WP&C WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4958 FAX (907) 895-4787 P.O. BOX 1630 DELTA JCT. AK, 99737

SAFEGUARD PLAN

Measures will be employed to insure safe management, operations, and maintenance of this project as follows:

The RISEC float and its location will be monitored on a weekly basis by trained technicians. All scheduled maintenance will be logged as well as important device events and repairs. A workboat equipped for repairs and recovery of the float will be available at all times along with a trained crew.

The RISEC float will be monitored by a web based monitoring system which will record power values and video feed of the device and its surroundings as well as GPS location. All operations and procedures will be OSHA approved.

A statement of measures taken or planned to ensure safe management, operation, and maintenance of the project.

As required by the Commission's Hydrokinetic Pilot Project Licensing Process, a safeguard plan should include but not be limited to the following five elements:

1. Methods of marking project devices:

   The Poncelet Kinetics RHK100 and all appurtenance marking will be in accordance with the USCG and OSHA safety standards.

2. Maps and drawings of competing uses including existing recreation

   At this time there are no competing uses for the proposed project location

3. Methods for recovering equipment that may break loose from any anchoring devices

   Should the float break free from its primary anchoring cables, secondary cables will be attached to it that will hold it in location until the primary cables can be repaired. In the event that these second cables are also broken, the rigid struts which hold the float from the shore will swing the unmoored float to the bank and hold it until the moorings can be repaired. In the case that all three mechanisms fail, a GPS transmitter on the float will transmit its position so that it can be recovered by trained crews with work boats always available for that specific purpose.

4. Proposed removal and site restoration plan

   The RISEC float, mooring, anchoring and power service system can be easily removed without compromising the condition of public lands or waters located in or on site. The turbine float will have facilities and equipment in place as part of its construction costs with the dedicated purpose of deployment and recovery of the float. At the conclusion of the project, if no further licensing is sought, WPC personnel who are on site on a perpetual basis without regard to this project, will be available to operate said equipment to complete the full removal of the float. Grouted rock anchors will be cut off and ground flat to the rock face. All grid-tie cabling will be removed from the site and disposed of at WPC's expense. No excavation will be necessary for any part of the deployment of any facilities at the initial installation of the project or at the end of the project if the project is closed. All facilities can be easily removed within a matter of days.

5. Navigational safety plan developed in consultation with the U.S. Coast Guard, referencing both recreational and non-recreational use and management within, and adjacent to, the project boundary

   In collaboration with the USCG the Poncelet Kinetics RHK100 navigational safety plan will consider all recreational and commercial traffic routes for the safety of its patrons. Communication of the float’s location and deployment will be announced publicly as well as posted signs in strategic boat launch locations.

   The float will be appropriately marked with the use of USCG's recommended standard safety marking systems. Signs mounted on the float will be easily read from a distance of 100 feet in all directions: "Caution Hydrokinetic Turbine In Operation". The float and necessary surrounding area will be applying the use of USCG approved solar powered LED marker lighting for inclement weather and night time deployment. The use of USCG approved marker buoys will be employed where necessary. During dry dock seasons the RISEC float, mooring and anchoring systems will be completely removed from Tanana waters to avoid the possibility of boating collisions.

   It will be the obligation of WPC to educate the public on location and deployment season of the turbine.

WP&C WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4938 FAX (907) 895-4787 P.O. BOX 1229 DELTA JCT. AK, 99737

EXHIBIT E

ENVIRONMENTAL REPORT

APPLICATION

Whitestone Power and Communications (WPC) is filing with the Federal Energy Regulatory Commission (FERC) a Draft Application for an Original Hydrokinetic Pilot Project License for Project No. 13305 to include completion of the Whitestone Poncelet RISEC Project with a maximum installed capacity of 100 kW. During the preliminary permit process and as a major component of the preparation of this application, WPC has consulted extensively with the regulatory agencies responsible for regulating activity in this project area. These agencies include the Alaska Department of Natural Resources (DNR), the United States Fish and Wildlife Service (USFWS), the Alaska Department of Fish and Game (ADFG), the United States Army Corps of Engineers (USACE), the Alaska Department of Environmental Conservation (ADEC) and the United States Coast Guard (USCG). In partnership with these various agencies WPC compiled the information necessary to demonstrate that the project in question will not adversely impact its surrounding environment.

PURPOSE AND NEED FOR ACTION

PURPOSE OF ACTION

The purpose of the Whitestone Poncelet RISEC Project is to develop and commercialize a low-cost, clean, renewable power technology that is robust enough and simple enough to be used effectively to lower power generation costs in remote communities throughout the State of Alaska. At a time when the majority of Alaska's communities are facing rising costs and diminished chance of survival, minimizing energy costs for these communities will be the key to their survival. WPC believes the technology it has developed is a large step toward producing power for remote villages at a reasonable cost.

NEED FOR POWER

With power costs as high as $1.00 per kWh, Alaska's remote communities are facing extinction due to energy costs alone. It is a major priority, not only of the State of Alaska, but also of the United States government to insure that these communities are able to continue to grow and supply their residents with services they require at reasonable prices. However, to date, many of these communities have had no other option than to generate power using diesel engines. This is one of the most expensive ways to generate electricity and rising fuel costs have prompted many communities throughout Alaska to search for alternative means of producing electricity in a manner which is both less expensive and also more environmentally friendly. Because of the

large number of rivers in Alaska and the relatively small power demand in many communities, small-scale hydrokinetic power is an attractive option if the technology is properly developed to deal with the harsh environment of Alaska.

WPC's Poncelet Kinetics RHK100 is uniquely suited to generate power under the demanding conditions provided by Alaska's rivers and to take advantage of the swift but often shallow waters that are plentiful in this state. This technology holds the promise of sustainable, low cost, renewable energy for Alaskan communities.

PROPOSED ACTION AND ALTERNATIVES

PROJECT DESCRIPTION

As described in detail in Exhibit A, the Whitestone Poncelet RISEC project is in the design stage and is the basis for the design and proposed action contemplated in this Draft Pilot License application.

PROPOSED ACTION

The proposed action for which the applicant seeks a pilot license is the development, testing and environmental monitoring of a 100 kW River In-Stream Energy Conversion (RISEC) system using run-of-river current. This pilot project would consist of:

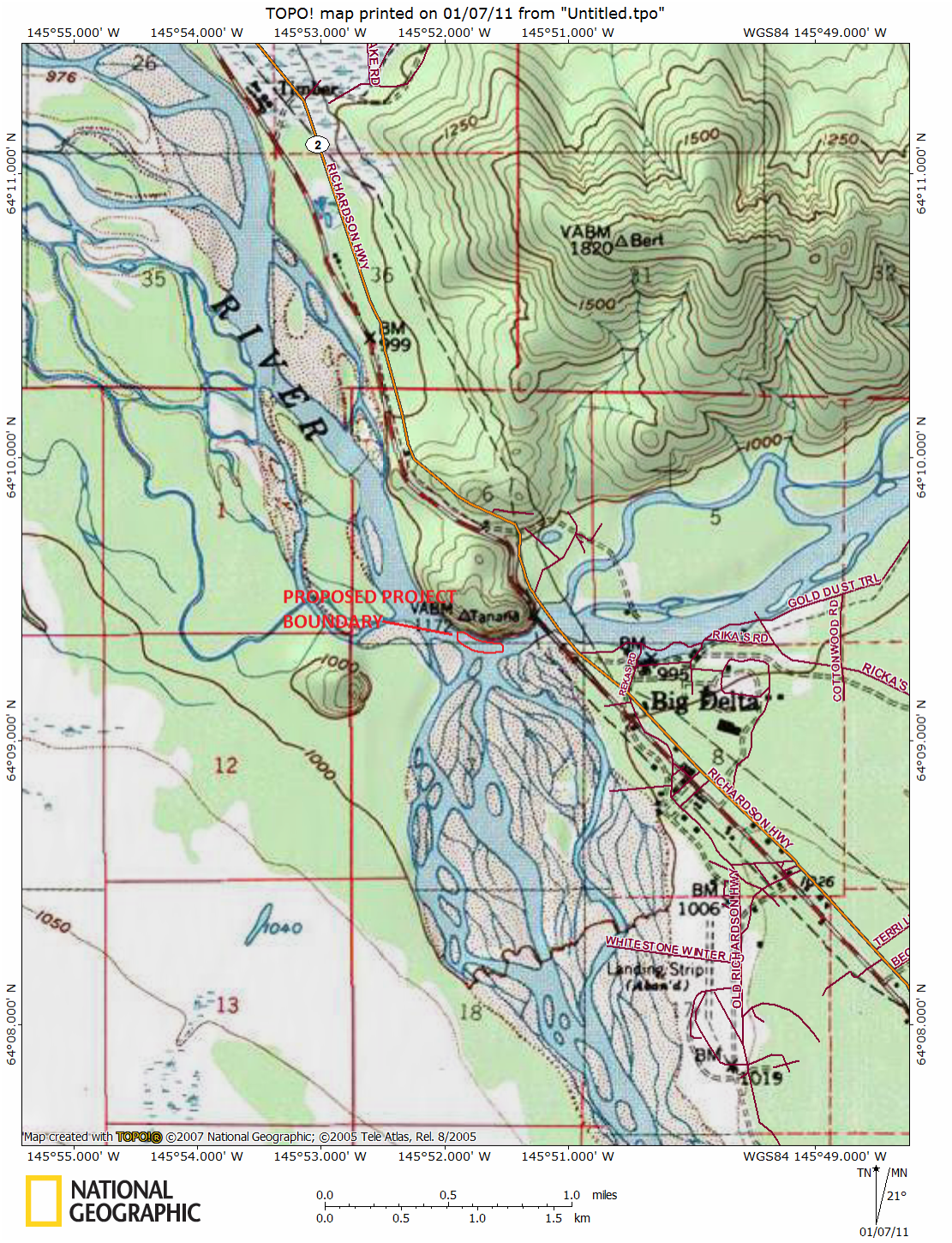
- A single Poncelet Kinetics RHK100 having a wheel of 16-ft diameter and 12-ft width producing a maximum of 100 kW
- Mooring and power cables running above the water from the float to the shore
- Appurtenant facilities for navigation safety and operation.

Based on the resource analysis of the current velocity and the projection of the annual duration of operation, the proposed project is expected to have an annual average power generation of 200 MWh.

LOCATION AND LAYOUT

The proposed project has boundaries as shown in the map on page 40. Based upon the velocity study completed by the University of Alaska, Anchorage survey team during the summer of 2010, the turbine will be anchored approximately 30 feet from the shore of the bluff shown on the northern edge of the project boundary. The total footprint of the device in the water will be 34 feet long and 19 feet wide.

WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4938 FAX (907) 895-4787 P.O. BOX 1630 DELTA JCT. AK, 99737



For a complete project description as well as operation, maintenance and monitoring plan, see Exhibit A of this draft application.

NO-ACTION ALTERNATIVE

The no-action alternative would be to cancel the project and not go forward with the construction, deployment and testing of the Poncelet Kinetics RHK100.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS

WPC has studied various technologies over a period of three years and consulted with many developers, researchers and regulatory agencies in order to arrive at the conclusion that there is a need for a new technology. As such, WPC has formulated a new design in order to produce a technology that is uniquely suited to environments characterized by shallow water and heavy debris loads.

Alternative Sites Considered

Although this technology is applicable in most river environments, WPC has a responsibility primarily to the residents of the community of Whitestone. For this reason, no other sites were considered for this project as the site chosen is the only one in proximity to the community with sufficient resource.

Alternative Facility Designs, Processes, and Operations Considered

WPC has had the opportunity to be involved in statewide discussions regarding the advent of hydrokinetic technology in Alaska from its inception. Over the last several years, WPC has had the advantage of observing many of the initial attempts to apply this technology to Alaskan rivers. Many of these technologies, available although the vertical axis turbines, have gained the most traction here in Alaska. All these designs have two problems. None of them is able to shed debris effectively in a manner that does not obstruct the flow of water to the rotor. Secondly, none of them has proven satisfactory to the various regulatory agencies particularly in the area of interaction with aquatic life. For these reasons, WPC considers these technologies ineffective for application to the Tanana River site near Whitestone.

CONSULTATION AND COMPLIANCE

Clean Water Act

Pursuant to Section 401 of the Clean Water Act, as amended, any activity requiring a federal license or permit that may result in discharge into navigable waterways, requires certification from the state that confirms that any such discharge will comply with applicable state water quality standards. This requires WPC to obtain Section 401 Water Quality Certification prior to issuance of the Pilot Project License and a subsequent Letter of Permission from the USACE under Section 10 of the Rivers and Harbors Act. The project is not subject to the auspices of

Section 404 of the Clean Water Act since it requires no excavation of the river bed and will have no discharge of any material into the water.

WPC Consultation and Compliance

WPC has received a Section 10 Letter of Permission from the United States Army Corps of Engineers which precludes the need for a clean water certification since USACE considers the project to have no substantial individual or cumulative effects.

Endangered Species Act

Section 7 of the Endangered Species Act (ESA) requires an authorizing or acting federal agency to consult with USFWS/National Marine Fisheries Service (NMFS) on any actions that might affect listed species or their habitats. If the authorizing/acting agency or USFWS/NMFS determines an action is likely to adversely affect a species, formal consultation is required with USFWS or NMFS depending on their jurisdiction over the listed species. Formal consultation consists of submittal by the authorizing/acting agency of a Biological Assessment (BA) for review by USFWS or NMFS. Upon review of the BA, USFWS/NMFS would each prepare a Biological Opinion (BO) which assesses whether the action is likely to jeopardize the existence of the listed species. The BO may include binding or discretionary recommendations to reduce potential impact. An Incidental Take Statement may be attached to the BO if there is potential jeopardy to the species.

WPC Consultation and Compliance

WPC has been advised by the USFWS that there are no endangered species within the proposed project boundary. This document is available upon request.

Section 106 Consultation

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effect of federally permitted projects on historic and cultural resources and requires consultation with the State Historic Preservation Officer (SHPO) prior to authorizing a project. Compliance with Section 106 of the Act also requires consultation with the tribes in the region. FERC typically satisfies Section 106 requirements for license term through Historic Properties Management Plans developed by the applicant in consultation with the SHPO or a Programmatic Agreement to which FERC, the SHPO and the ACHP are typically the signatories.

WPC Consultation and Compliance

As part of a separate project conducted with the Denali Commission from 2007 – 2009, the Alaska SHPO conducted a study of the proposed project area and concluded that there were no historic landmarks or resources within the proposed project location. WPC has received a letter

from the Alaska SHPO confirming that there are no affected historic properties within the project boundary. This document is available upon request. This location is not part of any tribal lands.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson –Stevens Fishery Conservation and Management Act requires WPC to consult with the National Marine Fisheries Service to determine whether the proposed project will have adverse impacts to the habitat or migratory paths of fish species which are deemed important by NMFS and which are a food resource.

WPC Consultation and Compliance

WPC has been advised by the National Marine Fisheries Service (NMFS) that there are no concerns regarding the habitat or safety of species protected under the Magnuson-Stevens Fishery Conservation and Management Act and that they will not require WPC to develop an Essential Fish Habitat Assessment (EFH).

Coastal Zone Management Act

This statute is not applicable to the Whitestone Poncelet RISEC Project.

Wild and Scenic Rivers and Wilderness Act

This statute is not applicable to the Whitestone Poncelet RISEC Project.

Pacific Northwest Power Planning and Conservation Act

This statute is not applicable to the Whitestone Poncelet RISEC Project.

WP&C WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4938 FAX (907) 895-4787 P.O. BOX 1229 DELTA JCT. AK, 99737

ENVIRONMENTAL ANALYSIS

DESCRIPTION OF THE PROJECT AREA

The Tanana River is the largest tributary of the Yukon River. Its headwaters are located at the confluence of the Chisana and Nabesna Rivers just north of Northway in eastern Alaska. It flows northwest from near the border with the Yukon Territory, and laterally along the northern slope of the Alaska Range, roughly paralleled by the Alaska Highway. In central Alaska, it emerges into a lowland marsh region known as the Tanana Valley and passes to the south of the city of Fairbanks. In the marsh regions it is joined by several large tributaries, including the Nenana and Kantishna rivers. It empties into the Yukon River near the town of Tanana. It is a glacially fed river with many tributaries and a total length of over 600 miles. This project is located at its confluence with the Delta River in interior Alaska approximately 90 miles southwest of Fairbanks and about ½ mile downstream of the Alyeska Pipeline Bridge which crosses the Tanana River.

SCOPE OF THE PROJECT AND CUMULATIVE EFFECTS ANALYSIS

According to the Council on Environmental Quality's (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) (40 CFR §1508.7), an action may cause cumulative effects on the environment if its effects overlap in time or space with the effects of other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes the actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Aquatic resources are the primary resource having the potential to be cumulatively affected by the proposed project. The geographic and temporal scope for both project-specific and cumulative effects is discussed below.

GEOGRAPHIC SCOPE

The geographic scope of the analysis defines the physical limits or boundaries of the proposed actions' effect on the resources. Because the proposed action would effect resources differently, the geographic scope for each resource may vary. The geographic scope of the effect analysis broadly includes the Tanana River and the mouth of the Delta River in the area of the proposed project.

TEMPORAL SCOPE

The temporal scope of analysis includes a discussion of the past, present, and reasonably foreseeable future actions and their effects on cumulatively affected resources. This Pilot Project

License Application is for a 5 year term which would expire in 2016. This document looks to the future, to the duration of the amended license, concentrating on the effects on the resources from reasonably foreseeable future actions. The historical discussion is limited, by necessity, to the amount of available information.

PROPOSED ACTION AND ACTION ALTERNATIVES

The scope of the Proposed Action is analyzed below by resource area in standard FERC NEPA format. Consideration has been given to all relevant resource areas identified for analysis in the Commission's whitepaper on hydrokinetic projects in Appendix B of whitepaper §5.18(b)(5)(ii)(B). As stated earlier, this plan has been developed in cooperation with resource agencies and has been based on detailed environmental information collected. The plan has been designed to avoid and minimize all environmental impacts.

GEOLOGY AND SOILS

The proposed Whitestone Poncelet RISEC project would not excavate, disturb or make any use of the river bed. For this reason, there are no expected effects to the geology and soils of the river bottom due to anchoring. In addition, because the plunge of the blades is very small compared to the depth of the river, there should be no adverse effects as a result of turbulence disturbing the river bed.

ENVIRONMENTAL EFFECTS

It is not expected that there will be any environmental effects to the river bed soils or geology.

UNAVOIDABLE ADVERSE IMPACTS

The proposed project would cause no unavoidable adverse impacts.

NO ACTION ALTERNATIVE

Under the no action alternative, the project would not be completed and the status quo would remain.

WATER RESOURCES

The Tanana River is a relatively large river having discharge rates as high as 8,000 cfs in the summer months. Due to the high sediment load and remote location of most of the river, its water is not used for commercial purposes other than incidental transportation. This proposed project will not remove any water from the river nor will it discharge any water or other liquid into the river. For this reason, and because the amount of energy being harvested from the river is minute in comparison to the energy available, there would not be any noticeable changes to the

river either with regard to hydrodynamics, water quality, river level or discharge rate. The proposed project would have approximately the same effect on the river as a large boat moving at low speed. For this reason, no substantive effects to the river environment are expected as a result of the proposed project.

ENVIRONMENTAL EFFECTS

It is not expected that the proposed project will significantly impact the river environment either individually or cumulatively due to the fact that the project is small, consisting of one unit and will not harvest or discharge any water or other liquid into or from the river.

UNAVOIDABLE ADVERSE IMPACTS

It is not expected that there will be any adverse impacts as a result of this project.

NO ACTION ALTERNATIVE

Under the no action alternative, the installation would not be completed and the status quo would remain.

SOURCES

"Estimation of discharge from three braided rivers using synthetic aperture radar satellite imagery: Potential application to ungaged basins" Laurence C. Smith,[1] Bryan L. Isacks, and Arthur L. Bloom
Institute for the Study of Continents, Department of Geological Sciences, Cornell University, Ithaca, New York and A. Brad Murray2
Department of Geology and Geophysics, University of Minnesota, Minneapolis
WATER RESOURCES RESEARCH, VOL. 32, NO. 7, PAGES 2021–2034, JULY 1996

"Flooding and Ecosystem Dynamics Along the Tanana River", John Yarie, Leslie Viereck, Keith Van Cleve, and Phyllis Adams, *BioScience, Vol. 48, No. 9, Flooding: Natural and Managed (Sep., 1998), pp. 690-695*

AQUATIC RESOURCES

AFFECTED ENVIRONMENT

The proposed project location is near a sensitive, high priority spawning area and migration path for several species of anadromous fish, most notably chum, coho and chinook salmon. The project will not have any effects outside the project area and even these effects should be minimal given the fact that this is a single unit which is similar in action to paddle wheel

powered boats, many of which frequent Alaska's rivers with no deleterious effects on the fish populations.

ENVIRONMENTAL EFFECTS

The Poncelet Kinetics RHK100 and related systems will have little or no environmental effects on the aquatic environment because of its noninvasive design. The Alaska Department of Fish and Game has advised WPC that the pressure drop of 0.51 psi at the tips of the blades associated with power production is safe for all fish species which frequent the proposed project location. WPC will continue to consult with the local regulatory agencies as the project develops to ensure the safety and well being of the aquatic species in the proposed project area. Additionally, WPC is in ongoing discussions with ADFG and USFWS to ensure that the exact placement of the float is acceptable given the known migration patterns of the anadromous fish populations.

CHARACTERIZATION OF FISH POPULATIONS

The official species listing detailing the aquatic life which is present in the proposed project area at any given time throughout the year is as follows:

arctic lamprey	*Lampetra japonica*
least cisco	*Coregonus sardinella*
broad whitefish	*Coregonus nasus*
humpback whitefish	*Coregonus pidschian*
round whitefish	*Prosopium cylindraceum*
inconnu (sheefish)	*Stenodus leucichthys*
chinook (king) salmon	*Oncorhynchus tshawytscha*
chum (dog) salmon	*Oncorhynchus keta*
coho (silver) salmon	*Oncorhynchus kisutch*
arctic grayling	*Thymallus arcticus*
northern pike	*Esox lucius*
lake chub	*Couesius plumbeus*
longnose sucker	*Catostomus catostomus*
burbot	*Lota lota*
slimy sculpin	*Cottus cognatus*

Many of these fish are anadromous and migratory although a few of them live their entire lives more locally. The primary concern for these species with regard to the proposed project is the potential effects to out-migrating juveniles which can be found in the proposed project area for much of the summer. A secondary concern regards the adults returning to spawn in fall. ADFG has raised some concerns that, without proper location, the proposed project may interfere with the migrating patterns. WPC is in discussions with ADFG in an effort to satisfy their concerns. It is likely that the initial project location will be in a less sensitive portion of the proposed project area. This will allow ADFG to monitor the effects of the float on fish behavior during the initial

stages of the project in order to determine whether the proposed project is too invasive to operate in more sensitive locations.

SEASONAL CHARACTERIZATION OF THE TANANA RIVER

The Tanana River, in which the proposed project would be located, is the largest tributary of the Yukon River. During the summer months, it is fed primarily by glacial melt. As a result of this, it is heavily silt laden. The Tanana River is also considered a braided stream even though not all portions of the river are braided. The project area is a reach of the river which is not braided. The river levels vary by as much as 10 feet throughout the year. During the winter, the river is entirely spring fed and the water becomes clear.

The portion of the Tanana River in which the proposed project would be located does not freeze over during the winter. This is a result of the large amount of upwelling spring water which holds the water temperature high enough to avoid freezing. The river experiences small ice flows in October and November each year which are dumped into it by the Delta River which empties into the Tanana River at the proposed project location. The river also experiences large ice flows in May. These usually only last for two or three days and are a result of the annual ice breakup that occurs on the Goodpaster River which is several miles upstream of the project location. The depths of the river vary from less than 5 feet in some places to depths exceeding 30 feet in other areas. The proposed project location has an average summer depth over 20 feet.

UNDERWATER NOISE

WPC does not expect there to be high levels of underwater noise generated as a result of this installation. To begin with, the drive train and generator will not be submerged. In addition, the plunge depth of the blades on the wheel is only 2 feet. Additionally, these blades will be moving at about 50% of the speed of the water producing a pressure drop of only 0.51 psi at the tips of the blades. The amount of noise generated would be smaller than that of a small boat propelled by an outboard motor which is very common in Alaska’s rivers.

ENVIRONMENTAL EFFECTS

WPC believes that there will be no environmental effects due to noise as a result of this installation.

UNAVOIDABLE ADVERSE IMPACTS

It is not expected that there will be unavoidable adverse impacts.

NO ACTION ALTERNATIVE

Under the no action alternative, the proposed project would not be constructed and the status quo would remain.

SOURCES

Durst, J. D. 2000. Fish habitats and use in the Tanana River floodplain near Big Delta, Alaska, 1999-2000. Alaska Department of Fish and Game, Habitat and Restoration Division, Juneau. Technical Report No. 01-05. 57 pp.

TERRESTRIAL RESOURCES

AFFECTED ENVIRONMENT

BOTANICAL RESOURCES

A listing of the main plant species which can be found in the proposed project area is as follows:

white spruce	*Picea glauca*
black spruce	*Picea mariana*
balsam poplar	*Populus balsamifera*
quaking aspen	*Populus tremuloides*
paper birch	*Betula papyrifera*
dwarf arctic birch	*Betula nana*
alder	*Alnus* spp.
willow	*Salix* spp.
bush cinquefoil	*Potentilla fruticosa*
prickly rose	*Rosa acicularis*
highbush cranberry	*Viburnum edule*
wild iris	*Iris setosa*
reed-grass	*Calamagrostis* spp.
grass	Gramineae
sedge	*Carex* spp.
horsetail	*Equisetum* spp.

The project will not have any significant impacts on these species since no land clearing or excavating will be necessary.

WETLAND PLANT COMMUNITIES

There are no wetland plant communities within the project boundary nor will the project have any significant impact on wetland communities upstream or downstream of the installation.

WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4958 FAX (907) 895-4787 P.O. BOX 1630 DELTA JCT. AK, 99737

SIGNIFICANT ECOLOGICAL COMMUNITIES

There are no significant ecological communities within the proposed project area or that would be affected by the proposed project.

WILDLIFE RESOURCES

At this time WPC has no reason to believe that any of these species will be impacted by the proposed project in any way nor have any of the regulatory agencies we have approached expressed any concern for any wildlife species. WPC can provide a list of the pertinent species in the event that the Commission feels it is necessary.

AVIAN SPECIES

At this time WPC has no reason to believe that any of these species will be impacted by the proposed project in any way nor have any of the regulatory agencies we have approached expressed any concern for any avian species. WPC can provide an avian list in the event that the Commission feels it is necessary.

ENVIRONMENTAL EFFECTS

There will be no substantive individual or cumulative effects to the avian or wildlife environment as a result of this project.

UNAVOIDABLE ADVERSE IMPACTS

There are no foreseeable adverse impacts to botanical resources, terrestrial animal life, wetland plant communities, significant ecological communities or avian species as a result of this project.

NO ACTION ALTERNATIVE

Under the no action alternative, the status quo would remain and the project would not be installed.

SOURCES

RARE, THREATENED, AND ENDANGERED SPECIES

WPC has received assurance from the National Fish and Wildlife Service that there are no rare, threatened or endangered species present or migratory through the project area.

WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4958 FAX (907) 895-4787 P.O. BOX 1630 DELTA JCT. AK, 99737

RECREATIONAL RESOURCES

Whitestone Power and Communications is proposing the installation of one Poncelet Kinetics RHK100 installation. The proposed plan calls for the unit to be installed as close to shore as possible. Early consultation has not revealed any conflicts with recreational resources in the area.

AFFECTED ENVIRONMENT

The portion of the Tanana River being proposed for use under this pilot project license application is not a recreational resource. Due to its remoteness, temperature and unpredictable flow patterns, it is not a popular place for swimming, fishing or recreational boating. There is a small amount of boating transportation that occurs in this portion of the river, but it is sporadic at its highest levels and often non-existent. This portion of the river has not been designated a state or federal park or wildlife refuge and is not part of any tribal lands. In addition, because it is not in an organized borough or county, there is very little interest from the public in developing new recreational resources in this area. For the purpose of this discussion there are no recreational activities within the project boundary.

PUBLIC SAFETY

WPC is currently in consultation with both USACE and USGS to ensure that the installation is properly demarcated and visible at all times so that it does not endanger any boaters. Because the unit is not submerged, it will be easily marked and avoided. The low density of traffic in the area further decreases the danger of a collision or other catastrophe.

ENVIRONEMENTAL EFFECTS

Based on our researches and consultation to date, there will be no environmental effects on recreational resources resulting from the proposed project.

UNAVOIDABLE ADVERSE IMPACTS

There are no unavoidable adverse impacts expected as a result of this installation.

NO ACTION ALTERNATIVE

Under the no action alternative no installation would be completed and the status quo would remain.

NAVIGATION AND LAND USE

The Poncelet Kinetics RHK100 and related systems will not affect navigable waters. WPC is consulting with USCG and OSHA safety standards to insure all pertinent safety standards are met.

AFFECTED ENVIRONMENT

NAVIGATION

As stated in the previous section, navigation through the project location is incidental and very light. The installation of this Poncelet Kinetics RHK100 is not expected to pose any significant effects.

LAND USE

The proposed project will have a small foot print on one of the shores of the Tanana River. The exact location of the land based facility is a matter of ongoing discussion with the Golden Valley Electric Association (GVEA).

ENVIRONMENTAL EFFECTS

The project will intertie with the GVEA grid which runs over the project location. If extensive land use is required, part of the GVEA power line easement will be utilized by the project to facilitate this. WPC has applied to the Alaska Department of Natural Resources for a land use permit within the project location. Regardless of where the shore line vault and intertie equipment is sited within the project location, it will not interfere with any current land use.

UNAVOIDABLE ADVERSE IMPACTS

It is not expected that there will be any significant unavoidable adverse impacts as a result of the proposed project.

NO ACTION ALTERNATIVE

Under the no action alternative, the proposed project would not be constructed and the status quo would remain.

AESTHETIC RESOURCES

AFFECTED ENVIRONMENT

The proposed project location is a very lightly populated area (fewer than 200 people and only one waterfront property) which is largely virgin forest land. The impact of this small installation is unlikely to be significant. The float itself has a footprint of 28-ft x 23-ft and the on shore foot

print will be even smaller. Although some trees may need to be cut down, the project will use the existing GVEA easement as much as possible to facilitate installations.

ENVIRONMENTAL EFFECTS

The installation of this float, which will be removed each winter due to the severity of the weather, will not cause significant environmental effects to the aesthetics of the area.

UNAVOIDABLE ADVERSE IMPACTS

The project will add two small installations which will be visible both during the day and at night. Their aesthetic effect will be minimal.

NO ACTION ALTERNATIVE

Under the no action alternative, the proposed project would not be constructed and the status quo would remain.

CULTURAL RESOURCES

AFFECTED ENVIRONMENT

Under Section 106 of the National Historic Preservation Act of 1966, federal agencies must take into account the effects of federal actions in historic properties and give the Advisory Council on Historic Preservation opportunity to comment on actions and decisions. Consultation related to historic properties is conducted with state historic preservation officers. Also under the National Historic Preservation Act (as amended in 1992), federally recognized Native American Tribes can assume the position of a state historic preservation officer for any activities affecting tribal lands.

As part of a project conducted with the Denali Commission from 2007 – 2009, the Alaska SHPO conducted a study of the proposed project area and concluded that there were no historic landmarks or resources within the proposed project location. WPC has received a letter from the Alaska SHPO confirming that there are no affected historic properties within the project boundary. This document is available upon request. This location is not part of any tribal lands.

ENVIRONMENTAL EFFECTS

Due to the absence of historical significance associated with any artifacts or locations within the project area, there are no expected impacts to the cultural environment of the area.

UNAVOIDABLE ADVERSE IMPACTS

It is not expected that the installation will present any unavoidable adverse impacts.

NO ACTION ALTERNATIVE

Under the no action alternative, the proposed project would not be constructed and the status quo would remain.

TRIBAL RESOURCES

AFFECTED ENVIRONMENT

There are no tribal resources affected by the environment.

ENVIRONMENTAL IMPACTS

The proposed project will not have any impact on tribal resources.

UNAVOIDABLE ADVERSE IMPACTS

No unavoidable adverse impacts are expected.

NO ACTION ALTERNATIVE

Under the no action alternative, the proposed project would not be constructed and the status quo would remain.

SOCIOECONOMIC RESOURCES

AFFECTED ENVIRONMENT

The community of Whitestone has been recorded as a separate community designated place under the auspices of the U.S. Census Bureau for the first time in 2010. The results of the census are still pending at this time. The total population of the community is under 200 people. During the genesis of this project, the community was paying over $0.30 per kWh. In 2009, the community was tied into the GVEA grid for the first time which resulted in a cost reduction of 50%. However, this installation promises to produce power even more reasonably. In addition, the overriding purpose of this project is to produce a solution that is potentially applicable state wide and provide energy cost reductions for communities with far higher energy costs.

ENVIRONMENTAL EFFECTS

The proposed project would not likely have any negative impact to the local economy, rather the proposed project will benefit the local economy through job creation and reduced energy prices. The job creation aspect of the project would only apply to the construction part of it since staff already employed by WPC to monitor its various facilities would take on the minimal maintenance of this facility in addition to their current duties. Unfortunately, due to the limited resources of the area, the Poncelet Kinetics RHK100 would likely be manufactured in either Fairbanks or Anchorage and then shipped to Whitestone for installation. As such, the job creation is likely to include fewer than five people and only for a few months.

The cost of construction, deployment and intertie is not expected to exceed $1,000,000. At this point in time WPC hopes to obtain the necessary funds through various federal and state grant opportunities.

UNAVOIDABLE ADVERSE IMPACTS

It is not expected that this project will have any unavoidable adverse impacts.

NO ACTION ALTERNATIVE

Under the no action alternative, the cost of energy for the community of Whitestone would not be favorably reduced and important research to reduce energy cost across the state of Alaska would be stopped.

CONSISTENCY WITH COMPREHENSIVE PLANS

Section 10(a)(2) of the Federal Power Act (FPA) requires the Commission to consider whether or not, and under what conditions, the project would be consistent with relevant comprehensive plans on the Commission's comprehensive plan list.

WPC has reviewed the plans on the list and believes that none of them are relevant to the proposed project.

WP&C WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4938 FAX (907) 895-4787 P.O. BOX 1229 DELTA JCT. AK, 99737

EXHIBIT G

PROJECT BOUNDARY MAP

The project boundary is within that granted under the preliminary permit issued to WPC under Project No. 13305 and is shown below. The exact location of the device within the project boundary is proposed to be 64°09'22.66" N, 145°51'39.88" W on the right bank of the Tanana River near the community of Whitestone.

WHITESTONE POWER & COMMUNICATIONS
PHONE: (907) 895-4938 FAX (907) 895-4787 P.O. BOX 1630 DELTA JCT. AK, 99737

TOPO! map printed on 01/07/11 from "Untitled.tpo"