

**COPPER RIVER AT RISK:**

**A CALL FOR CITIZENS' OVERSIGHT FOR THE  
TRANS-ALASKA PIPELINE:**

A WHITE PAPER PREPARED BY THE  
COPPER RIVER WATERSHED PROJECT

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**COPPER RIVER WATERSHED PROJECT**  
P.O. Box 1560  
CORDOVA, AK 99574  
(907)424-3334  
CRWP@COPPERRIVER.ORG

## **2006 TAPS NEWS IS OLD NEWS: PATTERN OF NEGLECT GOES BACK DECADES**

Alaska North Slope and Trans-Alaska Pipeline System (TAPS) problems filling the news since March, 2006 aren't really news – they are part of a pattern of oil company neglect dating back for decades. Spanning 800 miles of Alaska, from Prudhoe Bay on the North Slope to the Valdez Marine Terminal on Prince William Sound, the Trans-Alaska Pipeline is an engineering marvel that crosses the Brooks Range at Atigun Pass (elevation 4,739 feet), the Yukon River, and five major tributaries to the Copper River (among other waterbodies). Residents of this region fear a spill from a pipeline breach could quickly end up in the main stem of the Copper River and damage spawning and migratory habitat of the world-famous Copper River salmon. “We eat fish, we don't eat money” said Ray Neely, Alaska Native, Council Member, Gulkana Village Council.<sup>1</sup> Based on our experience attempting to reduce the risks posed by TAPS for the Copper River watershed, we recommend that Congress establish citizens' oversight councils for the Alaska North Slope and TAPS.

Attached is a map illustrating a hypothetical scenario, and showing the time sequence of oil flowing in the Tazlina River into the Copper River (using August flow rates).<sup>2</sup> We have prepared this illustration to make a critical point: even under perfect weather conditions allowing for timely spill response, *oil will by then have passed designated containment sites and entered the main stem of the Copper River.* Alyeska's estimated response time for Containment Site 10-21 and 10 – 20 on the Tazlina River is just over six hours.<sup>3</sup> Alyeska Pipeline Service Company has no containment sites on the Copper River, no on-site training for tactics or strategies in the Contingency Plan to address such a disaster.

Although Alyeska has designated containment sites along the pipeline corridor, including several on *tributaries* to the Copper River, no containment sites are designated for the main stem of the Copper River itself. But if a breach in the pipeline released oil into the Tazlina River in August (high-flow), oil would be 18 miles down the Copper River, past the confluence of the Tazlina and the Copper Rivers, in six hours.

The most prominent recent problems are the March, 2006 spill of 250,000 gallons of crude oil onto the tundra, and discovery of a second leak in August leading to a temporary transit line shutdown, both on the North Slope. Investigation into these incidents revealed that British Petroleum, the major TAPS owner and a Prudhoe Bay part owner and operator, had not used “smart pig” devices (the term comes from “pipeline inspection gauge”) to inspect possible pipeline corrosion since the 1990s. Congressional investigators are looking into whether a consultant report that advised more effort being invested in corrosion detection was modified under pressure from BP executives. BP is

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<sup>1</sup> April 21, 2006 stakeholder meeting of Copper Basin residents, Gulkana Village Council, Gakona Village Council, and Ahtna Corporation representatives.

<sup>2</sup> U.S. Geological Survey, Monthly Streamflow for Alaska data, 1949 – 2004.

<sup>3</sup> Det Norske Veritas, *Screening Risk Assessment, Appendix III, Transit Time Model Documentation and Results*, May 10, 2005, p. III-7.

also being sued over a March, 2005 Texas refinery fire that killed 15 people and injured hundreds.

## **DOCUMENTED HISTORY OF TROUBLED TAPS OPERATIONS**

In a 2002 report, *The Emperor's New Hose: How Big Oil Gets Rich Gambling With Alaska's Environment, A Status Report on the Trans-Alaska Pipeline System*, Richard Fineberg documents numerous persistent problems on TAPS:

- **Corrosion problems:** these problems date back to pipeline construction in the 1970s, when a faulty application of epoxy coating failed under cold conditions and a subsequent, corrective application of tape also failed because of heat conditions (from the temperature of oil moving through the line). Major corrosion was detected in the late 1980s.<sup>4</sup>
- **Pipeline shutdowns and re-starts:** the average annual number of shut-downs and re-starts was greater from 1996 – 2000 than in the first year of operation. These problems consistently caused problems at Atigun Pass as well as spills of crude oil and toxic chemicals at three pump stations during one re-start in Sept., 2001.<sup>5</sup>
- **Neglecting recommended maintenance:** Checkvalve 109 on the Trans-Alaska Pipeline System (TAPS) on the south side of the Klutina River had been listed by Alyeska as failing for several years. On TAPS, check valves prevent oil from flowing backward in the pipeline. Failure to hold back the heavy crude between checkvalve 109 and checkvalve 110 could cause the line to burst, spilling oil into the Klutina River. The Klutina pipeline crossing is just 1.5 miles from the Copper River. In an August 16, 2005 memo to TAPS owners, Alyeska Chief Operating Officer Dan Hisey recommended fixing this and 100 other maintenance problems: “Mr. Hisey said that the owners had not included in their budget the \$4 million to \$6 million he estimated was needed to replace the [checkvalve 109], as Alyeska had hoped to do in 2006, and that presented maintenance issues”.<sup>6</sup> Richard Fineberg reported that “According to the September 17 Wall Street Journal, which disclosed the existence of the list, one week after Hisey gave the list to owner company representatives, Alyeska abolished his position.”<sup>7</sup> Subsequent to national press attention, the TAPS owners funded the deferred valve replacement and conducted the repairs in July, 2006.
- **Leak detection system inadequate:** Alyeska's Transient Volume Balance system cannot detect a leak smaller than 2,000 barrels per day under optimal conditions, and in many segments of the line the minimum threshold must be set at twice that level or the system will issue frequent false alarms.<sup>8</sup> On the North Slope, the March 2006 spill would have been detected earlier if workers had heeded the several alarms set off by the leak detection system, but they discounted the signal as a false alarm.

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<sup>4</sup> Fineberg, Richard, *The Emperor's New Hose*, June 2002, pp. 54 – 56.

<sup>5</sup> Fineberg, *The Emperor's New Hose*, p. 13

<sup>6</sup> Jim Carlton, *Wall Street Journal*, September 17, 2005.

<sup>7</sup> Fineberg, “*Documents Reveal Trans-Alaska Pipeline In Trouble; Monitors Punt*,” Nov. 2, 2005.

<sup>8</sup> Fineberg, *The Emperor's New Hose*, pp. 16.

Reviewing recent developments on the North Slope and on TAPS, Fineberg concludes that these problems are a manifestation of substandard performance by an industry that is too slow to identify problems and, once identified, too slow to fix them. According to Fineberg, this pattern of substandard performance places Alaska's environment at undue risk and has its roots in cost-cutting pressures and lax government oversight.<sup>9</sup>

### **INADEQUATE SPILL RESPONSE PLANNING**

What exists in the way of oil spill response planning for the TAPS' river crossings in the Copper River drainage is glaringly sparse. No containment site exists for the Copper River, yet current response times indicate that in several locations oil will likely reach the Copper River before Initial Response Teams arrive at existing containment sites.

Distances between river pipeline crossings and the Copper River in Region 5 are:

- Gulkana River: 33 river miles
- Tazlina River: 5.1 river miles
- Klutina River: 1.5 river miles
- Tonsina River: 18.8 river miles
- Little Tonsina River: 22.3 river miles

Alyeska's proposed TAPS Contingency Plan instructs responders by advising "if oil has entered or is likely to enter Copper R., construct containment pits and berms, as necessary, at point of entry on floodplain."<sup>10</sup>

How will heavy equipment for such work be transported to the site? How will recovery of oil already in the river be approached? How quickly can Alyeska and its responders reach the leading edge of a spill? Have Alyeska employees conducted on-site drills for a potential spill on the Copper River? This is the only mention in the entire Contingency Plan of response to oil entering the Copper River.

Other Contingency Plan limitations include:

- **Plans allow for oiling miles of river shoreline.** If a spill occurred in the Gulkana River at the Sourdough crossing, the farthest distance of any Region 5 pipeline crossing from the Copper River, it would take roughly 23 hours for oil to reach Containment Site 10-16 (CS 10-16) at the Richardson Highway bridge. In good weather, Alyeska could respond and intercept the leading edge of the spill before it enters the Copper River in 23 hours, at the expense of oiling 29 miles of the Gulkana River, the Copper's largest tributary and home of the largest chinook salmon run in the watershed. It would clearly be useful to have more containment sites along the Gulkana, between CS 10 - 17 and 10 - 16 to begin containment as soon as possible.

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<sup>9</sup> Richard Fineberg, "Shocking? Evidence Mounts from Alaska and Elsewhere that BP's Inadequate North Slope Performance Should Have Been No Surprise to Public Officials or Monitors -- North Slope Corrosion Problems Fit Industry Pattern; Substandard Performance on the Trans Alaska Pipeline and Elsewhere in Alaska Places Workers, Environment and Nation's Oil Supply at Undue Risk" (Update to a March 15, 2006 Preliminary Report to the Alaska Forum Environmental Responsibility on BP's North Slope Oil Spills and Partial Prudhoe Bay Shutdown), September 3, 2006; and "Documents Reveal Trans-Alaska Pipeline In Trouble: Monitors Punt," Nov. 2, 2005.

<sup>10</sup> TAPS Pipeline Oil Discharge Prevention and Contingency Plan, Volume 3, Tactics, Section 3. Containment Actions, "Containment Instructions for Copper River Segments," p. 3-168.

On the Tazlina the Klutina, which are much faster flowing rivers, the distances and response times are even less favorable.

- **Limited number of containment sites.** Should oil actually enter any of the rivers crossed by the pipeline, it's unlikely that a high percentage of oil would be recovered by any one containment site on these fast moving, multiple-channel rivers. Multiple containment sites should be designated and equipped. Comments submitted by the PWS Regional Citizens' Advisory Council to the Alaska DEC on Alyeska's proposed amendments to its Contingency Plan in December, 2003 emphasize the need for a greater focus on spill preparedness at the TAPS river crossings and clean-up of oil in waterways: "the total number of sites is insufficient to protect the drainages crossed by the pipeline, and none of the sites are specifically designed to exclude oil from environmentally sensitive areas."<sup>11</sup>
- **No developed Geographic Response Strategies for Interior Alaska:** the State of Alaska's Department of Environmental Conservation (ADEC) web site features several pages on Geographic Response Strategies (GRS) as an approach for responding to spilled oil. But no GRS have been developed for Interior Alaska, however. Again, the PWS RCAC commented to DEC "In order to meet the standard of planning established in other GRS statewide, the containment site plans must be expanded to provide additional details including photographs, equipment requirements, resources at risk, and other logistical issues."<sup>12</sup>
- **Strategic Reconfiguration Will Delay Oil Spill Response:** Alyeska requested, and was authorized by the Joint Pipeline Office, to automate 3 of its 7 remaining manned pump stations along the pipeline. With fewer staff spread along the line, response times will be lengthened and thus more oil spilled. According to an analysis prepared for Alyeska, "while the frequency of leaks is reduced, the spills, when they occur, result in more volume of oil released when compared with pre-SR, Capstone analysis."<sup>13</sup>

## **COPPER RIVER DRAINAGE: WHAT'S AT STAKE?**

Salmon are the bedrock of the Copper River region's salmon economies, a critical resource for subsistence harvest in the Copper River region, for commercial harvest on the Copper River flats, and for a growing sportfish industry in the drainage.

Private lands and public resources are also at high risk of degradation in the event of a breach in the Trans Alaska Pipeline System at a pipeline river crossing in the Copper River drainage. Along the Copper River corridor, the Ahtna Corporation and the Chugach Alaska Corporation have extensive private holdings. Public resources include invaluable salmon populations in the Copper's tributaries, waterfowl and game resources, and recreational lands managed by state and federal agencies.

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<sup>11</sup> Comments submitted on Alyeska's application for amendment of TAPS Pipeline Oil Discharge Prevention and Contingency Plan by PWS RCAC to DEC, Joint Pipeline Office, December 5, 2003, p. 7.

<sup>12</sup> Ibid, p. 8.

<sup>13</sup> Det Norske Veritas USA, *Screening Risk Assessment*, Rep. # 70004921, Rev. 1, Section 2.3.4, May 06, 2005.

The Copper River's subsistence, sport, and commercial fisheries support Alaskans throughout the state. Residents travel from both rural communities nestled in the watershed and larger cities such as Fairbanks to make their living and supplement their diets with the renowned Copper River salmon. Commercial harvesting of Copper River sockeye, kings, cohos, pinks and chums generates \$14.67 million annually in seafood sales. Subsistence and personal use fishermen harvest between 4,600 – 8,600 kings and 133,150 – 252,300 sockeyes annually. Using an average of 1999 – 2003 prices, that tallies up to another \$1.53 – 2.89 million supplementing the area's household budgets. Salmon sport fishing in the Copper River region has increased considerably in the last 20 years, bringing revenue to charter fishing guides, lodging and travel service businesses.<sup>14</sup>

Approximately 80 percent of all households in the watershed rely on subsistence hunting and gathering to supplement household food budgets. Alaska Department of Fish and Game subsistence use surveys state that households in the Copper River region harvest 318 pounds of salmon annually, a value of approximately \$1,271 per household.<sup>15</sup> The commercial fishing town of Cordova is home to roughly half the region's population of commercial fishers. About half of Cordova's residents are directly employed in fish harvesting or processing, and Alaska's Department of Labor estimates that "most of Cordova's remaining workforce provides infrastructure support to this industry."<sup>16</sup> The magnitude of the Copper River fisheries' importance to this region demonstrate that protecting fish habitat not only benefits the salmon, but also the salmon-dependent people of Alaska.

### **CITIZENS' OVERSIGHT AND RESPONSE: HOW CAN IT HELP?**

Since its creation pursuant to Congressional mandate after the *Exxon Valdez* oil spill, the Prince William Sound Regional Citizens' Advisory Council (PWS RCAC) has demonstrated the beneficial effects of citizens' oversight of oil transportation. In almost two decades of existence, the PWSRCAC, working closely with industry and regulators, has made many contributions to improving the environmental safety of oil-industry operations in Alaska waters. A few of these include:

- Representatives from the Council worked closely with Congress and the Coast Guard to implement double-hull requirements pursuant to the Oil Pollution Act of 1990;
- The Council led the effort, and commissioned much of the technical research, that led to the system of tanker escort tugs operating in the Sound today which are vital to the safe transport of oil through Prince William Sound;
- The Council sponsored research and financed much of the hardware for a radar system that detects glacial icebergs that threaten tankers and other vessels in the Sound;
- The Council sponsored research the led to the installation of vapor controls on the loading systems at the Valdez tanker terminal to reduce the release of dangerous air pollution.<sup>17</sup>

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<sup>14</sup> 2003 Annual Finfish Management Report, ADF&G, five year average of prices and harvest levels.

<sup>15</sup> Community Profile Database, Alaska Department of Fish and Game, March 1999, Dollar figure is based on assumed value of \$4/lb for salmon.

<sup>16</sup> Alaska Department of Labor, "Alaska Economic Trends," March 1999, p. 5.

<sup>17</sup> PWS RCAC, Background Briefing Paper, Role of Statutorily Established Citizen Oversight Councils in Copper River At Risk: Call for Citizens Oversight of TAPS, 10/2006, CRWP

Despite the notable successes of the PWS RCAC, the TAPS owners and state and federal regulators have resisted establishment of similar groups for the 800-mile TAPS. Through binding arbitration Alyeska attempts to limit PWS RCAC to working on the Valdez Marine Terminal and the marine waters through which is oil is conveyed,<sup>18</sup> even though TAPS crosses hundreds of miles of subsistence lands, fish streams, and sensitive wildlife habitat. Neither TAPS nor the North Slope communities have the benefit of local knowledge to ensure appropriate environmental mitigation, spill prevention measures and trained citizen response, as Prince William Sound does with the Ship Escort Vessel Response (SERVS)-trained fishing fleets of Cordova and Valdez.

As PWS RCAC has observed, “Community-based responders are a valuable resource because they are physically close to the environmentally sensitive areas, have local and traditional knowledge about the environment and resources, and are highly motivated to protect these areas. Local knowledge can provide important information to both the plan holders and ADEC during actual oil spills, drills and exercises to ensure that traditional and contemporary local knowledge of environmental, cultural, and logistical sensitivities are factored into response decision-making.”<sup>19</sup>

A major portion of the necessary citizens oversight functions could be adapted to the North Slope and TAPS from the PWS Regional Citizens’ Advisory Council scope of work by substituting “pipeline and pump station facilities” for “terminal facilities and tankers”. For example:

- **provide advice and recommendations** . . . on policies, permits, and site-specific regulations relating to the operation and maintenance of terminal facilities and crude oil tankers which affect or may affect the environment in the vicinity of the terminal facilities;
- **monitor** . . . **the environmental impacts** of the operation of the terminal facilities and crude oil tankers;
- **monitor** those aspects of terminal facilities’ and crude oil tankers’ operations and maintenance which affect or may affect the environment in the vicinity of the terminal facilities;
- **review** . . . **the adequacy of oil spill prevention and contingency plans** for the terminal facilities and the adequacy of oil spill prevention and contingency plans for crude oil tankers operating in Prince William Sound;
- **provide advice and recommendations** . . . on port operations, policies and practices;
- **recommend** . . .
- **standards and stipulations** for permits and site-specific regulations intended to minimize the impact of the terminal facilities’ and crude oil tankers’ operations in the vicinity of the terminal facilities;

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the Conduct of Oversight of Oil Transportation Operations, Facilities and Procedures, September 2006.

<sup>18</sup> Arbitration between Prince William Sound Regional Citizens’ Advisory Council and Alyeska Pipeline Service Company, September 18, 2001.

<sup>19</sup> PWS RCAC comments to JPO, Dec. 5, 2003.

- **modifications of terminal facility operations and maintenance** intended to minimize the risk and mitigate the impact of terminal facilities, operations in the vicinity of the terminal facilities and to minimize the risk of oil spills;
- **modifications of crude oil tanker operations and maintenance** in Prince William Sound intended to minimize the risk and mitigate the impact of oil spills; and
- **modifications to the oil spill prevention and contingency plans** for terminal facilities and for crude oil tankers in Prince William Sound intended to enhance the ability to prevent and respond to an oil spill.

Additionally, the Council is authorized to conduct its own scientific research and review the scientific work undertaken by or on behalf of the terminal operators or crude oil tanker operators as a result of a legal requirement to undertake that work. The Council is authorized to review the relevant scientific work undertaken by or on behalf of any government entity relating to the terminal facilities or crude oil tankers.

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As residents of the Copper River watershed, over the last three decades we have seen first-hand our valuable resources placed at risk by the failures of the TAPS owners and their state and federal regulators to hold to the highest standards in petroleum development. To help prevent recurrence of problems most recently manifested by the North Slope corrosion problems, we further believe that Congress should empower the new citizens' oversight groups with formal investigative powers, along the lines of those established by the state of Alaska Citizens' Oversight Council on Oil and Other Hazardous Substances, which was established in 1991 and operated effectively through 1994.<sup>21</sup>

## CONCLUSION

Citizens' oversight of the Trans-Alaska Pipeline System should be authorized by Congress "to ensure, through independent citizen and community involvement, that the important North Slope and TAPS energy systems are maintained and operated in a manner that safeguards system integrity, the workers and the natural resources of Alaska, and ensures the integrity of continued oil production and shipment."<sup>22</sup>

Congressional legislation authorizing citizen oversight of these important energy delivery systems should include a guaranteed funding mechanism that would enable citizen, community and tribal council representation from the North Slope as well as the separate geographic areas along the TAPS route. We urge the Alaska delegation to pursue such legislation as promptly as possible. At a time when BP, on behalf of its major partners ExxonMobil and ConocoPhillips, has demonstrated chronic neglect of production and pipeline systems, nearly two decades have elapsed since the *Exxon Valdez* oil spill

<sup>20</sup> PWS RCAC, Background Briefing Paper, Role of Statutorily Established Citizen Oversight Councils in the Conduct of Oversight of Oil Transportation Operations, Facilities and Procedures, September 2006.

<sup>21</sup> The Alaska Citizens' Oversight Council on Oil and Other Hazardous Substances was established by the Alaska State Legislature in 1990 (§2, Ch. 199, SLA 1990; codified in Alaska law as AS 24.20.600 et seq.) and repealed in 1994 (§ 43 ch 128 SLA 1994).

<sup>22</sup> Peter VanTuyn, testimony submitted to U.S. Senate Committee on Energy and Natural Resources, hearing on "BP pipeline failure: its effects on oil supply and how to prevent a recurrence," p. 22, September 12, 2006.

without a settlement paid to fishermen as the nation's largest oil field and TAPS turns 30 years old, we cannot afford to wait any longer to establish local oversight groups that have proven themselves to be necessary to ensure safe production and delivery of petroleum products through Alaska's remote areas that include nationally treasured wildlands, valuable commercial resources other than petroleum and vital subsistence resources for local communities.

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