



KINGSTON SOLAR LP

WELCOME

**SOL-LUCE KINGSTON SOLAR
PV ENERGY PROJECT**

SECOND OPEN HOUSE

**Invista Centre
1350 Gardiners Road
Kingston, Ontario**

4:00 pm to 8:00 pm

Wednesday, August 15, 2012





KINGSTON SOLAR LP

WELCOME

**SOL-LUCE KINGSTON SOLAR
PV ENERGY PROJECT**

SECOND OPEN HOUSE

Odessa Fairgrounds

231 Main Street

Odessa, Ontario


4:00 pm to 8:00 pm

Thursday, August 16, 2012



WELCOME

Thank you for coming to our Open House. We are happy to share our enthusiasm for this clean, renewable energy project with you. We also understand that you have questions about the Project and how it will be built in your community. As such, we invite you to view the display boards, speak to members of the study team, and leave us with your questions and comments.



PURPOSE OF THE OPEN HOUSE

- Present the findings of the Draft REA Reports.
- Update on the status of the Project.
- Answer questions regarding the Draft REA Reports and the Project in general.
- Collect input regarding the Project and best address your concerns.

WHO WE ARE

- Samsung C&T Corporation was founded in 1938 and is the Mother company of the SAMSUNG Group, which has been the driving force behind the astonishing growth of the Korean economy.
 - Samsung C&T Corporation plan to build and operate the world's largest renewable energy clusters in Ontario. Samsung C&T Corporation is proud to be part of this Project in the City of Kingston and Loyalist Township that will bring clean energy, investment and new jobs to the Province of Ontario.
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BUILDING THE ECONOMY

Creates Jobs

- The Project will create local jobs and economic development from construction and operation activities. On average, it is expected that up to 100 persons/month will be employed during construction.


Supports Farmers & Landowners

- Lease payments for farmers and landowners would benefit the local agricultural industry and promote economic stability in the region.

Revitalizes the Local Economy

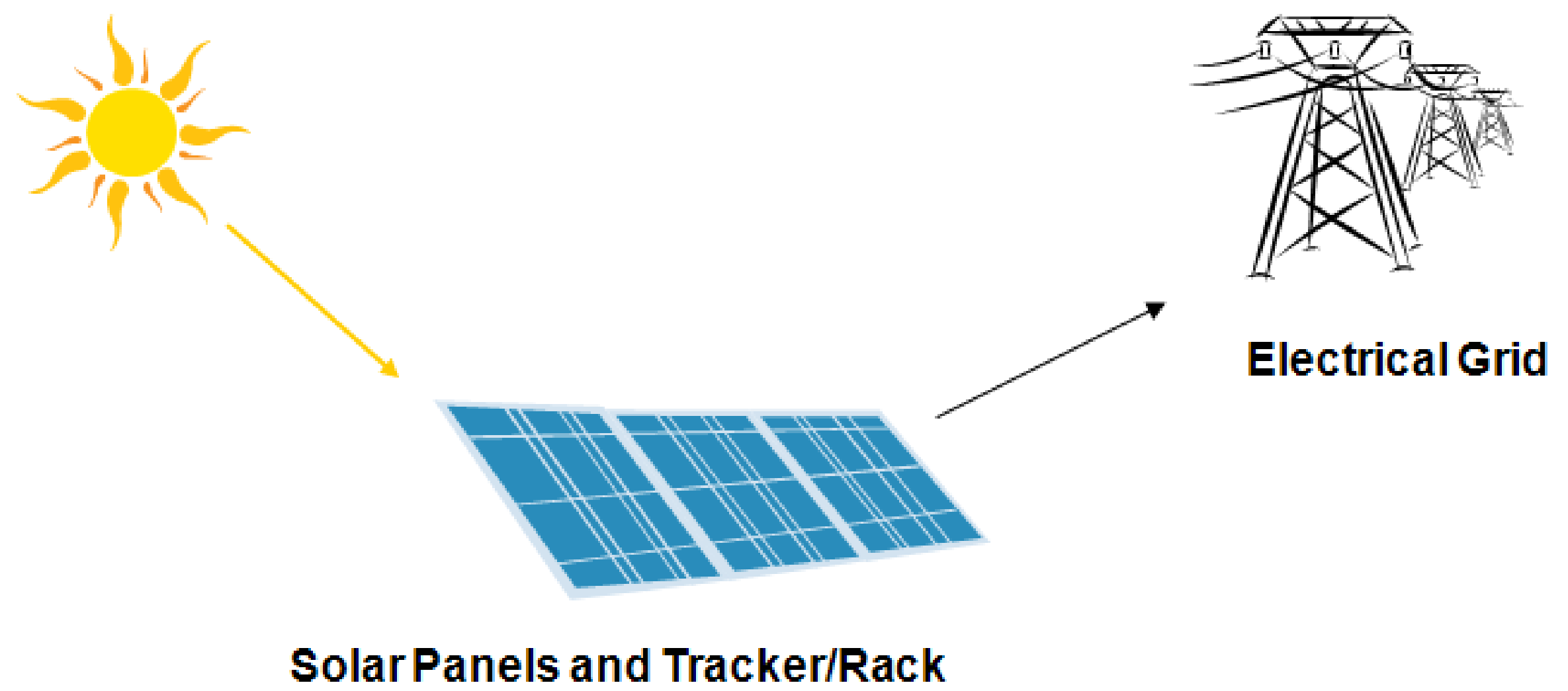
- The Project will provide taxes to support local services and place the City of Kingston and Loyalist Township as leaders in green energy.

Benefit the Province

- Samsung C&T is developing the Sol-luce Kingston Solar PV Energy Project in response to the policies and programs created through the Green Energy Act.
 - Samsung Renewable Energy Inc. and its partners will create 16,000 direct and indirect jobs as a result of their investment.
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SOLAR TECHNOLOGY

- Solar power involves harnessing energy from sunlight and converting it into electricity.



- Photovoltaic cells, distributed in a solar panel, convert sunlight into electric current.
- Solar panels can be installed on rooftops, as free-standing structures, or as rows of mounted panels.



PROJECT OVERVIEW


Project Location

- The Project is situated in the City of Kingston (Countryside District) and Loyalist Township.
- Located on approximately 261 ha of land.

Nameplate Capacity

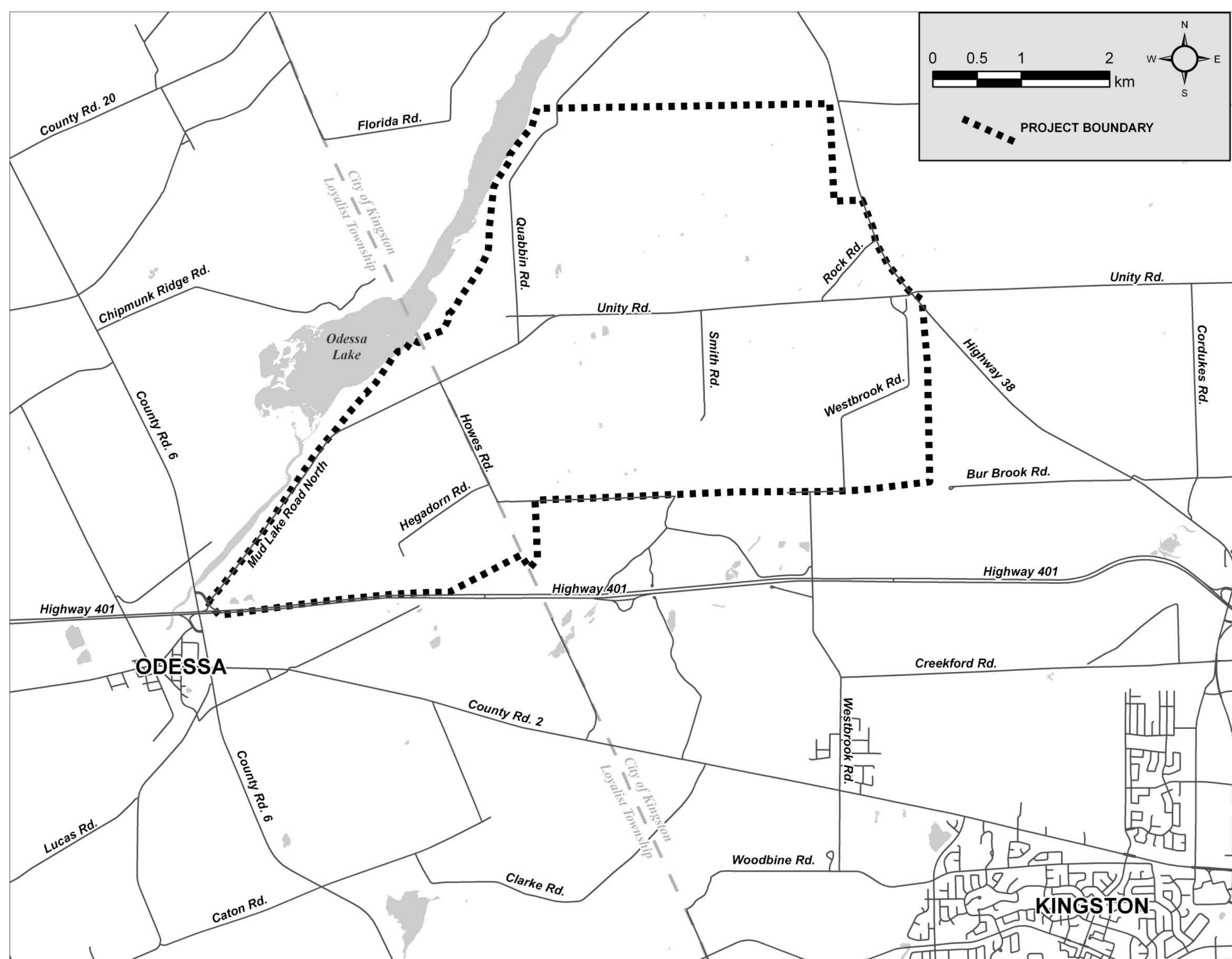
- Up to 100 MW AC (megawatts alternating current).

Facility Component

- Solar photovoltaic panels will be mounted on ground-based racking systems.
 - Underground and/or overhead collector lines to transmit power from the solar panels to a substation.
 - Transformers to convert the collected power to 230 kV for interconnection with the Hydro One Networks Inc. transmission line.
 - Operations & Maintenance and control building located at the substation site.
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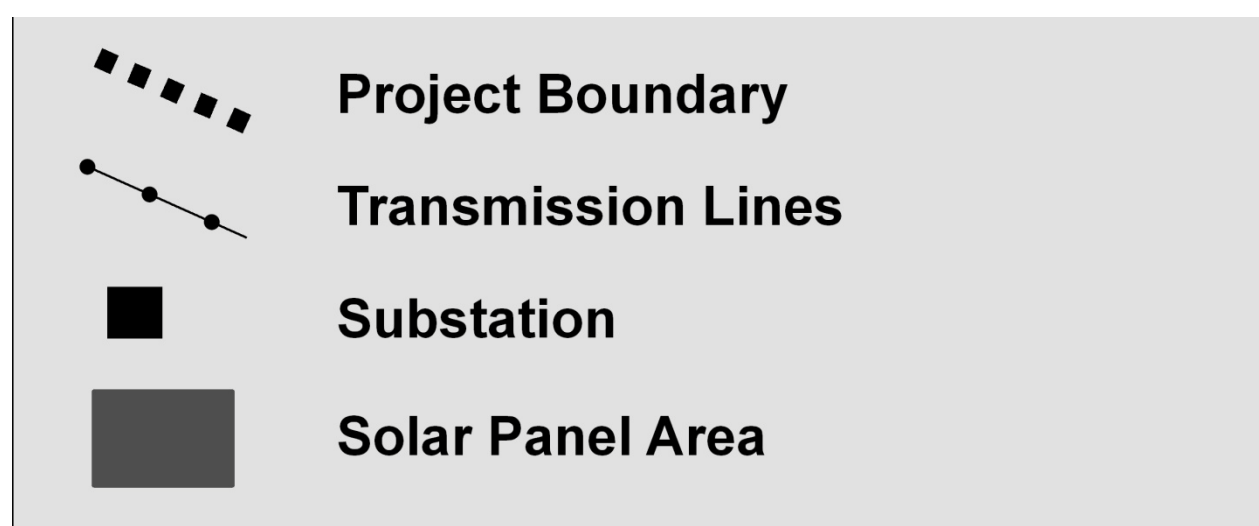
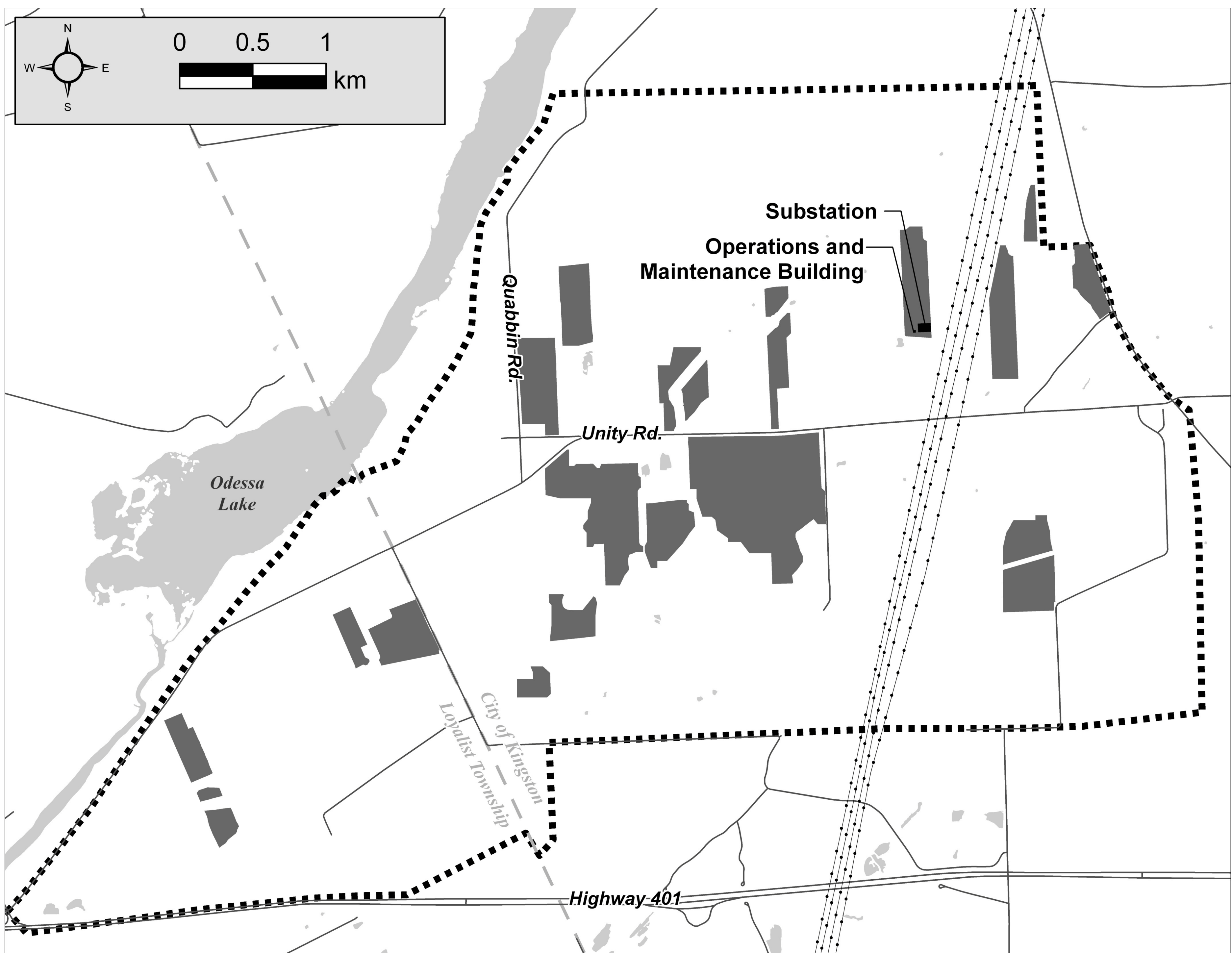
KINGSTON SOLAR LP

PROJECT LAYOUT

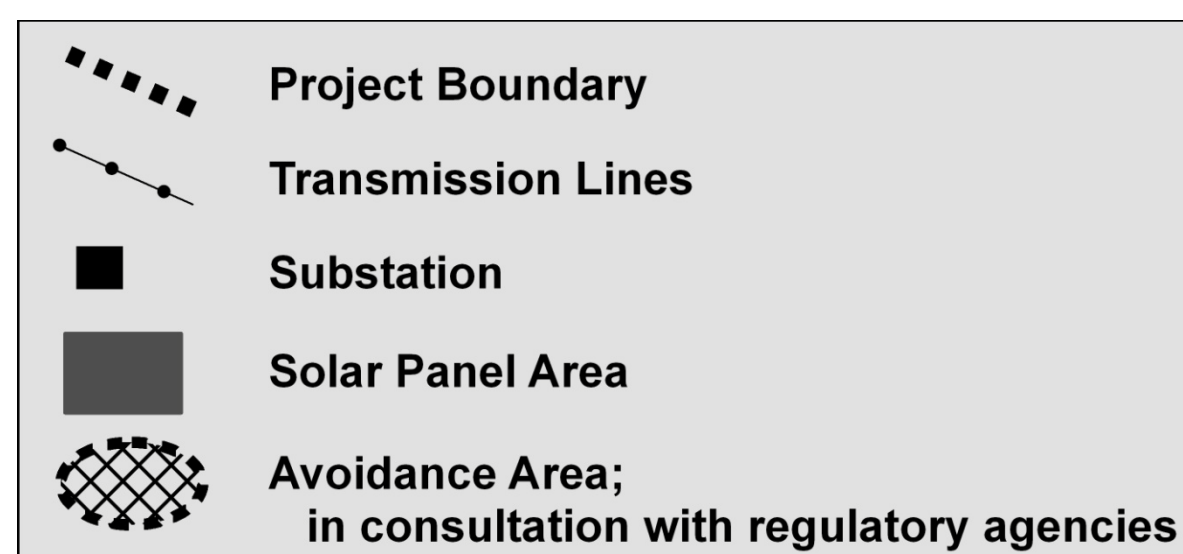
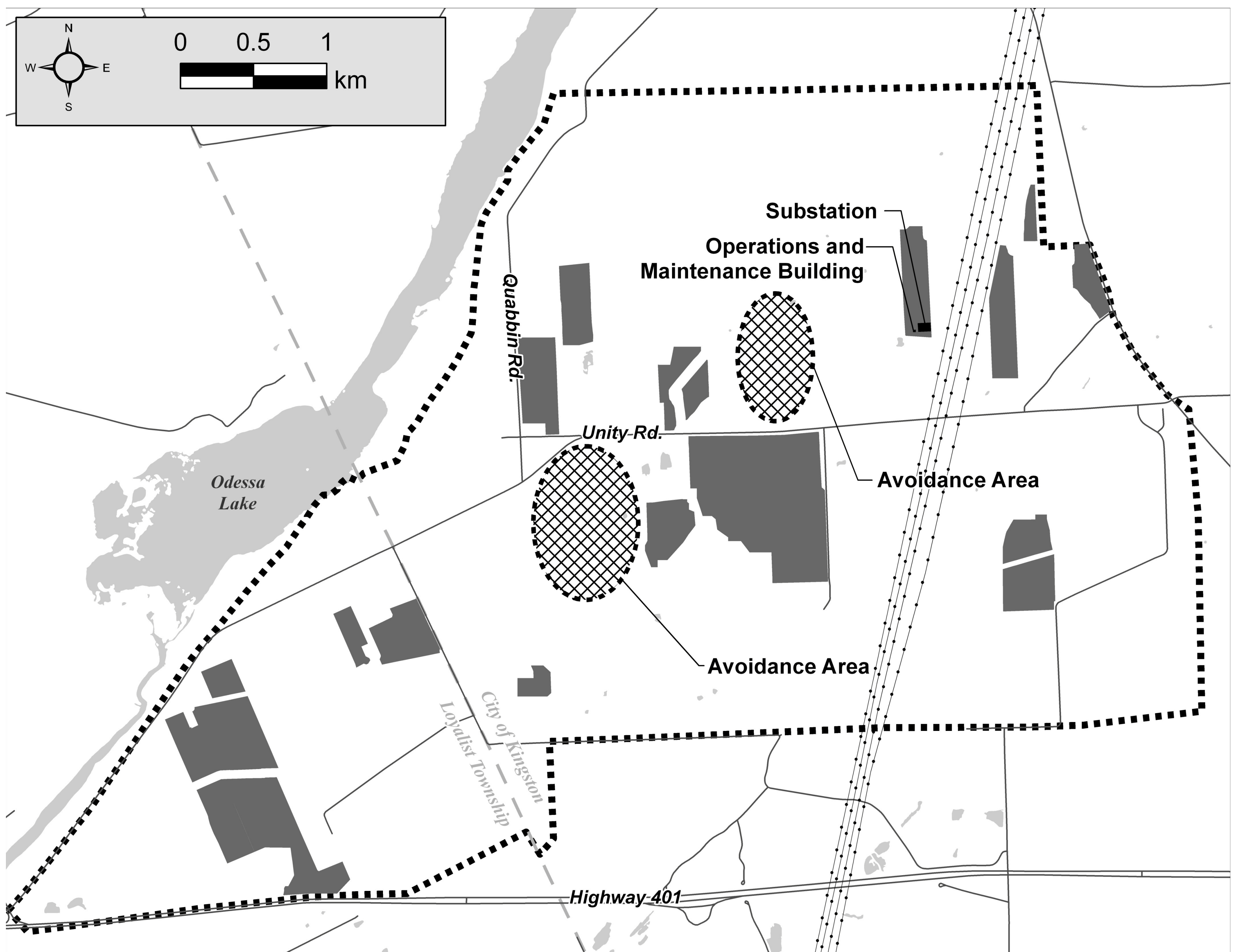


- Numerous factors are considered when determining a project layout including:
 - Land options (i.e., Land that has been leased to Kingston Solar LP for project development);
 - Regulatory requirements (i.e., setback, sound modeling);
 - Natural and socio-economic features (i.e., endangered species, wetland, etc);
 - Archaeological and cultural heritage features;
 - Public input; and
 - Municipal consultation.

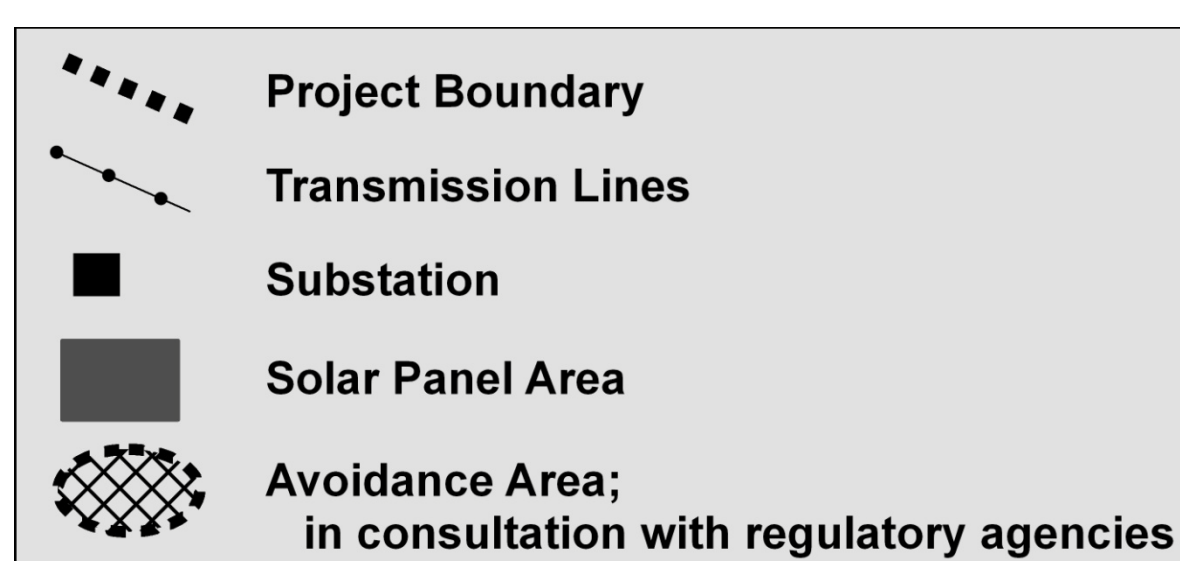
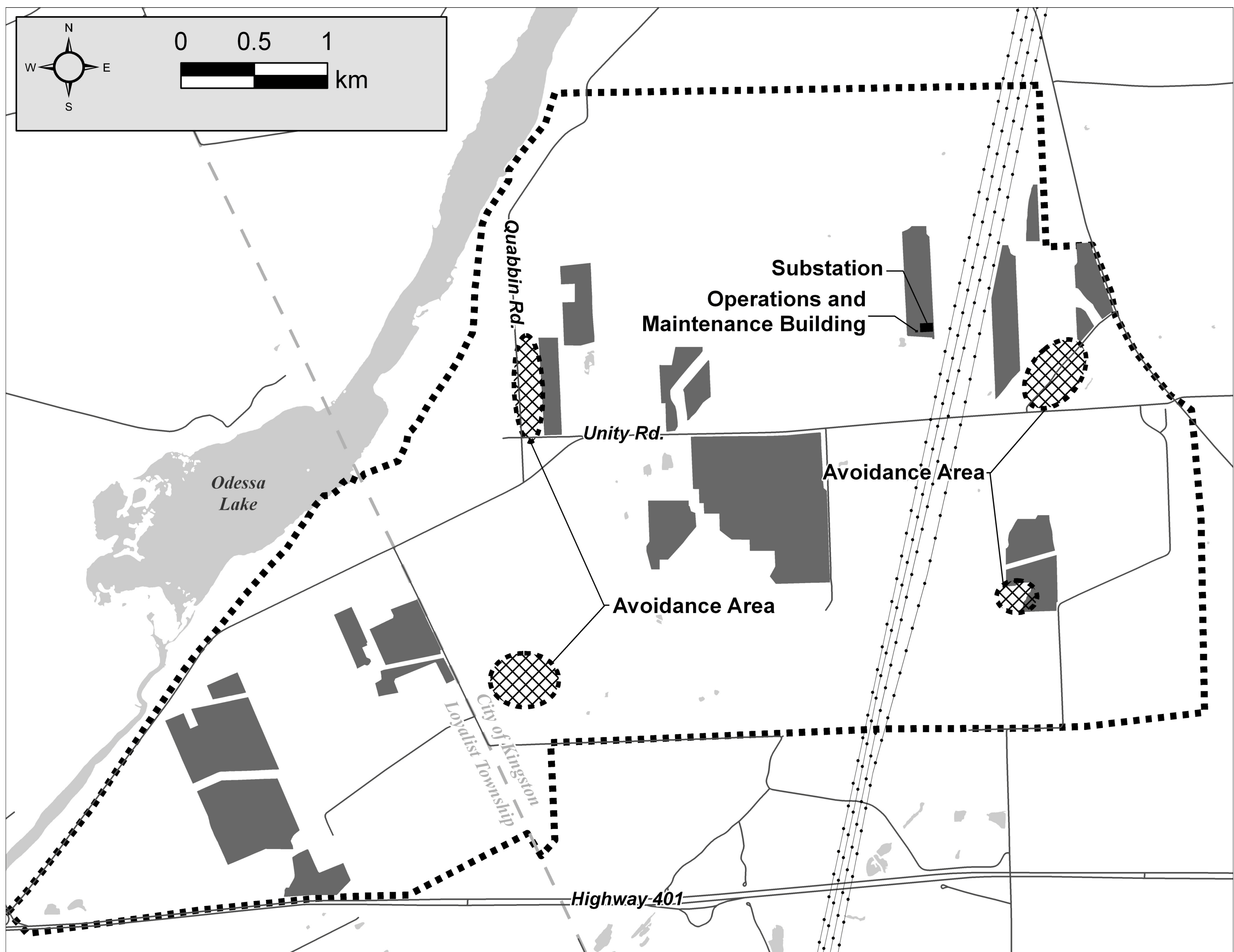
PROJECT LAYOUT *(Beginning of Field Studies)*



PROJECT LAYOUT (Middle of Field Studies)



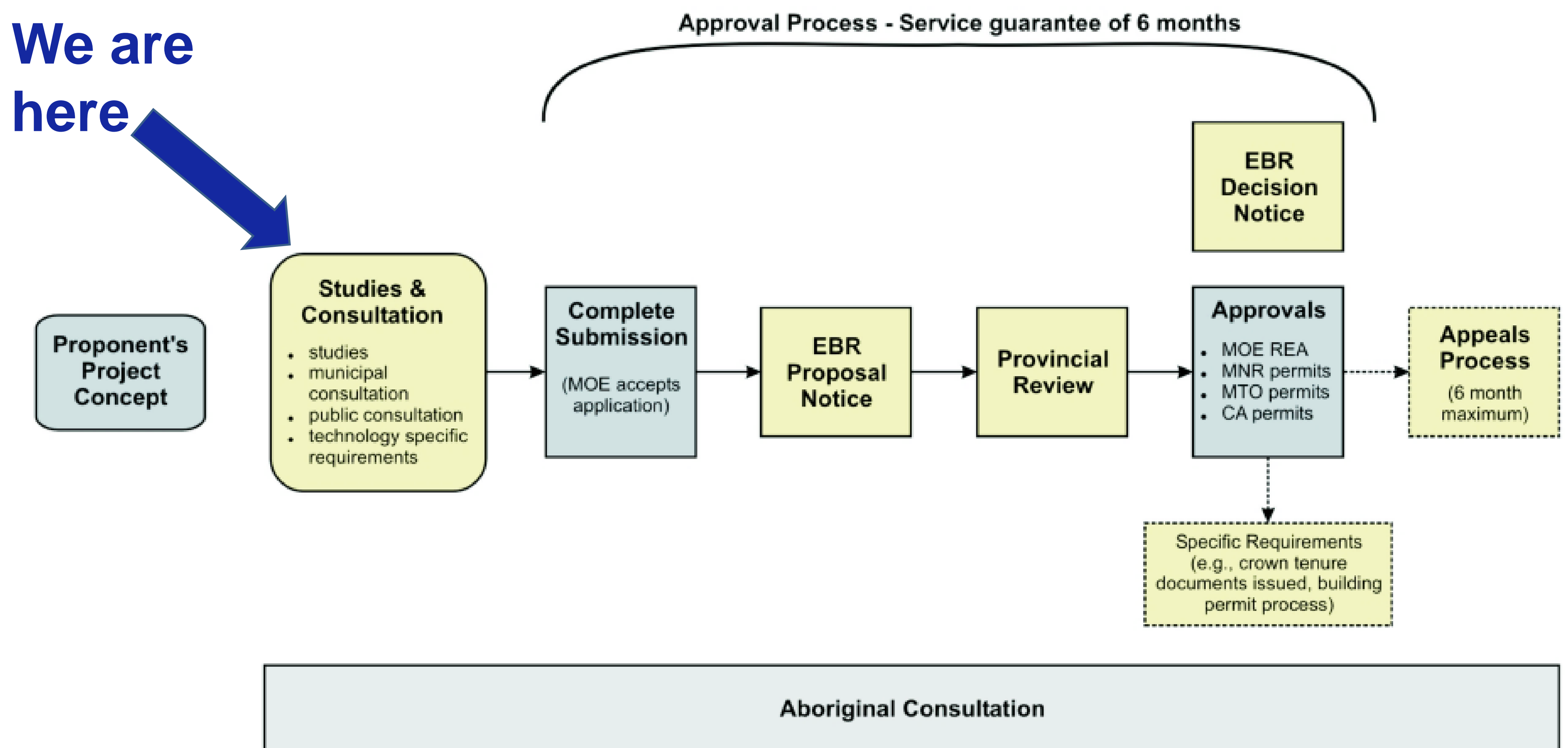
PROJECT LAYOUT (Crystallization of the Layout)



RENEWABLE ENERGY APPROVAL (REA)

- The Project will require a REA, issued by the Ontario Ministry of the Environment, in accordance with Ontario Regulation 359/09 under Part V.0.1 of the Environmental Protection Act.
- The Project is considered Class 3 solar facility, and has specific study and information requirements under the REA process.
- The REA reports will provide information on:
 - project design, construction, operation & decommissioning ;
 - assessment of potential environmental effects of the proposed Project; and
 - mitigation measures and monitoring plans where required.
- The REA reports were made available for public review 60 days prior to this open house.

Renewable Energy Approval Process



REA & PROJECT SCHEDULE

Notice of Proposal to Engage in a Renewable Energy Project and Notice of Public Open House – July

2011

Public Meeting No. 1 – August

Rural Affairs Committee Meeting – February

Loyalist Township and City of Kingston Technical Meeting – March

Interim Community Session – April

2012

Draft REA Notice (Municipality) – May

Draft REA Notice (Public) – June

Public Meeting No. 2 – August

We are here

Public comments on Draft REA Reports due – August 31st [Tentative]

REA submission to MOE – September [Tentative]

Anticipated REA Approval – March [Tentative]

2013

Start of Project Construction – 2nd quarter [Tentative]

Commercial Operation – 3rd quarter [Tentative]

2014

Decommissioning or Repowering – after 20 years

2034

Ongoing consultation with local community, Aboriginal communities, and County

Draft REA Studies Completed

Final REA Studies Completed


Project Approval

OTHER REQUIRED APPROVALS

Building a Project such as the Sol-luce Kingston PV Solar Energy Project requires significant planning and work to obtain all relevant approvals and permitting. Some of the key approvals and permits are listed in the table below:

Permit	Issuing Authority	Regulated Activity
Renewable Energy Approval	Ministry of the Environment	Environmental approval of all Project works and activities.
System Impact Assessment	Independent Electricity System Operator	Required to register with IESO and meet requirements for grid connection.
Generator License	Ontario Energy Board	Permission to operate.
Customer Impact Assessment	Hydro One Networks	Effects of grid connection.
Certificate of Inspection	Electrical Safety Authority	Construction or modification of electrical systems.
Notice of Project Construction	Ministry of Labour	Required to meet labour codes and regulation.
Interference with Wetlands, and Alterations to Shorelines Permit	Conservation Authority	Development of works within floodplains such as water crossings.
Work permit/ agreement for municipal Right-of-Way	Municipality	Work within road allowance and use of road allowance for power lines.
Building Permit		Need to meet local and provincial codes.
Entrance Permit		Permission to connect to municipal roads.

PROJECT DESCRIPTION REPORT

- Describes the Project (facilities, equipment, and technology to be used).
 - Provides details about the activities that will be engaged in as part of the Project.
 - Identifies any negative environmental effects resulting from Project.
 - Identifies required permits and approvals.
 - Provides an overview of the consultation activities.
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NHA/EIS REPORT

The Natural Heritage Assessment (NHA) and Environmental Impact Study (EIS) describes the natural heritage features and evaluates the environmental impact on those features.

Potential Environmental Effects	Mitigation Measures
Breeding Bird Habitat <ul style="list-style-type: none">• Direct impact to some areas of breeding bird habitat but will not affect the overall availability of habitat as large areas of habitat will remain.• There is potential for indirect (short-term construction) impacts to birds due to construction noise and increased human presence.	<p>In areas where breeding birds are expected to be nesting, initial vegetation removal may occur outside the active breeding bird season (May - August).</p> <p>Three years of post-construction bird monitoring will be completed.</p>
Amphibian and Reptile Habitat <ul style="list-style-type: none">• Direct impact on small areas of amphibian habitat; however, there is greater than 100 ha of suitable habitat available.• There is potential for indirect (short-term construction) impacts to wildlife due to construction noise and increased human presence.	<p>Minimize construction activities in reptile and overwintering snake habitat during fall congregation of reptiles and during snake overwintering.</p> <p>Conduct pre-construction surveys in Spring 2013 to confirm habitat use by amphibians.</p>
Woodlands and Wetlands <ul style="list-style-type: none">• The Project results in the removal of 3.4 ha of important woodlands.• 16 wetlands identified as provincially significant will not be impacted by the Project.• There is potential for indirect (short-term construction) impacts to birds and wildlife due to construction noise and increased human presence.	<p>Install silt fencing around active construction sites to contain sediment and reduce potential for wildlife injury.</p> <p>Noise control equipment will be used on construction equipment.</p> <p>Educate construction workforce about the potential for wildlife and measures for avoiding wildlife when possible. If wildlife is injured or killed as a result of construction activities, a trained biologist will conduct a survey in the area of the incident before construction can continue.</p> <p>Daily visual monitoring of mitigation measures will be completed and changes made to the measures where necessary.</p>

ARCHAEOLOGICAL ASSESSMENT REPORT

Stage 1 and Stage 2 archaeological investigations were completed on participating properties within the study area.

Stage	Findings
<p>Stage 1 :</p> <p>Background research to gather historical and land use information</p>	<p>Stage 1 inspection showed that portions of the Project area have archaeological potential. This conclusion was based on three main factors:</p> <ul style="list-style-type: none">• Closeness to water;• Closeness to early historic settlement centres and historic roadways; and• Prior identification of three pre-contact archaeological sites (about 1 km southeast of the Project area).
<p>Stage 2 :</p> <ul style="list-style-type: none">• Ploughed fields were walked and visually inspected fields at 5-metre intervals• Shovel test surveys at 5 to 10-metre intervals where the soil from hand dug test pits was sifted through a mesh screening	<p>Two historic Euro-Canadian finds and six archaeological sites. One of the sites consisted of a solitary pre-contact Aboriginal find that was thoroughly investigated and then removed. The remaining five sites represent mid-19th century to early/mid-20th century features.</p>

- **Conclusions:** Based on the results of Stage 1 and 2 assessments, it was recommended that before Project construction activities Stage 3 assessments (site-specific assessments) be conducted for four sites.

CULTURAL HERITAGE REPORT

Purpose	Purpose was to determine the potential for heritage resources within the Project area.
Conclusions	<p>None of the properties within the Project area are considered Protected Properties under Ontario Regulation.</p> <p>While all the properties within the Project area possess some value due to historical linkages with their surroundings, none are of sufficient cultural heritage value.</p>
Mitigation Measures	<p>Existing vegetation in the Project area will provide visual buffering or filtering of extended views to the Project on interior lands and this vegetation will be kept where possible. Additional visual buffering will be considered for interior properties as detailed design proceeds.</p> <p>Where the solar panels are closer to the roads, mitigation of views may be provided by the installation of screening devices. The locations of screening devices will be determined during detail design and considering the findings of public and municipal consultation, engineering and property constraints.</p>

CONSTRUCTION PLAN REPORT

Provides details about the construction activities (e.g. site clearing and levelling, access roads installation, trenching of underground cables, installing foundations, transporting materials, erecting/wiring of solar arrays, site restoration). For examples;

Potential Effects	Mitigation Measures
Natural Environment Loss of vegetation due to land clearing and disturbance to wildlife during construction activities.	Modifications to the layout were made to avoid placing Project in and around sensitive wildlife habitat and features.
Surface and Fish Habitat Potential to impact to surface water quality and fish and fish habitat due to erosion of soil from the site.	Sediment and erosion control measures will be implemented prior to and maintained during construction
Groundwater Potential effect on local wells due to removal of water from excavations that may lower the local water table. Potential for spills of fuel and fluids from construction equipment to enter the water table.	Construction will not involve deep excavations; contractors will be required to handle and store hazardous materials in accordance with environmental regulations.
Air Quality Exhaust from construction equipment may temporarily impact local air quality. Dust is expected to occur during excavation, levelling, or piling of, soil and from traffic on Project access roads.	All equipment will meet the Ministry of the Environment emissions requirements. Idling of vehicles will be avoided. Equipment will be turned off when not in use. Water will be used in to keep dust down during construction. Disturbed soils will be re-vegetated as soon as possible.
Noise Noise from construction equipment and trucks hauling materials to site could become a nuisance to nearby residents.	Equipment and vehicles will be maintained in good working condition to limit engine noise. All construction and installation activities would take place in accordance with the City of Kingston's and Loyalist Township's noise by-laws.
Public Health and Safety There will be an increase in construction-related road traffic.	A Traffic Management Plan and an Emergency Response Plan will be developed in consultation with the City of Kingston and Loyalist Township and used by the Construction Contractor.

DESIGN & OPERATIONS REPORT

Provides details about key facility structures, facility operations, and possible environmental effects from operating the solar facility and planned mitigation and monitoring measures. For examples;

Potential Effects	Mitigation Measures
<p>Air Quality Exhaust from operations and maintenance vehicles may temporarily impact local air quality around Project.</p>	<p>Idling of maintenance vehicles will be avoided. All equipment will meet the Ministries of the Environment and Transportation emissions requirements.</p>
<p>Surface and Groundwater There is a potential for spills of fuel and fluids from operations equipment to impact surface water quality or enter the water table.</p> <p>No groundwater is required for the cleaning of the panels during operations.</p>	<p>Accidental spills would be limited, of short duration and protocols to minimize effect would be provided in a Spill Response Plan.</p> <p>No chemical cleaning would be used.</p>
<p>Noise Occasional noise from operations and maintenance equipment during maintenance visits to site could be a temporary nuisance to nearby residents.</p>	<p>Operations equipment and vehicles will be maintained in good working condition to limit engine noise. A noise barrier will be installed on the west and south sides of the transformer to meet performance meet provincial requirements.</p>

STORMWATER MANAGEMENT PLAN

Purpose	Developed for stormwater runoff control from the solar facility and substation property based on the Ministry of the Environment and Cataraqui Region Conservation Authority (CRCA) guidelines.
Conclusions	Plan identifies that stormwater runoff from the Project can be managed by the use of erosion and sediment controls and grass berms. <i>Note: Subject to consultation with Regulatory authorities.</i>

WATER ASSESSMENT & WATER BODIES REPORT

Purpose	<p>Summarizes the results of records review and site investigation to determine the presence and boundaries of water bodies within 120 metres of the Project study area.</p> <ul style="list-style-type: none">• Records review completed in consultation with the Ministry of Natural Resources (MNR), Cataraqui Region Conservation Authority (CRCA), Fisheries and Oceans Canada (DFO) and Natural Resources Canada.• Site investigations were completed in October 2011.
Conclusions	<p>The study concluded that protection such as silt fencing and control of site runoff will to protect watercourses.</p>



NOISE STUDY REPORT

Purpose	Sound levels were modeled using an industry standard and Ministry of the Environment accepted noise modeling program.
Findings	<p>Predicted sound levels were determined to not exceed the Ministry of the Environment guideline limits at the points of reception (i.e., nearest residences and vacant lots).</p> <p>Noise from the operation of the solar facility will come from the inverter stations and the substation. Modern designs have significantly reduced the noise levels associated with the units.</p>
Conclusions	Sound levels will not increase due to sound from nearby solar projects.
Mitigation Measures	Construction noise will primarily come from mobile equipment. Work is expected only between the hours of 7:00 AM and 7:00 PM.

DECOMMISSIONING PLAN REPORT

Provides a description of the activities that are to be completed when the facility ends operation and is decommissioned.

Potential Effects	Mitigation Measures
Natural Environment Disturbance to wildlife may occur during dismantling of the solar arrays, access roads, and electrical components due to increased human activity, traffic and noise and dust.	Decommissioning activities will be limited to the pre-assessed footprint area of the Project. No disturbance of habitat will be required.
Surface and Fish Habitat Potential to impact to surface water quality and fish and fish habitat due to erosion of soil from the site.	Sediment and erosion control measures will be implemented prior to decommissioning activities and maintained during the decommissioning phase to prevent entry of sediment into the water.
Groundwater Potential for spills of fuel and fluids from equipment to enter the water table.	Contractors on site will handle and store hazardous materials in accordance with regulation and the Spill Response Plan
Air Quality Exhaust from equipment may temporarily impact local air quality around the Project. Dust is expected to occur during excavation, levelling, or piling of, soil and from traffic on Project access roads.	All equipment will meet the MOE emissions requirements. Idling of vehicles will be avoided.
Noise Noise from equipment and trucks could become a nuisance to nearby residents.	Equipment will be maintained in good working condition. Construction will take place according to City and Township's by-laws.
Public Health and Safety There will be a temporary increase in road traffic during decommissioning activities.	A Traffic Management Plan and an Emergency Response Plan will be developed in consultation with the City of Kingston and Loyalist Township and used by the Contractor.

ADDRESSING STAKEHOLDER'S CONCERNS

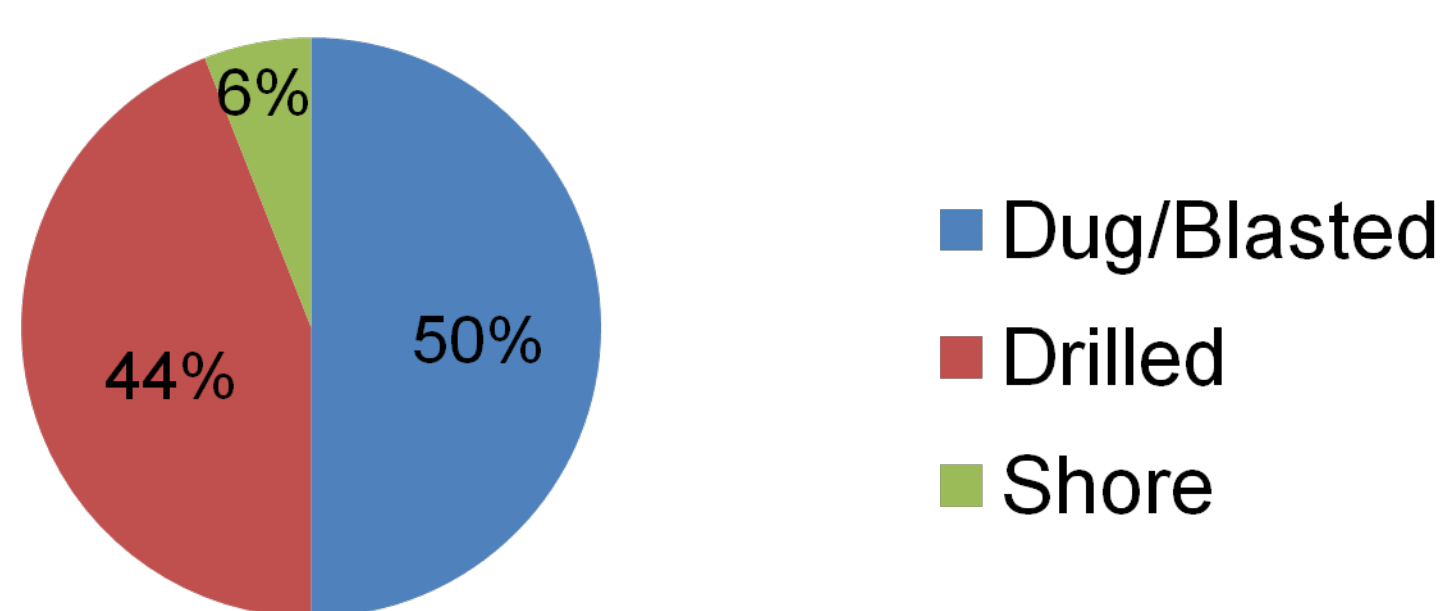
In response to regulatory and public input the following issues will be addressed for the Project:

- Well Water Survey (completed)
- Soil Reclassification
- Visual Impact

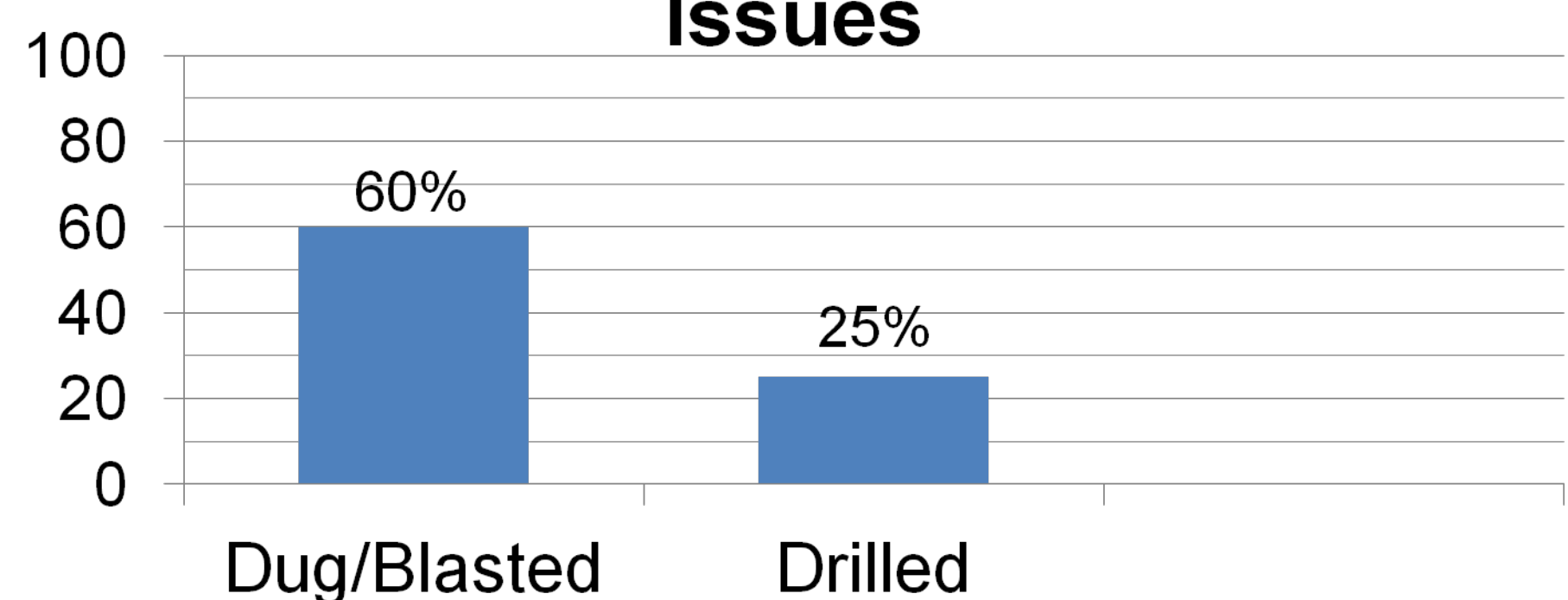
WELL WATER SURVEY

<h3>Objectives</h3>	<ul style="list-style-type: none"> Assess groundwater quality conditions prior to construction. Data used as input into Monitoring/Contingency Program Identify location of groundwater users.
<h3>Methodology</h3>	<ul style="list-style-type: none"> Program based on guidance from the Ministry of the Environment. Identified well users within 500 m of Project sites Sampled un-treated well water samples in June/July, 2012 from a sub-group of properties down flow of Project sites; water analyzed for bacteria, general chemistry and select metals. 60 addressees approached, 32 water samples collected Collected information about well construction, location
<h3>Survey Results</h3>	<ul style="list-style-type: none"> 120 properties within 500 m of solar infrastructure estimated to use groundwater as a potable water supply Of the 32 surveys, the following conditions were observed:

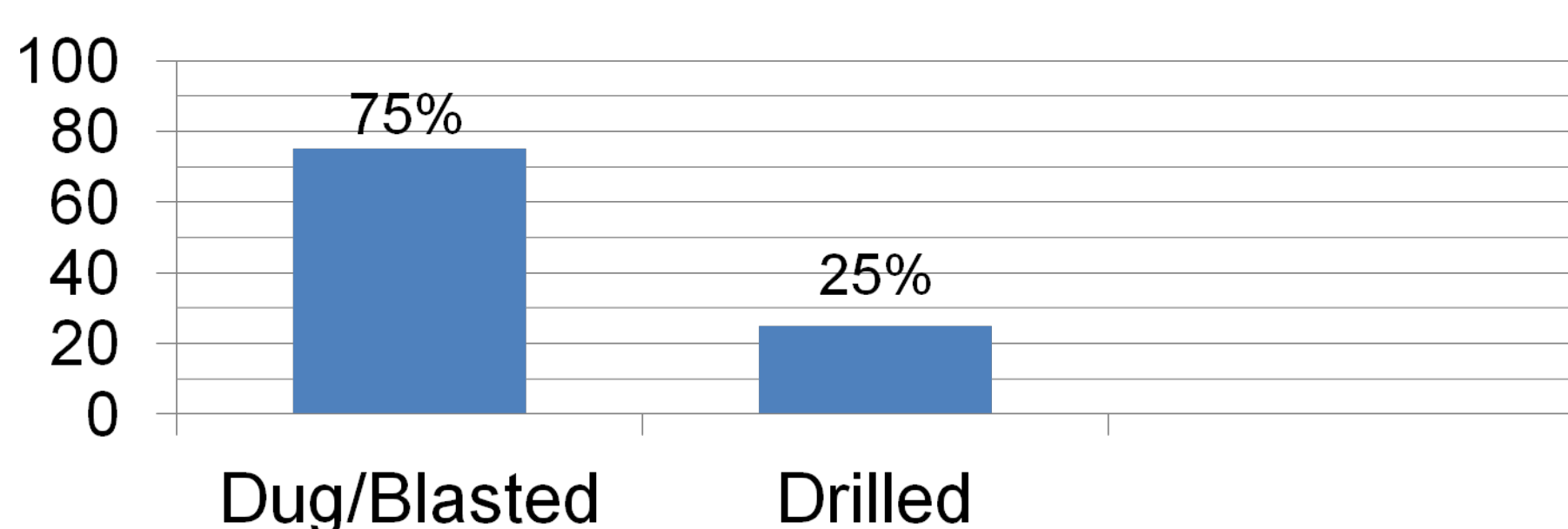
Type of Well



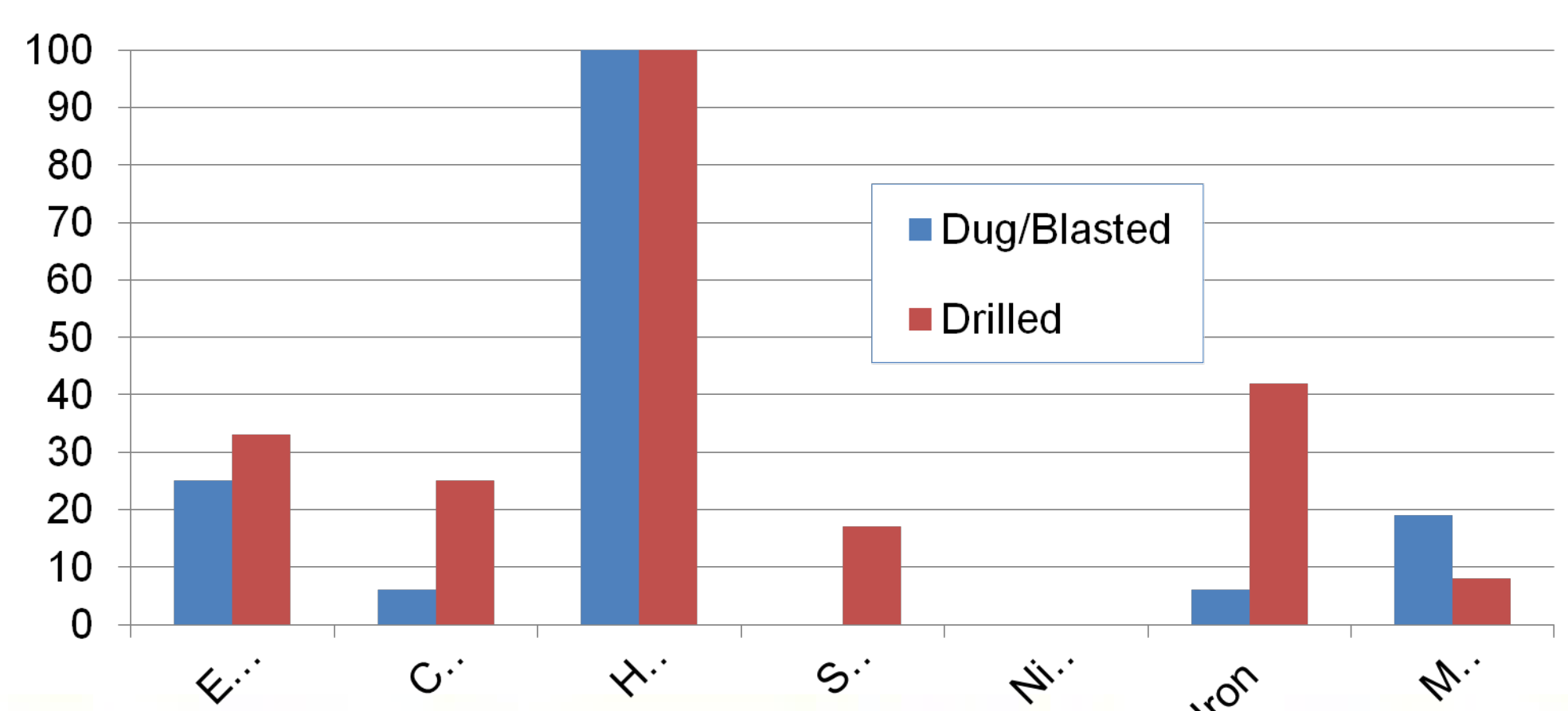
% Reported Water Quantity Issues



% Reported Water Quality Issues



% of Wells with Water Quality Exceedances



ASSESSMENT OF POTENTIAL WATER QUALITY ISSUES

Assessed Issue	Comment/Mitigation/Expected Impacts
CONSTRUCTION RELATED	
Impacts from Accidental Fuel Spillage/Releases from Equipment	<ul style="list-style-type: none"> No bulk fuels/chemicals will be stored on site No equipment refueling to occur within 100 m of wells Hazardous and Non-Hazardous Waste Management Plans will be implement to identify procedures for storage/handling/transportation of construction wastes Construction Emergency Response and Communication Plan will be implemented to ensure proper procedures are followed in the event of a spill/release NO ADVERSE IMPACTS ANTICIPATED
Impacts from Erosion and Sediment Issues	<ul style="list-style-type: none"> Erosion and Sediment control program will be implemented No stockpiling of soils within 100 m of private wells Run-off will not be allowed to pond within 100 m of private wells. Water pumped from excavations will be filtered prior to discharge NO ADVERSE IMPACTS ANTICIPATED
Impacts from Fracturing of Bedrock During Foundation Construction	<ul style="list-style-type: none"> Foundations will be installed in portion of bedrock (top 3 m) that is already heavily fractured, so no significant increase in groundwater infiltration is expected No blasting within 100 m of private wells Foundations installed in areas of overburden will be backfilled with compacted soil Cement used to secure solar panel supports will seal off fractures around foundations reducing risk of vertical groundwater movement along foundation support. NO ADVERSE IMPACTS ANTICIPATED
Impacts from Sewage Disposal	<ul style="list-style-type: none"> Portable washrooms will be used during construction. Waste will be removed by a licensed waste hauler NO ADVERSE IMPACTS ANTICIPATED
OPERATIONS RELATED	
Impacts from Weed Control	<ul style="list-style-type: none"> Chemical-based herbicides will not be used NO ADVERSE IMPACTS ANTICIPATED
Impacts from Spillage/Leakage of Chemicals/Fuels	<ul style="list-style-type: none"> Bulk storage of fuels or chemicals will not occur on site Refueling activities of maintenance vehicle/equipment will be performed off-site Best Management Practices followed for storage of small quantities of chemicals and spills management program implemented Substation transformer will be installed in a concrete pit to provide secondary containment; transformer will be inspected monthly for leaks NO ADVERSE IMPACTS ANTICIPATED
Impacts from Erosion and Sedimentation Issues	<ul style="list-style-type: none"> Stormwater Management Plan will be implemented for run-off control for the substation property and under solar panel areas. Drainage system will be maintained and monitoring on a regular basis. Mitigation measures such as the use of grassed filter strips will be used at down-slope ends of Project sites to improve run-off quality NO ADVERSE IMPACTS ANTICIPATED
Impacts from Sewage Management	<ul style="list-style-type: none"> Washrooms and kitchen at operations building to discharge to a holding tank. Contents will be removed by a licensed waste hauler. Septic Tank will be equipment with a level monitoring system NO ADVERSE IMPACTS ANTICIPATED
Impacts from Cleaning of Solar Panels	<ul style="list-style-type: none"> Cleaning will be occasional only, and will use potable water brought in from off-site. No chemicals will be used. NO ADVERSE IMPACTS ANTICIPATED

VISUAL IMPACT

- Existing vegetation in the Project area will provide visual buffering or filtering of extended views to the Project on interior lands.
- Where the solar panels are closer to the roads, mitigation of views may be provided by the installation of screening devices. The locations of screening devices will be determined during detail design with input from local community and respective agency.
- Prior to construction, Kingston Solar LP will determine an acceptable and practical visual screening, which includes vegetative fencing, berms, tree rows or similar.




INSTALLATION OF SOLAR PANELS



BERM CONSTRUCTION TO MITIGATE VIEW

SOIL RECLASSIFICATION

- FIT Program Rules (version 1.5.1) state that a Project is eligible for the Feed-In-Tariff Program if it is not located on CLI Class 1, 2, or 3 Lands.
 - Soils were re-evaluated by an Agronomist based on texture, stoniness and depth to bedrock.
 - Based on this evaluation and a decision by applicable authorities, any area determined as Class 1, 2 or 3 Lands will not be further developed.
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WE WELCOME YOUR FEEDBACK

Please share your thoughts with us by filling out a feedback form.

Please contact the following for more information:

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