vibrant industry, works diligently to manage Alaska's forest resources and sustain an economy, mostly in Southeast Alaska.

Alaskans do want to protect our environment, our wildlife, our ways of living, and have jobs and responsible resource and community development.

We have responsibly developed many resources in Alaska. And yet, Alaska still contains billions of barrels of oil, trillions of cubic feet of natural gas, significant amounts of coal, metal and mineral resources, and renewables like forest products and fisheries.

Alaska and America need the resources we have to offer, that we can and do responsibly develop. But yet, so many groups push back against our ability to do just this. It's no longer the "NIMBY" (Not In My Back Yard) mentality, we now face the "BANANA" (Build Absolutely Nothing Anywhere Near Anybody) mentality.

Unfortunately, these ideals are turning to make everything in Alaska more challenging – from adding on to a remote cabin, to expansion of community infrastructure, to overly burdensome permitting processes for resource development projects.

What I believe these groups don't understand is that we, as Alaskans - some cheechakos, many who have moved here and stayed, multi-generation families, and many whose ancestors have lived here for millennia, all 100% Alaskan – do want to protect our environment, our wildlife, our ways of living, and have jobs and responsible resource and community development.

New study indicates Alaska tourism industry growing strong

In 2016, 55 percent of visitors to Alaska arrived by cruise ship. More and larger ships are coming to Alaska as demand for Alaska cruises remains high. (Photo by Carl Portman)

By Kati Capozzi

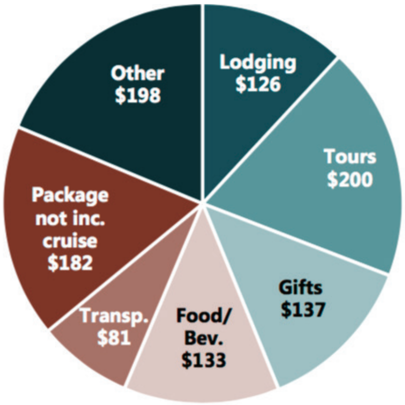
A new record was set in Alaska in 2016, and it didn't have anything to do with temperatures or snowfall. According to a recently released study by the McDowell Group, over 1.8 million people visited the state between May and September, the highest number of visitors ever recorded.

The report, known as the Alaska Visitor Statistics Program (AVSP), is a visitor study that is periodically commissioned by the Department of Commerce, Community, and Economic Development. The AVSP focuses on visitor volume as well as information collected from visitor surveys, such as the trip purpose, length of stay, and overall satisfaction.

The year-over-year increase in visitors from 2015 was around 77,500 visitors, representing a four percent bump. Fifty-five percent of visitors arrived by cruise ship, followed by air travelers at 40%. Highway and/or Alaska Marine Highway visitors accounted for five percent of total visitors to Alaska.

The 2016 visitor volume was an impressive 21% higher than the recent low in 2010, which was just over 1.5 million. The low of 2010 can largely be attributed to two factors: the high price of oil at the time, and the increased tax burden that was thrust on to cruise ship passengers in Alaska by way of ballot initiative in 2006. The "head tax" prompted cruise operators to sail to more investment- friendly waters, taking nearly 150,000 passengers with them. When the tax was reduced in 2010 by the Alaska Legislature, industry responded by bringing ships back to Alaska.

Average visitor spending, per person, by category, 2016



Source: McDowell Group

Spending by visitors is up as well. Total spending in 2016 reached nearly $2 billion, compared with just over $1.5 billion in 2011. Adjusted for inflation, spending increased by 21 percent. The growth in spending is not only attributed to the increased number of visitors, but also how much the visitors are spending while they're in Alaska. The average visitor spent $941 per person in 2011, and in 2016 spent $1,057.

Satisfaction of the visitors to Alaska is perhaps the most impressive statistic and least surprising. Ninety-nine percent of visitors were satisfied with their trip to Alaska in 2016, with 75 percent claiming to be "very satisfied."

Bigger cruise ships coming to Alaska: Are we ready?

More and larger ships are visiting the state as demand for Alaska cruises remains high, CLIA Alaska President John Binkley told the Resource Development Council, but the state needs additional dock facilities to handle the growth.

Windstar Cruises is adding Alaska as an itinerary in 2018, and Princess will add an eighth ship. In 2019, three new cruise lines will call on Alaska: Viking, Azamara, and Cunard.

From 2015-2018, the average ship tonnage has increased by 16 percent and lower berth capacity has expanded by more than 15 percent.

"Ports around the world are preparing for the larger ships," Binkley remarked. "How are Alaskans preparing for the larger ships? Will our ports be ready?"

Binkley said the $35 million the state collects each year in passenger fees is plenty to accommodate infrastructure needs statewide, but the funds are not distributed based on need. For example, the aging dock in Seward, where 63 ships will turn this season, needs to be replaced, but the community collects only $450,000 annually in passenger fees. Huna Totem Corporation collects $800,000 and needs a second dock at Icy Strait Point.

In contrast, Juneau gets $13 million in passenger fees for the two docks it maintains – the other two docks are private – while Ketchikan collects $9.5 million but maintains and operates four docks.

Binkley said the industry is hoping to resolve legal disagreements with Juneau over use of passenger fees. "The goal is a better use of the existing passenger fees," he said. "The fees are collected for dock infrastructure, and that's what we believe they should be used for."

Editor's Note: CLIA Alaska, formerly known as the Alaska Cruise Association, represents 12 member cruise lines. In 2016, CLIA Alaska cruise lines accounted for 31 ships, 477 voyages, and 1,025,00 passengers in Alaska. Binkley's presentation and slides, as well as all RDC breakfast presentations, may be found online at akrdc.org.

RDC supports multiple use in Central Yukon plan

In a letter to the U.S. Bureau of Land Management (BLM), the Resource Development Council (RDC) supported Alternative D in the Central Yukon Resource Management Plan. That alternative adheres more closely to the multiple-use mandate of the BLM than other alternatives examined by the plan.

The Resource Management Plan will provide future direction for approximately 13 million acres of BLM-managed land in central and northern Alaska, including the Dalton Highway corridor and the Central Yukon watershed.

Much of Alaska's federal lands are closed to resource development and Alternative D provides the greatest opportunities for public access, including potentially necessary access to state and private projects, primarily on land owned by Alaska Native Claims Settlement Act corporations, and provides opportunities for overland access to remote communities.

Previously, RDC urged the BLM to incorporate resource management into the plan, such as opening the area to resource development, increased access for exploration, mineral leasing, mining, and oil and gas development.

EPA RESOLUTION: POSITIVE STEP FOR FAIR AND DUE PROCESS

Guest Opinion by John Shively

Following two and half years of legal wrangling with the Environmental Protection Agency (EPA) and nearly twice that pushing back against their preemptive and predetermined actions against the Pebble Project, we are pleased to have reached a settlement with the EPA that allows us to enter the permitting process without preconditions. This announcement is good news for resource projects in Alaska and a reminder that work remains to ensure preemptive actions against projects do not happen again.

Pebble is an important asset for Alaska that should be judged through scientific rigor and assessed by objective, expert regulators at the U.S. Army Corps of Engineers and a raft of other federal and state agencies including the EPA. We have been waiting to move this process forward for the last four years and will move deliberately to get the process underway.

Some of important points of the settlement:

- We can proceed into normal course permitting under the Clean Water Act and National Environmental Policy Act.
- We need to file permit applications within 30 months.
- EPA cannot seek to utilize its CWA 404(c) authority until an EIS has been completed – unless the EIS is not completed within 48 months of the date of this settlement.
- EPA has further agreed to initiate a process to consider withdrawing the Proposed Determination it issued in July 2014.
- Pebble has agreed to terminate our legal actions against the EPA.

As such, there are no longer any extraordinary development restrictions on the Pebble Project. This is all we have ever wanted and all we have ever asked for. The settlement represents a major step forward for our project and allows us to start advancing Pebble to the next phase of development.

Recently, we have focused on two key issues for the project. First, we sought to establish a clear path that would allow us access to the normal permitting and review process without extraordinary conditions. Second, we sought to secure a long-term partner to advance the project into this process. The settlement with the EPA accomplishes our first objective.

We can now start to focus on finalizing our second objective. As a world class mineral deposit, there remains significant interest in Pebble among major mining companies. This settlement removes a major stumbling block to attracting new investment in the Pebble Project and in Alaska. Many Alaskans know that EPA's preemptive actions placed a dark cloud on investment throughout Alaska. The lifting of this cloud is just one sign that the Trump administration is taking a more positive view of resource development than we saw in the previous administration.

As Alaska continues to look for ways to attract new jobs and economic activity, we believe the Pebble Project has a valuable role to play. This project represents the potential for billions of dollars of investment, thousands of long-term, high-wage jobs and

Above is a remote drilling site on the Pebble prospect located on state land open to mineral leasing, approximately 20 miles west of Lake Iliamna in Southwest Alaska.

the potential for significant economic activity while at the same time providing revenue for local, state, and federal governments. Responsible development at Pebble could be an economic engine for decades to come.

"Our project will be significantly smaller with demonstrable environmental protections. Chief among these is protecting the important salmon resource in Bristol Bay. It will be a busy and exciting year for the project and we look forward to engaging with Alaskans to discuss our plans."

We are excited to be able to introduce several new initiatives in the coming year that will more clearly define how the project will benefit residents of Bristol Bay and Alaska. Our project will be significantly smaller with demonstrable environmental protections. Chief among these is protecting the important salmon resource in Bristol Bay. It will be a busy and exciting year for the project and we look forward to engaging with Alaskans to discuss our plans.

I want to conclude this column about our recent good news with a big thank you to RDC, the other business and resource organizations and many individuals from around the state for your steadfast commitment to fair and due process for Pebble. We could not have made it this far without the many letters, calls, and emails that supported the permitting process and spoke out against the unprecedented actions by the EPA. While our news today is good, we still have a lot of work in front of us. Alaska's future can be a bright one, but it will take constant vigilance from all of us to achieve it.

INDUSTRY DIGEST

Zinke signs order aiming to open more of North Slope to oil leasing

Alaskans join Department of Interior Secretary Ryan Zinke as he signs the secretarial order in Anchorage (Photo by Judy Patrick)

Interior Secretary Ryan Zinke issued a secretarial order affirming the Trump administration's commitment to energy development during the Alaska Oil and Gas Association's annual conference in Anchorage on May 31st. The order consists of preparing a schedule for revising the Integrated Activity Plan for the National Petroleum Reserve-Alaska and updating the federal government's assessment of technically recoverable oil and gas resources in the 1002 Area of the Arctic National Wildlife Refuge (ANWR).

"The President has tasked me to prepare our country to be energy dominant," Zinke told an enthusiastic cheering crowd at the conference. "The only path for energy dominance is a path through the great state of Alaska."

Secretarial Order 3352 is aimed in part at revising the management plan for the 23.6 million acre petroleum reserve to allow for more energy development. Nearly half of the energy reserve, including highly prospective lands, was put off-limits to development by the Obama administration.

Zinke said the new resource assessment for ANWR will be done by federal and state geologists, and he would like to include industry as well to foster a partnership mentality with his department. He said modern 3-D seismic technology should provide a much better resource estimate than what was capable in the previous assessment conducted in the 1980s.

"This order in effect makes Alaska open for business," Zinke said.

Environmentalists challenge Trump's Arctic OCS Executive Order

Environmental groups have filed a lawsuit over an Executive Order President Donald Trump signed last month to reverse an Obama administration order banning offshore oil and gas leasing in the Outer Continental Shelf (OCS) of the Alaska Arctic.

Last year President Obama withdrew nearly all of the Beaufort and Chukchi seas from leasing. Lease sales had been scheduled in both seas under a five-year plan running through 2022.

Uncertainty continues to face oil tax policy in Juneau

The Alaska Legislature gaveled out of its regular session on May 17 without passing a fiscal plan, operating and capital budgets, or House Bill 111, the oil tax and credits bill. These items are among those listed on Governor Bill Walker's call for a special session, which got underway May 18.

HB 111, which originated in the House Resources Committee, passed the House on April 11. The bill would make substantial changes to the voter-approved oil tax reform bill enacted in 2013. The House bill would not only end the credits program, it would double and triple production taxes at prices between $55 and $75.

Senate committees made substantial amendments to the bill, which passed the Senate May 15. The Senate version is less harmful to future investment than the bill passed by the House. The Senate version makes significant modifications to the oil tax credits program and eliminates cash credits, limiting future financial exposure for the state, while leaving the current oil tax structure in place.

As expected, the House rejected the Senate version. The bill is now heading to a conference committee to iron out the differences between the House and Senate versions.

Public testimony and guidance from expert witnesses in Senate hearings contradicted the significant oil tax policy changes in the House version of the bill. Expert consultants also affirmed that increasing taxes in a low-priced environment is detrimental to the industry and could drive away investment required for new production and maintaining a steady flow of revenue to the state.

The current tax system has proven successful in reversing a steady decline in North Slope production.

RDC supports permits for Red Dog and Pogo mines

In letters to the Alaska Department of Environmental Conservation, RDC urged the state regulator to approve reissuance of APDES permits for the Red Dog and Pogo mines.

The permits ensure protection of water quality and human health, place limits on the types and amounts of pollutants that can be discharged from the mines, and outline best management practices to which the mining operations must adhere to.

"Since production began at the Red Dog Mine, improvement to the water quality of Red Dog Creek have been achieved and maintained," said RDC Executive Director Marleanna Hall.

The Red Dog Mine provides hundreds of jobs to the Northwest Alaska economy and funds the entire tax base of the Northwest Arctic Borough. Further, royalties to NANA Regional Corporation, with as much as $82 million dispersed to all other Alaska Native Corporations, were paid by Red Dog.

The Pogo Mine, which began operating in 2006, has demonstrated a high standard for environmental stewardship, Hall noted. "Pogo adds to the state's economy as a whole, making significant annual payments to the state, including corporate taxes, the mining license tax, and royalty payments for mining on state land."

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