

From: [Bellion, Tara](#)
To: [Evans, Jessica](#)
Subject: FW: DEIS Comments
Date: Wednesday, May 25, 2016 4:45:01 PM
Attachments: [DEIS Comment Combined Final 5.25.16.docx](#)

-----Original Message-----

From: Gordon, Keith POA [<mailto:Keith.Q.Gordon@usace.army.mil>]
Sent: Wednesday, May 25, 2016 4:42 PM
To: Isaacs, Jon; Bellion, Tara
Subject: FW: DEIS Comments

-----Original Message-----

From: Rachel Klein [<mailto:rlk@Kuskokwim.hostpilot.com>]
Sent: Wednesday, May 25, 2016 4:32 PM
To: Gordon, Keith POA <Keith.Q.Gordon@usace.army.mil>
Cc: Andraschko, Amanda M POA <Amanda.M.Andraschko@usace.army.mil>; Maver Carey <mec@Kuskokwim.hostpilot.com>
Subject: [EXTERNAL] DEIS Comments

Hi Keith-

Please see TKC's comments for the DEIS. There are two letters included in the document.

We will send the hardcopy in the mail today, along with our board member, Lorraine Egnaty's comments.

Thanks,

Rachel Klein

Alaska Consult Services, LLC

907-229-0383

rlk@kuskokwim.com

Mr. Keith Gordon
U.S. Army Corps of Engineers
www.poa.usace.army.mil
Keith Gordon, Project Manager
Keith.Q.Gordon@usace.army.mil
907-753-5710

May 25, 2016

Dear Mr. Gordon,

As surface owner of the land on which the Donlin Gold mine is proposed, The Kuskokwim Corporation (TKC) finds it imperative that any development on our land be carried out in a thoughtful manner that safeguards our shareholders' way of life. Over the past 12 years as CEO of TKC, I have developed a close working relationship with Donlin Gold, and I can say my experience with them has been undeniably positive.

With the recent release of the U.S. Army Corps of Engineers' Donlin Gold draft environmental impact statement (DEIS) for public comment, the proposed project has been an increasing topic of discussion. Therefore, I would like to take the time to discuss Donlin Gold's great efforts toward listening to shareholders to fully understand what a safe project means to Kuskokwim residents.

Donlin Gold has conducted numerous informational meetings throughout our corporation's 10 villages to communicate project details and hear feedback from residents. When we voiced concerns over the number of barges traveling up and down the Kuskokwim River, Donlin Gold heard us and restructured their plan, which now includes the construction of a buried natural gas pipeline that significantly reduces the amount of fuel to be barged to support the project.

Not only does the proposed underground pipeline offer a solution to reduce barging traffic on the Kuskokwim River, but it is also designed as an open access pipeline that could benefit communities in the future.

The construction of the Donlin Gold mine, as well as corresponding infrastructures such as the pipeline, also bring significant job opportunities to the Kuskokwim region, one of the poorest areas in the State of Alaska. During operation, the mine could offer up to 3,000 jobs, and between 600 to 1,200 high-paying, full-time jobs during the mine's estimated 27-plus years of operation. With some of our villages lacking running water, an economic stimulus that provides a new and sustainable source of revenue is worthy of consideration.

Revenue benefits are not solely limited to those living in the TKC region. Calista Corporation shareholders, who own subsurface rights where

the project is located, will also benefit greatly from increased revenue opportunities. Additionally, through the Alaska Native Claims Settlement Act's (ANCSA) 7(i) and 7(j) revenue sharing provisions, a portion of revenue from mine operations would be shared between Alaska Native corporations. To further benefit those in the region, Donlin Gold is contractually obligated to offer a local hire preference, and has demonstrated their commitment to this through their 90 percent Native hire rate during exploration.

While job and revenue opportunities are of high importance, they are weighted equally with the protection of our land and our way of life. Many are concerned over the possible environmental impacts a new mine could bring after experiencing carelessness from other mines such as Red Devil. Donlin Gold is a mine of a different breed however, and has made sustainability, as well as environmental responsibility during construction, operations and closure, key priorities. Donlin Gold has stated that when operations cease, environmental monitoring and protection will not. The mine has a stringent reclamation plan and proposes onsite monitoring of the water far beyond operations. Additionally, Donlin Gold will be required by the State of Alaska to have financial assurances in place to fund reclamation, re-vegetation and protection of the land.

Our shareholders have already seen great benefits by working with Donlin Gold through job training during exploration, through funding of scholarships and numerous community efforts. Agreements between TKC and Donlin Gold provide TKC's 10 villages with a strong financial future, viable opportunities of employment, and opportunities for ongoing input.

As a mine that focuses on environmental responsibility, meaningful dialogue with communities, job opportunities and economic stimulus for one of the poorest regions in the entire state, Donlin Gold has TKC's full support. To show our support, TKC has strongly recommended to the Army Corps that Donlin Gold move forward with alternative No. 2.

Along with this letter, we have provided some technical comments on the DEIS.

Thank-you,

Maver Carey
President/CEO
The Kuskokwim Corporation

U.S. Army Corps of Engineers
www.poa.usace.army.mil
Keith Gordon, Project Manager
Keith.Q.Gordon@usace.army.mil
907-753-5710

May 25, 2016

Dear Mr. Gordon,

Please find the following technical comments on the Draft EIS for the Donlin Gold project provided by the Kuskokwim Corporation. We would also like to reference that oral comments in support of the project have been provided by our President/CEO and Board of Directors during public meetings, and more will be submitted in written format. Along with these technical comments, please see the attached letter in support of Alternative 2 as a favored approach for the DEIS for the Donlin Gold Project.

Please let us know if you have any questions or need clarification on the comments.

Sincerely,

Maver Carey
President, CEO
The Kuskokwim Corporation

Section Number	Page	Original Language	Proposed Language or Comment	Disposition (CAs should leave blank)
1.3.2 Purpose and Need	1-9	<p>“The purpose of the proposed project is to profitably produce gold from ore reserves owned by Calista, an ANCSA corporation, utilizing open pit mining methods and conventional, proven milling processes suitable for application in remote western Alaska. The need for the proposed project is to enable Calista and TKC to maximize economic benefits for their shareholders, from lands with mineral potential selected and conveyed to them under ANCSA, by producing gold to meet worldwide demand. Gold is an established commodity with international markets.”</p>	<p>The privately owned lands the proposed project sits on were specifically chosen for conveyance under ANCSA for potential resource development. If the project goes forward, it will provide jobs and economic development in a region with little other economic opportunities. TKC has negotiated benefits for current and future generations of Shareholders during the life of the proposed project and beyond. In addition to direct jobs for those employed by Donlin Gold, TKC will form new subsidiary companies to support the mine, which will provide more jobs and benefits to TKC Shareholders.</p>	
3.15.1.2 Socioeconomics	13-15	<p>The TKC Board of Directors and Land Committee manage the greater than 950,000 acres of TKC surface estate for the benefit of</p>	<p>The TKC Board of Directors and Land Committee continually re-examine existing policies and procedures to emphasize promoting positive and responsible development, in conjunction with</p>	

		<p>shareholders and in accordance with an adaptive Land and Resource Management Plan. Management objectives include the pursuit of economic opportunities that ensure the profitability and growth of TKC, and the overall land management direction is for moderate development of resources for inriver markets, emphasizing local employment and beginning at a low level of investment (Tanana Chiefs Conference, Inc. and TKC 1997).</p>	<p>maintaining traditional and subsistence land uses.</p>	
3.18.1.1.4	3.18	<p>Kuskokwim River Communities – Income and Unemployment There are no income and unemployment statistics available specifically for the Kuskokwim River communities. It is likely that unemployment rates in these communities are among the highest in the state and per capita incomes are among the lowest, as they are in other</p>	<p>Income and unemployment statistics are readily available through the State of Alaska. The Department of Commerce, Community, and Economic Development Community Database Online lists all income and poverty information, while the Department of Labor and Workforce Development lists all employment and unemployment data. Middle Kuskokwim community's (Lower Kalskag to Stony River) income levels range from \$19,614 per capita to \$6,019 per capita; with those falling below the poverty line ranging from 88.7% to 19%.</p>	

		small villages in the Y-K region. See the Y-K region description above for additional details.		
3.18.1.2.2 SCHOOLS	3.18-23	The Y-K region encompasses several school districts which combined include dozens of schools. However, there are no local schools in some Y-K region communities; children are homeschooled or attend schools in other areas. The State of Alaska provides parents with the option of home-schooling their children.	Data missing from the Kuspuk School District. The Kuspuk School District in TKC's region operates 9 schools in 7 communities. As with most rural schools in Alaska, these schools are vital to the health and wellbeing of their communities. In an effort to cut the State of Alaska budget, some legislators have proposed raising the threshold for school state funding from a minimum of 10 students enrolled in a community to 25 students. If that happens, four community schools within the Kuspuk School District; Chuathbaluk, Crooked Creek, Sleetmute and Stony River, would lose funding to operate, and would be forced to close. As most families in the region do not have the economic luxury to home school, so many will have to either move out of their homes, or send their children to live with relatives to receive education.	
3.18.2.2.1 EMPLOYMENT , INCOME, AND SALES	3.18-36	Donlin Gold is also committed to hiring shareholders and descendants, under agreements with Calista and TKC. These agreements include	TKC, Calista and Donlin Gold have a partnership to build a regional training center on the Middle Kuskokwim to prepare shareholders for future mining related jobs. Until that facility is built, TKC is assisting shareholders with attending existing training facilities that can lead to jobs today. TKC	

		provisions for local hire, training, and shareholder scholarships (Donlin Gold 2014e). In addition, some of the materials, supplies, and services required during project construction are expected to be provided by Calista and TKC subsidiaries	has also invested in the secondary training non-profit EXCEL Alaska to guide young shareholders into career pathways that can lead to future jobs in the region, either at Donlin Mine or at a supporting subsidiary company.	
3.18 Direct Effects	3.18-39	Donlin Gold has expressed a commitment to hiring qualified Y-K region residents during operation of the mine and other project components and agreements with Calista and TKC commit Donlin Gold to shareholder and descendent hiring preference. The agreement with TKC included initial plans for regional training, including a potential training facility in Aniak (Dischner 2014).	Donlin Gold has contributed hundreds of thousands of dollars to assist TKC Shareholders with post-secondary training. Work on a regional training facility continues. TKC and Donlin's scholarship partnership allows for Shareholders to attend other training programs within Alaska in preparation for future jobs in the region.	
3.18.2.2.2 TAX REVENUE AND OTHER FISCAL	3.18-42	Construction and operations would generate revenues for local governments and the State of	TKC is assisting Middle Kuskokwim River communities in the creation of a new borough government to capture some of the revenue potential for local communities.	

EFFECTS		Alaska. The various sources of these government revenues are discussed below, including right-of-way acquisition costs, property taxes, mining license taxes, corporate income taxes, sales taxes, and miscellaneous taxes.	This process is lengthy, and a vote on whether or not to incorporate would coincide with a Donlin Gold go, no-go decision on mine construction.	
3.18.2.2.3 LOCAL PUBLIC INFRASTRUC TURE AND SERVICES	3.18- 47	The potential for the project to exacerbate existing social problems in communities may be increased by intense work schedules and rotating shifts at project worksites that involve long periods away from home. In addition to adversely affecting the wellness of individuals, families, and communities, an escalation of social problems would increase demand for local and regional health care, social services, and protective services. Current levels of funding for local and regional public service	Studies should be referenced. Direct studies most likely are available to be referenced showing increased employment reduces social problems. Also reference Donlin's zero tolerance work program.	

		providers may be inadequate to cover this increased demand for services		
3.18.2.2.3 LOCAL PUBLIC INFRASTRUC TURE AND SERVICES	3.18- 48	<p>Incorporation of a New Borough</p> <p>It is possible that the project would lead to the incorporation of a new borough that would include some portion of the Bethel and Kusilvak Census Areas. In 2004, a regional economic summit held in Bethel established a steering committee to address the prospects of incorporating a borough encompassing the Association of Village Council Presidents - Calista region. Interest in borough formation was prompted by the prospective development of the Donlin Creek mineral deposit (Alaska Local Boundary Commission 2007), together with the potential decline in state and</p>	<p>Middle Kuskokwim communities; Lower Kalskag, Upper Kalskag, Aniak, Chuathbaluk, Napaimute, Crooked Creek, Georgetown, Red Devil, Sleetmute and Stony River, are currently working with TKC on the creation of a Kuspuk Borough. A payment in lieu of taxes (PILT) agreement with Donlin Gold would allow provide increased services and benefits for the residents of the communities closest to mine operations. Kuspuk Borough formation would insulate these communities from some of the impacts of reductions to both state and federal budgets and programs, and would help families live and work in the region. Community representatives are currently working on draft documents for borough incorporation, which would be determined by popular vote.</p>	

		federal funding for critical regional services such as education, health care, and public safety (Cotten 2007).		
ENVIRONMENTAL JUSTICE				
3.19.3.1 ALTERNATIVE 1 – NO ACTION	3.19-15	The advance royalties that Donlin Gold pays to Calista (estimated at \$1 million per year) would cease under the No Action Alternative. These revenues contribute to dividends and employment opportunities Calista provides to its shareholders.	Though the agreement is confidential, the negotiated payments to the Kuskokwim Corporation would cease under the No Action alternative, as well as the major scholarship contributions and shareholder hire opportunities. These revenues directly benefit TKC shareholders through community development, dividends, training, and job opportunities.	
3.19.3.2.1 EFFECTS FROM CHANGES IN SOCIOECONOMIC RESOURCES	3.19-17	Donlin Gold has committed to hiring qualified Y-K region residents.	Donlin Gold has committed to hiring qualified Y-K region residents, and has a negotiated shareholder hire preference for TKC and Calista shareholders and descendants.	
3.19.3.2.2 EFFECTS FROM CHANGES IN SUBSISTENCE	3.19-17	Employment and income from all project components would have low to medium intensity beneficial effects, with the	The combination of rotating shift work and increased income would arguably have a high intensity beneficial effect on Kuskokwim River communities. Families would have more opportunity and financial	

<p>E RESOURCES</p>		<p>greatest magnitude of these effects occurring in the smaller Kuskokwim River communities during construction (which are low-income and minority communities). Income could be used to purchase subsistence tools and transport, such as fuel for snowmachines. The rotational shift nature of employment and potential for workers to relocate for jobs may cause adverse impacts of low to medium intensity to sociocultural aspects of subsistence, particularly in smaller communities. The mine site would have negligible impacts to subsistence</p>	<p>resources for subsistence activities during construction, operations, and closure.</p>	
<p>3.19.3.2.5 SUMMARY FOR ALTERNATIVE 2</p>	<p>3.19-19</p>	<p>Overall, Alternative 2 would have minor to moderate adverse impacts and beneficial health impacts to minority and low-income communities in the Y-K region. Alternative 2 would</p>	<p>Based on the previous comment above, this should be re-evaluated if it is determined that subsistence beneficial impacts are high impact.</p>	

		have disproportionately adverse effects to minority and low-income populations. Thus, Alternative 2 would raise an environmental justice concern.		
3.22 HUMAN HEALTH	3.22-1	Community health in Alaska, with its environmental and social setting and complex blend of health determinants, is in many ways different from national health trends in the United States (ADHSS 2011).	<i>Overall comment on the Human Health Section:</i> The HIA as a whole should prioritize health determinants specific to rural Alaska. The safe access to emergency medical services, and primary need of access to sewer and fresh water, has been undervalued in this health assessment to make it effective for the DEIS.	
3.22.3.4.6 HEC 6: WATER AND SANITATION	3.22-	Key preventable risk factors for the spread of infectious diseases are the lack of clean running water and proper sewage disposal which are prevalent in rural Alaska (NewFields 2015). As of 2008, the YKHC had water and sanitation service for 58 percent of their communities which was the fewest of the 14 regional	This section needs to be detailed and expanded. Lack of water and proper sanitation is one of the leading health hazards in rural Alaska, and the importance of this is drastically under emphasized in this section of the DEIS.	

		health corporations.		
3.22.3.5 TRANSPORTA TION FACILITIES	3.22- 26	(General Comment)	This section and section 3.22.3.4 need to discuss and highlight the importance of safe runways and airport navigation equipment to assist with emergency services and medivacs in rural Alaska. For rural communities, often air travel is the only transportation means of receiving medical attention.	
3.22.3.6.6 HEC 6: WATER AND SANITATION	3.22- 22	There are many part-time occupied houses (recreational and seasonal purposes) within the potentially affected communities... Most have individual wells, either outhouses or septic sewage systems, and either burn refuse or use local landfills; only McGrath has formal garbage service.	The data in this section does not accurately describe the water and sanitation conditions in the communities closest to the mine site. A large percentage of households are not on sewer or water systems, and are fully occupied housing. The research area is too broad to accurately define conditions specifically.	
3.22.3.6.8 HEC 8: HEALTH SERVICES INFRASTRUC TURE AND CAPACITY	3.22- 33	The Fairbanks Memorial Hospital (110 workers) serves 35 villages of the interior including Nikolai, McGrath, and Takotna. Services include pharmaceutical, patient education, medical records, nutrition services, and social outreach services.	This section is lacking information on YKHC and localized clinic facilities.	

		<p>The McGrath Health Center is a subregional Emergency Care Center clinic and supports the 50 Community Health Aides and Practitioners in the area. Central Kenai Peninsula Hospital and the Dena'ina Health Clinic serve the KPB. There is a lack of medical services for Beluga, Susitna, Skwentna, and Red Devil (NewFields 2015).</p>		
<p>3.22. Rates of Substance Abuse</p>	<p>3.22-40</p>	<p>In other places where a number of people have been employed at past and present mine sites, the increase in disposable income led to noticeable increases in drug and alcohol use and gambling in the local communities (Diavik 1999; UBC 2014).</p>	<p>Direct data from Donlin's existing zero tolerance policy and drug and alcohol programs should be referenced here. The data may reflect a beneficial significance.</p>	
<p>Alternative 2, HEC 6 Impact Summary: Water and Sanitation</p>	<p>3.22-83</p>	<p>The summary impact level for increases in morbidity and mortality rates due to changes in the availability and quality of</p>	<p>This section needs the discussion of the probable improvements to water and sanitation with any economic benefit to the communities, through government taxes or borough services. The existing sanitation</p>	

		water and sanitation services is low for Alternative 2. It is unlikely that water and sanitation services of communities located near the proposed project would be affected.	situation has been well documented and addressed both politically and through Alaska media. It is most likely that water and sanitation improvements would be a priority with any economic development or financial benefits to the region.	
3.22.4.2.8 HEC 8: HEALTH SERVICES INFRASTRUCTURE AND CAPACITY	3.22-91	There is the potential to impact access to healthcare services and overwhelm local and regional capacities due to emergency situations that could occur during implementation of the proposed project.	There should be discussion on the likelihood that economic benefits to the region from the Donlin mine will be channeled to improvements to local medical clinics, telemedicine, and improved transportation access to emergency services.	

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2.3.	40	“To ensure adequate funding for potential perpetual water treatment,	N/A – new comment	There is no specific mention of a Post-Reclamation and Closure Maintenance in the

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		<p>a Post-Reclamation and Closure Maintenance Trust Fund would be established during construction and operations to cover the costs of the WTP operations and maintenance, as well as post-closure monitoring.”</p>		<p>preceding Section 1.10.4 (Financial Assurance for Reclamation and Closure). There is reference to a trust fund, but recommend consistency in use of terminology around this important consideration.</p>
<p>2.3.2.2.1 Barge Traffic</p>	<p>46, 127</p>	<p>“A barge-loading plan for each trip would be based on expected river conditions and a forecast of the minimum available draft on the river for the duration of the trip between Bethel and Angyaruaq (Jungjuk) Port.”</p> <p>“Donlin would implement barge guidelines for operating at certain river flow rates, and conduct ongoing surveys of the Kuskokwim River navigation channel to identify locations that should be avoided to minimize effects on bed scour and the potential for</p>	<p>N/A – new comment</p>	<p>Would the developed barge-loading plans also include consideration of potentially sensitive salmon migration and/or spawning periods? This does not appear to be directly or indirectly addressed in the referenced plans.</p>

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3.5 Surface Water Hydrology	78, 79	<p>barge groundings.”</p> <p>“In the above average precipitation scenario, the average annual precipitation would be 20.8 inches, based on the wettest year in the available 30-year consecutive precipitation record”</p> <p>“In the below average precipitation scenario, the average annual precipitation would be 18.6 inches based on the driest year in the available 30-year consecutive precipitation record”</p>	There appears to be only about 10% difference in above average and below average precipitation scenarios – is there this little variability between wettest and driest years over a 30-year precipitation record?	Comment remains, the below and above average precipitation range appears overly constricted.
3.5 Surface Water Hydrology	88	“The emergency spillway would be constructed in the west corner of the pit and discharge to Crooked Creek”	N/A – new comment	Can it be explained when the emergency spillway be constructed? It does not appear to be necessary until about Year 52 post-closure.
3.7 Water Quality	110, 112, 115	“In this case, even in Year 99, all constituents of interest exceed AWQC, showing the importance to treatment costs of	Given the importance of maintaining a stratified pit lake for 99 years has a contingency plan been established to address the potential need for RO to treat sulfate and TDS? It would be	It is noted that the advanced water treatment (AWT) process was developed by Hatch in 2015. This includes, if necessary, a reverse osmosis

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		<p>maintaining a permanently stratified pit lake, because this result would likely require reverse osmosis to treat the sulfate and TDS.”</p> <p>“It is possible, however, if the trend continued for a long enough time, that eventually the pycnocline would be close enough to the surface that wind and/or winter overturn could cause the lake to completely mix to the surface.”</p> <p>“a decreased-salinity system could be more vulnerable to overturn and mixing throughout the water column than the base case.”</p>	<p>useful to have a sense of scale for the differing treatment costs.</p>	<p>final polishing step and an ion exchange step to reduce selenium.</p> <p>Again it reiterated to have a sense of scale for the differing treatment costs should the additional steps referenced above be required. It is assumed that RO treatment would significantly escalate long-term water treatment costs.</p>
3.7 Water Quality	117, 118	<p>“Although the water in the mine facilities would not be considered waters of the State of Alaska nor waters of the U.S., and are not subject to regulation under the Clean Water Act or the</p>	<p>These statements appear to contradict each other with respect to the need, or lack thereof, for APDES permitting.</p>	<p>Yes an APDES General Permit will be required for discharges.</p>

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		<p>APDES permitting program, their expected water quality is discussed in this section for comparison to baseline water quality conditions in the American Creek, Anaconda Creek, and Snow Gulch watersheds.”</p> <p>“treated effluent water would be discharged through an APDES permitted outfall to Crooked Creek”</p>		
3.12 Wildlife	9	<p>“Overall, based on the estimated HQs alone, both the American dipper and tundra vole are possibly at risk in the TSF (and in the pit lake), primarily from exposure to arsenic.”</p> <p>“Considering more representative exposure assumptions, the lack of attractive habitat features, and chronic intense disturbance from mining equipment, wildlife are not</p>	<p>The descriptions of potentially mitigating factors to this risk are well described. However the discussion would benefit from any actual case studies that may be relevant to the project site. In addition some brief discussion of monitoring should be discussed, given the uncertainty regarding predictions of use. A reference to planned adaptive management should then be included in the event observed impacts are unacceptable. (Reference Section 5 – Mitigation)</p>	<p>The additional study described above adequately describes modelling studies to predict impacts. However the original comments remains unaddressed: “the discussion would benefit from any actual case studies that may be relevant to the project site. In addition some brief discussion of monitoring should be discussed, given the uncertainty regarding predictions of use. A reference</p>

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		expected to be at risk due to ingestion of water from the TSF or from ingestion of food and sediment.”		to planned adaptive management should then be included in the event observed impacts are unacceptable. (Reference Section 5 – Mitigation)”
3.12 Wildlife	34	“Donlin Gold would develop a Wildlife Avoidance and Human Encounter/Interaction Plan to minimize the attractiveness of camps and other facilities and minimize the risk of adverse human/animal interactions”	Will this plan be developed subsequent to the finalization of the EIS? If so is there a regulatory driver, or is this a commitment made within the EIS?	No further clarification has been provided as to the timing or scope of this plan. Clarification is requested as to when this plan would be developed and who will be reviewing its content (i.e., is Human Encounter/Interaction Plan driven by a regulatory requirement, or is the commitment being made here in the EIS).
3.12 Wildlife	35	“Considering the relatively low populations of moose and caribou, the influx of new people and increased mobility could lead to increases in hunting and trapping pressure that could reduce local game populations and necessitate changes in wildlife	This statement reflects anticipation in reduction in numbers of these species. What information is available from Alaska Dept. of Fish and Game regarding what future changes in wildlife management may be necessary?	Original comment remains: “This statement reflects anticipation in reduction in numbers of these species [moose and caribou]. What information is available from Alaska Dept. of Fish and Game regarding what future changes in wildlife management may be

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		management regulations.”		necessary?”
3.12 Wildlife	41	“Donlin Gold intends to prohibit public use of the access road for safety reasons, including use by local residents. Traditional use of the surrounding area for subsistence hunting, trapping, and berry picking could be inhibited, with indirect beneficial impacts on game species and furbearers through reduced hunting and trapping pressure. However, access to these areas by traditional means and routes may not be affected unless they crossed mine-restricted property.”	<p>Can it be clarified as to if access to traditional use areas will be restricted from mine infrastructure? That would seem to be the case, but is left ambiguous here.</p> <p>Has it been determined that restriction of subsistence use of some areas would benefit wildlife (i.e., are any of these species uncommon)?</p>	<p>It is not clear what is meant by the statement that subsistence uses could be “inhibited” by mine infrastructure. A reference to a separate discussion would be helpful.</p> <p>Further has it been established that “inhibition” of subsistence use of some areas would benefit wildlife (i.e., are any of these species uncommon and are there data and/or anecdotal evidence that subsistence use leads to declining populations)?</p>
3.12 Wildlife	148	“Because of the warm tailings during operation the pond nearest where the tailings are deposited (six locations) may freeze somewhat later or thaw somewhat earlier than	<p>Are there cast studies that can be referenced from other arctic operations as to the attractiveness of open water sources relative to adjacent surroundings?</p> <p>Would be beneficial to insert a brief reference description for monitoring of</p>	Language is now contained on page 9. Original comment remains: “Are there cast studies that can be referenced from other arctic operations as to the attractiveness of open water sources relative to

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		<p>natural water bodies. If open water sources were available earlier in the spring at this facility than in surrounding water bodies, it might be attractive as a rest stop for migratory water birds.”</p> <p>“While they may be attracted to open water areas, birds are not likely to remain long due to the lack of food resources.”</p>	behavioral impacts.	<p>adjacent surroundings?</p> <p>Would be beneficial to insert a brief reference description for monitoring of behavioral impacts.”</p>
3.12 Wildlife	150, 151	<p>“Factors that contribute to this increasing threat [aircraft collision with birds] are increasing populations of large birds”</p> <p>“Casualties are not expected to cause population-level impacts.”</p> <p>“Therefore; [sic] the loss of nests and nesting habitat in the immediate project vicinity, while it may affect local populations, is not</p>	<p>Is it the case that there are increasing populations of large birds in the US and/or Alaska?</p> <p>Can the statement of lack of expected population-level impacts be more specifically put in context relative to species of concern (i.e., that these species are not at significant risk from these impacts)?</p>	<p>It appears that the language regarding increasing populations of large birds has been modified to include increasing populations of large birds near airports.</p> <p>It would be helpful to have a specific statement regarding lack of expected population-level impacts to any species of concern (although eagle nesting trees are specifically addressed : “Any loss of eagle</p>

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		likely to impact birds outside the affected area.”		nest trees would have to be permitted through FWS’ Eagle Permit Program.”)
3.12 Wildlife	153, 158	<p>“Although all wastes would be managed to avoid attracting scavengers, no management program achieves 100 percent control, therefore minor impacts on birds are expected as a result of the production of organic waste.”</p> <p>“The impact of organic waste potentially causing an increase in predators would be low intensity, long-term duration, local extent, and could affect common or important species.”</p>	Suggest more language related to implementation of best practices to limit attraction to domestic organic waste. Although “100 percent control” is a perhaps unachievable there are best practice techniques to minimize attraction of wildlife to domestic waste (e.g., strict segregation of organics; frequent covering of disposed organics to limit availability, etc.).	Original language remains as there has been no feedback or modification to the text. Original comment: “Suggest more language related to implementation of best practices to limit attraction to domestic organic waste. Although “100 percent control” is a perhaps unachievable there are best practice techniques to minimize attraction of wildlife to domestic waste (e.g., strict segregation of organics; frequent covering of disposed organics to limit availability, etc.).”
3.12 Wildlife	163	“The mitigation measures described could substantially reduce impacts by designing the overhead power line to be raptor-safe therefore.” [sic]	It is not clear what mitigation measures will be used to reduce collision impacts. Are they the “standard industry best practices for avian protection and relevant State and Federal guidelines” described above?	The original comment remains. What are the standard industry best practices for avian protection and relevant State and Federal Guidelines? Is this further discussed in another section (e.g., Section

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3.13 Fish and Aquatic Resources	114	<p>“Potential impacts from barge traffic on migrating adult salmon are expected to range from negligible to minor since adults have sufficient swimming and sensory ability that would generally allow them to sense and avoid approaching tug propeller flow fields as vessel traffic is encountered.”</p>	<p>Is there a reference for this expected behavior, especially for a sediment-heavy system such as the Kuskokwim River?</p>	<p>5)?</p> <p>Original comment remains as text has not been modified on page 138:</p> <p>“Is there a reference for this expected behavior, especially for a sediment-heavy system such as the Kuskokwim River?”</p>
3.13 Fish and Aquatic Resources	117, 120	<p>“Therefore, impacts from bed scour on fish and aquatic life in areas not previously subjected to natural flooding or existing barge traffic would be moderate to major depending on how and where tugs are operated, water depth, channel geometry, character of riverbed substrates, and life stages of fish and aquatic species in the vicinity of</p>	<p>The potential impact is understood, but it is not immediately clear on what section or sections of the river this potential impact would be especially acute. Would future studies include more precise mapping of the river channel to determine sensitive locations? When will information become available to better assess these potential impacts, as well refine planning to address?</p>	<p>Page 150 of the plan states the following: “Future studies of barge passages during the early construction phase are proposed that would provide an improved basis for evaluating potential areas of risk relative to impacts from riverbed scour, bank erosion, and nearshore velocities at various depths, locations, and channel configurations. Such studies also could determine the feasibility and effectiveness related to</p>

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		<p>propeller hydraulic forces.</p> <p>Future studies of Donlin Gold tug-barge passages during the initial phase of construction would provide an improved basis for assessing effects of barge traffic on riverbed scour, bank erosion, and nearshore velocities at variable depths and channel configurations. Such studies also could determine if it would be feasible and effective to alter the speed of downriver barge traffic in certain segments of the river to minimize impacts on fish and aquatic habitats including areas identified as important to rainbow smelt spawning.”</p> <p>“In addition, an undetermined level of injury or mortality may occur to eggs, larvae, and possibly young-of-year resident or</p>		<p>adjusting the timing, speed, or line of travel of barge traffic in certain areas to avoid or minimize impacts on fish and aquatic habitats including areas uniquely identified as important to rainbow smelt spawning.”</p> <p>It is not clear when these studies would be completed and/or if they would be required in a regulatory context. Would the studies be a part of the previously referenced “barge loading plans”?</p>

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		<p>anadromous fishes that encounter shear forces from tug propellers, especially where these populations are concentrated in confined channel segments.”</p> <p>“The extent and intensity of impacts would depend on the timing and locations in the river channel where concentrations of these fishes would intersect with vessel traffic.”</p>		
3.13 Fish and Aquatic Resources	120, 126	“In summary, barge traffic navigating deeper sections of the Kuskokwim River typically would not pass close to shore, depending on the river channel’s width and geometry.”	It is not clear if there will be any need for near-shore barging. Are there sections where the channel width and geometry would require this? Page 126 makes reference to “constricted areas of the Kuskokwim River navigation channel”.	<p>Page 152: “In more confined segments of the channel, however, a relatively higher level of injury or mortality could occur to eggs, larvae, and possibly young-of-year resident or anadromous fishes that encounter shear forces from tug propellers, especially where these populations are concentrated.”</p> <p>It is still no immediately clear if this near-shore barging will</p>

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				be necessary. It appears so, but the locations do not appear to be specifically or broadly designated.
3.13 Fish and Aquatic Resources	121	<p>“As a result, anticipated fish injuries or mortalities from tug and barge traffic would range from negligible to moderate depending on the seasonal timing of fish migrations, life stages, time of day, and the concentration of fish relative to confined and shallow channel segments. “</p> <p>“Although fish species potentially at risk would be common to the Kuskokwim River system, the mainstem and its tributaries have an important context in that they are regulated as Essential Fish Habitat since these waters provide habitat that supports key life stages of salmon important to the Kuskokwim subsistence</p>	Does this level of impact have any implications for project construction/operations in areas designated as Essential Fish Habitat under the Magnuson-Stevens Fishery Act?	Original comment remains. It is unclear what impact, if any, the designation of Essential Fish Habitat has had in project design. What is the timing for EFH consultation?

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		community.”		
3.13 Fish and Aquatic Resources	122	“Construction at the Angyaruaq (Jungjuk) Port site would be conducted consistent with the requirements of the project’s Title 16 Fish Habitat Permit. Construction would take place over an area of about 26 acres including about 10,000 cy of dredged material removed from the shoreline area for completing the berthing facilities.”	<p>The potential impacts to aquatic resources of siltation/sedimentation from dredging for port construction should be described.</p> <p>Will the Title 16 Fish Habitat Permit likely require silt fencing or some other mitigation?</p>	<p>Original comment remains: “The potential impacts to aquatic resources of siltation/sedimentation from dredging for port construction should be described.</p> <p>Will the Title 16 Fish Habitat Permit likely require silt fencing or some other mitigation?”</p>
3.13 Fish and Aquatic Resources		General	<p>Given potential for direct impacts, cumulative effects, and risk of fuel spill, has a contingency plan been developed in case of observation of further declining fish populations in the Kuskokwim River? How will these populations be monitored to ensure there are not unacceptable adverse affects? Does the project intend to coordinate with the Kuskokwim River Salmon Management Working Group?</p>	<p>Original comment remains. However it is noted that the following language has been added under Additional Monitoring and Mitigation for Alternative 2:</p> <p>“Coordinate construction and operations phase fish population and water quality monitoring with agencies or</p>

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				<p>working groups (such as the Kuskokwim River Salmon Management Working Group). Continue baseline Project fish and water quality studies to help track possible incremental impacts for development adaptive management strategies as necessary if impacts occur beyond what are expected”.</p> <p>It is unclear what triggers would lead to implementation of additional adaptive management strategies.</p>
3.14 T&E Species	27, 32, 34, 37	<p>“However, given the exceedingly small North Pacific right whale population size (about 30 individuals), injury to or mortality of even one individual would have population level effects.”</p> <p>“The proposed Dutch Harbor to Bethel barge corridor traverses the designated Critical Habitat</p>	<p>The assessment of the potential impacts of barge traffic/noise to North Pacific right whale and Cook Inlet beluga whales is vague. Although there certainly is a risk of injury/collision, there is possibly a greater risk or avoidance/modified behavior which may have significant impacts to this species, of which apparently only 30 individual exist.</p> <p>Are there any mandatory restrictions on project operations in the designated</p>	<p>There does not appear to be any additional information provided in the DEIS; thus the original comment remains.</p>

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		<p>in the Bering Sea.”</p> <p>“studies off the coast of New England suggest that masking effects are more severe for right whales than for singing fin or humpback whales, since right whale calls are not as loud as fin and humpback songs (Clark et al. 2009). In addition, there is evidence that exposure to low-frequency ship noise induces chronic stress in North Atlantic right whales”</p> <p>“Additional diesel tanker traffic across Cook Inlet into Tyonek could increase the potential for behavioral disturbance of Cook Inlet beluga whales, as the shipping route traverses Cook Inlet beluga critical habitat.”</p> <p>“Alaska Native beluga whale hunters noted that Cook Inlet belugas are very</p>	<p>Critical Habitat areas of these species?</p> <p>What are the referenced sonic “injury thresholds” that the project will operate below? These thresholds reference direct injury but not potential behavioral considerations.</p> <p>Suggest reference to the Cumulative Effects section(Section 4).</p>	

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		<p>sensitive to boat noise and will leave areas of high vessel use.”</p> <p>“Intermittent, short-term behavioral disturbance of fin, humpback, or right whales could periodically occur along the Dutch Harbor to Bethel barge corridor in areas where the species coincide with the shipping route.”</p>		
3.14 T&E Species	30	<p>“North Pacific right whales would be considered unique, given their exceedingly small population size (approximately 30 whales) and the fact that the barge corridor traverses one of only two areas designated as critical habitat for this species”</p>	<p>There should be more discussion in this section on presence of critical habitat in the barge corridor. This discussion should include an evaluation of impact to critical habitat, including potential behavioral impacts.</p>	<p>See previous comment; the significance of critical habitat for North Pacific right whales in the barge corridor could use more specific discussion.</p>
3.16 Recreation	1	General	<p>It should be referenced in this section that over the last decade there has been a decline in Chinook salmon runs on the Yukon and Kuskokwim Rivers.</p>	<p>Original comment remains. There is direct reference to commercial fishing closures but some information on</p>

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			This has implications for recreational impacts.	decreased salmon runs should also be stated.
3.16 Recreation	6	“On its lands, TKC does not allow entry for hunting by non-shareholders, and other access to TKC lands is not allowed for non-shareholders during hunting season in order to increase hunting opportunity for shareholders.”	Perhaps a statement can be included here indicating that this sovereign administration of hunting rights will be maintained during the construction and operations phases.	Original comment still applicable.
3.16 Recreation	12	As a result, the existing low levels of recreation which currently occur at the mine site, such as sport hunting or snowmachining, would be prohibited due to mine safety standards and therefore be displaced from an area of approximately 78.5 square miles. This displacement would occur during the construction period and extend throughout the life of the mine.	How will the prohibition be enforced - fencing, patrols, or some combination?	Original comment still open.
3.16 Recreation	10, 14	“Chinook salmon on the	Are more recent commercial fishing	It appears the reference to

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		<p>Kuskokwim and Yukon rivers, as well as elsewhere in Alaska, have created economic and social hardships in many communities (ADF&G 2012c).</p> <p>“In 2012, a total of 393,319 salmon were commercially harvested from the Kuskokwim Area. A total of 477 individual permit holders (making at least one recorded landing) participated in area commercial fisheries”</p>	<p>statistics available? If would be helpful to have some sense of the trend over time, as well as a more quantitative assessment of impact to the local economy. Perhaps a cross-reference to the Fisheries section would be helpful (Section 3.13).</p> <p>It is noted that the Subsistence section contains the following information that is not referenced here: <i>“Chinook salmon in the Kuskokwim River were unusually low in 2012 due to regulatory closures caused by poor returns so that data on total harvests collected in 2012 may not be representative compared to years where there were no restrictions”</i></p>	<p>commercial harvesting numbers has been removed from the text. It would still be beneficial to have this information including in this section, as well as an assessment of impact to the local economy.</p>
3.21 Subsistence	114	<p>“A significant portion of the employment and income from the mine may go to residents of Bethel, the regional center in the Kuskokwim drainage, and to residents of other communities in the Lower Kuskokwim subregion. This could lead to increases in</p>	<p>Would in-migration to the Lower Kuskokwim Subregion necessarily lead to increased subsistence harvests (i.e., is it expected that new arrivals would be eligible for subsistence harvesting)?</p> <p>What are the factors that would moderate this impact – further game management regulation?</p>	<p>Original comment remains; text has not been revised nor has comment been addressed.</p>

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		<p>population above current projections by the Alaska Department of Labor that could lead to increased subsistence harvests by residents of this subregion and the possibility of increased competition between communities in the Kuskokwim drainage for highly-valued resources such as Chinook salmon and moose. The extent to which subsistence harvests increase may be moderated by other factors.”</p>		
3.21 Subsistence	120	<p>“Under Alternative 2, the construction and operation of the mine site would result in on-going direct impacts to subsistence resources and harvest practices of four types....and contamination of waterfowl in the TSF, pit lake and other water retention structures.”</p>	<p>Suggest changing this language to suggest this <i>could</i> be an impact. The current language suggests that contamination of waterfowl is inevitable.</p>	<p>Language on page 138 now reads “....and perceived contamination of waterfowl in the TSF, pit lake and other water retention structures.” The other describes impacts would occur, however this last impact may not occur with good communication of successful monitoring results.</p>
3.21 Subsistence	121	<p>“As noted in Section 3.12.4,</p>	<p>Suggest rewording. Although it is</p>	<p>Minor comment; however still</p>

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		Wildlife/Birds, the standing waterbodies would have varying levels of contamination, with the TSF likely to have higher concentrations of antimony, arsenic, and selenium than the pit lake”	likely that metal concentrations will be elevated at these facilities this does not necessarily suggest that the facilities themselves are “contaminated”.	suggest rewording.
3.21 Subsistence	130	“A small number of non-local employees may find the region to be attractive, and they may establish households in the project area – most likely in Aniak or Bethel.”	Has an attempt been made to quantify this influx? Is there consideration to a limitation on the number of project employees that will be allowed to establish households in the area?	Original comment remains; no additional text/explanation has been provided.
3.21 Subsistence	137	“Note to Reviewers: Additional analysis of propeller wash forces has raised more uncertainty about impacts to spawning rainbow smelt and out-migrating juvenile salmon. Results summarized here may be revised, based on the 2015 field studies.”	Noted given significance of declining salmon species populations.	It is not clear what 2015 field studies have been undertaken to further the understanding of the potential impacts of propeller wash forces to spawning rainbow smelt and out-migrating juvenile salmon. The commentator cannot find discussion, or references, to the section of the EIS in which this information is made available.

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3.21 Subsistence	140	“Chinook salmon and moose for which the context would be important due to the exceptional conservation measures implemented in recent years”	<p>It does not appear the outright restriction on harvesting of king salmon will have any restriction to project construction/operations, but this should be clarified (e.g. no restrictions to barging schedule).</p> <p>Do these exceptional conservation measures have any impact on planned monitoring (e.g., coordination with the Federal Subsistence Board)?</p>	Original comment remains; no additional text has been provided with respect to this consideration.
5 – Mitigation Measures	46	“The Corps will require that Donlin Gold prepare a mitigation monitoring and adaptive management plan to monitor success of mitigation efforts that includes a process for making changes to or adding mitigation as needed.”	The referenced mitigation monitoring and adaptive management plan should be capitalized. This plan has not been highlighted in previous sections but suggest it should be, especially in T & E Species and Fish and Aquatic Resources sections.	<p>Again reiterate that the formal adaptive management plan should be capitalized.</p> <p>Noted that draft measures for monitoring and adaptive management are included as Table 5.7-1.</p>