2010 ALASKA REGIONAL PORTS CONFERENCE BRIEFING BOOKLET

NOVEMBER 18, 2010

U.S. ARMY CORPS OF ENGINEERS

AND

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

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2010 ALASKA REGIONAL PORTS CONFERENCE

NOVEMBER 18, 2010
Egan Center, Summit Meeting Room

AGENDA

7:30 – 8:00	Doors open for coffee and networking	
8:00 – 8:15	Introduction	Col. Reinhard Koenig Commander, Alaska District
8:15 – 8:20	Welcome	Ms. Dorothy Cook, President Native Village of Eklutna
8:20 – 8:30	Conference Overview	Sarah Barton, Facilitator RISE Alaska, LLC
8:30 – 8:45	Alaska DOT&PF, Progress since 2008	Frank Richards Deputy Commissioner, DOT&PF
8:45– 9:00	USACE, Progress since 2008	Patricia Opheen Chief, Engineering Division, Alaska District
9:00 – 9:15	Denali Commission Perspective	Michael McKinnon Transportation Program Manager, Denali Commission
9:15 – 9:45	*Breakout #1: What has happened in your region's ports and harbors since the 2008 conference?*	Table discussions
9:45 – 10:00	Morning Break	
10:00 – 10:15	United States Coast Guard District 17	Captain Jason Fosdick U.S. Coast Guard
10:15 – 10:30	NOAA's Arctic Vision and Strategy	Amy Holman Alaska Regional Coordinator, NOAA
10:30 – 11:00	Strategic Trends Analysis Results	Patrick Burden Northern Economics, Inc.
11:00 – 11:10	Video Conference Set-Up	
11:10 – 11:45	U.S. Congressional Perspective Q&A	Senator Mark Begich U.S. Senate (via video conference)
11:45 – 12:15	Lunch/Alaska Legislative Perspective Q&A	Senator Bert Stedman Co-Chair, Senate Finance Committee; Vice Chair, Northern Waters Task Force

12:15 – 12:30	Arctic Marine Shipping Assessment	Captain Bob Pawlowski NOAA (RET), MNI; Legislative Liaison to Denali Commission
12:30 -12:50	Policy Recommendations	Patrick Burden Northern Economics, Inc.
12:50 – 1:05	Exploratory Task Force – Public/Private Partnerships	Jeff Ottesen Director of Program Development, DOT&PF
1:05 – 1:15	*Breakout #2: Input to Exploratory Task Force Re: public/private partnerships*	Table Discussions
1:15 – 1:30	Afternoon Break	
1:30- 2:00	Hub Analysis and Project Needs List	Mike Fisher and Alexus Bond Northern Economics, Inc.
2:00- 3:00	*Breakout #3: Investment Ranking and Way Forward*	Rotating Table Discussions
3:00 -3:30	Report-Out from Regional Groups	Regional Table Reporters
3:30 -4:00	Final Words and Closing	Sarah Barton, Facilitator Col. Reinhard Koenig, Commander, Alaska District

For more information about the 2010 Alaska Regional Ports Study, please visit our website at:
http://www.poa.usace.army.mil/en/cw/AKPortsStudy.htm

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2010 ALASKA REGIONAL PORTS CONFERENCE

SPEAKER BIOGRAPHIES

COLONEL REINHARD W. KOENIG

Commander, U.S. Army Corps of Engineers, Alaska District

Colonel Reinhard W. Koenig assumed command of the U.S. Army Corps of Engineers, Alaska District, on June 23, 2009. The Alaska District provides planning, engineering, construction, contracting, real estate, emergency operations and regulatory services to military, federal and local government entities and the public within the state.

Previously, Colonel Koenig attended the Industrial College of the Armed Forces at the National Defense University in Washington, D.C. From August 2007 to 2008, he served as the Chief of the Operations Branch for the Office of the Chief of Engineers at the Pentagon. From July 2006 to August 2007, he served as the Division G-3 for the Gulf Region Division, U.S. Army Corps of Engineers in Iraq. He commanded Task Force 21B/C and the 35th Engineer Battalion at Fort Leonard Wood, Missouri, from June 2004 to June 2006.

From 2000 to 2002, Colonel Koenig served as the Assistant Division Engineer and Battalion Executive Officer for the 326th Engineer Battalion, 101st Airborne Division (Air Assault) at Fort Campbell, Kentucky, and during Operation JOINT ENDEAVOR in Kosovo. He later served as a Plans Officer for the CJ3 Plans Division, Combined Forces Command in Korea and as the Chief of Doctrine Development at the U.S. Army Engineer School at Fort Leonard Wood, Missouri. From 1993 to 1999, Colonel Koenig's assignments were as an Assistant Professor of Military Science at the Rose-Hulman Institute of Technology in Terre Haute, Indiana; Project Engineer and Assistant Resident Engineer for the Alaska District, U.S. Army Corps of Engineers; and Engineer Training Chief for the 3rd Training Support Battalion at Fort Leavenworth, Kansas.

From 1986 to 1993, Colonel Koenig served as a Battalion Maintenance Officer, Assistant S-3, and Company Commander in the 65th Engineer Battalion, 25th Infantry Division (Light), at Schofield Barracks in Hawaii, and with the 20th Engineer Brigade during Operation DESERT STORM. He also served as a Platoon Leader, Company Executive Officer, and Battalion Adjutant in the 9th Engineer Battalion (C) (M) in Aschaffenburg, Germany.

Colonel Koenig was commissioned a Second Lieutenant in the Corps of Engineers upon graduation from the United States Military Academy at West Point, New York, in 1986 with a Bachelor of Science Degree in Civil Engineering. He earned a Master of Science Degree in Environmental Engineering from the Rose-Hulman Institute of Technology and Master of Science Degree in National Resource Strategy from the National Defense University. He is a registered Professional Engineer. His awards and decorations include the Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal, Army Commendation Medal, Army Achievement Medal, Combat Action Badge, Parachutist Badge and Air Assault Badge.

Col. Koenig is married to the former Melissa Goforth of Carrollton, Texas. They have one daughter.

2010 ALASKA REGIONAL PORTS CONFERENCE

SPEAKER BIOGRAPHIES

DOROTHY COOK

President, Native Village of Eklutna

Dorothy Cook has served as president and chair of the Native Village of Eklutna since 1997. From 1993 to 1997, she served as the council treasurer. Dorothy was born at the Native Village of Eklutna, but spent her early years at Birchwood about eight miles from the village.

SARAH BARTON

Executive Vice President, Strategic Planning, RISE Alaska, LLC

Sarah Barton has over 30 years experience leading regulatory and public process associated with infrastructure development, transportation and high profile projects throughout Alaska. As Owner's Representative, she delivered the $106M Anchorage Museum Expansion. She facilitated planning and environmental permitting for the Anchorage International Airport Terminal Redevelopment. She participated in study projects for the U.S. Army Corps of Engineers and the DOT&PF, including the Prince William Sound and the Southwest Regional Transportation Plans, and led the Statewide Transportation Infrastructure Construction Planning Study, a strategic support to gasline negotiations. Sarah was lead facilitator for the 2008 Alaska Regional Ports and Harbors Conference and has been engaged in the development of the 2010 Alaska Regional Ports Study. Sarah was previously Director of Regulatory and Public Affairs for Capital Projects Office of the Municipality of Anchorage. She led strategic planning and community-building efforts for a wide range of groups from 5,000 New Yorkers working to rebuild the World Trade Center after 9/11, to onsite work with AIDS orphanages in Malawi and Kenya, rural Alaska villages and the circumpolar North. Sarah has been active in issues of northern policy through Commonwealth North, Alaska World Affairs Council, the Arctic Council, Institute of the North, and the Northern Forum.

FRANK T. RICHARDS, P.E.

Deputy Commissioner of Highways & Public Facilities, Office of the Commissioner, Alaska Department of Transportation & Public Facilities

Frank T. Richards, P.E., is a registered professional engineer with broad engineering, transportation, management, budget and legislative experience. Frank joined the Department of Transportation and Public Facilities in 1991 following 10 years of engineering in the private sector. As a professional engineer, Frank has worked on airport, mining and oil development projects including the Red Dog Mine, the Bradley Lake Hydroelectric project and various North Slope oilfield projects.

Frank was previously responsible for Maintenance and Operations of the State's highways, airports and facilities statewide and at the regional level. As the Deputy Commissioner for Highways and Public Facilities, Frank is responsible for Alaska's surface transportation assets, including strategic infrastructure in support of Alaska's resource development goals. In this role, Frank leads the development of the Department's annual budget and presents the administration's programs to the Legislature advocating for budget and legislative priorities. He also works with the commissioner on the development of the Department's budget, priorities and strategic plan and oversees their implementation.

2010 ALASKA REGIONAL PORTS CONFERENCE

SPEAKER BIOGRAPHIES

PATRICIA S. OPHEEN

Chief, Engineering Division, U.S. Army Corps of Engineers, Alaska District

Patricia S. (Trish) Opheen became the Chief of Alaska District's Engineering Division on Jan. 17, 2005. She rejoined the District from the Missile Defense Agency where she has been director of technical engineering for two years and 9 months.

Previously Ms. Opheen served in the Alaska District as team leader for the Clear Radar Upgrade and DoD Schools/Department of Education Program. From 1992-1996 she was the Air Force Programs project manager. During this time, in 1995, the Alaska District was awarded the U.S. Air Force Design Agent of the Year.

In 1996 the Air Force program split, and she retained the Clear Radar Upgrade project, which was just starting up, and the Department of Defense Schools/Department of Education Program. She led the team in completing over $100 million in renovation and additions to schools on DoD Installations. The Clear Radar Upgrade, a $110-million program involving $47 million in military construction funds, met all customers' expectations and earned the Alaska District Team the USACE Project Delivery Team of the Year award for 2001. For her work on this project, she was named the Air Force Space Command Project Manager of the Year in 2000.

Ms. Opheen joined the Corps with the Engineer-in-Training program at the St. Paul District in 1978. After completing the EIT program, she chose Construction Branch and worked as an on-site representative and project engineer at projects in North Dakota, Minnesota and Wisconsin.

She transferred to the Western Area Office, Vandenberg Air Force Base, California, in 1982 where she worked in Contract Administration Branch. She negotiated change orders on the MX Missile program and space shuttle projects. In 1984 she was the project engineer on several projects relating to the space shuttle program.

She served as an expert witness for the government at the Armed Services Board of Contract Appeals, assisting in defense of claims on an MX construction contract, with a favorable outcome for the government.

She joined the Alaska District in 1984 as the office engineer in the Elmendorf Resident Office. She managed a technical team who reviewed material submittals, initiated and processed modifications, and administered the contracts involving military, environmental and civil works.

From 1985-1990 she was an instructor for the Prospect Course "Construction Contract Negotiations". She served as the on-site Administrative Contracting Office and Contracting Officer's Representative for the Snettisham Hydroelectric Power Project in Juneau in 1988 and 1989. She led the activities of four service contracts and the construction contract through the Crater Lake Tap, initial tunnel filling, and first spin of the turbine/generator unit.

In 1990 Ms. Opheen obtained her Master of Science in Civil Engineering under the USACE Long Term Training Program. She returned to the Alaska District in Project Management, when it was part of Engineering Division, where she managed Air Force project designs.

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SPEAKER BIOGRAPHIES

MIKE G. MCKINNON

Transportation Program Manager, Denali Commission

Mike McKinnon is the owner/manager of McKinnon and Associates, LLC, a transportation planning and project development business based in Juneau with work throughout rural Alaska. After serving in the U.S. Marines in Viet Nam, Mike earned a Bachelors of Arts degree in Environmental Studies and Politics from the University of California, Santa Cruz. Before and during college, he worked in construction and freight transfer. He later ran a commercial diving and SCUBA instruction business.

Mike began a 25-year career at the Alaska Department of Transportation and Public Facilities (DOT&PF) in 1980. He started in the Environmental Section at Southeast Region, eventually moving to regional and statewide planning positions, including DOT&PF statewide Planning Director. Over a number of years, he developed models for and executed rural transportation system plans, and managed the department's Industrial Ports and Roads Program.

Upon retirement from state service in late 2005, Mike was hired under contract to manage the Denali Commission's newly created Transportation Program. He has also performed transportation-related contract work on behalf of the North Slope Borough, the Kodiak Island Housing Authority, DOT&PF and others.

Over the past 15 years, Mike has been involved in many transportation organizations to promote efforts to accelerate development of community and resource-related transportation infrastructure in rural Alaska. Mike is also a member of the Juneau and State Chambers of Commerce, the Resource Development Council, the Nature Conservancy Corporate Council and the American Planning Association's Alaska Chapter. Mike was born and raised in Anchorage; he is married to Ellen Fritts. They have two grown sons: Erik and Greg McKinnon.

CAPTAIN JASON FOSDICK

United States Coast Guard

CAPT Fosdick assumed command of Coast Guard Sector Anchorage in September 2009 and is responsible for the execution of Coast Guard missions throughout Western Alaska, the Service's largest and most geographically diverse area of responsibility. In his current duties, CAPT Fosdick oversees 245 active duty, 30 reserve and 370 auxiliary personnel and maintains operational control of a Marine Safety Unit, three Marine Safety Detachments, three 110' Patrol Boats, a Small Boat Station, Aids to Navigation Team, and a Sector Field Office. His regulatory responsibilities include a military strategic port, offshore oil exploration/production, cruise ship and fishing industry, severe weather and ice operations and the Trans Alaska Pipeline System.

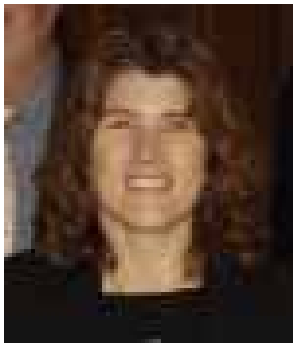
His prior assignments include:

- Deputy Sector Commander of Coast Guard Sector Corpus Christi, Texas
- Chief of the Prevention Department at Sector Mobile, Alabama
- Chief of the Inspections Department at Marine Safety Office, Mobile, Alabama
- Data and Computer Analyst for the Marine Information for Safety and Law Enforcement Project at Coast Guard Headquarters, Washington, District of Columbia
- Chief of New Vessel Construction and Chief of Port State Control at Marine Safety Office/Group, Los Angeles/Long Beach, California

- Marine Inspector at Marine Safety Office, Hampton Roads, Virginia
- Deck Watch Officer on the Coast Guard Cutter Cowslip in Portsmouth, Virginia

CAPT Fosdick holds a Bachelor of Science degree from the United States Coast Guard Academy and a Master of Science degree in Information Technology Management from the Naval Postgraduate School in Monterey, California.

CAPT Fosdick's military decorations include two Meritorious Service Medals, three Coast Guard Commendation Medals, and several other personal and unit awards.



AMY HOLMAN

Alaska Regional Coordinator, National Oceanic and Atmospheric Administration

Amy Holman is the NOAA Regional Coordinator for Alaska. She is active in the state's Climate Change Strategy, and serves on the boards of the Alaska Ocean Observing System and the Alaska Center for Climate Assessment and Policy. Prior to coming to Alaska, Amy was NOAA's Deputy Emergency Response Program Manager, Acting Surface (Road) Weather Program Manager, the Chief of Staff for NOAA's Office of Program Planning and Integration, Deputy National Weather Service Warning Coordination Program manager, and an analyst and advisor for research activities in space weather and atmospheric deposition to watersheds. She also has worked with NOAA's Sanctuaries and Reserves programs as well as Sea Grant.

PATRICK BURDEN, M.S.

President, Northern Economics, Inc.

Patrick Burden, President and Principal Economist of Northern Economics, has been involved in economic consulting for more than 28 years and has conducted more than 250 projects for private and public sector clients—projects ranging from small tasks for local entities to large, multidisciplinary projects of international scope. Mr. Burden has worked on nearly every type of project conceivable in Alaska, including port and harbor development studies, energy projects, transportation infrastructure development, seafood processing and manufacturing facilities, hotels and tourism facilities, bowling alleys and prisons. His work has taken him to nearly every community in Alaska, with consulting assignments from Ketchikan in Southeast Alaska to Barrow in the Arctic, and as far west as Adak in the Aleutian Chain.

In 1982, Pat founded Northern Economics, Inc., in Anchorage. The firm's purpose statement is based in Pat's personal philosophy: "to provide clients with economic analysis of the highest quality so that clients and society benefit from informed decisions; we strive to provide this service in a manner that reflects our commitment to excellence, and our reputation for integrity."

Over the last 22 years, Northern Economics has grown to become Alaska's largest economic consulting firm and in September of 2000, Northern Economics opened an office in Bellingham, Washington.

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SPEAKER BIOGRAPHIES

SENATOR MARK BEGICH

United States Senate, Alaska

Senator Mark Begich was elected to the U.S. Senate in November 2008 after serving as the Mayor of Anchorage for nearly six years. Born and raised in Anchorage, Senator Begich's priorities include focusing on a national energy policy that includes Alaska's oil and gas resources, an Alaska natural gas pipeline and the many renewable resources in Alaska.

He is equally committed to reducing the national debt; promoting legislation strengthening the economy and creating jobs; and keeping our military strong while improving the services and benefits for our nation's veterans who have served our country so honorably.

A lifetime member of the NRA, Senator Begich is a strong advocate for the 2nd Amendment and the rights of Alaskans and all Americans to keep and bear arms. He serves on the Senate Committee on Science, Commerce and Transportation; the Budget Committee; the Armed Services Committee; and the Veterans Committee.

A businessman for more than 30 years, Senator Begich is bringing his business acumen to the work in the Senate. His extensive experience in public office, along with service to dozens of non-profits and community groups, all add to his know-how and ability to get things done.

SENATOR BERT K. STEDMAN

Alaska State Legislature; Co-Chair, Senate Finance Committee; Vice Chair, Northern Waters Task Force

Bert Stedman is a fourth-generation Alaskan. Raised in Southeast, Bert spent his early years commercial fishing and working in the heavy construction industry. After receiving a degree in business administration from the University of Oregon, he returned to Sitka and in 1986 started Pioneer Capital Management, the investment services firm he manages today. Bert served eight years on the Sitka Planning and Zoning Commission and four years on the Sitka City & Borough Assembly, including one year as deputy mayor.

In November 2003, Governor Murkowski appointed Stedman to the District A Senate seat in the Alaska Legislature. Senate District A encompasses Ketchikan, Sitka, Petersburg, Wrangell and nine other Southeast Alaskan communities. In 2004, Stedman was elected to the seat and in 2008 was re-elected to a second 4-year term.

Senator Stedman has been the Co-Chairman of the Senate Finance Committee since 2007. He is also a member of the Budget & Audit Committee, Legislative Council and the Senate Rules, Energy and Resources Committees. This August he was selected to be Vice-Chairman of the newly formed Alaskan Northern Waters Task Force. The task force brings together local, state and federal officials in a coordinated effort to address the serious new challenges facing the Arctic as a result of the loss of perennial sea ice in Alaska's northern waters. He resides in Sitka with his wife Lureen and daughter Susie.

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SPEAKER BIOGRAPHIES

CAPTAIN BOB PAWLOWSKI, NOAA (RET), MNI

Legislative Liaison to the Denali Commission

Captain Bob Pawlowski is the Legislative Liaison to the Denali Commission. In this position he represents the Alaska State Legislature on common program interests with the Denali Commission.

Captain Bob has spent the past 36 years in fishery science, environmental management, business development and public policy. As a NOAA Corps Officer, he commanded two NOAA research vessels; served as Navigation Advisor for Alaska to the Office of Coast Survey; Regional Planning Officer, Northeast Regional Office, NMFS; and Director, Alaska Ocean Service Center. After completing a career with the NOAA Corps, he worked in port development for Port MacKenzie, Survey Project Manager for Thales GeoSolutions, General Manager, St. George Chadux Corporation and Executive Director, Alaska Fisheries Development Foundation. Outside of his work responsibilities, he teaches coastal engineering at the University of Alaska and served as an advisor to the Alaska Legislature and the Governors Sub-cabinet on climate change. Captain Bob has a Masters in Engineering Management and an MBA from UAA and a USCG Masters License.

JEFF C. OTTESEN

Director, Division of Program Development, Alaska Department of Transportation and Public Facilities

Jeff came to Alaska in 1977 and soon migrated to Juneau (1979). His career has included stints in local government in 3 states, consulting A&E firms including the local office of Tetra-Tech for 6 years, (then known as KCM) and for the past 22 years in Alaska DOT. He has worked on several well known projects ranging from the USFS Begich-Boggs Visitor Center near Anchorage, the Ketchikan Police Station, the Southeast Alaska Transportation Plan, to the identifying transportation assets needing upgrades prior to the upcoming natural gas pipeline construction.

Originally trained with degrees in both Landscape Architecture and Planning, he now works mostly in the arena of transportation policy and finance. He heads up the division that conducts statewide planning at DOT&PF and also oversees the management of more than $500 million in federal funds each year.

A positive career moment was the 2007 Strategic Highway Safety Plan. He led this effort that involved over 20 organizations, with a goal of breaking down institutional log jambs that have caused highway fatalities and injuries to “plateau” over the past 10+ years. The effort appears to have paid dividends. A 10-year average in fatalities of about 85 per year is now down to about 60 per year. For a state agency tasked with building infrastructure, the biggest revelation of the plan, was the evidence and decision to direct more financial resources to behavioral issues.

His presentation will look at the idea of public-private partnerships in the development of port and harbor infrastructure for Alaska.

2010 ALASKA REGIONAL PORTS CONFERENCE

SPEAKER BIOGRAPHIES

MICHAEL FISHER, MBA, MSPM

Northern Economics, Inc.

Mike Fisher is a project consultant for Northern Economics with a focus on financial and market demand analysis. Mr. Fisher has worked on several port and harbor development projects, including infrastructure feasibility studies, harbor rate studies, and long-term harbor development plans. Mike helped develop a Harbor Economic Impact Model for the State of Alaska, and most recently assisted the US Army Corps of Engineers with a comprehensive study on port and harbor infrastructure needs in Alaska for the 2010 to 2030 period.

Mike has been a presenter at five of the Alaska Association of Harbormasters and Port Administrators (AAHPA) conferences since 2004, including presentations on the Harbor Economic Impact Model and its applications, setting sustainable rates in harbors, and how ports and harbors can create economic development. He also maintains a personal website at www.HarborModel.com that contains the Harbor Economic Impact Model and slides from each of the presentations he has done for AAHPA.

Mike holds an MBA, an M.S. in Project Management (MSPM), and the Project Management Professional (PMP) certification. In addition to his work at Northern Economics, Mike is the instructor of graduate courses in Operations Research, Cost Estimating, and Project Cost Management, and a guest instructor for other graduate courses in the Project Management program at the University of Alaska Anchorage. His guest lectures focus on quantitative risk analysis, decision trees, and simulation. He has also taught risk, quality, and cost segments of the university's PMP preparation course.

ALEXUS BOND, M.A.

Northern Economics, Inc.

Alexus Bond, M.A., is a Project Consultant with Northern Economics, where she performs research and analysis on a variety of topics including infrastructure development and market dynamics.

Prior to joining Northern Economics in 2009, Alexus was an analyst for APL's Trans-Atlantic Trade Group, where she focused on pricing and cargo profitability analysis for eastbound and westbound transatlantic trade routes. Her team worked to evaluate and improve the pricing process, while enhancing profitability of trade through yield-management and high grade programs.

Alexus also has experience working for APL at both the Port of Seattle and in Unalaska (Dutch Harbor). She spent time coordinating transportation for fishing vessel offloads of Alaskan seafood destined for Asian markets, acted as primary supervisor of long shore labor for gate related functions including drayage and yard allocation, and oversaw daily road operations to maximize efficiency of labor while minimizing the cost/duration of operations.

Her experience with transportation, pricing, and trade has led to a unique understanding of both logistics and export markets. Alexus has a Master of Arts in Global Finance, Trade & Economic Integration, from the University of Denver, and a Bachelor of Arts in Latin American Studies and Spanish from Tulane University.

C

US Army Corps of Engineers

U.S. ARMY CORPS OF ENGINEERS
ALASKA DISTRICT
P.O. Box 6898
Elmendorf AFB, AK 99506-0898
http://www.poa.usace.army.mil/en/cw/index.htm

Civil Works Program

The Civil Works Program of the U.S. Army Corps of Engineers, Alaska District studies potential water resource projects in Alaska. These studies, usually requested by a community in Alaska, analyze and solve water resource issues of concern to the local communities. These issues may involve navigation improvements, shoreline erosion, flood control, or ecosystem restoration.

Navigation improvements, consisting primarily of small boat harbors and channel dredging, is the District's largest mission area. Working with non-Federal sponsors, the District has constructed nearly 50 navigation projects in Alaska.

Constructed Harbor Projects

Since the 2008 Alaska Regional Ports Conference the Corps and its sponsors finished construction on several harbor projects or major harbor components throughout the state. Much of this success was attributed to these projects being 'shovel ready' when American Recovery and Reinvestment Act (ARRA) funding was being allocated.

Nearly Completed False Pass Harbor

Project	Project Cost ($000)	Basin Size (acres)	# of Vessels Accommodated
Chignik Harbor	8,8000	4.8	70
Douglas Harbor Phase 1	4,300	5.5	72
False Pass Harbor	23,000	5.2	88
Saint Paul Harbor	21,000	3.3	60
Unalaska Harbor Phase 1	8,900	16.8	75

Ongoing Harbor Projects

The District and its sponsors have recently initiated several harbor construction projects. As with the completed projects identified above, these projects have equally benefited from ARRA funding. The success of these projects to receive construction funding stresses the importance of completing feasibility study reports and design documents even if construction funding is not immediately available.

Project	Project Cost ($000)	Basin Size (acres)	# of Vessels Accommodated
Akutan Harbor	31,897	14.9	58
Douglas Harbor Floating Breakwater Phase 2	1,770	See Table Above	
Seward Harbor Breakwater Extension (completes the harbor expansion project)	4,164	11.7	346
Unalaska Harbor Floating Breakwater Phase 2	12,526	See Table Above	

Akutan Harbor Site

Seward Breakwater Extension

Projects in Design

The District and its sponsors have been successful at developing the state's waterfront and transportation systems. Although there are several projects in the design phase, there is a void between the construction and study phases. Partnership among stakeholders is needed to advance the development of the State's waterfront and transportation systems. Projects in the design phase include:

- Haines Harbor Expansion
- Valdez Harbor Expansion
- Port Lions (on hold pending Federal funding)

Ongoing Studies

The District is working on a number of reconnaissance and feasibility level studies. The Auke Bay and Kasaan studies would evaluate reducing wave climate in those harbors. The Craig and Sitka harbor studies would evaluate providing increased moorage. Feasibility studies at Elim, Homer, Little Diomede, Savoonga, and Whittier all evaluate the feasibility of providing increased moorage capacity.

Study	Reconnaissance Phase	Feasibility Phase
Auke Bay Harbor	X	
Craig Harbor	X	
Kasaan Harbor	X	
Sitka Harbor System	X	
AK Regional Ports		X X
Elim Harbor		X
Homer Harbor (on hold)		X X
Little Diomede Harbor		X
Savoonga Harbor		X
Whittier Harbor		X

X X - Denotes Limited Funding

Ways to Work with the Corps

- **Continuing Authorities Program -** Section 107 of the River and Harbor Act of 1960, as amended, allows the Corps to plan and construct small navigation projects, such as boat harbors and channel dredging, that have not been specifically authorized by Congress. The maximum Federal expenditure per project of $7 million includes both planning and construction costs.

- **General Investigations -** These specifically authorized studies exceed the funding limit and complexity of the CAP Section 107. In Alaska, these are usually boat harbor, channel dredging, shoreline protection, and aquatic ecosystem restoration studies. Studies with a positive benefit to cost ratio are recommended to Congress for authorization and ultimately, construction appropriation.

- **Planning Assistance to States -** Under the authority provided by Section 22 of the Water Resources Development Act of 1974 (PL 93-251), as amended, the Corps of Engineers can provide states, local governments, other non-Federal entities, and eligible Native American Indian tribes assistance in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources. Typical studies are only planning level of detail; they do not include detailed design for project construction. Types of studies conducted in recent years under the program include: water supply/demand, water conservation, water quality, environmental/conservation, wetlands evaluation/restoration, dam safety/failure, flood damage reduction, coastal zone protection, and harbor planning.

Requests for assistance through any of these programs should be in the form of a letter that includes the location and nature of the problem to be investigated. The request should be addressed to the District Commander Colonel Koenig at the address provided above. Or you may call Mr. Stephen Boardman, Chief, Project Management for Civil Works, at 907-753-5799.

For more information contact us at 907-753-2662, by email at akregports@usace.army.mil, or the internet at http://www.poa.usace.army.mil/en/cw/index.htm

Cordova Harbor, 2000

D

Department of Transportation and Public Facilities
P.O. Box 112500
Juneau, Alaska 99811-2500
www.dot.alaska.gov

Mission Statement:

"Providing for the safe movement of people and goods and the delivery of state services"

- *Transportation component*
- *Intermodal component*
- *Economic component*

Alaska: The Great Land

- Highways: 15,359 lane miles and 958 bridges
  - Only 36.5% is DOT&PF owned (5595 miles)
  - Most of DOT&PF's resources and personnel
- Aviation: 254 airports
- AMHS: Eleven ferries and 16 ferry terminals
- Many buildings and port and harbors facilities

Ports and Harbors are critically important

- Especially for the delivery of goods
  - Import: Freight, low cost fuel, supplies, food, etc.
  - Export: Oil and natural resources
- Resource development
  - Oil & Gas
  - Mining
- Alaska is the largest coastal state
  - 33,904 miles of coastline
  - 103 coastal towns in AK
  - 44% of Alaskan towns/villages on the coastal (409,000 Alaskan residents)

DOT&PF harbor facilities (Pre-1986)

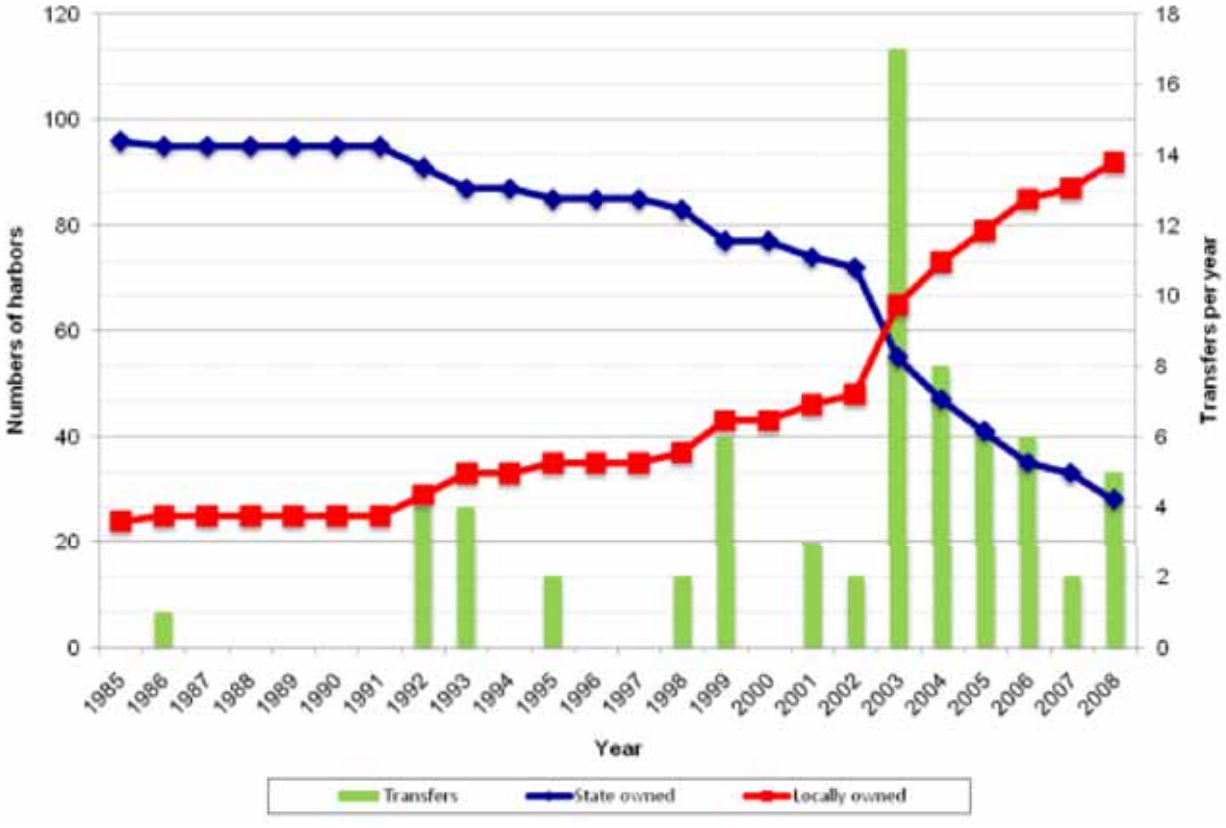
- DOT&PF owned and maintained the majority of Alaska's small boat harbors (99 out of 125 harbors).
    - 99 – built by DOT&PF and the Department of Public Works, Division of Waters and Harbors
    - 25 – locally built, no DOT&PF involvement
    - 1 – built by the federal government (USACE) for the City of Dillingham

  (Note: doesn't include other state agencies, like ADF&G and DNR)

DOT&PF harbor facilities (Today)

- DOT&PF owns just 24 harbors (including 32 seaplane floats)

Many transfers to local municipalities:

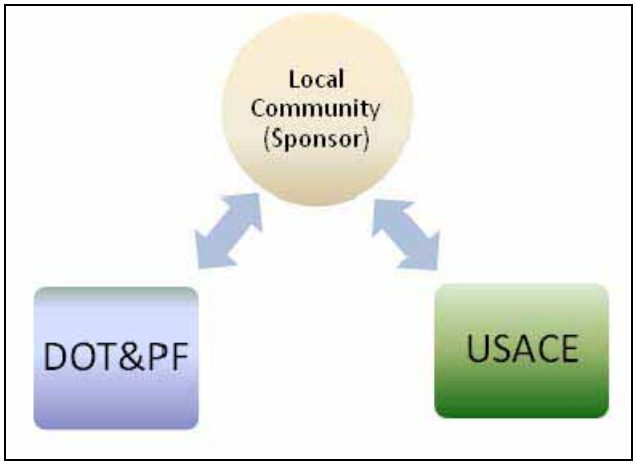


State Funded Aid: Municipal Harbor Facility Grant Program

- Purpose: fund municipally owned Small Boat Harbors construction projects
- Not for commercial docks/barge facilities
- Supports the state's fishing fleet
- Supports subsistence and recreational boaters
- Supports local and marine businesses
- Stimulates local economy by creating jobs
- DOT&PF provides 50/50 matching funds (doubles local funds)
- Locally managed projects
- Maximum of $5 million per harbor facility
- Grants managed by DOT&PF

State Funded Aid: Matching funds for Corps of Engineer projects

- DOT&PF partners with communities on harbor projects.
  - Providing technical coastal and harbor engineering in-kind services
  - Assisting local gov't by paying up to 50% sponsor costs
- All phases eligible: from Reconnaissance to Feasibility to Construction
  - For design, average cost is $1M (50/25/25 Corps/DOT&PF/local split)
  - For construction, average cost is $10-30M (80/10/10 Corps/DOT&PF/local split)
- 50/50 split on inner harbor mooring basins and float facilities
- Long timeframe from start to construction
- Requires appropriations from the AK Legislature
- Requires Congressional support and funding
- Grants managed by DOT&PF
- Locally managed projects, separate agreements with DOT&PF and the Corps of Engineers



State Funded Aid: Debt service for harbor bond projects

- DOT&PF pays the principal and interest for certain named port and harbor projects
- Current ports and harbors projects in Valdez, Nome, False Pass, Chignik, Akutan, Port Mackenzie, and Fairbanks

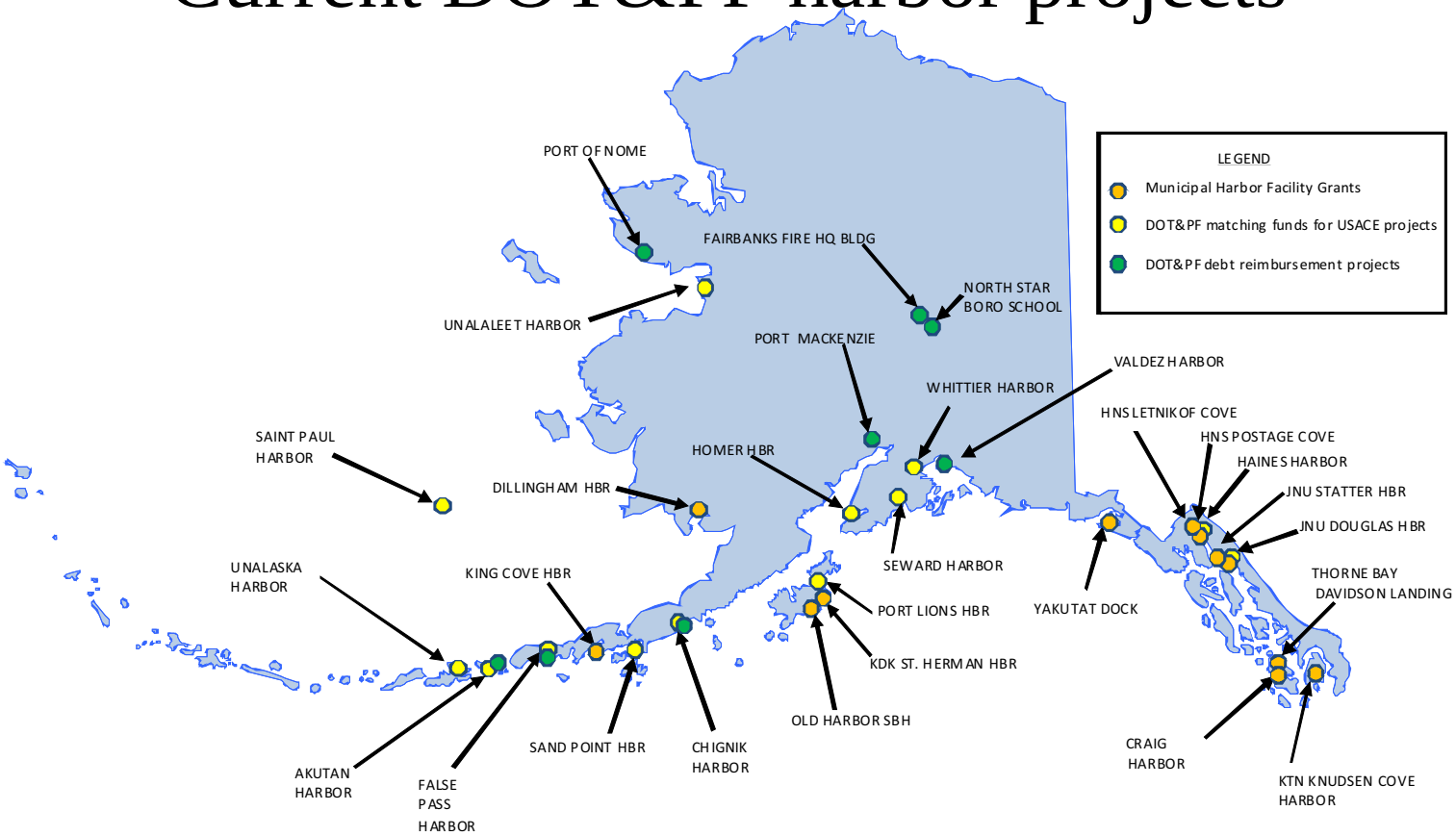
Alaska Financing – Realities

- Relying on Federal program growth is risky
- Prognosis for general fund revenue not good
  - Running out of oil revenues,
  - State revenue will decline - without gas pipeline (earliest 2015)
- No dedicated transportation user fees

Challenges going forward

- Climate change/coastal erosion (Governor's Subcabinet on Climate Change)
- DOT&PF role in new ports (re: Arctic/NW Passage)
- Floods/state emergency response
- Preservation of state facilities
- Provide state financial assistance
- Re-invigorate DOT&PF's marine transportation role

Current DOT&PF harbor projects



Creosote Treated Timber in the Alaskan Marine Environment: a Report to the Alaska Department of Transportation and Public Facilities

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EXECUTIVE SUMMARY

The Alaska Department of Transportation (ADOT) is responsible for many structures that incorporate wood pilings and other timber in Alaskan waters. Most of these are treated with preservative to inhibit marine borers that will quickly destroy unprotected wood. Creosote is generally the most economical method of wood preservation and has been in use for over a hundred years. It is preferred by owners of marine structures because of its economy and efficiency. Creosote contains many toxic chemicals and some governments and organizations are limiting creosote use. This report reviews the current science regarding the use of creosoted wood in marine waters, the current regulatory matrix that controls its use, and develops recommendations for its use by the ADOT. Some future research may help clarify some issues raised.

Creosote is a coal tar product consisting mostly of polycyclic aromatic hydrocarbons (PAH). PAHs are ubiquitous in the environment and are naturally made by forest fires and anaerobic reduction of organic matter in sediments. There are many PAH chemicals that are known to be toxic to humans, marine animals, and many other forms of life. Indeed, the PAHs in creosote must be toxic to the marine borers in order to be effective. In creosote's long history of beneficial use, harmful effects on unprotected workers and environmental damage from sloppy and unregulated wood treatment plants have been a significant issue. Today, proper worker protection and careful environmental controls in the wood treatment industry have ameliorated these harms. In addition, modern use of creosote involves Best Management Practices (BMP) that leave less creosote on the surface of the timbers and specify construction processes that reduce transfer of the PAHs from the wood to the environment.

Even with BMP, PAH from new creosote timber will be transferred to the marine environment. Laboratory tests and field observations show that PAH chemicals will slowly diffuse from the wood into the water column. Then the heavier PAH chemicals sink to the bottom directly or adsorb to organic or inorganic moieties in the water and then sink. The PAH is then incorporated into the sediment. The lighter PAH chemicals are quickly volatilized and oxidized. Scientific observations of creosote behavior in meso-scale tests verify that the concentrations of PAH from marine piles in the water column are negligible, after the first few weeks. The fate of PAH in the sediment depends on the oxygen status of the upper sediment layers. If the sediment is not anoxic, the PAH will be oxidized. Hence, with sufficient oxygen in the upper layers of sediments the PAH concentration will initially rise, then decline. Thus, with BMP timber, if the sediments are not anoxic and the surrounding waters are not stagnant, and the area is not already contaminated, creosote marine timbers unlikely to have a significant long-term effect on the environment. Further, meso-scale testing has indicated that effects were confined to a region close to the structures themselves.

Are the rapidly declining levels of PAH in the water column and the slowly declining levels in the sediment nonetheless harmful to marine life? The most pertinent meso-scale tests, that installed several sets of treated and untreated piles in pristine marine waters, indicated there was not harm. However there are many papers and reports on this topic, and some do indicate harm. However most are clear that effects, if any, are limited to the timber itself and regions very close to the timber.

The only federal regulation of creosote is by the EPA under FIFRA. The EPA recently issued a favorable re-registration decision on creosote. That decision considered the ecological and economic aspects of creosote and required BMP in sensitive environments, but did not otherwise limit creosote use.

NMFS, and to a lesser extent ADF&G, are involved in decisions about wood treatment methods through a consistency review. That is, other federal agencies, especially the Army Corps of Engineers, when considering issuing a permit to construct in navigable waters, must ask other agencies to review the permit application and comment. The NMFS is always asked for this review in marine waters. They will review the application with respect to the Essential Fish Habitat (EFH) and Endangered Species Act issues. Thus, by finding that creosote treatment of wood may impact an EFH or harm a Threatened or Endangered Species (TES), the NMFS may object to the permit and based on that, the Corps may deny the permit or require other changes.

NMFS should have some definite criteria on which to base its evaluation of permit applications. Publishing definite criteria is difficult because pesticide-treated wood is a nationwide issue and there are many types of wood treatment at many locations all having different climate and ecology. Recently NMFS drafted some guidelines for all types of preservatives, including creosote, in marine waters. These and other NMFS guidance agree that creosote can be used in many marine applications, but the risks need to be evaluated for each proposed use, but the effort required to evaluate the risks should be commensurate with the likely effects and many applications could be approved without an elaborate risk evaluation. Although the NMFS Guidance is not a "cookbook" for approval or disapproval of creosote, its basic guidelines are sound. They are similar to the FIRFA regulations of the EPA and the recommendations of the Western Wood Preservers Institute.

Recommendations for use of creosote in marine waters by the ADOT:

1. Recognize that creosote does introduce contaminants into the marine waters, albeit at very low levels, and some care is needed before specifying its use.
2. Attach to each permit application that involves creosote use a brief statement that it is the material of choice in that particular application and that BMP will be specified in the materials and installation.
3. The wood preservative issue is usually a small part of a larger project, so identification of EFH and TES issues are usually needed, regardless of wood treatment. As part of the design process, note the maximum current velocity and that the sediment in not anaerobic or the site is not already heavily contaminated with PAH.
4. If the number of piles or pile equivalents is less than 100 piles, use the simple WWPI risk assessment chart that indicates if a more elaborate risk assessment is needed. If not, attach to the permit application a brief document with the current velocity, oxygen status, and other notes, to the application, that the WWPI risk assessment chart indicated more risk assessment was not required.
5. If the number of creosote piles is greater than 100, there are other creosote structures in the project or nearby, or the current and sediment parameters indicate a risk assessment is needed, there are two options: One, determine if the project at worst will effect an EFH or TES. Since any risk assessment done will be in relation to EFH and TES, if the site is a small part of the EFH and there is not a TES issue, a risk assessment might not be necessary. Two, use the more advanced recommended risk assessment models distributed by the WWPI. These are slightly more complex and require more input parameters than that matrix and yield conservative results. These models could be used by engineers or others with technical backgrounds within the ADOT.
6. Finally, at worst, unless the waters were actually stagnant, the only significant environmental effect would be the accumulation of PAH in the sediment. Installing creosote in situations where the sediment PAH will increase with time is surely not recommended, but if a situation arises where it is the only effective option, it may be acceptable. The ADOT would need to balance the effects on pubic safety and the direct effect on EFH or TES. This would probably take a consultant to evaluate these effects, although generally, sediment dwelling organisms are not a TES issue. Contamination of shellfish would need to be considered.

Other Management recommendations:

1. Some of the guidelines indicate a preference for water-borne copper-based preservatives over creosote. Copper too has toxicity issues and there are other disadvantages in Alaska. Thus we have not identified any reason to prefer copper-based over creosote in Alaska.
2. Since in almost all cases the concentrations of PAH decrease with time, there is almost never a net environmental benefit from pulling old marine piles to improve the environment.
3. It seems unlikely that creosote treated wood glulam float material would be different than the equivalent amount of wood pile material – regarding total PAH released to the environment or its fate and transport.
4. There are models for overwater creosote structures that likewise transfer to the water and sediment. These are not too complicated to use.
5. There are not standard models for structures such as bulkheads. However if the sediments are aerobic and there is reasonable current flow, for small structures, they would not be much different than the equivalent amount of wood. For larger structures, more effort would be needed to adopt the standard models.
6. Disposal of creosote treated wood is not a hazardous waste.

List of Acronyms

ADF&G	Alaska Department of Fish and Game
ADOT	Alaska Department of Transportation and Public Facilities
BMPs	best management practices
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
NMFS	National Marine Fisheries Service
TES	Threatened and endangered species
WWPI	Western Wood Preservers Institute

This draft report is available for download from

Volume I
http://www.raperkins.net/Presentations/1%20Nov%20Creosote%20Treated%20Timber%20in%20the%20Alaskan%20Marine%20Environment.pdf

Volume II
http://www.raperkins.net/Presentations/Volume%20II%20Portfolio.pdf

A copy of the WWPI Sooke Basin report is available here
http://www.raperkins.net/Presentations/Second%20SookeBasinRprt.pdf

E

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Introduction

On August 10, 2005, Congress passed H.R. 3 - Safe, Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) into law. SAFETEA-LU authorizes $25,000,000 per year for the Denali Commission (Commission) transportation program for fiscal years (FY) 2005 through 2009. Funds are divided between a roads component at $15,000,000 and a waterfront development component at $10,000,000.

Because Congress did not complete work on a new Highway Trust Fund bill, before the end of FY 2009, SAFETEA-LU funding formulas continued through FY 2010 under Congressional Continuing Resolutions (CRs). The new legislation is proving difficult to construct and there is an expectation that CRs may continue to be the funding mechanism for Highway Trust Fund distributions into 2012, with some possibility that they will continue into 2013. The Commission's program has substantial support and there is hope for a continuation of funding authorization in new legislation.

Program Purpose

The Program purpose is to improve access to and between communities and to access local resources, and to improve the safety and operational efficiency of rural surface transport systems. A key to ensuring that the Program is achieving that goal is the work of the SAFETEA-LU required Transportation Advisory Committee (TAC).

The two primary tasks assigned to the TAC are to advise the Commission on project selections and project delivery. The nine member committee includes by law, four members representing regional native corporations, native non-profit entities, and tribal governments, and four members representing rural Alaska regions or villages. At least

two members must be Professional Engineers. The committee is chaired by the Commission's Federal Co-Chair. The committee has successfully guided program development and has been responsible for recommending an excellent suite of planning, design and construction projects located throughout rural Alaska. The Program operates under the somewhat complex Title 23/49 USC, which includes very specific design steps and a reimbursable payment-basis, contractor-based construction model. While Boroughs, some larger Tribal and city governments, and regional tribal non-profits are comfortable operating with these regulations and contracting procedures, it quickly became clear that many small communities were not set up to operate under this structure.

To execute project delivery for small communities, or where projects reached across many communities, the Program developed successful design and construction partnerships with the Federal Highway Administration's Western Federal Lands Highway Division (WFLHD) and the U.S. Army Corps of Engineers (USACE). WFLHD engineers and technical services staff are experts in remote and unique road design and construction, and have proven very good at practical solutions for the vehicle fleets that operate in rural Alaska. USACE, set up a special unit within their organization to accomplish the smaller scale projects like those associated with the Commission's program and have also been exceptional at finding practical solutions to waterfront development problems. Success in the Commission's program delivery efforts is also a function of excellent ongoing guidance from the FHWA, Alaska Division.

Transportation Program Core-Value Project Areas

As a result of a substantial public outreach and agency coordination effort, the program now focuses its attention on the following transportation needs:

Roads

- Rural community streets, roads, and board roads
- Roads between rural communities
- Roads between rural communities and the Alaska State highway system
- Roads to access local resource development, especially rock and gravel sources
- Access to permanent barge landings for fuel and freight transfers
- ATV geo-grid roads

Waterfront Development

- Regional port reconstruction or expansion to support fisheries and fuel/ freight redistribution
- Harbor reconstruction/expansion to support commercial/subsistence fisheries, and/or regional hub intermodal connections
- Boat launch ramps to support local uses, including search and rescue operations
- Barge landing improvements including structures and mooring points

The road program targets basic road improvement needs. It also looks at opportunities to connect rural communities to one another and the State highway system, and opportunities to enhance rural economic development. The waterfront development program addresses port, harbor and other waterfront needs for rural communities. The water front program has recently begun to focus on improvements to regional ports, and construction of barge landings and docking facilities.

Partnerships with Communities and Transportation Agencies

The Transportation Program has focused attention on leveraging partner and agency funding for high priority transportation projects. For FY2006-FY2009, $100,000,000 in funding for the transportation program has leveraged almost $400,000,000 in additional funding for projects. The program's ability to successfully leverage significant funding for projects has been an important feature of the agency's program. In many cases, the projects funded by the Commission are high priority community projects, but may not rise to the top tier of prioritization lists maintained by the State of Alaska or federal transportation agencies. By working collaboratively with other partners the Commission has been able to maximize transportation appropriations assigned to the agency.

To-date the Commission's has completed or has underway 157 projects in the range of $114,000,000, in the following categories:

- 33 Road Projects Completed
- 42 Waterfront Development Projects Completed
- 82 Road and Waterfront Development Projects in Planning, Design or Construction

Project Selection and Development Process

Road and waterfront development projects are evaluated by the TAC following an extensive public outreach effort that has historically resulted in 40-80 project nominations per year. After a due diligence review by Commission staff, the projects are brought before the TAC, who are rural Alaska leaders with extensive experience in transportation development for evaluation and recommendation to the Commission. Funding levels assigned to projects by the Commission are generally capped at $1,000,000, with some exceptions as determined by the TAC and the Commission. For construction phase projects this cap generally requires that the sponsor have any additional funds over $1,000,000 immediately available for the project.

Projects are generally approved by phase; new projects are assigned Reconnaissance Engineering funds where there is a need to understand the scope, cost and viability of a project. Design funds are assigned where there is a clear scope of work and a practical transportation solution, projects with completed designs and available funding for construction are assigned to the Construction phase.

Projects approved by the Commission are then assigned to the local sponsor if project development capacity is available, or more often, to one of the Commission's federal transportation agency partners. Projects are then monitored by Commission staff to ensure maintenance of scope, schedule and budget, and to ensure that affected communities are fully integrated into the project development process. At the completion of the project phase, the finance documents are closed out. Design projects are eligible for a new project nomination for the construction phase given available funding.

The TAC will meet in mid-January 2011 to review, select and recommend the FY 2011 transportation projects to the Commission's Federal Co-Chair. As part of this selection the TAC will be reviewing projects and making recommendations with a priority given to projects that illustrate a vehicle fleet appropriate solution and construction phase projects where construction is foreseeable in the near term.

Project Success Examples

Gulkana Community Roads Reconstruction

The Gulkana road project is a long awaited project that reconstructs the main road into and through the village of Gulkana. In 2006, the Denali Commission partnered with the Native Village of Gulkana on the nomination for this project.

During the design phase of the project, it became clear that the water and sewer utilities bedded in the roadway were failing. Rather than proceed with the road construction as scheduled in 2008 the Commission, the Bureau of Indian Affairs, and the Native Village of Gulkana agreed to put the road project in abeyance so the community could seek utility reconstruction funds to include in an overall repair project. In 2009, the United State Department of Agriculture (USDA) Rural Utilities Service (RUS) approved a water-sewer reconstruction project and provided funding to Alaska for Gulkana. These funds were received in FY 2010 and the project is now successfully underway, with final construction actions to be completed in early construction season 2011.

Compacting Pipe Bedding

Installing Culverts

This combination of funds and construction phases improves overall costs to both components of work and preempted the possibility of a water-sewer project tearing up a recently reconstructed road.

Chevak Barge Landing Mooring Points

Mooring points have been recognized as a key barge operations efficiency and safety improvement for several decades, but there was no funding source to execute a broad coverage construction program. In most communities, barges were held against the coast shoreline or river banks by tugs under power while transfers were completed. Transfers under these conditions can create near shore environmental impacts, uncharted shoaling for other boat operations, and create safety challenges for tug and barge workers and shore-side employees.

Pile Being Set in Lead

Cutting Pile Below Grade

Completed Project –
Pile was backfilled with local material

The Commission took this task on as a major project area in 2008, and is now engaged in a statewide mooring point installation effort. The Chevak mooring point project is a prototype installation of a new mooring system for rural Alaska communities that is the result of two years of investigations into barge operation needs throughout Western and

Arctic Alaska. Safe and efficient transfer of fuel and freight in rural communities is the goal of this important project and the barge operators report substantial success using the system installed in Chevak during summer 2010 operations. As a result of this confirmation of design, the Commission and the USACE is now engaged in a system-wide construction effort.

Photos of Other Transportation Projects:

Cordova Dust Control with Asphalt Surfacing Project:

Before

After

Yakutat Multi Purpose Dock:

Before

After

Bethel Port – Multi Facility Improvement and Upgrade:

Before

After

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Alaska Regional Ports: Briefing Paper

November 18, 2010

1 Introduction

This briefing paper summarizes the findings of four previous white papers prepared by Northern Economics, Inc. (NEI) as a subcontractor to URS for the Alaska Regional Ports project. The Alaska Regional Ports Conference held in January 2008 in Anchorage brought together local, state, and federal government officials with port and harbor users throughout the state to discuss future needs for the coastal and riverine waters. The overwhelming mandate from this group was the need for a collaborative effort to develop comprehensive planning to meet the future needs of Alaska.

Since the 2008 conference, the U.S. Army Corps of Engineers (USACE) and the State of Alaska Department of Transportation and Public Facilities ADOT&PF have laid much of the groundwork necessary to achieve this goal. USACE and ADOT&PF sponsored independent research to investigate global trends in port and harbor development and analyze how the trends affect Alaska. They also supported a baseline assessment and regional analysis of community infrastructure and needs which were conducted through implementation of a statewide survey of both public and private facilities. Analysis of the marine transportation system in Alaska was undertaken to highlight the hub and subregional hub communities which are the most influential in supporting outlying communities through the maritime transportation system.

This briefing paper is intended for discussion during the 2010 Conference by summarizing the work accomplished since 2008.

Attached to this briefing paper are a series of maps which illustrate the statewide regions, hub and subregional hub communities, and the needed projects for communities within each region.

2 Strategic Trends

This section identifies and analyzes the strategic trends that should be considered in the development of a long-range ports and harbors plan for Alaska. In this section we discuss global trends as well as future demands for Alaskan ports and harbors.

2.1 Global Trade, Maritime Trends, and What They Mean for Alaska

Shipping Routes. Maritime shipping lines try to offer the most direct services possible. For vessels transiting an ocean between two continents, this goal is typically accomplished by following a “great

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circle," which is the shortest distance between two points on a sphere. Alaska sits astride the North Pacific great circle route, which is the most economic pathway for commerce between northern ports of the west coast of North America to ports in eastern Asia.

Going forward, Alaska could become a transshipment point for vessels transiting the North Pacific great circle route with cargo destined to potential new Arctic Ocean routes. Examples include the Northern Sea Route and Northwest Passage, which could become useable navigation routes in the next 40 to 50 years due to Arctic sea ice melt. However, a number of issues and impediments to the use of Arctic sea routes exist, including seasonality and year-to-year variability, ice-class vessel requirements, vessel support and safety considerations, and geopolitical issues.

Port Privatization and Global Terminal Operators. The more-or-less standard port model in the United States is the "landlord" port, at which facilities, services, and recently even marine terminals are leased to private vendors through various types of contractual arrangements.

In Alaska, the key marine infrastructure may be owned by local governments, the state government, or the private sector. Privatization or public/private partnerships may emerge in the state. For example, the Port of Anchorage is undergoing a very large expansion that requires additional funding. Leasing part or all of the facility to a major terminal operator could be one alternative for completing the project.

Containerization and Transshipment Hubs. This worldwide trend is accelerating as larger containerships come into service and the advantages of hub and spoke operations become more apparent. Advantages such as reduced transport time and access to marginal markets can result in increased competitiveness, which, in turn, can benefit local economies through job and income creation (The World Bank 2007).

The number of containers coming to Alaska is expected to increase over time, primarily to meet the needs of increasing population and increased economic activity. The Port of Anchorage serves over 80 percent of the state's population and handles over 90 percent of all consumer goods sold in Alaska except for the Panhandle (Anchorage Port Expansion Team 2005). However, it is unlikely for the Port of Anchorage to emerge as a transshipment container terminal in the foreseeable future. A main reason is the expected development of Prince Rupert, B.C. as a major transshipment container terminal with Canadian Northern Railroad providing a dedicated rail line to Chicago for containers from Prince Rupert and with direct rail service to Memphis, Minneapolis, and Pittsburgh.

Shipping Line Consolidation and Alliances. Over the past decade the industry has seen substantial consolidation. In Alaska, consolidation in tug and barge companies operating in western Alaska occurred in the 1990s and earlier this decade. The development of the U.S. Postal Services bypass mail program reduced freight volumes for tug and barge companies and was part of the reason for the reduction in the number of firms operating in the region.

Vessel Size. Global alliances have proven to be especially successful in benefiting from the economies of scale achieved through the employment of larger ships. The new building orders for "mega-ships" suggest that this will continue in the future.

In many Alaskan ports, vessels or barges are designed for the available water depths, and come in light-loaded to meet the depth available at the dock or to deal with shoals that significantly limit carrying capacity.

Intermodal Transportation Systems. Many modern ports offer connections between various transportation modes so that goods are transferred from sea to rail, road, and inland navigation, and vice versa. Alaska has a limited road and rail network and intermodal connections are limited to a few ports, mostly in Southcentral Alaska but also at Nenana and Prudhoe Bay. Anchorage, Whittier, Seward, and Valdez are the primary ports in Southcentral Alaska with both rail and road connections.

Fuel Efficiency. Shipping lines worldwide struggled as crude oil prices reached unprecedented highs in 2008. Fuel costs represent as much as 50 to 60 percent of total ship operating costs. While oil prices dropped substantially in 2009, they are expected to again increase with the recovery of the global economy. The prospect of rising fuel costs and fuel shortages has underscored the importance of using the most fuel efficient modes of transport. Maritime transportation is generally considered the most energy efficient of all transport modes if energy efficiency is measured in terms of the distance one ton of cargo travels using 1 kWh of energy.

Shipping companies can undertake several actions to reduce fuel cost and maintain their margins, including seeking shorter routes and limiting the number of tug and barge trips to small remote villages to one per year rather than two per year. This last step could require additional fuel storage in Alaskan communities.

Port Infrastructure. The above-mentioned trends have placed new demands on port facilities and services, particularly the trends regarding containerization, transshipment and larger vessels and cruise ships sizes. New demand for improvements in port facilities may involve a variety of infrastructure investments, such as increasing the depth of water in entrance channels and alongside berths, extending and supporting existing harbors, and providing breakwaters, better cargo handling equipment and storage facilities, among others.

Investments in regional and subregional hubs in Alaska could result in lower costs for shipping companies, which might translate into improved service and lower costs for residents of the hub communities as well as the outlying villages that they support. Thus a larger number of Alaska residents could benefit from the limited resources that are available. One issue will be ensuring that the benefits from investing public dollars are not captured solely by the transportation companies or the terminal operators, but are at least shared with residents of the region.

Dredging. Dredging is needed on a regular basis to maintain access to a number of ports in Alaska. Reasons often cited for the need to dredge include demand that cannot be served due to shallow water along dock faces, access to existing facilities that is impeded by shallow water or build-up of sediment, and increased vessel sizes that require deeper water or a larger space for maneuvering or docking. As shipping companies employ larger ships in the future, the need for dredging will increase.

Facility Expansion. As vessels become wider, for instance, individual stalls may be sufficiently long to accommodate vessels but lack the width and maneuvering space for safe moorage. As market needs change, expansions and reconfigurations will continue to be a major category of improvement. These factors point to the need for modular design, portability, and interchangeability between marine facilities in rural Alaska. Expansion plans should be tempered, however, with a realistic assessment of infrastructure needs in each region to avoid a costly excess supply of maritime infrastructure.

2.2 Future Demands for Ports and Harbors in Alaska

Alaska's unique characteristics include a resource-based economy, geographic remoteness, limited transportation infrastructure and harsh weather conditions. Given these characteristics, transportation infrastructure has the crucial role of supporting resource development in the state and of safely transporting resources and goods to markets. In the following subsections we discuss the future demands on Alaskan ports and harbors that result from these distinctive characteristics.

Industry Development. More than any other mode, maritime transportation is linked to the primary industries that are the foundation of Alaska's economy, including the oil and gas, commercial fishing, mining, and cruise ship/tourism industries. The main advantage of maritime transportation is its economies of scale, making it the cheapest per unit of all transportation modes for long distances, which fits well for Alaska's heavy industrial activities.

Development of a world-class mine is capital intensive, and most large mining firms would rather pay an annual charge for transportation services than borrow more capital, if they can, for transportation infrastructure. The DeLong Mountain Transportation System owned by the Alaska Industrial Development and Export Authority is an example of these forces at work. Other mines such as Greens Creek and Kensington built their own marine infrastructure, but they also had very short roads to build to connect the mine and their docks. Tolls on resource developers for use of a road may be a tool for building new roads in the state.

If commercial discoveries of oil and gas are found in the Chukchi Sea or further west in the Beaufort Sea, the amount of vessel traffic operating in these waters and in the Bering Sea will increase significantly. Supply vessels for the offshore platforms will need to be built with ice-breaking capabilities so that they can operate for a large part of, if not the entire year in ice conditions.

Alaska Resupply Cargo. Alaska resupply cargo consists of freight and goods shipped into Alaska to supply the needs of businesses and the population of the state. Since Alaska has a very small manufacturing sector, virtually all producer and consumer goods must be imported from outside the state. Moreover, businesses in Alaska have limited warehousing capability, which means supplies of food, fuel, and other essential goods must arrive on a continuous basis.

Harbors of Refuge and Emergency Response. Ports and harbors play an important role in maritime safety and prevention of pollution. The lack of places of refuge and emergency response resources on Alaska's North Slope and northwest regions may become a particular area of concern if the anticipated increase in the number of freighters, cruise ships, oil and gas tankers, dry bulk cargo vessels, and resupply barges passing through the Bering Strait and plying the waters of the Arctic Ocean comes about. In coming years, the provision of Arctic port facilities or harbors suitable for refuge for medium to deep draft vessels may become both a national and international imperative. National defense and emergency response needs may result in ports being developed even though the benefits may be limited due to small resident populations, seasonality, and modest levels of vessel traffic.

3 Assessment of Alaska's Ports and Harbors

In order to understand how the aforementioned trends will affect individual ports and harbors in Alaska, it was necessary to assess the current status of infrastructure in the various regions and communities within the state.

In December of 2009 the USACE, in cooperation with ADOT&PF, sent surveys to 855 facility managers, port and harbor administrators, and other community stakeholders. Recipients were identified through several sources including the Alaska Association of Harbormasters and Port Administrators, the Waterborne Commerce Statistics Center, and the State of Alaska. The survey instrument consisted of 44 questions, and topics included facility location, type, ownership, and condition; intermodal connectivity; facility attributes and services; and view of state and federal policies. Responses to the survey were gathered from December 2009 through February 2010. In all, 298 responses were received from 122 separate communities.

The results of this survey, in combination with data obtained from municipal and community sources, secondary research and existing USACE data were used to assess the existing infrastructure in each of the eight transportation regions used in this study. Below we have included a number of the regional themes that resulted from this work. These points were chosen to both set the stage for understanding Alaskan ports and harbors, and to highlight the differences in the regional characteristics of the state.

Excerpt of Regional Analysis Findings

- In Alaska, most communities are not large enough to support more than one port. In remote areas, one port facility often serves as a regional hub for distribution to several smaller communities.
- Most Alaskan communities with publicly owned port and harbor infrastructure run their facilities as enterprise funds. Enterprise funds are business-like entities expected to support their operations through charges levied for services. The majority of enterprise funds reviewed in this study included their depreciation expense as part of their operating costs; in almost all cases, the burden of depreciation outweighed revenues, resulting in operational losses for port and harbor facilities.
- Port and harbor operating revenues are direct charges for goods and services and do not include indirect revenues generated for the community through taxes. Seafood sales tax, general sales tax, fisheries business tax, fisheries resource landing tax, etc. are, at least in part, indirectly attributable to the provision of public port and harbor facilities. Though individual ports and harbors show operating losses, they may provide substantial financial gains in the form of employment and other income for the communities in which they reside.
- A large number of respondents reported the receipt or shipment of cargo by water. Survey results confirmed that waterways are particularly important in the Southeast, Prince William Sound, Southcentral, and Southwest. These regions contain the population centers of the state; each depends heavily on water transportation for the movement of general cargo, building materials, and petroleum. Anchorage, located in the Southcentral region, is the primary gateway for goods coming into the state.

  These regions also see high volumes of outgoing commodity volumes. Seafood (Southeast and Southwest), crude oil (Prince William Sound), and ore and timber (Southeast) are exported both abroad and to the Lower 48 via barge and vessel.
- The high percentage of Southeast and Southwest survey respondents that reported not being connected to outside communities is explained, in great part, by the geography of these regions. In the Southeast and Southwest regions most communities are on islands, limiting road access to outside communities. The story is similar in the Arctic; the geography of the region and the high cost of road construction to small communities limit road construction. Prudhoe Bay is the only Arctic community with road access to outside communities and no responses were received from this location.
- Access to the Alaska Marine Highway System is most prevalent in the Southeast and Southwest regions. Both areas are largely composed of remote coastal communities where road access is unavailable. Residents depend on the state ferry system for both personal and cargo transportation.
- Southeast communities have a large percentage of cruise ship docks relative to the rest of the state. The largest cruise vessel ports of call are located in this region. Ports in the Southeast are popular with tourists as they offer glaciers, wildlife, and scenic beauty, while also being closest to the Lower 48. Cruise lines are able to schedule 7 to 10 day round-trip itineraries from Seattle and Vancouver, B.C., or elsewhere on the West Coast. Those cruises that begin or end in Alaska usually start in Whittier or Seward and also transit through Southeast.
- Boat haul outs, grids, and launch ramps are primarily used by smaller watercraft. These facilities were not intended for large cruise vessels, container vessels, catcher-processors, or larger fishing vessels, but rather are needed in areas where commercial and recreational vessels are frequently stored or transported. The high percentage of communities in the Southeast and Southwest regions with boat haul outs, grids, and launch ramps is a result of geography and local economies. As mentioned previously, many of these coastal communities have limited road access and rely

heavily on boats for both transportation and their livelihoods, including commercial and sport fishing.

- The survey analysis of marine facilities by community (rather than respondent) supports the finding that communities in the Northwest, Yukon-Kuskokwim and Interior have a smaller percentage of marine facilities than other regions. Many communities in these areas rely on summer barge service and tend to be small in population. The brief period of accessibility, small number of residents, and high construction costs hinder the development of marine infrastructure.
- Almost half of the communities in the Northwest, the Yukon-Kuskokwim, and the Interior regions did not indicate a road connection to another community, reflecting the fact that these regions have a limited amount of road and rail infrastructure.

Statewide Ports and Harbors Project List

In addition to contributing to the baseline assessment of the state's port and harbor infrastructure, the survey results also provided the foundation for a first draft of the statewide ports and harbors project list.

The USACE survey asked respondents to list projects that are 'planned or underway, but not yet completed' as well as projects 'not yet planned but needed'. These responses were summarized and distributed from USACE to ADOT&PF and the Denali Commission. Both agencies responded by sharing their existing lists of needed projects. ADOT&PF submitted their harbor grant program applicants, their deferred maintenance inventory, and their running list of port and harbor needs. The Denali Commission provided the results of Phase I and Phase II of the Alaska Barge Landing System study, as well as projects submitted by grant applicants.

The various project lists were reviewed for relevancy (projects unrelated to navigational improvements were removed) and were combined to form a master list of statewide port and harbor needs.

4 Identification of Regional Port Hubs

This section summarizes criteria for identifying regional and subregional hubs, and presents a preliminary list of hubs in each of the eight regions used in the Alaska Regional Ports project. The preliminary hubs are intended for discussion purposes only, with the final list to be determined by an advisory group consisting of members from the USACE; ADOT&PF; Denali Commission; Alaska Department of Commerce, Community and Economic Development; and participants at the Alaska Regional Ports Conference on November 18, 2010.

4.1 Criteria

NEI developed the criteria for identifying a regional and subregional hubs using a transportation literature review, interviews with several transportation companies operating in Alaska, and additional research. We used three criteria developed by Lirn et al. (2004) and modified them for Alaska using relevant sub-criteria, resulting in the following directly measureable factors used in the analysis:

1. Geographical Location
    a. Cargo volumes
    b. Proximity to regional population or cargo generating industries
    c. Proximity to major shipping routes or competing/complementary ports

2. Physical and Technical Infrastructure
    a. Water depth, approach, protection from weather, and seasonal accessibility
    b. Congestion and available work space and uplands
    c. Appropriate facilities and equipment
    d. Intermodal links (road, rail, air)
3. Port Management and Administration
    a. Port regulations
    b. Administrative structure/port and harbor department
    c. Port safety and security

The evaluation of geographic location was heavily weighted on access either to areas with a large population (for imported cargo) or to areas with substantial exports (such as seafood). The infrastructure evaluation generally focused on the ease of access to each hub's facilities and the scale and scope of the facilities. This evaluation considers both public and private facilities as well as the extent of intermodal options, which increased the scores of hubs with highway, rail, and jet service access. The third criterion, port management and administration, was evaluated on a subjective basis. Hubs scored highest if they had established municipal port and harbor departments; owned both port and harbor facilities; employed multiple year-round employees in those departments; had easily accessible, published tariffs and rate sheets; and demonstrated planning for future port and harbor needs.

For this study, we have defined two tiers of hubs: regional and subregional. Regional hubs represent the primary ports of entry for goods moving into or out of the state and region. Shipments to regional hubs tend to include a significant quantity of goods that are to be distributed elsewhere within the region or state, while shipments from regional hubs tend to be consolidated from multiple locations. Each region has at least one regional hub and some regions have more than one, based on the networks used for transportation of different types of goods.

Subregional hubs represent smaller ports of entry that tend to receive shipments from the regional hubs and distribute goods elsewhere in the region. Generally, subregional hubs do not directly send or receive goods from outside the state, though they can be used as staging areas for consolidation of intra-regional shipments.

4.2 Preliminary List of Regional and Subregional Hubs

The analysis divided the hub and subregional hub selection into eight regions (in alphabetical order): Arctic, Interior, Northwest Arctic, Prince William Sound, Southcentral, Southeast, Southwest, and Yukon-Kuskokwim Delta. We allow for subregional hubs in some regions to reflect their unique geographical and logistical challenges. Table 1 provides a list of regional and subregional hubs by region.

Table 1. Regional and Subregional Hubs

Community	Type of Hub	Community	Type of Hub
Arctic		**Southeast**	
Barrow	Regional	Haines	Subregional
Prudhoe Bay	Regional	Juneau	Regional
Interior		Ketchikan	Regional
Koyukuk	Subregional	Sitka	Regional
Nenana	Regional	Skagway	Subregional
Tanana	Subregional	**Southwest**	
Northwest Arctic		Adak	Subregional
Kotzebue	Regional	Dillingham	Subregional
Nome	Regional	Kodiak	Regional, container
Port Clarence	Subregional	Naknek	Subregional
Prince William Sound		Unalaska/Dutch Harbor	Regional, container
Seward	Regional	**Yukon-Kuskokwim**	
Valdez	Regional	Emmonak/Alakanuk	Regional
Whittier	Regional	Bethel	Regional
Southcentral			
Anchorage	Regional, container		
Homer	Subregional		
Port MacKenzie	Subregional		

5 Recommended Policies, Strategies, and Actions

This section provides recommendations to develop a plan to improve the way in which federal, state, and local government work together on marine infrastructure improvements. Some of the recommendations are taken from stakeholder interviews, some from the literature that we reviewed for this project, and others are based on our experience in the development process of marine infrastructure.

5.1 Planning

We recommend that ADOT&PF pursue the authorization of a regular state-funded multi-year transportation program that includes marine infrastructure projects separate from federal highways, transit, and aviation programs. The multi-year program will result in a systematic approach to identifying, selecting, and funding coastal projects and potentially improve the likelihood of funding for port and harbor projects.

We propose that ADOT&PF use the Alaska Regional Ports & Harbors Study to identify marine infrastructure projects in the near term and include them in its regional planning studies and Long-Range Transportation Plan (LRTP). These studies currently focus on state-owned facilities and we recommend that they include marine infrastructure owned by other entities. These studies would also benefit from incorporating the strategic trends discussed earlier in this paper.

As noted earlier, there is limited capacity for planning for port and harbor development. We would recommend that in communities where major port and harbor improvements are being made, ADOT&PF or USACE solicit the assistance of the Denali Commission, the Alaska Department of Commerce,

Community, and Economic Development, or other entities to assist the community in a planning process to incorporate the new facility into the community's infrastructure system .

5.2 Project Ranking and Prioritization

Each funding organization has its own policies, processes, and procedures. A review of these items should be conducted to attempt aligning the various organizations or at least to eliminate apparent conflicts. In our opinion, organizations should consider simplified application requirements for projects with estimated costs that are lower than certain predetermined thresholds. The review should also include the criteria used to rank marine infrastructure projects for the different organizations.

We recommend that the criteria to develop or fund marine transportation infrastructure provide additional weight to locations identified as hubs or subregional hubs (Table 1).

In our opinion, projects that enhance marine safety and emergency response capability should also have additional weighting for project ranking. We understand that the U.S. Coast Guard (USCG) is evaluating the development of a forward operating base in the Arctic and an increase in the nation's ice-breaker fleet. We recommend that the USCG, USACE, ADOT&PF, petroleum companies exploring in the Chukchi and Beaufort Seas, cruise ship lines that are cruising the Arctic Ocean or transiting the Northwest Passage, and tug and barge companies supplying Arctic communities and industry operating in the area, meet after the USCG report is issued to coordinate activities and support that might lead to the development of at least one port of refuge in Arctic waters and the northern Bering Sea.

5.3 Funding or Financing

There are not enough funds available to meet all identified needs for marine infrastructure projects and funding may be lower in the future. As a result, decision makers have to consider the possibility of funding or financing projects through other parties or with several organizations as partners.

Public-private partnerships (PPPs) for developing marine infrastructure are on the increase around the globe. While such partnerships can be valuable in certain situations, we anticipate that the vast majority of marine infrastructure projects around the state are not well suited for formal public-private partnerships. However, it is our recommendation that the agencies involved in development of marine infrastructure should actively seek out and encourage involvement of Community Development Quota groups, Alaska Native regional and village corporations, shipping companies, and others to participate in port and harbor development. While such entities may not wish to participate in funding breakwaters or harbor floats, they could establish or finance upland development to enhance the economic returns from the port or harbor investment, or invest in private facilities within a port or harbor. In smaller rural communities, the private sector could be a source of local matching funds.

USACE's funding policies require the use of benefit-cost ratios, which favor large population areas. An alternative policy would be to apportion annual USACE funds by region or state level rather than by projects. The current structure is based on a national ranking of National Economic Development (NED) benefits and states with small populations do not typically fare well under this system. Some port and harbor projects may be necessary for community economic development and a cost-effectiveness analysis should be employed (i.e., identify the most cost-effective approach to providing the infrastructure). Since these approaches cannot be employed by the USACE, other federal, state, local, and private sector funding would be required. We would recommend that a cost-effectiveness analysis only be conducted where it is determined that the USACE cannot participate, or where costs are below $5 million.

Local governments, including their port and harbor enterprises, also have a role in marine infrastructure development. Communities with large fishing fleets, recreational vessels, or commercial marine traffic can provide some or all of the revenues necessary to build facilities or provide local matching funds. For

example, the City of Wrangell provided $1 million from its Permanent Dividend Fund to match a $1.85 million grant from the U.S. Economic Development Administration (EDA) for construction of the Wrangell Marine Center. The sustainability requirements of ADOT&PF's harbor improvement grant provide a mechanism to establish replacement funds for facilities and we would encourage changes in the program to develop replacement funds from the depreciation on port and harbor assets. While it may not be necessary to use all of the depreciation allowance for replacement funds, the funds should grow over time to adequately meet matching fund requirements in the future.

The Alaska Industrial Development and Export Authority (AIDEA) is another source of public support for marine infrastructure. Examples of Alaska resource industry projects that have received support from AIDEA include the DeLong Mountain Transportation System for the Red Dog Mine, the Skagway Ore Terminal, and the Ketchikan Shipyard. AIDEA also provided the financing for the Unalaska/Dutch Harbor publicly-owned container terminal, the Unalaska Marine Center. AIDEA involvement reduces the risk to smaller communities that may not have the tax base to support large investments.

5.4 Stakeholder Policies

One suggestion from persons interviewed for this project was to establish an inter-agency task force to focus on larger issues surrounding marine infrastructure development. The task force would focus on such issues as determining how best to quantify social and subsistence benefits, ensuring that stakeholders are aware of all maritime projects that are being conducted, and providing suggestions on changes in funding programs for marine infrastructure.

The task force could undertake proposed changes in USACE's policy of using benefit-cost ratios as the primary mechanism used to allocate federal funding. This could be difficult since it would require changes in USACE policies at the national level. However, we recommend that such issues be brought forward by the Alaska District office, with support from the congressional delegation, for discussion at the national level.

The members of the task force would need to be very high level within their organizations in order for the recommendations to be effectively heard. Member groups could include USACE, ADOT&PF, Denali Commission, USCG, AIDEA, EDA, U.S. Department of Agriculture, and other parties that participate in marine infrastructure development. The task force might also include representatives of Alaska Natives, CDQ groups, environmental organizations, and others.

We believe it is critical that the ADOT&PF be funded adequately to ensure that the Department's responsibilities for planning and coordinating improvement of the state's overall transportation system, including marine infrastructure, are met. This would include expanding the scope of regional planning and the LRTP to cover marine infrastructure that is not owned or operated by the state.

Limited time and financial resources may overwhelm and prevent funding agencies from identifying the most important projects. Given these challenges, it may be beneficial for both the communities and the funding agencies to encourage coordination on a regional basis. Port and harbor development groups could provide single points of contact for communicating regionally supported, prioritized, and coordinated lists of needed port and harbor projects. Regional Seafood Development Associations, Regional Planning Organizations, and Regional Ocean Partnerships are other entities that could be involved in this process. We recommend that projects which have been subject to such evaluation be given additional weight in any project ranking that funding organizations undertake.

5.5 Stakeholder Coordination

While the task force is addressing some of the larger issues, ongoing projects will need attention and it may be possible to improve the current working relationships. There is currently an ad-hoc group working

together to produce this report and other material for the ports and harbors conference. We are recommending that this group, with other potential parties, be formalized as a ports and harbors working group to facilitate communication and coordination at the level where specific project work is undertaken.

Several persons suggested that a process be established to improve communications with local communities and ensure that local residents and leaders understand the roles of the USACE, ADOT&PF, and others in engineering and design, construction, and maintenance of the facility. We suggest that the working group hold a half-day training session in which each participating agency would provide a summary of their relevant policies and the manner in which they undertake or participate in port and harbor development. Quarterly newsletters or web sites for each project could ensure that local residents are kept abreast of progress or at least know why the project is awaiting further funds or is experiencing other delays. A recommendation to improve coordination with local communities, other agencies and even within the ADOT&PF is to have a single point of contact in that agency for all marine projects, apart from Alaska Marine Highway System projects.

5.6 New Legislation

Several people suggested that the Ports and Harbors Section of ADOT&PF should have "promoting social and economic development" as part of its mission statement. In our opinion, this change would be difficult to implement and we are not recommending this change.

Local city or borough governments presently control ports and harbors within their boundaries. However, these local governments have numerous missions and do not focus on social or economic development. A port authority could become the primary entity with a mission of social and economic development in the community or region.

State statutes permit the formation of port authorities, but do not permit such authorities to levy taxes. We propose that the statute be amended to permit port authorities to levy taxes, with the specific type of tax varying based on the taxes that are presently levied by the local government. The tax could be restricted to a certain number of mills or percent of sales tax. Any port or harbor assets would be purchased from the local government, which could use such funds to establish a "permanent fund" to offset any losses in revenues from the port or harbor asset. Such a requirement would enhance the probability that the marine infrastructure would be managed in a sustainable fashion.

The role of PPPs in infrastructure development is increasing on a global scale and in certain situations this mechanism may be suitable for port and harbor development projects. However, many potential PPPs are not of the size that they would warrant special legislation or special authorities to plan and implement the projects and at the present time it would be difficult for ADOT&PF to participate in such projects. To meet this need we recommend that the legislature pass legislation permitting ADOT&PF to enter into public-private partnerships for transportation-related, including marine infrastructure, projects. Such legislation could be based on the Knik Arm Bridge and Toll Authority legislation as well as legislation from other states on the Pacific coast where PPPs are more common.

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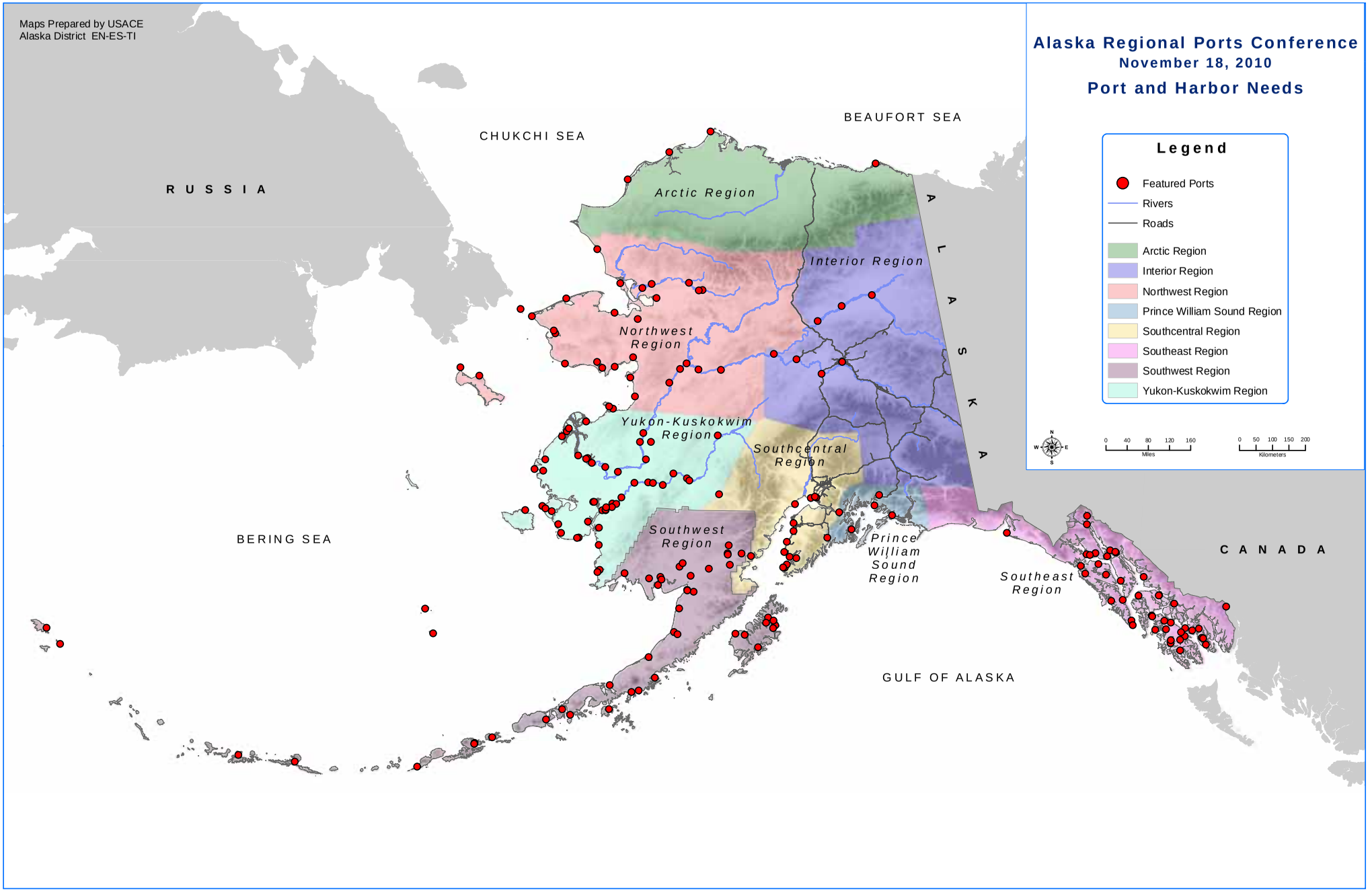
Maps Prepared by USACE
Alaska District EN-ES-TI
Alaska Regional Ports Conference
November 18, 2010
Port and Harbor Needs
Legend
Featured Ports
Rivers
Roads
Arctic Region
Interior Region
Northwest Region
Prince William Sound Region
Southcentral Region
Southeast Region
Southwest Region
Yukon-Kuskokwim Region
Miles
Kilometers
CHUKCHI SEA
BEAUFORT SEA
RUSSIA
ALASKA
CANADA
BERING SEA
GULF OF ALASKA
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Northwest Region
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Southwest Region
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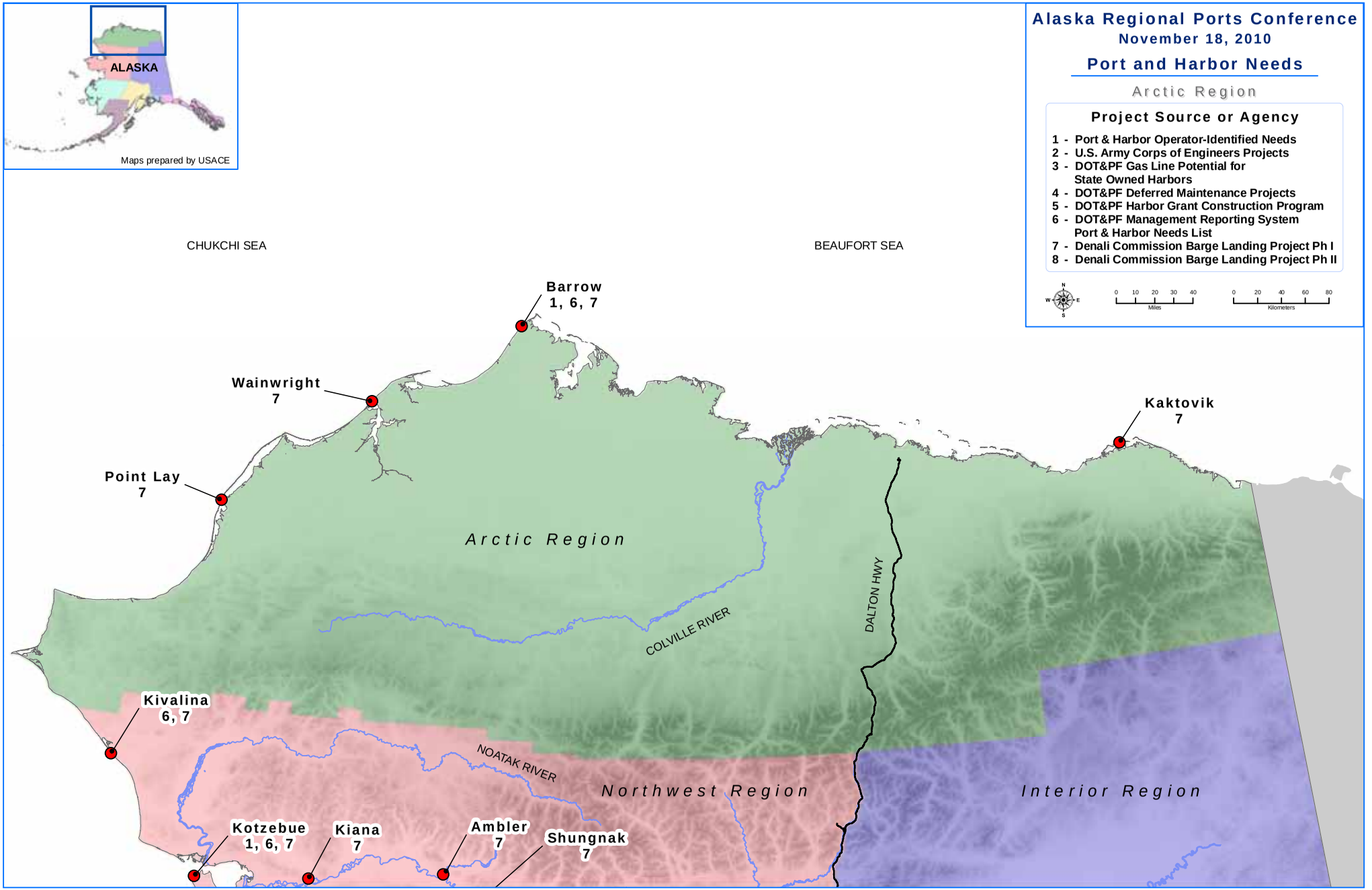
Southeast Region


ALASKA
Maps prepared by USACE
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November 18, 2010
Port and Harbor Needs
Arctic Region
Project Source or Agency
1 - Port & Harbor Operator-Identified Needs
2 - U.S. Army Corps of Engineers Projects
3 - DOT&PF Gas Line Potential for State Owned Harbors
4 - DOT&PF Deferred Maintenance Projects
5 - DOT&PF Harbor Grant Construction Program
6 - DOT&PF Management Reporting System Port & Harbor Needs List
7 - Denali Commission Barge Landing Project Ph I
8 - Denali Commission Barge Landing Project Ph II
0 10 20 30 40
Miles
0 20 40 60 80
Kilometers
CHUKCHI SEA
BEAUFORT SEA
Barrow
1, 6, 7
Wainwright
7
Point Lay
7
Kaktovik
7
Arctic Region
COLVILLE RIVER
DALTON HWY
Kivalina
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Northwest Region
Interior Region
Kotzebue
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Ambler
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Shungnak
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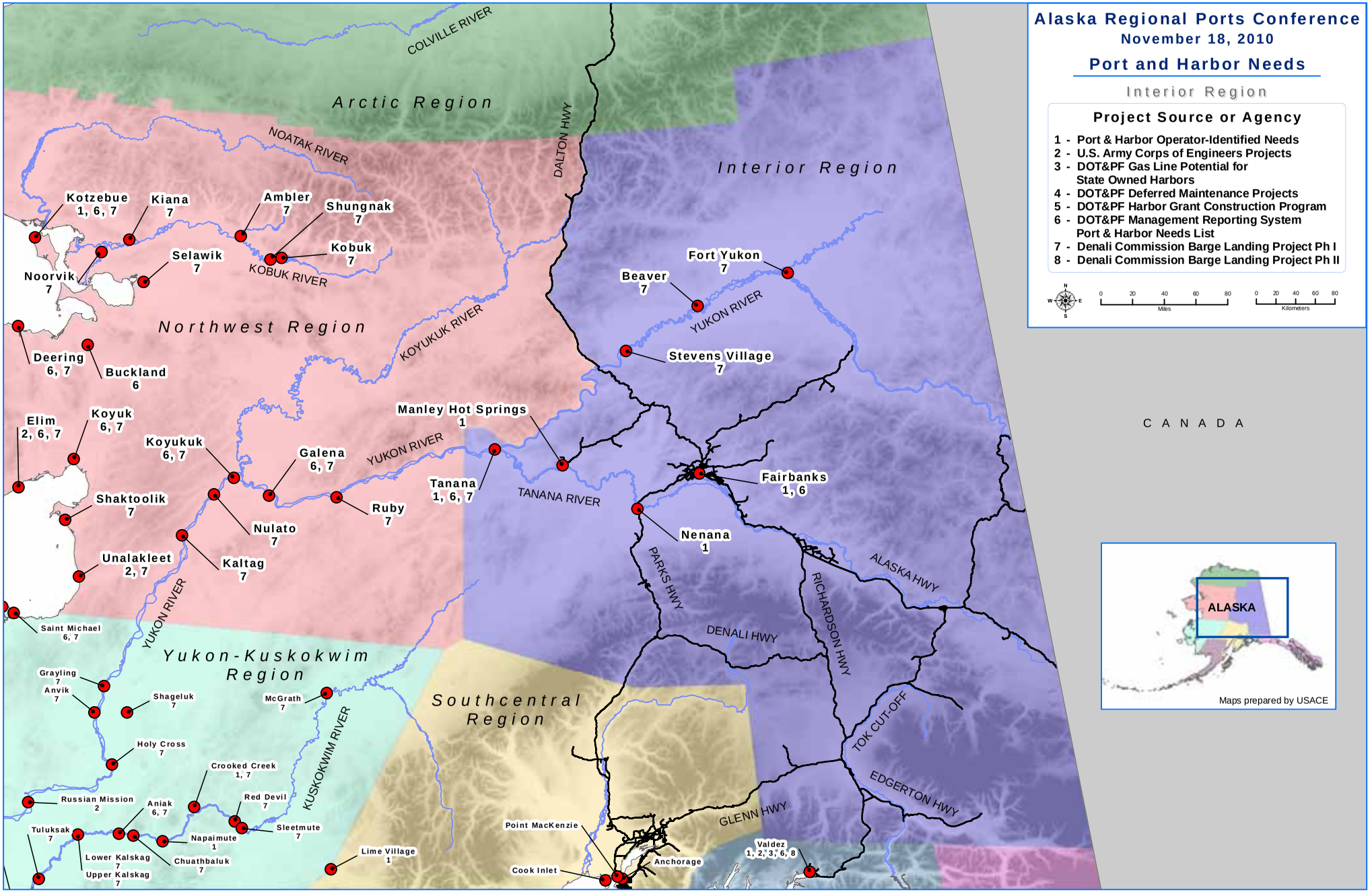
Alaska Regional Ports Conference
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Interior Region
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Yukon-Kuskokwim Region
Southcentral Region
CANADA
COLVILLE RIVER
NOATAK RIVER
DALTON HWY
KOBUK RIVER
KOYUKUK RIVER
YUKON RIVER
TANANA RIVER
PARKS HWY
RICHARDSON HWY
ALASKA HWY
DENALI HWY
TOK CUT-OFF
EDGERTON HWY
GLENN HWY
KUSKOKWIM RIVER
Kotzebue 1, 6, 7
Kiana 7
Ambler 7
Shungnak 7
Kobuk 7
Selawik 7
Noorvik 7
Deering 6, 7
Buckland 6
Elim 2, 6, 7
Koyuk 6, 7
Koyukuk 6, 7
Galena 6, 7
Manley Hot Springs 1
Tanana 1, 6, 7
Ruby 7
Shaktoolik 7
Nulato 7
Kaltag 7
Unalakleet 2, 7
Saint Michael 6, 7
Grayling 7
Anvik 7
Shageluk 7
McGrath 7
Holy Cross 7
Crooked Creek 1, 7
Russian Mission 2
Aniak 6, 7
Red Devil 7
Sleetmute 7
Tuluksak 7
Napaimute 1
Lower Kalskag 7
Upper Kalskag 7
Chuathbaluk 7
Lime Village 1
Fort Yukon 7
Beaver 7
Stevens Village 7
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Nenana 1
Point MacKenzie
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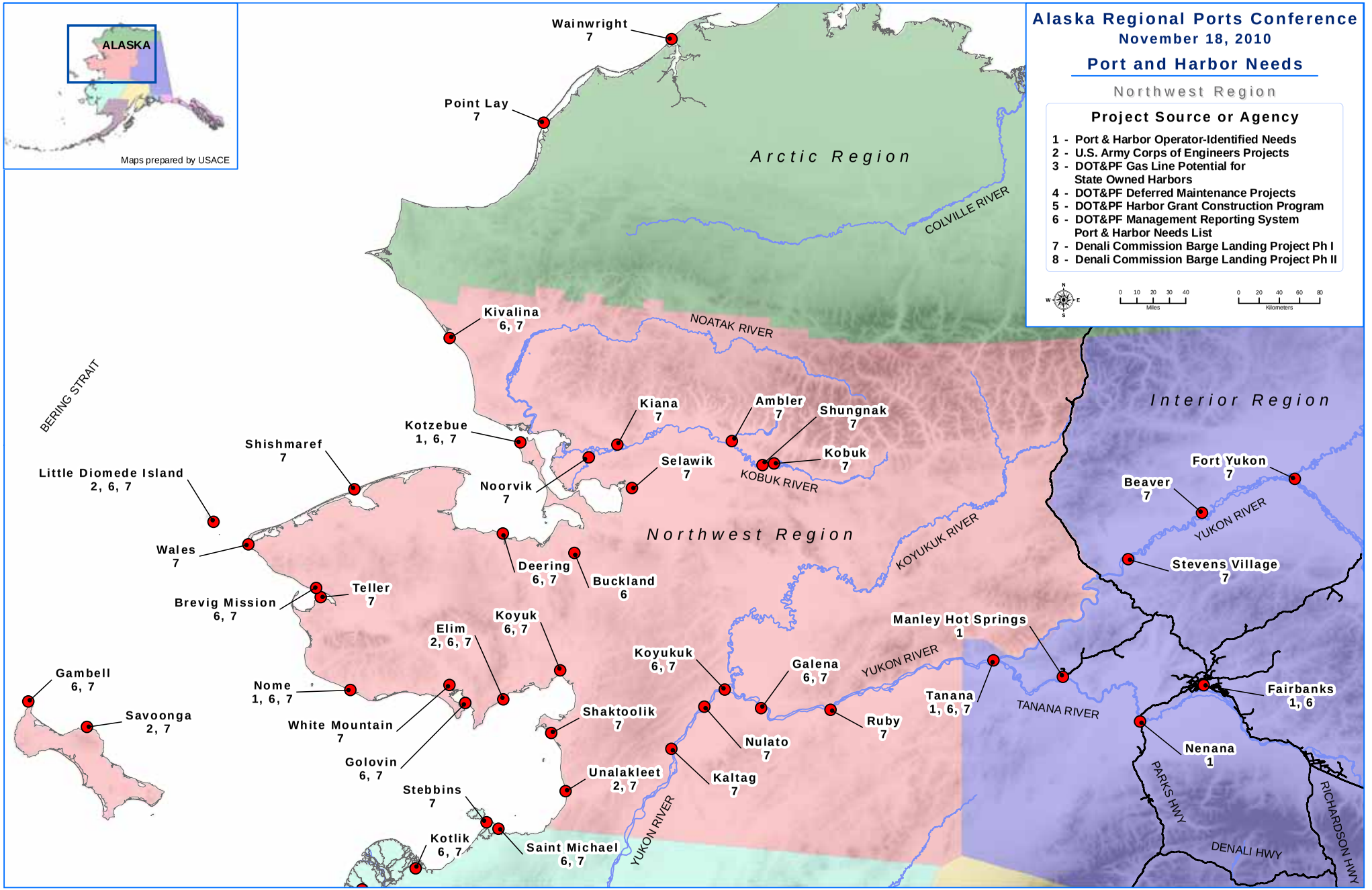
Anchorage
Valdez 1, 2, 3, 6, 8
ALASKA
Maps prepared by USACE


ALASKA
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Northwest Region
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DENALI HWY
RICHARDSON HWY
Wainwright 7
Point Lay 7
Kivalina 6, 7
Kotzebue 1, 6, 7
Shishmaref 7
Little Diomede Island 2, 6, 7
Wales 7
Brevig Mission 6, 7
Teller 7
Gambell 6, 7
Savoonga 2, 7
Nome 1, 6, 7
White Mountain 7
Golovin 6, 7
Elim 2, 6, 7
Koyuk 6, 7
Stebbins 7
Kotlik 6, 7
Saint Michael 6, 7
Unalakleet 2, 7
Shaktoolik 7
Deering 6, 7
Buckland 6
Noorvik 7
Selawik 7
Kiana 7
Ambler 7
Shungnak 7
Kobuk 7
Koyukuk 6, 7
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Fort Yukon 7
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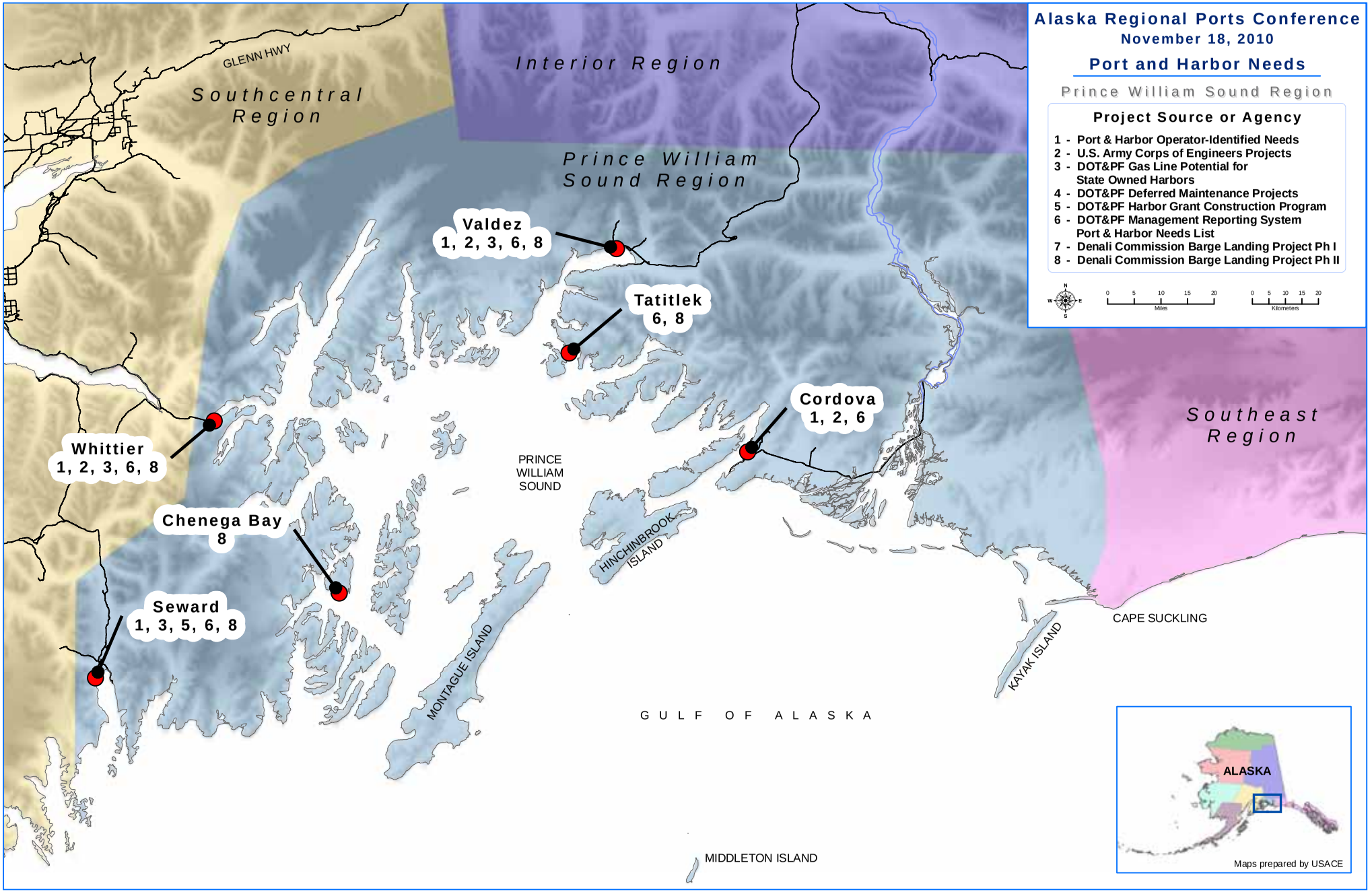
Fairbanks 1, 6
Nenana 1


Alaska Regional Ports Conference
November 18, 2010
Port and Harbor Needs
Prince William Sound Region
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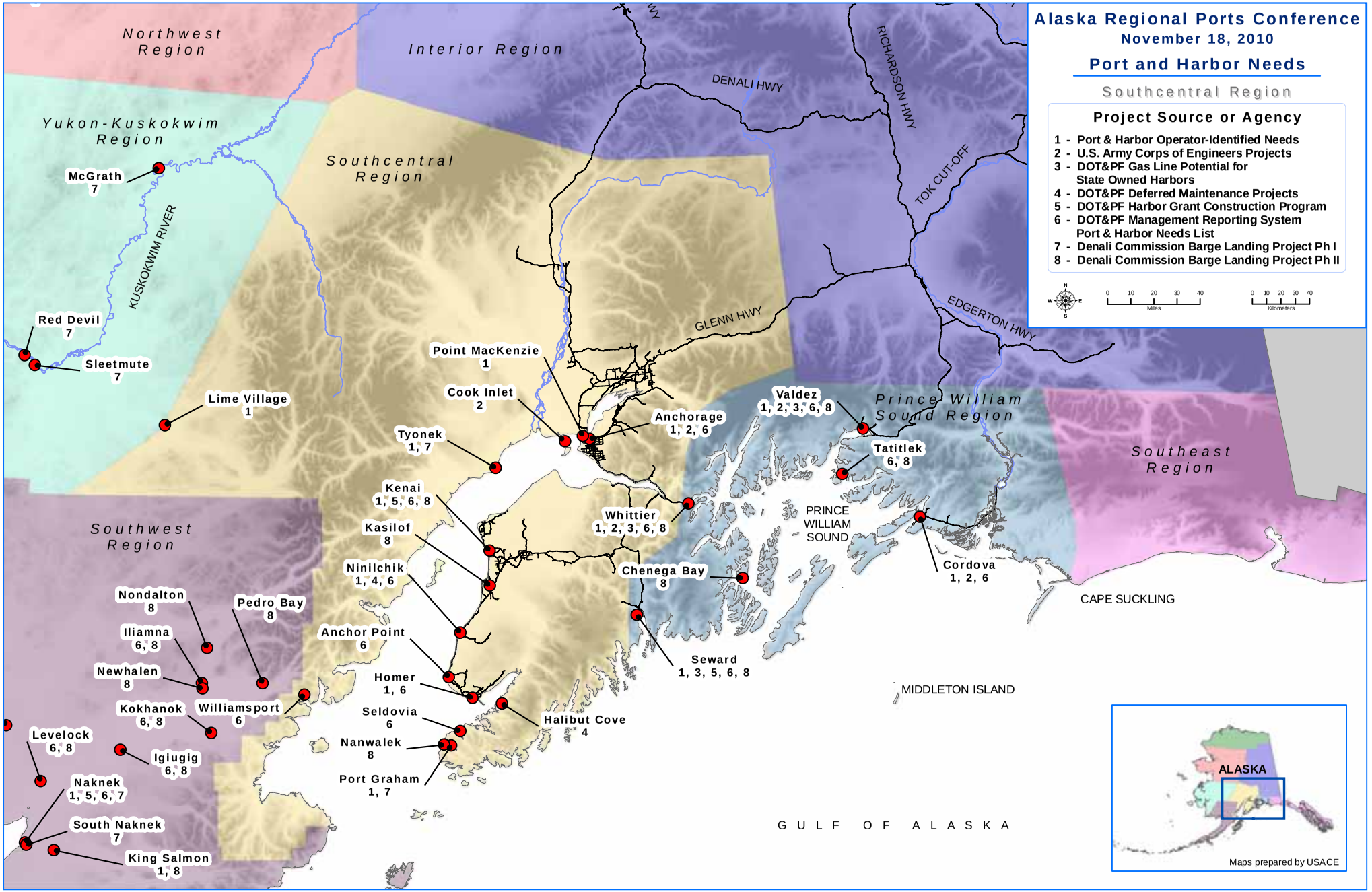
GLENN HWY
Southcentral Region
Interior Region
Prince William Sound Region
Southeast Region
Valdez
1, 2, 3, 6, 8
Tatitlek
6, 8
Cordova
1, 2, 6
Whittier
1, 2, 3, 6, 8
Chenega Bay
8
Seward
1, 3, 5, 6, 8
PRINCE WILLIAM SOUND
HINCHINBROOK ISLAND
MONTAGUE ISLAND
KAYAK ISLAND
CAPE SUCKLING
GULF OF ALASKA
MIDDLETON ISLAND
ALASKA
Maps prepared by USACE


Alaska Regional Ports Conference
November 18, 2010
Port and Harbor Needs
Southcentral Region
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Prince William Sound Region
Southeast Region
DENALI HWY
RICHARDSON HWY
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EDGERTON HWY
GLENN HWY
KUSKOKWIM RIVER
PRINCE WILLIAM SOUND
CAPE SUCKLING
MIDDLETON ISLAND
GULF OF ALASKA
McGrath 7
Red Devil 7
Sleetmute 7
Lime Village 1
Point MacKenzie 1
Cook Inlet 2
Tyonek 1, 7
Anchorage 1, 2, 6
Valdez 1, 2, 3, 6, 8
Tatitlek 6, 8
Kenai 1, 5, 6, 8
Kasilof 8
Ninilchik 1, 4, 6
Whittier 1, 2, 3, 6, 8
Chenega Bay 8
Cordova 1, 2, 6
Seward 1, 3, 5, 6, 8
Nondalton 8
Pedro Bay 8
Iliamna 6, 8
Newhalen 8
Kokhanok 6, 8
Williamsport 6
Anchor Point 6
Homer 1, 6
Seldovia 6
Nanwalek 8
Port Graham 1, 7
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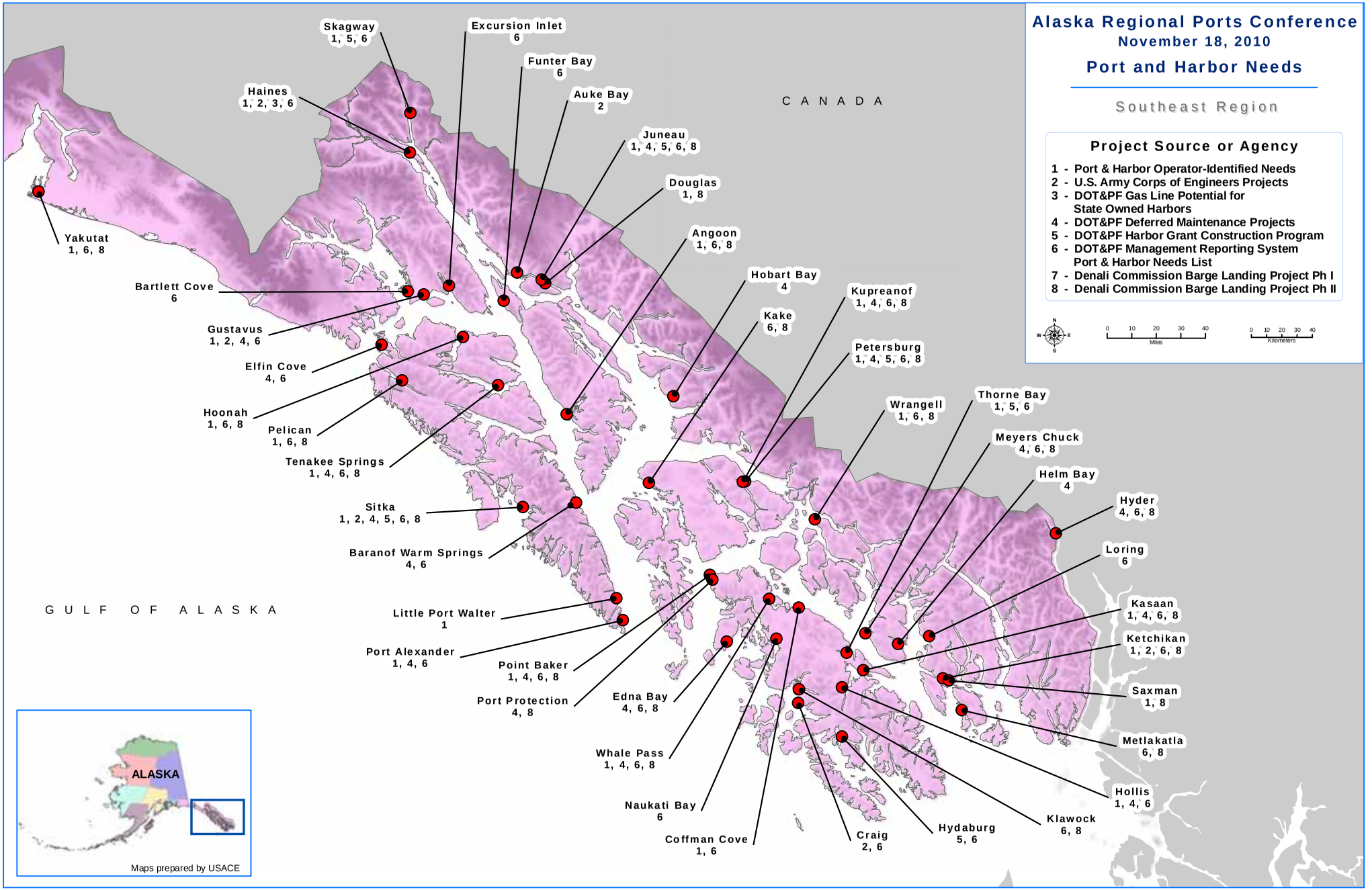
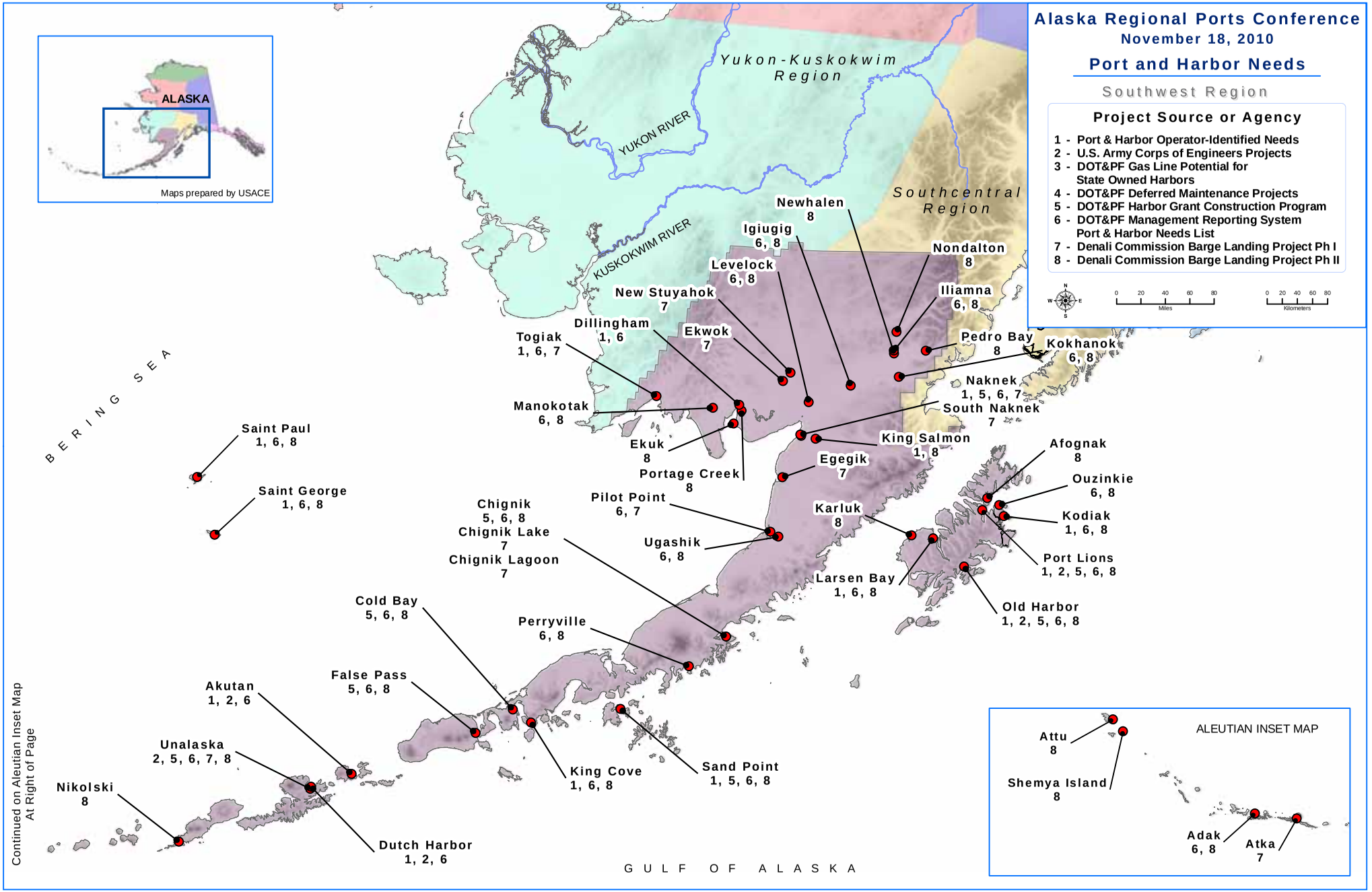
South Naknek 7
King Salmon 1, 8
ALASKA
Maps prepared by USACE


Alaska Regional Ports Conference
November 18, 2010
Port and Harbor Needs
Southeast Region
Project Source or Agency
1 - Port & Harbor Operator-Identified Needs
2 - U.S. Army Corps of Engineers Projects
3 - DOT&PF Gas Line Potential for State Owned Harbors
4 - DOT&PF Deferred Maintenance Projects
5 - DOT&PF Harbor Grant Construction Program
6 - DOT&PF Management Reporting System Port & Harbor Needs List
7 - Denali Commission Barge Landing Project Ph I
8 - Denali Commission Barge Landing Project Ph II
Miles
Kilometers
CANADA
GULF OF ALASKA
Skagway 1, 5, 6
Excursion Inlet 6
Funter Bay 6
Haines 1, 2, 3, 6
Auke Bay 2
Juneau 1, 4, 5, 6, 8
Douglas 1, 8
Yakutat 1, 6, 8
Angoon 1, 6, 8
Hobart Bay 4
Kupreanof 1, 4, 6, 8
Bartlett Cove 6
Kake 6, 8
Gustavus 1, 2, 4, 6
Petersburg 1, 4, 5, 6, 8
Elfin Cove 4, 6
Wrangell 1, 6, 8
Thorne Bay 1, 5, 6
Hoonah 1, 6, 8
Meyers Chuck 4, 6, 8
Pelican 1, 6, 8
Helm Bay 4
Tenakee Springs 1, 4, 6, 8
Hyder 4, 6, 8
Sitka 1, 2, 4, 5, 6, 8
Loring 6
Baranof Warm Springs 4, 6
Kasaan 1, 4, 6, 8
Little Port Walter 1
Ketchikan 1, 2, 6, 8
Port Alexander 1, 4, 6
Point Baker 1, 4, 6, 8
Saxman 1, 8
Port Protection 4, 8
Edna Bay 4, 6, 8
Metlakatla 6, 8
Whale Pass 1, 4, 6, 8
Hollis 1, 4, 6
Naukati Bay 6
Klawock 6, 8
Coffman Cove 1, 6
Craig 2, 6
Hydaburg 5, 6
ALASKA
Maps prepared by USACE


Alaska Regional Ports Conference
November 18, 2010
Port and Harbor Needs
Southwest Region
Project Source or Agency
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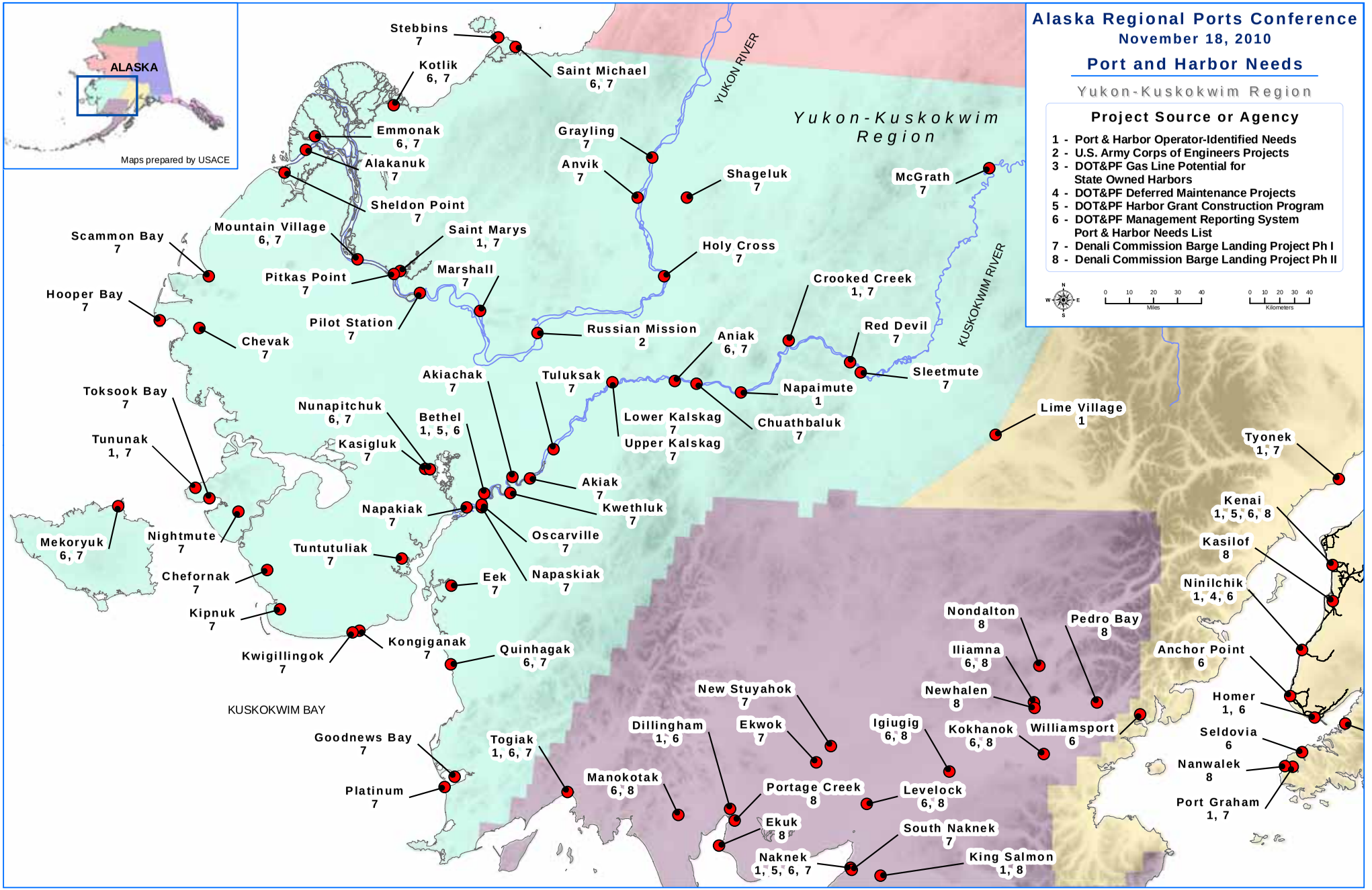
ALASKA
Maps prepared by USACE
Yukon-Kuskokwim Region
Southcentral Region
YUKON RIVER
KUSKOKWIM RIVER
BERING SEA
GULF OF ALASKA
Miles
Kilometers
Newhalen 8
Igiugig 6, 8
Nondalton 8
Levelock 6, 8
Iliamna 6, 8
New Stuyahok 7
Dillingham 1, 6
Ekwok 7
Togiak 1, 6, 7
Pedro Bay 8
Kokhanok 6, 8
Naknek 1, 5, 6, 7
South Naknek 7
Manokotak 6, 8
King Salmon 1, 8
Ekuk 8
Portage Creek 8
Egegik 7
Afognak 8
Ouzinkie 6, 8
Kodiak 1, 6, 8
Port Lions 1, 2, 5, 6, 8
Karluk 8
Pilot Point 6, 7
Chignik 5, 6, 8
Chignik Lake 7
Chignik Lagoon 7
Ugashik 6, 8
Larsen Bay 1, 6, 8
Old Harbor 1, 2, 5, 6, 8
Saint Paul 1, 6, 8
Saint George 1, 6, 8
Cold Bay 5, 6, 8
Perryville 6, 8
False Pass 5, 6, 8
Akutan 1, 2, 6
Unalaska 2, 5, 6, 7, 8
Nikolski 8
King Cove 1, 6, 8
Sand Point 1, 5, 6, 8
Dutch Harbor 1, 2, 6
Continued on Aleutian Inset Map At Right of Page
ALEUTIAN INSET MAP
Attu 8
Shemya Island 8
Adak 6, 8
Atka 7


ALASKA
Maps prepared by USACE
Alaska Regional Ports Conference
November 18, 2010
Port and Harbor Needs
Yukon-Kuskokwim Region
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Miles
Kilometers
Yukon-Kuskokwim Region
YUKON RIVER
KUSKOKWIM RIVER
KUSKOKWIM BAY
Stebbins 7
Kotlik 6, 7
Saint Michael 6, 7
Emmonak 6, 7
Alakanuk 7
Sheldon Point 7
Mountain Village 6, 7
Saint Marys 1, 7
Scammon Bay 7
Pitkas Point 7
Marshall 7
Hooper Bay 7
Pilot Station 7
Chevak 7
Toksook Bay 7
Tununak 1, 7
Nunapitchuk 6, 7
Bethel 1, 5, 6
Kasigluk 7
Akiachak 7
Tuluksak 7
Lower Kalskag 7
Upper Kalskag 7
Russian Mission 2
Grayling 7
Anvik 7
Shageluk 7
McGrath 7
Holy Cross 7
Crooked Creek 1, 7
Red Devil 7
Sleetmute 7
Napaimute 1
Chuathbaluk 7
Aniak 6, 7
Lime Village 1
Akiak 7
Kwethluk 7
Napakiak 7
Oscarville 7
Napaskiak 7
Eek 7
Tuntutuliak 7
Nightmute 7
Mekoryuk 6, 7
Chefornak 7
Kipnuk 7
Kwigillingok 7
Kongiganak 7
Quinhagak 6, 7
Goodnews Bay 7
Platinum 7
Togiak 1, 6, 7
Manokotak 6, 8
Dillingham 1, 6
New Stuyahok 7
Ekwok 7
Portage Creek 8
Ekuk 8
Naknek 1, 5, 6, 7
South Naknek 7
King Salmon 1, 8
Levelock 6, 8
Igiugig 6, 8
Kokhanok 6, 8
Iliamna 6, 8
Nondalton 8
Newhalen 8
Pedro Bay 8
Williamsport 6
Anchor Point 6
Homer 1, 6
Seldovia 6
Nanwalek 8
Port Graham 1, 7
Ninilchik 1, 4, 6
Kasilof 8
Kenai 1, 5, 6, 8
Tyonek 1, 7