Plutonic POWER CORPORATION

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Ms. Kathy Eichenberger
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Mr. Adam Hendriks
Director
Natural Resources Canada - Major Projects Management Office
55 Murray Street, 6th Floor, Room 600
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Dear Mr. Carter, Ms. Eichenberger and Mr. Hendriks:

Re: Revised Project Description for Bute Inlet Hydroelectric Project to Include Federal Requirements

1.0 INTRODUCTION

Plutonic Power Corporation (Plutonic) is pleased to submit a revised project description of the proposed Bute Inlet Hydroelectric Project (Project) for review under the Canadian Environmental Assessment Act (CEAA) and the British Columbia Environmental Assessment Act (BCEAA). This revision incorporates information required by the Major Project Management Office (MPMO) of Natural Resources Canada (NRC) as outlined in the guidance document drafted in April 2008, entitled *Guide to Preparing a Project Description for a Major Resource Project.*

As proposed, the Bute Inlet Hydroelectric Project will have a rated nameplate capacity 914 MW, and a 360 kV electrical transmission line with 375 km of new right of way. Under the CEAA Comprehensive Study List Regulations, a comprehensive study is triggered by a hydroelectric generating station with a production capacity of 200 MW or more or the construction of transmission line with a voltage of 345 kV or more on 75 km or more of new right of way. Under the BCEAA Reviewable Projects Regulation (BC Reg. 370/2002), the reviewability threshold for a new hydroelectric power plant facility is a rated nameplate capacity of 50 MW or more. Therefore, the Project triggers the CEAA Comprehensive Study List Regulations, as well as the BCEAA Reviewable Projects Regulation. It is anticipated that a harmonized Federal – Provincial environmental assessment procedure will be required. The harmonized review will be facilitated and streamlined by the MPMO and BCEAO.

This document is organized into the following sections:

2.0 GENERAL PROJECT INFORMATION

The Bute Inlet Hydroelectric Project is composed of three interconnected groups of run of river hydro facilities on tributaries to rivers that drain to Bute Inlet on British Columbia's central coast. In total, the three groups will be composed of 18 run of river facilities, generating a total nameplate capacity of 914 MW. Eight of the facilities will be located in or near the Homathko River Drainage (the Homathko Group), seven in the Southgate River Drainage (Southgate Group), and three in the Orford River Drainage (Orford Group). Figure 1 illustrates the Project location.

Each Group of Facilities will be connected by 230 kV transmission lines to a proposed substation near the mouth of the Southgate River. From the substation, the electricity will be carried by 360 kV transmission lines to two points of interconnection with the BCTC grid; one at the Malaspina substation near Earls Cove, and one at the Campbell River substation. Plutonic has chosen to develop the Bute Inlet Hydroelectric Project strategically, with the proposed 360 kV transmission lines and two possible points of interconnection to have the potential to accommodate possible future projects, thus minimizing the number of future transmission corridors.

3.0 PROPONENT INFORMATION

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Company Incorporation and Structure:
Plutonic Power Corporation through its wholly owned subsidiary Plutonic Hydro Inc.

Stock Exchange Listing:
PCC - TSX

Company Website:
www.plutonic.ca

4.0 PROJECT DEVELOPMENT RATIONALE

The demand for electricity in British Columbia is increasing beyond what we can produce and our province now supplies up to 15% of its demand with electricity from Alberta and the U.S that is produced primarily from fossil fuels. The recently released BC Energy Plan looks to all forms of clean, alternative energy in meeting BC's growing energy demands.

This BC Energy Plan shows great environmental leadership, including:

- Zero greenhouse gas emissions from coal fired electricity generation.
- All new electricity generation projects will have zero net greenhouse gas emissions for existing thermal generation power plants by 2016.
- Ensure clean or renewable electricity generation continues to account for at least 90 per cent of total generation.
- No nuclear power.
- Best coalbed gas practices in North America.
- Eliminate all routine flaring at oil and gas producing wells and production facilities by 2016 with an interim goal to reduce flaring by 50 per cent by 2011.
- Achieve electricity self-sufficiency by 2016.

The proposed Project will generate "Green Power" as defined by BC Hydro from 18 run of river hydroelectric generation facilities. The Project is being developed in response to the 2008 Clean Power Call to be issued by BC Hydro. If accepted, the Project will greatly advance the ability of British Columbia to meet self-sufficiency targets, while maintaining compliance with the strong environmental objectives of the BC Energy Plan.

The Project will fit well with the mandate of the Province to reduce greenhouse gas emissions (GHG). The BC government has set an ambitious goal for reducing the province's GHG emissions and committed to achieving that goal through action across all sectors of the economy. Key components of BC's provincial strategy on climate action are:

- Aggressive but achievable targets for provincial emissions reduction for 2012, 2016, 2020 and 2050;
- Legislated mandatory caps on major B.C. emitters, as part of a GHG trading system being developed in partnership with other jurisdictions; and
- A comprehensive set of sectoral actions to help achieve the provincial reduction targets.

The Project will help BC meet its growing demand for electricity and also help to reduce the frequency of relying on imported electricity, while supporting the objectives of the Kyoto Protocol to the United Nations Framework Convention on Climate Change.

The Project will be a 3 to 3.5 billion dollar capital investment with significant construction employment opportunities and economic benefits to First Nations and local communities. During operations the Project will generate seasonal and full time employment, while contributing tax revenue to Provincial and Regional governments.

5.0 PROJECT CHARACTERISTICS

5.1 Project Locations

Figure 1 shows a conceptual plan of the Project, including facility locations, as well as the transmission line routing that will connect all the proposed facilities to the Provincial grid. The Project facilities generally center around the head of Bute Inlet at approximately 50.90° N latitude and 124.79° W longitude.

5.2 Project Capacity and Energy Generation Potential

Table 1 provides a summary of facility capacities and energy generation potentials. Also included in the table are the design flows and gross heads associated with each facility.

5.3 Project Access

5.3.1 Homathko Group

The Coola Creek, Scar Creek, Whitemantle Creek, Brew Creek, Jewakwa River and Heakamie River facilities will be accessed by an existing forestry road mainline that follows the Homathko River Valley from Waddington Harbour (Bute Inlet) north along the Homathko River. Approximately 42 km of the existing mainline access road would be used as indicated in Figures 2 and 3. A bridge crossing the Homathko River will be required to access Heakamie and Jewakwa Rivers via upgrading existing logging roads. Gargoyle Creek will be accessed via upgraded existing access roads from a barge facility, located a short distance up the Homathko River from the mouth. Existing logging roads are also located further up Scar, Brew, Jewakwa, Coola and Whitemantle Creeks, which will be used to access the facilities for construction and operation.

Access to Bear Creek is shown on Figure 3 and will be via a barge from Bear Bay in the Bute Inlet. New access roads will be constructed from the barge landing to the facility components.

5.3.2 Southgate Group

Access to the Southgate River 1, 2 and 3, Raleigh Creek, Icewall Creek, Elliot Neighbour Creek, and Elliot Creek facilities will be via a forestry mainline road (that will need to be reactivated) that follows the Southgate River valley from the head of Bute Inlet as indicated in Figures 5 and 6. The mainline road travels approximately 45 km up this valley from the head of the inlet, and various spur roads will need to be constructed up individual catchments from the valley bottoms, accessing the facility powerhouse and intake sites. Approximately 15 major bridges, varying in length from 30 m to 120 m, will need to be built along the Southgate River Valley floor.

5.3.3 Orford Group

Algard Creek, North Orford and East Orford River projects will be accessed through the existing barge facility in Orford Inlet, and by an existing forestry road mainline that follows the Orford River Valley from the barge facility. Approximately 6.5 km of the existing mainline road will need to be refurbished, as indicated in Figures 7 and 8. Logging roads extend up East Orford River, North Orford River and Algard Creek for most of the proposed alignments; these can be upgraded and extended to provide access to the intake structures.

In addition to the permanent roads described above to access the intakes and powerhouses, short sections of temporary road may be required to provide construction access. All roads will be constructed to the same or similar standards of the BC Forest and Range Practices Act (FRPA). Borrow and fill requirements for road construction will be addressed on a site by site basis; However, movement of materials will be optimized to reduce impacts that may result from importation, exportation and transportation of materials.

5.4 Project Layout

Layouts can be found for each of the individual facilities in Figures 9 to 26. All of the Project facilities are considered permanent structures. Refer to the following subsections for descriptions of each facility component.

5.4.1 *Intake*

Each of the facilities will require a free overflow concrete weir. The intake style for the facilities will either be in the form of a rubber weir type intake or Coanda screen type intake. The facilities that divert a larger design flow will utilize a rubber weir, while the smaller ones or those with significant sediment load will use Coanda screens. The coordinates, elevations and intake style of each of the facility intakes are shown in Table 2. All intakes will have the following common features:

- Concrete retaining walls and earth embankments.
- An intake structure, composed of a sediment trap, penstock isolating gate and sluice gate, will transfer a portion of the creeks flow to the penstock.

Basic design parameters for the intakes are as follows:

- Each intake weir structure will be sized to pass the 1:200 year instantaneous peak flood event.
- Sediment and bedload transported by the creek will be passed directly over the deflated rubber weir or Coanda screen. A sluice gate will also be installed to allow the operator to flush the area directly in front of the intake screens in the case of the rubber weir arrangement.
- Floating debris (logs, etc) will be allowed to pass over the top of the concrete weir.
- The intake structure will be sized to transfer the design flow to the penstock.
- Minimum instream flow requirements will be handled through an outlet pipe.

Figures 27 and 28 show typical rubber weir and Coanda screen style intakes respectively.

5.4.2 *Water Conveyance System*

The water conveyance system installed at each facility will be comprised of either an HDPE (high density polyethylene) low-pressure conduit coupled with a steel high-pressure penstock, a penstock constructed entirely in steel, or an underground tunnel. Each conveyance system has been designed to minimize its length, footprint, cost and hydraulic loss, while maximizing the constructability and energy. A summary of the selected conveyance systems is shown in Table 3. The alignment of each water conveyance system is shown on Figures 9 to 26.

5.4.3 *Powerhouse*

The powerhouse at each facility will share the following common features:

- Reinforced concrete foundations and substructure.
- Reinforced concrete and steel framework superstructure with block walls and steel roof.
- Turbine generator sets with Pelton or Francis turbine runner.
- Switchyard with 13.8 kV to 230 kV step-up transformer.
- Tailrace structure.

A summary of the number and type of turbines installed in each powerhouse is presented in Table 2. The location of each powerhouse is shown on Figures 9 to 26. A typical powerhouse arrangement for a 2-turbine operation is shown on Figure 29.

5.4.4 *Transmission*

The routing of the individual legs of transmission line that connects each individual facility to the main transmission line can be seen on Figures 2 to 8. All transmission from the facilities will be carried on 230 kV lines to the proposed Bute Inlet substation.

Homathko Group

The Coola Creek, Scar Creek, Whitemantle Creek, Brew Creek Jewakwa River, Heakamie River, and Gargoyle Creek facilities will be connected by a shared transmission line that roughly follows the Homathko River mainline road. The transmission line will run sequentially to each facility in turn, running along existing or new proposed access roads, and will connect to the proposed Bute Inlet Substation. The Bear Creek facility will connect to the line running to Campbell River.

Southgate Group

The Southgate facilities will be connected by a transmission line that roughly follows the Southgate mainline road along upgraded existing roads and/or new proposed roads.

Orford Group

The East Orford, North Orford and Algard facilities will connect to a transmission line that roughly follows the Orford mainline towards Orford Bay, and then connects to the transmission line running to Malaspina.

The Homathko and Southgate Facilities will connect to a new substation at the head of Bute Inlet, near the mouth of the Southgate River (Bute Inlet Substation). The voltage will be stepped up to 360 kV for transmission to two potential points of interconnection; one at the Malaspina Substation, and one at Campbell River. The Orford facilities will connect to the line running from the Bute Inlet Substation to the Malaspina Substation. It should be noted that based on further investigations and design, a reduced project scope may result in a single point of interconnection at either location. For a more detailed description of the main transmission line, see Section 7.0.

5.4.5 Ancillary Development and Services

Numerous temporary and permanent support infrastructure/resources will be required throughout the construction phase of the Project. Examples include barges, water supply, waste disposal, material requirements, energy supply, work camps, and staging areas. Final locations and arrangements for these infrastructure/resources are being investigated, but Plutonic intends to situate and select locations and arrangements that make the most efficient and benign use of available resources. Required ancillary services such as fuel and equipment delivery will be determined on an as needed basis and will also be managed in a manner that minimizes potential impacts.

6.0 SITE CONDITIONS

6.1 Hydrology

All 18 of the proposed facilities are located in the Southern Coastal Mountain Range. This area is characterized by steep forested catchments and significant glacier coverage. The runoff is derived from rainfall, snowpack melt and glacier melt, with annual hydrographs generally demonstrating high flows during the spring and summer periods and low flows during the winter months, although proportional distributions of runoff vary from site to site according to basin elevation range and glacier coverage.

For the purposes of assessing the electricity generation potential of run of river hydroelectric projects in these watersheds, it was necessary to develop estimates of the mean annual discharge (MAD) and flow distribution at the proposed intakes. Ideally, these values would be derived from long-term continuous flow data for each of the streams in question but only short term records are available. The available instream flow data that is being collected for each creek was used together with the regional streamflow and precipitation records, as collected by the Water Survey of Canada (WSC) and Meteorological Service of Canada (MSC) branches of Environment Canada, to determine mean annual discharge estimates for each creek. See Tables 5 and 6 for data listings of WSC and MSC stations, respectively.

Figure 30 shows the locations of all relevant stations used in the baseline hydrologic assessments. Table 7 summarizes the basin characteristics and estimated flow values for each of the 18 facility sites.

Mean annual discharge values were derived in terms of precipitation and glacier components, which were then combined to create total discharge estimates. In order to use the available information most effectively, only complete years of flow and precipitation data were considered for the analysis. For each particular stream of interest, precipitation runoff estimates were derived from representative precipitation and streamflow datasets that were selected according to location proximity and similarity of watershed characteristics. Glacier runoff was determined according to an assumed unit rate of 80 l/s/km2. This unit rate is based on detailed UBC Watershed Modelling of a number of basins in Coastal BC. The glacier fraction and drainage basin area for each watercourse were delineated from the latest version of 1:50,000 scale NTS maps.

Capacity Factors were estimated from existing Flow Duration Curves that were created for similar coastal watercourses. The shape of these curves determined the fraction of time that flows would be sufficient to produce the maximum energy output that could be achieved. Typical capacity values range from 0.35 to 0.5, which translates to a facility's ability to produce its maximum output (in MW) for 35% to 50% of the time over the course of a year, on average.

In order to facilitate the future refinement of these flow estimates, it was essential to install stream gauges in the project watersheds. Gauges were installed on all 18 facility watercourses between 2004 and the present. Once sufficient stage-discharge data have been collected to develop reliable rating curves, and there are sufficient stage data to represent a full hydrologic year (fall to fall), this information will then be used to update the MAD and capacity factor estimates for each of the eighteen sites. See Table 4 for a complete list of these gauges. Also, see Figure 30 for the geographic location of these gauges.

6.2 Instream Flow Requirements

The Instream Flow Requirements (IFRs) for sustaining the aquatic ecosystems of each facility's creek will be determined through detailed fisheries and habitat studies in the next stage of the project development. At this early stage, preliminary IFRs have been utilized as place holders during modeling exercises. The preliminary IFRs are summarized in Table 2. The plant capacity and energy generation potential for the Project presented in this report is based on the preliminary IFRs.

According to information presented in the BC Ministry of Environment's *Guidelines for the collection and analysis of fish and fish habitat data for the purpose of assessing impacts from small hydropower projects in British Columbia,* prepared by Hatfield *et. al.* in 2007, during seasons of fish migration, flows in the range of 50% to 100% MAD may be required for periods of days or weeks. In addition to the IFRs, at all times, natural flows in excess of the design flow will follow the natural course of the creek.

6.3 Fisheries

During preliminary investigations on watercourses in the Project area, it was observed that all proposed generating facility sites have channel morphology, habitat cover features and water quality required to support a wide range of fish species known to be present in the Project area. The fish species known or reported to reside in the watercourses include:

- Bull trout *Salvelinus confluentus*
- Chinook salmon *Oncorhynchus tshawytscha*
- Chum salmon *Oncorhynchus keta*
- Coho salmon *Oncorhynchus kisutch*
- Cutthroat trout *Oncorhynchus clarkii*
- Cutthroat trout (anadromous) *Oncorhynchus clarkii*
- Cutthroat trout (coastal) *Oncorhynchus clarkii clarkii*
- Dolly Varden *Salvelinus malma*
- Dolly Varden (anadromous) *Salvelinus malma*
- Dolly Varden/Bull trout (hybrid) *Salvelinus malma x S. confluentus*
- Eulachon *Thaleichthys pacificus*
- Longnose dace *Rhynichthys cataractae*
- Longnose sucker *Catostomus catostomus*
- Pink salmon *Oncorhynchus gorbuscha*
- Rainbow trout *Oncorhynchus mykiss*
- Steelhead *Oncorhynchus mykiss*
- Steelhead (winter-run) *Oncorhynchus mykiss*
- Redside shiner *Richardsonius balteatus*
- River lamprey *Lampetra ayresi*
- Sculpin (general) *Cottus spp.*
- Sockeye salmon *Oncorhynchus nerka*
- Starry flounder *Platichths stellatus*
- Threespine stickleback *Gasterosteus aculeatus*

Most of the Project facilities have been situated such that the majority of each diversion reach is located upstream of fish barriers (e.g., falls, cascade, velocity barrier, steep gradient) in areas with adverse overwintering conditions; thereby excluding anadromous species from the affected areas. The majority of the Project streams are currently thought to be non fish-bearing above the noted barriers, allowing for 100% of the streamflow to be returned at the upstream limit of fish distribution in each system. This will minimize the requirements at most facilities for special authorization under Section 35(2) of the federal Fisheries Act.

Additional study and mitigation will be required at Algard Creek, North Orford River, Bear River, Heakamie River, Jewakwa River, and Scar Creek. Each of these catchments is thought to host resident fish in the diversion reach. It is anticipated that the Project will mitigate impacts to the resident fish primarily through the provision of instream flow releases catered to seasonal fishery requirements.

6.4 Biogeoclimatic Ecosystem

The Project is located within the Coastal Western Hemlock biogeoclimatic zone. On average, this zone is the rainiest biogeoclimatic zone in British Columbia, with a cool mesothermal climate. Mean annual temperature can range from approximately 5.2 to 10.5°C. Mean annual precipitation for the zone as a whole is 2228 mm, and may range from 1000 to 4400 mm with less than 15% of total precipitation occurring as snowfall. Western hemlock is usually the most common species in the forest cover with a sparse herbaceous layer and variety of moss species. Infrastructure development and construction timing will be planned to minimize impacts on the vegetative community in the Project area.

6.5 Wildlife and Wildlife Habitat

A wide variety of habitat types exist across the Project area. These habitats include old growth coniferous forests, seral and managed second growth forests, mixed coniferous and deciduous forests, rocky cliffs, sparsely vegetated rock faces, riparian area, rivers and streams. These habitats support a wide variety of wildlife (e.g. deer, bears, wolves, goats, rodents, raptors, common birds, reptiles, amphibians and fish). Infrastructure development and construction timing will be planned to minimize impacts to wildlife and wildlife habitat.

6.6 Species at Risk

The project passes through two provincial Forest Districts and 16 Landscape Units (LUs). In addition, there is the potential that the Project will pass through eight ecosections and 11 biogeoclimatic subzone variants. Due to the ecologically diverse landscape in the study area, a considerable number of rare ecosystems, plant, and animal species could be affected by the construction and operational maintenance of the Project. Attention to construction siting, timing of works and work methods are anticipated to reduce potential impacts.

A conservative approach for the baseline assessment of species at risk has been adopted and initiated. The scope includes an investigation of all proposed facilities, including transmission line route options with a 1 km buffer, resulting in an approximate 2 km wide study corridor. All publicly-available map products are being compiled and used as a base for the habitat mapping. A number of mapping projects have already been completed within various portions of the study area, including Terrestrial Ecosystem Mapping (TEM) in Tree Farm Licences (TFLs) 39, 45 and 47; Vegetation Resource Inventory (VRI) in TFL 43; forest cover mapping in TFL 10; Broad Ecosystem Inventory (BEI) in TFL 25; and habitat mapping in TFL 10 and 43. Mapping will be at a scale of 1:20,000.

Within the study area, all spatially-defined boundaries that are important for assessing potential impacts to vegetation and wildlife are being identified. Anticipated boundaries include provincial park boundaries, established and proposed Wildlife Habitat Areas (WHAs), Ecological Reserves, Ungulate Winter Ranges (UWRs), and Old-Growth Management Areas (OGMAs).

During the assessment, the spatial extents of important habitats (e.g., wetlands) will be defined, and the total areas (in hectares) of these habitats will be quantified within the study area. Currently, mapping within the Homathko and Southgate LUs has identified that 10% of the valley bottom consists of wetlands (14% in Homathko and 4% in Southgate).

A number of potential focal or priority species have already been identified, including plants (140 potential species), invertebrates (11 potential species), amphibians (4 species), birds (13 species), mammals (6 species), and rare ecological communities (88 potential communities). Species that have been identified as being of particular importance, at this stage, include: grizzly bear (*Ursus arctos*), Marbled Murrelet (*Brachyramphus marmoratus*), and mountain goat (*Oreamnos americanus*).

The Project focal species list will be further refined through discussions with federal and provincial authorities, but will include provincially Red- or Blue-listed taxa, migratory birds, taxa listed under the federal Species at Risk Act (SARA), taxa listed under the provincial Identified Wildlife Management Strategy (IWMS), and species of regional importance (i.e., mountain goat). Species of particular importance to First Nations will also be included based on input obtained through the consultation process.

6.7 Geology

All of the proposed facilities lie within the Pacific Range of the British Columbia Coast Mountains. The Pacific Range, consisting mainly of granitic rocks, extends north from the Fraser River for about 500 km to the Bella Coola River. This range contains the highest peaks in the Coast Mountains, many of which are over 3000 m high.

The land in the region was heavily loaded with glaciers during the Pleistocene and many areas adjacent to the coast were submerged below sea level. The high peaks have matterhorns (arêtes) and well-developed cirques, while peaks and ridges below about elevation 2000 m are rounded and subdued by the effects of ice-sheet movement. Valley walls were steepened by ice sheet movement, which typically resulted in U-shaped slope profiles. The oversteepened slopes following glaciation have resulted in numerous types of earth movements such as rock slides, rock falls, debris slides, debris flows and channelized debris flows.

Surficial geology in the project area consists of recent river alluvium, colluvium and minor glaciofluvial and till deposits.

Glaciofluvial and till deposits, found in the Project area, form a mantle of variable thickness that overlies bedrock. Generally these deposits are dense, less than three metres thick and consist of angular to sub-rounded sand and gravel with some silt and cobbles.

6.8 Seismicity

The proposed Project is situated in the Coast Mountains. Historically, the level of seismic activity in the Coast Mountains region is low. However, there is the potential for large earthquakes within the region of south-western BC. The region can be affected by both crustal earthquakes in the continental North American Plate, and by great subduction earthquakes that are generated by Juan de Fuca Plate subducting under the continental plate.

There has been much study in recent years concerning the potential for a great interplate earthquake of magnitude 8 to 9 along the Cascadia subduction zone, which is located west of Vancouver Island and extending as far south as Northern California. Geological evidence indicates that these great Cascadia subduction earthquakes occur, on average, approximately every 500 years, but this interval varies from about 300 to 800 years. The last great Cascadia earthquake occurred about 300 years ago, in 1700. Such an event would likely be located over 200 km west of the project site, and therefore the amplitude of ground motions experienced at the site would be moderate due to attenuation over such a large distance. However, the damage potential from such an event can be high, due to the very long duration of ground motion associated with a large magnitude earthquake.

Large crustal earthquakes of magnitude 6.9 and 7.3 have occurred within central Vancouver Island in 1918 and 1946 respectively. The closest of these events was the 1946 magnitude 7.3 earthquake, located between 100 and 200 km south of the project sites. To the south lies the Northern Cascades seismic region where a large crustal earthquake with an estimated magnitude of 7.0 to 7.5 occurred in Washington State in 1872.

6.9 Groundwater

Significant groundwater discharge areas or springs are not expected at the proposed powerhouse and intake locations, or along the access road/penstock right of ways. However, additional fieldwork is planned to confirm this assumption.

6.10 Surface Water Quality and Sedimentation

Each of the proposed facilities is located in a coastal mountain catchment. Studies have been initiated to characterise the water quality in the creeks.

7.0 TRANSMISSION AND INTERCONNECTION

There are two proposed points of interconnection: one at Malaspina Substation, near Earls Cove and the other at Campbell River (upgrade between Campbell River and Dunsmuir Substation could be required). The transmission line routing and connection to these locations is shown on Figure 1. Preliminary estimates of new transmission line required for the Bute Inlet Hydroelectric Project include approximately 375 km of 360 kV transmission line connecting a new proposed substation at Bute Inlet to the BCTC grid, and 195 km of 230 kV transmission line connecting each of the facilities to the new Bute Inlet Substation. As previously noted, further investigations and design work may result in a reduction in the scope of the project to a single point of interconnection at either Campbell River or Malaspina.

The proposed main transmission line routing connects the facilities to the Malaspina Substation via transmission lines that run from the proposed Bute Inlet Substation. The transmission line commences from the head of the Bute Inlet at this new proposed substation, and heads south to the Orford River facilities before extending from Orford Bay to the Toba Inlet. This new proposed transmission line would extend up the Algard River, then down along the Brem River, and then along the north of Toba Inlet to connect with the East Toba and Montrose Transmission line right of way. The transmission line will run parallel to the East Toba and Montrose transmission line right of way (currently under construction) from Toba Inlet to the new Saltery Bay Substation. The line will then run parallel to the existing BCTC transmission line from Saltery Bay to the BC Hydro Malaspina Substation. The transmission line route is shown on Figure 1.

The proposed main transmission line routing also connects the facilities to Campbell River (with potential further transmission upgrade to Dunsmuir Substation). Figure 1 shows this proposed transmission line routing connecting the proposed Bute Inlet Substation with Campbell River.

8.0 MAXIMIZING THE POTENTIAL OF THE RESOURCE

Plutonic and their consultants have reviewed many potential development alternatives for the proposed facilities, the most favourable of which are presented in this report. Based on the following criteria, it is expected that the project will fully develop the potential of the available resources:

- Cost / Benefit ratio (Total Capital Cost / Average Annual Generation);
- Construction and Permitting Risks;
- Environmental Impact;
- Schedule and Construction Risks, and
- BC Hydro's Green Criteria Compliance.

9.0 POLITICAL AND SOCIO-ECONOMIC ISSUES – POTENTIAL EFFECTS

9.1 Environmental

The Project will be developed to minimize impacts on the environment through information gathering and analysis, identification of mitigation measures, and re-design of facility components where required. Existing information along with a limited scope of field studies has been used to develop current plans for facility siting, access, and interconnection to the BCTC grid. The next step in the planning process involves the development of detailed study planning for input to the environmental assessment phase of the Project.

Consultation with stakeholders is planned in order to assist in the identification of environmental issues to be addressed by the proponent.

9.2 Economic

The Project will be a 3 to 3.5 billion dollar capital investment with significant construction employment opportunities and economic benefits to First Nations and local communities. During operations the Project will generate seasonal and full time employment, while contributing tax revenue to Provincial and Regional governments.

9.3 First Nations

All 18 run of river facilities are located within the asserted traditional territory of the Homalco First Nation. The Malaspina transmission corridor travels from Homalco territory across the traditional territory of the Klahoose, Sliammon, and Sechelt First Nations. The Campbell River transmission corridor traverses the Homalco territory and into the traditional territory of the Hamatla Treaty Society (We Wai Kum Nation, We Wai Kai Nation, and Kwiakah First Nation), and the Comox (K'omoks) First Nation.

Plutonic is committed to working closely with these First Nations to ensure their issues are fully addressed, including those related to the protection of sites with traditional, archaeological or heritage importance. Engagement discussions with these First Nations have been initiated. Plutonic has a strong history of working in partnership with First Nations in all stages of project development, and that business approach is envisioned for the Bute Inlet Hydroelectric Project.

9.4 Social

The Project will help BC meet its growing demand and also help to reduce the frequency of relying on imported electricity, while supporting the objectives of the Kyoto Protocol to the United Nations Framework Convention on Climate Change. The Project will also provide social benefits to First Nations and local communities though economic, employment, and training opportunities. The Project will also fit well with the mandate of the Province to reduce greenhouse gas emissions (GHG).

10.0 LAND USE SETTING

10.1 Ownership and Zoning of Project Area Land

The Project generating facilities are situated on Crown Land, within the Sunshine Coast Timber Supply Area (TSA). The Malaspina transmission corridor will traverse TFL 10 and TFL 39. The Campbell River transmission corridor will traverse TFL 25, TFL 45 and TFL 47 in the Strathcona TSA. Project facilities do not intrude upon the boundaries of any National or Provincial Parks.

Land tenure on Crown Land will be obtained through agreements with the Integrated Land Management Bureau (ILMB). Additionally, numerous Project features will require water licences under the *Water Act* obtained from the Ministry of Environment (MoE).

10.2 Current Land and Water Use Plans in the Project Area

A search of publicly available information identified numerous current and planned land and water resource uses in the vicinity of the Project Area. The search identified:

- The Homalco aboriginal fishery, fish hatchery, and wildlife tours located on the Orford River in the vicinity of the Project area;
- A seasonal logging camp located at the head of the Homathko River;
- Recreational fishing for freshwater fish in the Homathko and Southgate Rivers;
- The Homathko River – Tatlayoko Protected Area, located above the Project area on the Homathko River, consisting of approximately 17, 575 hectares of rainforest and wetlands;
- The Homathko Estuary Provincial Park and rockfish conservation area, located in Waddington Harbour at the confluence of Homathko River and Bute Inlet;
- Three Wildlife Habitat Areas for Marbled Murrelet have been identified adjacent to the Project area;
- Seventeen Wildlife Habitat Areas for Grizzly Bear have been identified adjacent to the Project area;
- Six Land Units that overlap the Project area contain finalized OGMAs, and a further four Land Units are in the draft stages. In addition, one Land Unit that overlaps the Project area contains finalized Ungulate Winter Ranges, and a further seven Land Units contain draft Ungulate Winter Ranges; and
- The Johnstone – Bute Coastal Plan – This provincial land use plan covers the waters and shoreline in Bute Inlet that support a wide range of uses and activities, including First Nation current and traditional uses, commercial and public recreation, aquaculture, recreational and commercial fishing, sports fishing lodges, log handling and storage, marine transportation and navigation.

Consultation with stakeholders is planned to ensure that proposed infrastructure development will minimize impacts on the land and water users/uses that have been identified.

10.3 First Nations Traditional Land Use in the Project Area

During the assessment phase of the Project, First Nation traditional and cultural use assessments will be conducted. Plutonic intends to plan infrastructure development in a manner that minimizes impacts in areas that have been identified through First Nation traditional and cultural use studies.

10.4 Residential Land Use near the Project Area

The nearest residential communities to the Project are Powell River and Campbell River. From Powell River, the transmission corridor is located approximately 20 km away and the closest generating facility is located approximately 100 km away. The transmission corridor terminates in Campbell River and the closest generating facility is located approximately 100 km away. No sensitive human receptors have been identified in the immediate vicinity of the Project area.

10.5 Protected Areas in the Project Area

A search of publicly available information indicated that there are no existing or proposed protected areas or special management areas such as migratory bird sanctuaries, national wildlife areas, marine protected areas, Ramsar sites, western hemispheric shorebird network sites, national historic sites, etc. within the Project area.

11.0 CONSULTATIONS

11.1 First Nations Consultation

Initial consultation activities have been undertaken by Plutonic with each First Nation. Details regarding the nature of each consultation session are presented below. Consultation will continue to occur throughout the Project with all involved First Nations.

11.1.1 Homalco First Nation

The 18 generating facilities and parts of the transmission infrastructure are located within the Homalco First Nation's asserted traditional territory. Some of the engagement activities to date have included:

- On July 3, 2007 the Homalco First Nation, through its company (Bute Inlet Development Corporation), signed a Negotiation Agreement with Plutonic Power. This agreement was a framework for negotiating an Impact Benefit Agreement with the Homalco First Nation.
- Information/permitting workshop held in Vancouver on October 10th and 11th, 2007 attended by Chief and two Councilors.
- A Memorandum of Understanding with the Bute Inlet Development Corporation was signed for Plutonic to fund a Traditional Use Study of Homalco traditional territory.

- On November 22, 2007 an open house was held for Homalco First Nation members at the Homalco Cultural Centre.
- A meeting with held with the Chief, Council and several other community members on February 22, 2008. Plutonic provided an update on the project and general information about the company. Company and project information was available at the meeting.
- A Career Fair was held on March 11, 2008 at the Homalco Cultural Centre. Plutonic, our consultant (Knight Piésold), current construction contractor (Peter Kiewit Sons) and two Job Coaches from the Vancouver Aboriginal Skills Employment Partnership (VanASEP) to give information to the Homalco community on potential training and job opportunities arising from the proposed project in the future.
- On April 22, 2008 a dinner and presentation of the Homalco Tradition Use Study was held at the Homalco Cultural Centre. The event was attended by the Chief, Elders and others in the community.
- Meetings are being held with the Chief and Council on an ongoing basis.
- Consultation will be continuing with the Homalco First Nation regarding Plutonic's proposed Bute Inlet project.

11.1.2 Klahoose First Nation

The Malaspina transmission corridor travels across the Klahoose First Nation's asserted traditional territory. Engagement activities to date have included:

- On January 31, 2007 an Impact Benefit Agreement was signed with the Klahoose First Nation for the Toba Montrose project. The IBA includes a framework for proceeding with negotiations on future projects.
- Consultation with the Klahoose First Nation will be ongoing regarding the possible transmission line routing of the Bute Inlet project through to the Malaspina substation.

11.1.3 Sliammon First Nation

The Malaspina transmission corridor travels across the Sliammon First Nation's asserted traditional territory. Engagement activities to date have included:

- On April 16, 2007 an Impact Benefit Agreement was signed with the Sliammon First Nation for the Toba Montrose project. The IBA includes a framework for proceeding with negotiations on future projects.
- Consultation with the Sliammon First Nation will be ongoing regarding the possible transmission line routing of the Bute Inlet project through to the Malaspina substation.

11.1.4 shíshálh Nation (Sechelt Indian Band)

The Malaspina transmission corridor travels across the shíshálh Nation's asserted traditional territory. Engagement activities to date have included:

- On February 22, 2008 an Impact Benefit Agreement (IBA) signed with the shíshálh Nation for the Toba Montrose project. The IBA includes a comprehensive agreement on how future projects will be addressed, including the right to provide input and participate in the environmental assessments and archaeological investigations in relation to any modification to the Transmission Line Corridor.
- Consultation with the shíshálh Nation will be ongoing regarding the possible transmission line routing of the Bute Inlet project through to the Malaspina substation.

11.1.5 We Wai Kum Nation (Campbell River Indian Band)

The Campbell River transmission corridor travels across the We Wai Kum's asserted traditional territory. Engagement activities to date have included:

- On February 22, 2008 Plutonic met with Chief Robert Pollard as part of the Hamatla Treaty Society. At this meeting Plutonic provided an overview of the company and our proposed projects in Bute Inlet. General information was discussed on IBA's that we have with other First Nations. Information packages were provided that explained Plutonic's proposed generation sites and transmission lines associated with the Bute projects A follow-up letter was sent to Chief Pollard on February 29, 2008 expressing Plutonic's thanks for the meeting and hopes to work together to move the potential project forward.
- A copy of the Bute Inlet project description was delivered to the We Wai Kum Nation on April 17, 2008.
- Consultation will be continuing with the We Wai Kum Nation regarding Plutonic's proposed Bute Inlet project.

11.1.6 We Wai Kai Nation (Cape Mudge Indian Band)

The Campbell River transmission corridor travels across the We Wai Kai Nation's asserted traditional territory. Engagement activities to date have included:

- On February 22, 2008 Plutonic met with Councilor Brian Assu as part of the Hamatla Treaty Society. At this meeting Plutonic provided an overview of the company and our proposed projects in Bute Inlet. General information was discussed on IBA's that we have with other First Nations. Information packages were provided that explained Plutonic's proposed generation sites and transmission lines associated with the Bute projects A follow-up letter was sent to Councilor Assu on February 29, 2008 expressing Plutonic's thanks for the meeting and hopes to work together to move the potential project forward.
- A copy of the Bute Inlet project description was delivered to the We Wai Kai Nation on April 17, 2008.
- Consultation will be continuing with the We Wai Kai Nation regarding Plutonic's proposed Bute Inlet project.

11.1.7 Kwiakah First Nation

The Campbell River transmission corridor travels across the Kwiakah First Nation's asserted traditional territory. Engagement activities to date have included:

- A meeting was held on February 13, 2008 with the N¬anwakolas Council at the office in Campbell River to discuss Plutonic Power and the proposed Bute Inlet project. Frank Volker, the Kwiakah First Nation's Economic Development Officer attended the meeting. An information package about Plutonic Power and the proposed Bute Inlet project were provided at that time.
- On February 22, 2008 Plutonic met with Chief Steven Dick as part of the Hamatla Treaty Society. At this meeting Plutonic provided an overview of the company and our proposed projects in Bute Inlet. General information was discussed on IBA's that we have with other First Nations. Information packages were provided that explained Plutonic's proposed generation sites and transmission lines associated with the Bute projects A follow-up letter was sent to Chief Dick on February 29, 2008 expressing Plutonic's thanks for the meeting and hopes to work together to move the potential projects forward.
- Meetings have been held with the Economic Development Manager for the Kwiakah First Nation and a copy of the Bute Project Description has been provided.
- Consultation will be continuing with the Kwiakah First Nation regarding Plutonic's proposed Bute Inlet project.

11.1.8 K'omoks First Nation

The Campbell River transmission corridor travels across the K'omoks First Nation's asserted traditional territory. Engagement activities to date have included:

- On April 11, 2008 Plutonic met with Chief Ernie Hardy, Councilor Stu Hardy and Band Manager Melinda Knox of the K'omoks First Nation. Plutonic gave an overview of the proposed projects in Bute Inlet. General information was discussed on IBA's that we have with other First Nations. Information packages were provided that explained Plutonic's proposed generation sites and transmission lines associated with the Bute Inlet projects. A follow-up letter was sent to Chief Hardy and Council on April 14, 2008 expressing Plutonic's thanks for the meeting and hopes to work together to move the potential projects forward.
- A copy of the Bute Inlet project description was delivered to the K'omoks First Nation on April 16, 2008.
- Consultation will be continuing with the K'omoks First Nation regarding Plutonic's proposed Bute Inlet project.

11.2 Government Consultation

Consultation with federal and provincial agencies has been initiated and will continue throughout the development of the Project. To date, the main communications have included:

- On March 6, 2008 a meeting was held with Dave Carter (Senior Program Officer) of the CEA Agency. During this meeting the first draft of the Project Description was submitted;
- On March 21, 2008, meetings were held in Victoria, BC with Joan Hesketh, Deputy Minister and Steve Carr, Associate Deputy Minister of MOE; Robin Junger, Executive Director, Brian Murphy, Project Assessment Director, and Greg Ashcroft, Project Assessment Officer, EAO; Gary Townsend, Assistant Deputy Minister and Duncan Williams, Director, MAL. The purpose of these meetings was to provide a strategic level overview of the project to senior executive members of key provincial agencies.
- On April 7, 2008, the Project Description was delivered to the BC EAO;
- On April 16, 2008, a meeting was convened with the BC EAO representatives Kathy Eichenberger (Project Assessment Director) and David Eirikson (Project Assessment Officer). During the meeting, the EAO provided a Section 10 Order under BCEAA; and
- In April 2008, discussions with MPMO representative Adam Hendriks (Director) were initiated.

11.3 Public Consultation

Public consultation will continue throughout the Project, including, but not limited to, the following:

- Public Open Houses in Powell River, Campbell River and Sechelt.
- Powell River Regional District.
- Comox-Strathcona Regional District.
- City of Powell River.
- City of Campbell River.
- Forest Companies active in the area.
- Recreational, tour and guide operators in the area.

12.0 PROJECT DEVELOPMENT SCHEDULE

The construction and development of the Project will be staged due to its size. The major milestones associated with the Project are summarized below:

- Submittal of the Project Description to the BC Environmental Assessment Office and the Major Project Management Office – May 2008
- Complete draft terms of reference – May 2008
- Notice of Awarded Electricity Purchase Agreement (EPA) – Nov. 2008
- Submission of the Environmental Assessment Application – Sept. 2009
- Anticipated Environmental Approval of the Project – July 2010
- Granting of Provincial and Federal Permits – Sept. 2010
- Initiate construction of facilities - 2011
- Early commissioning of some of the generating facilities – 2014
- Final commissioning of the generating facilities – 2016
- Operation of the generating facilities – 2014 through 2114*
- Renegotiation of EPA – 2054
- Renewal of Water Licences and Crown Land Tenure - 2054
- Re-fits and major upgrades of the generating facilities – 2039, 2064 and 2089
- Potential decommissioning of facilities, with potential for plant life extension – 2114*

**The Project lifespan has been estimated at 40 years for financial forecasting purposes. However, existing hydroelectric plants have demonstrated production for over 100 years in many areas of the world.*

13.0 FEDERAL AGENCY INVOLVEMENT TRIGGERING CEAA

The following section summarizes aspects of the Project that would normally require a federal EA to be completed and trigger agency(s) involvement as a Responsible Authority (RA) under CEAA.

13.1 Fisheries and Oceans Canada (DFO) Involvement

Wherever possible and practical, Plutonic proposes to utilize siting, designs and operating procedures that avoid harmful alteration, disruption or destruction of fish habitat (HADD). Examples include maintaining sufficient flows within the diversion reach and downstream of the tailrace, locating intakes (and where possible, tailraces) upstream of fish populations, etc. Despite these efforts, Project facilities and infrastructure including, but not limited to, intakes, penstocks, powerhouses, tailraces, roads, bridges, barge terminals and transmission lines have the potential to affect fish and fish habitat. Table 8 summarizes Project infrastructure that may require Section 35(2) Fisheries Act authorizations prior to construction. Locations of the infrastructure included in Table 8 are illustrated in Figures 1 through 26. Configurations of rubber weir intakes, Coanda intakes, powerhouses, and tailraces shown in Figures 27, 28, 29 and 31, respectively, have been provided for reference. Table 9 provides additional information regarding fish presence relative to Project facilities and identifies the potentially unavoidable HADDs associated with the Project. Background information regarding biophysical characteristics such as general channel width and length of waterbody can be derived from a review of Figures 1 through 26, while specific details relating to each location (e.g. water depth, hydrographs, aquatic and riparian vegetation, barriers to fish passage, marine information, etc.) will be provided to regulators during the assessment phase.

In addition to the infrastructure listed in Table 9, three barge facilities located on Bute Inlet (Potato Point, Southgate, and Orford) will require upgrades that are likely to require Section 35(2) Fisheries Act authorizations. Locations of these barge facilities are shown on Figure 32.

As the Project progresses, Plutonic intends to apply for Section 35(2) fisheries authorizations for unavoidable HADDs, which is expected to trigger DFO to act as an RA and require a review of the Project EA by DFO under the provisions of CEAA.

Another project consideration is the potential discharge of deleterious substances into water frequented by fish per subsection 36(3) of the Fisheries Act. Plutonic expects that any potential releases of deleterious substances (e.g. sedimentation) during operation phase would be negligible and that following protocols outlined in the environmental management plan would minimize any potential effects during the construction phase.

13.2 Indian and Northern Affairs Canada (INAC) Involvement

Construction and improvement of facilities and infrastructure (transmission line, dams roads, barge facilities, etc.) is proposed at locations on or adjacent to reserve land. Road and barge landing designs pass directly through Homalco reserve land. Figures 33, 34 and 35 show locations where the proposed transmission corridor passes adjacent to IR2 Quaniwsom, IR3 Potato Point, IR1 Homalco, IR2A Homalco and IR4 Matlaten. Orford Barge Facility is located adjacent to IR4 Orford Bay and an access road passes through the reserve, as shown on Figures 32 and 36. Potato Point Barge Facility is located adjacent to IR3 Potato Point and an access road passes through the reserve, as shown on Figures 32 and 34. Access road construction/maintenance may require deposition/removal of road materials and timber clearing.

Plutonic anticipates the requirement for INAC to be involved as an RA pursuant to Section 28 of the Indian Act in granting land leases and/or timber clearing rights for First Nation lands where portions of the Project occur on Indian Reserves.

13.3 Transport Canada (TC) Involvement

Construction and improvement of facilities and infrastructure located in, on, over, across, under, or through watercourses (bridges, transmission line, dams (weirs), barge facilities, etc.) are required for completion of the Project. Required infrastructure is presented in Table 8 and locations of these works are identified in Figures 1 through 26 and Figure 32. These works have the potential to affect navigation on the various watercourses associated with the Project. Specific details relating to each proposed facility and location will be provided to regulators during the assessment phase.

Plutonic will seek to obtain concurrent approvals from the federal Navigable Waters Protection Division (NWPD) of TC under Section 5(1) of the Navigable Waters Protection Act (NWPA). Plutonic anticipates that the requirement of these approvals will trigger the NWPD of TC to act as an RA pursuant to CEAA. Relevant information including the location of the work, upland property owners, construction methods, navigational uses and proposed infilling will be forwarded to the NWPD during the assessment phase of the Project.

14.0 REQUIRED PERMITS

The following are the major provincial and federal permits that are expected to be required for the proposed Project. Additional permitting requirements will be assessed as the proposed Project proceeds through consultation with government agencies. The proponent anticipates that applications will be made for these permits concurrent with the application for environmental certification:

- Environmental Assessment Decision Statement under CEAA.
- Environmental Assessment Certificate under BCEAA.
- Water licence under the Water Act – applications previously submitted.
- Licence to occupy Crown land under the Land Act – applications previously submitted.
- Authorizations under Section 35(2) of the Fisheries Act.
- Authorizations under the Navigable Waters Protection Act.
- Permits for accessing across IRs from INAC.
- Licence to Cut under the Forest and Range Protection Act.
- Permits for the camp under the BC Health Act.

15.0 MAJOR PROJECTS MANAGEMENT OFFICE INVOLVEMENT

The provincial-federal harmonized review will be facilitated and streamlined by the Major Projects Management Office of Natural Resources Canada and the BCEAO. This Project Description was initially intended to be distributed to the CEA Agency and BCEAO on April 24, 2008; However, a copy of the MPMO guidance document entitled *Guide to Preparing a Project Description for a Major Resource Project* that was drafted in April 2008, was forwarded to Plutonic on April 22, 2008 with a request that this Project Description conform with its contents. In order to meet this objective, a cross-reference table (Table 10) has been compiled and attached to this document to assist federal and provincial agencies in identifying the location of required information specified in guidance document. Table 10 also identifies both the stage(s) of the Project and future Project document(s) where existing information gaps are anticipated to be filled in and forwarded to the agencies.

Plutonic's plan to fill in existing information gaps in future documents is consistent with generally accepted standard practices under the harmonized federal and provincial environmental assessment process, where proponents undertake these detailed studies either during the environmental assessment phase or during the permitting phase of the Project (i.e., following submission of the Project Description).

16.0 CLOSURE

If you require any clarifications or additional information, please do not hesitate to contact the undersigned.

Sincerely,

PLUTONIC POWER CORPORATION

<original signed by>

Bruce Ripley
President and Chief Operating Officer

Encl:

Figure 1 Rev 2	Transmission Line Alignment Overview with Bute Inlet Projects
Figure 2 Rev 2	Project Access – Homathko River Mainline – Sheet 1 of 3
Figure 3 Rev 3	Project Access – Homathko River Mainline – Sheet 2 of 3
Figure 4 Rev 3	Project Access – Homathko River Mainline – Sheet 3 of 3
Figure 5 Rev 3	Project Access – Southgate Mainline – Sheet 1 of 2
Figure 6 Rev 2	Project Access – Southgate Mainline – Sheet 2 of 2
Figure 7 Rev 3	Project Access – Orford Mainline Road – Sheet 1 of 2
Figure 8 Rev 2	Project Access – Orford Mainline Road – Sheet 2 of 2
Figure 9 Rev 2	Coola Creek Facility General Arrangement
Figure 10 Rev 2	Scar Creek Facility General Arrangement
Figure 11 Rev 3	Whitemantle Creek Facility General Arrangement
Figure 12 Rev 2	Brew Creek Facility General Arrangement
Figure 13 Rev 2	Jewakwa River Facility General Arrangement
Figure 14 Rev 3	Heakamie Creek Facility General Arrangement
Figure 15 Rev 2	Gargoyle Creek Facility General Arrangement
Figure 16 Rev 3	Elliot Creek Facility General Arrangement
Figure 17 Rev 2	Elliot Neighbour Creek Facility General Arrangement
Figure 18 Rev 2	Icewall Creek Facility General Arrangement
Figure 19 Rev 2	Raleigh Creek Facility General Arrangement
Figure 20 Rev 2	Southgate River 1 Facility General Arrangement
Figure 21 Rev 2	Southgate River 2 Facility General Arrangement
Figure 22 Rev 2	Southgate River 3 Facility General Arrangement
Figure 23 Rev 2	East Orford River Facility General Arrangement
Figure 24 Rev 2	North Orford River Facility General Arrangement
Figure 25 Rev 3	Algard Creek Facility General Arrangement
Figure 26 Rev 3	Bear River Facility General Arrangement
Figure 27 Rev 2	Project Intake – Rubber Weir Style
Figure 28 Rev 2	Project Intake – Coanda Screen Style