

## SECTION 9 NON-ATTAINMENT NSR ANALYSIS

As previously stated in this application, the proposed CRE facility is subject to non-attainment New Source Review analysis because the proposed site is located in the Northeast Ozone Transport Region ("OTR"). Additionally, since NO<sub>x</sub> emissions are greater than 100 tpy, this ozone precursor is subject to review under 25 Pa. Code Section 127 Subchapter E for New Source Review. This regulation was updated on July 25, 2007, and remains part of Subchapter E. Because the site area is classified as attainment for all other criteria pollutants, these other pollutants are to be evaluated under PSD requirements.

As part of the NSR requirements, PA DEP cannot issue a plan approval unless the applicant demonstrates that the following special conditions in 25 Pa. Code Section 127.205 (Special Permit Requirements) are met:

1. A new facility shall comply with LAER.
2. Each new facility shall offset the projected actual emissions from the facility with Emission Reduction Credits (ERCs) in accordance with Section 127.210.
3. For new facilities that exceed the significance levels in Section 127.203, an analysis shall be conducted of alternative sites, sizes, production processes and environmental control techniques for the proposed facility, which demonstrates that the benefits of the proposed facility outweigh the environmental and social costs imposed within the Commonwealth as a result of its location, construction or modification.

### 9.1 LAER Evaluation

#### 9.1.1 Nitrogen Oxides (NO<sub>x</sub>)

BACT and LAER determinations were made based on a technology review in Section 5 of this application. For NO<sub>x</sub>, CRE has determined that the implementation of RSCR (*i.e.*, Regenerative Selective Catalytic Reduction) qualifies as LAER control. CRE believes that this will be the first installation of RSCR on a CFB unit.

#### 9.1.2 Volatile Organic Compounds (VOCs)

Because VOC emissions are less than significant for this project, a LAER analysis for VOCs is not required. Nevertheless, a top-down analysis was conducted for VOC emissions in Section 5 of this application. In this regard, CRE has determined that good combustion practices would qualify as LAER, BACT or BAT for CFB units. Under applicable Pennsylvania requirements, a demonstration of BAT is required.

### 9.2 Section 127.210 Offset Ratios

The following Emission Offset Ratios have been established for ozone non-attainment areas and for sources, located in the OTR, that are subject to the conditions in 25 Pa. Code Section 127.203.

**Table 9.2-1  
Offset Ratios**

<b>Air Pollutant</b>	<b>Flue Emissions</b>	<b>Fugitive Emissions</b>
<b>Nitrogen Oxides</b>	<b>1.15 : 1</b>	<b>1.15 : 1</b>
<b>Volatile Organic Compounds</b>	<b>1.15 : 1</b>	<b>1.3 : 1</b>

Based on the above ratios, the following ERCs must be obtained for this project:

#### 9.2.1 **Nitrogen Oxides (NO<sub>x</sub>) Offsets**

Potential NO<sub>x</sub> emissions have been estimated to be approximately 252.96tpy. Applying an offset ratio of 1:15 indicates that 291 tons of ERCs must be obtained. The facility is committed to securing 291 tons of NO<sub>x</sub> ERCs. An application to use the acquired ERCs will be submitted in sufficient time that they can be approved in a Plan Approval prior to startup. Other applicable provisions in 25 Pa. Code Section 127.208 will be met in securing these offsets.

#### 9.2.2 **VOC Offsets**

Potential VOC emissions have been estimated to be approximately 27.6 tpy from this new electric generating facility. Because VOC emissions from the facility will be less than 50 tpy, VOC emission offsets are not required under the non-attainment NSR provisions in Subchapter E.

#### 9.3 **Alternate Site Analysis**

PA DEP has not established specific procedures for an Alternate Site Analysis (ASA) required under 25 Pa. Code Section 127.205(5). Based on an evaluation of the site criteria, and in light of the economic and environmental benefits associated with this project, no other suitable sites in the Crawford County area were identified, and no other Regional sites can match the potential benefits of this location. The site is also located in a Keystone Opportunity Zone (KOZ), which makes it quite attractive. Included in the remainder of this section is a comprehensive ASA for the proposed facility developed in conjunction with this application.

#### **Executive Summary**

Crawford Renewable Energy, LLC ("CRE") plans to develop an electric generating plant in Crawford County. In doing so, CRE has focused on developing a plan which offers numerous short-term and long-term benefits to the Crawford County area.

CRE will prepare the site, and design and construct a facility to generate electrical power by processing fuel derived from tires, which is a virtual "renewable" source of fuel. The electricity will be sold to large local customers and to the regional electric grid. This plan includes the construction of a building (the "Plant") to house the processing units that will generate a projected 90 MW of net electrical power from approximately 900 tons per day of tire-derived fuel ("TDF"). The tires and the TDF will be stored on-site inside a state-of-the-art building with a fire prevention system.

CRE, with a satellite office located at 240 West 11<sup>th</sup> Street, Erie, Pennsylvania 16501, is the company that will implement the project described herein. The company is comprised of Caletta Renewable Energy, LLC, a developer of renewable energy projects in the Northeast United States with active projects in MA, RI, CT and MD; Valley Property Management, LLC; the Mark & Anita Bauerly Family Limited Partnership; and a consortium of Erie area developers, Conservation Development Associates, LLC.

CRE is currently negotiating long-term contracts with several logistic and waste management companies in the United States to supply the TDF.

**The Technology**

CRE will employ circulating fluidized bed (“CFB”) technology to convert TDF into a combustible compound that can be fired in boilers to produce steam that will power a steam turbine and produce the electricity. The current technology supplier for the CRE project, Sumitomo Heavy Industries (“SHI”), is an experienced manufacturer of CFB power plant technology throughout the world, and SHI continues to provide innovative fluidized bed solutions for unique industry applications.

In its world-wide quest to ensure that the Plant will feature the “Best Available Technology” (“BAT”), CRE researched in-depth an alternate enhanced “bubbling” fluidized bed system with a second leading international technology supplier. This enhanced technology was studied within the scope of environmental controls and emissions, all with a focus on BAT. After researching all available technologies in this sector, CRE chose SHI because of its experience in building CFBs that use TDF as the primary fuel supply.

**Power Purchase Agreement**

CRE is negotiating with a regional power distributor to sell the 90 MW of net power, and negotiations will be undertaken to sell a large portion of the power to Penelec, a division of First Energy. Power Purchase Agreements are now being discussed by consultants to CRE with potential large consumers and First Energy. CRE also intends to approach the Northwestern REC for possible power purchase and distribution agreements.

**Project Budget**

Site Preparation		\$ 12,000,000
Construction of New Building:		
Industrial Space	70,000 Square Feet	\$ 49,000,000
Office Space	5,000 Square Feet	\$ included
Production/Technology - Installed		\$143,000,000
Pollution Control (process related) - Installed		\$ 55,000,000
Fees Related to the Project		
Process and Facility Engineering, Environmental Services & Architectural Fees		\$ 30,200,000
Development and Contingencies		\$ 15,600,000
Financing Cost and Interest		\$ 31,800,000
<b>Total Project Cost</b>		<b>\$336,600,000</b>

**Permitting Path and Community Support**

CRE has selected an 80-acre “brownfield” site at the Keystone Regional Industrial Park developed by the Economic Progress Alliance of Crawford County; and has hired Passport Development, LLC (“Passport”), whose principals operated formerly as Tecnica Development Corp., as the lead development consultants

for the local and state permitting efforts. In addition to their work on this project and a previous similar project proposed for the Erie area, Passport's principals have extensive experience with successful permitting of large-scale projects with significant environmental components, and in the development of other corporate and entertainment facilities in Western Pennsylvania. During the construction of these large-scale projects, Passport's principals have established working relationships with the NW Office of the Pennsylvania Department of Environmental Protection ("PADEP") and multiple municipalities.

The permitting path thus far has included a systematic approach during which CRE will pursue or has pursued the following steps: (1) conduct a careful analysis of the proposed emissions from the Plant; (2) submit the emissions analysis to PADEP, which will review the analysis to ensure that all emissions are at or below acceptable permitting standards; (3) following extensive review by PADEP and ample opportunity for PADEP to receive public comment, and provided that the emissions are shown to be in conformance with all applicable PADEP requirements, PADEP will issue an "Air Permit" for the Plant (which is technically known as the Air Quality Plan Approval); and, (4) once the Air Permit is received, CRE will commence construction. The permitting process is expected take 3-6 months, and construction will take approximately 18-24 months, allowing for a projected completion date for the Plant of approximately March 1, 2013, with operations to commence in the second quarter of 2013.

The site which will be utilized for the Plant is currently owned by HON Industries, Inc., which had planned development of the site several years ago. In connection with its planned development, HON worked with the Economic Progress Alliance to construct a 250,000-gallon, glass-lined water tank on the site which will be utilized for safety purposes as well as water storage and pressure stabilization purposes.

Located in the southern tip of Crawford County, the Keystone Regional Industrial Park is 1,300 acres of property for purchase with no zoning regulations. It is easily accessible from Exit 141 of Interstate 79. The Park is the Commonwealth's largest contiguous Keystone Opportunity Zone site and a PA Select Site designation meeting very specific standards that are industry based and market driven.

- Keystone Opportunity Zone until December 31, 2011
- 1,300 acres for sale
- sub-dividable
- type: greenfield
- National Fuel gas
- common sewage treatment plant
- Penelec or Northwestern REC electric
- 17 well water systems available to be tapped into
- 3,000 feet from the I-79 Geneva interchange
- mainline rail service through Norfolk Southern

### **Project Benefits**

#### **Energy**

According to the U.S. Department of Energy, 356,000 MW of additional electricity capacity will be required in the U.S. by 2025.. The CRE Plant offers Pennsylvania the opportunity to expand the portfolio of renewable and alternative energy producers with sustainable production of "firm" and reliable power.

The Plant will generate approximately 90 MW of essentially-renewable energy and serve as a model for a new way to provide for the energy requirements of the Commonwealth.

### **Environmental**

The disposition of tires is a significant problem in Pennsylvania. Although substantial progress has been made in recent years by PADEP in dealing with the steady accumulation of tire piles across the Commonwealth, Pennsylvania and surrounding states continue to generate and accumulate millions of scrap tires each year. Some of these tires are recycled in various ways, but tire accumulation continues to pose a threat to public health and safety. In fact, discarded tires are a main breeding ground for mosquitoes which potentially carry West Nile virus. Developing new uses for waste tires, like fueling the CRE Plant, are critical for the success of the initiative to reduce and eliminate these piles. As a much better alternative to stockpiling or land-filling waste tires, the Plant will convert tires into renewable energy with the low emissions characteristic of a CFB system. The reduction in greenhouse gases produced will be in excess of 300 cubic meters of total gases per ton of feedstock with all of the methane and all but 24 cubic meters of the CO<sub>2</sub> eliminated.

The definition of "renewable" is being constantly refined in the environmental arena. To stem our dependence on foreign oil, elected officials at the state and federal levels have proposed a far-reaching range of new legislation that emphasizes production of energy using alternative fuels, the more renewable the better. CRE believes that TDF is properly characterized as renewable in light of the fact that over 300 million waste tires are generated in the United States each year, and that number is constantly rising.

### **Economic Benefits**

The dual CRE strategies of processing fuel from waste tires and using the fuel to produce energy each have positive revenue streams attached to them. Converting waste tires into fuel for energy generation creates two economic opportunities: (1) by producing energy in a profitable manner through a stream of income generated by receiving and processing waste tires into fuel; and (2) by selling generated electricity. Put more simply, it is an opportunity to create power with a negligible cost of goods, free of pricing and supply issues associated with natural gas and oil imports.

Current methods used to produce bio-fuels and ethanol are creating very significant price increases in the agricultural segments of our economy, leading to predictions of global food shortages and related inflation. In contrast, CRE's primary fuel source is a waste that might otherwise be buried in landfills or illegal stockpiles.

In addition, the CRE Plant will provide the following economic benefits to the local Meadville area:

- Create a significant number of new permanent and part-time jobs in the Meadville/Greenwood Township area:
  - Approximately 180 construction jobs over a period of 16-18 months
  - Approximately 60 full-time jobs in plant operations with an average annual salary exceeding \$50,000.00
  - Approximately 240 full-time spin-off jobs
- Attract new business, especially high-tech, with cost-effective production of power
- Increase the local industrial tax base and green power for industrial development
- Reduce the costs associated with biomass, solid waste transportation and disposal
- Position Crawford County, Greenwood Township and Pennsylvania as nationwide leaders in renewable energy generation

### **Waste Tires**

According to the U.S. Environmental Protection Agency ("EPA"), there are at least 275 million waste tires in stockpiles throughout the United States. In addition, hundreds of millions of waste tires are generated annually. EPA estimates that approximately one waste tire per person is currently being generated each year in the United States, which equates to well over 300 million tires each year. Tires that are not beneficially reused either end up occupying valuable landfill space, or worse, are illegally disposed of in streams, fields, woodlands, or other areas harmful to the environment and public health.

As with many states, Pennsylvania has its share of waste tire problems. In 1996, for example, a fire at an illegal tire dump in Philadelphia destroyed a 1,700-foot section of bridge on Interstate 95, causing the bridge to collapse from the intense heat. According to the Pennsylvania Department of Transportation ("PennDOT"), millions of dollars were spent repairing the damage. In addition, PADEP, with the help of county and local governments, completed the cleanup of three large scrap tire piles that contained over 3.2 million tires in recent years. The piles had been the source of much public concern and controversy due to the hazards they posed as a fire threat and a health threat (specifically disease-causing vermin and mosquito breeding, often with West Nile virus implications). PADEP has estimated that Pennsylvania generates approximately 12 million waste tires annually.

The CRE facility will provide a productive, common-sense solution to the ongoing problem of waste tires by processing approximately 800-900 tons per day to be provided by several collection and distribution firms operating in a 500-mile radius.

### **Addressing Energy Needs**

As previously mentioned, according to the U.S. Department of Energy, the United States will require an additional 356,000 MW of electrical power by the year 2025. Here in Pennsylvania, Governor Rendell's innovative Energy Independence Strategy is focused on the creation of renewable and alternative energy sources that will bring affordable, reliable, and secure sources of electric power and fuels to guarantee a robust economy and high quality of life in the Commonwealth. The Governor's plan emphasizes the production of power from non-fossil fuel sources with the resulting creation of new industries, new jobs, and economic growth.

The CRE facility will address part of Pennsylvania's increasing demand for electric power by generating 90 MW of energy from a non-fossil fuel. In addition, CRE offers Greenwood Township and Crawford County an economic opportunity with the creation of approximately 300 new permanent jobs, increased tax revenues from the construction of a \$336+ million sustainable energy facility, and a source of reliably-priced power. Crawford County can extend its efforts to become a center of excellence by demonstrating an entrepreneurial solution to energy needs.

### **The CRE Facility as part of the Waste Tire and Energy Solution**

Because of their high heating value and steady supply, waste tires are a reliable source of fuel. Increasingly, government regulators are reaching the conclusion that recovering energy from waste tires is preferred over disposal (especially illegal dumping). Although using tires as a fuel source is not technically considered recycling, it is considered beneficial use. This is particularly true of TDF, which results from processing waste tires to remove steel and reduce the size of the tires to manageable "chips." In other words, processing waste tires into TDF results in tackling the waste tire problem, conserving diminishing landfill space, recycling valuable steel, and beneficially reusing tires to create needed energy.

**EPA's view of TDF as a Fuel Source**

At the federal level, the EPA supports the highest and best practical use of waste tires in accordance with its waste management hierarchy, in order of preference: reduce, reuse, recycle, waste-to-energy, and disposal at an appropriate facility. The EPA views disposal of waste tires in piles as unacceptable due to the risks posed.

Based on over 15 years of experience with more than 80 facilities, EPA recognizes the use of TDF as a viable alternative to the use of fossil fuels. According to the EPA, there are several advantages to using TDF:

- TDF produces the same amount of energy as oil and 25% more energy than coal.
- Ash residues from TDF may contain lower heavy metals content than coal.
- TDF results in lower nitrogen oxides ("NO<sub>x</sub>") emissions than many U.S. coals, particularly high-sulfur coal.
- TDF generates approximately 30% less carbon dioxide ("CO<sub>2</sub>") than coal.
- Use of TDF reduces the amount of fossil fuels that would otherwise be consumed.
- TDF is less expensive than fossil fuels.
- Diversion of tires from landfills reserves needed landfill capacity for other solid wastes.
- Use of TDF eliminates waste tire piles, which pose risks to public health and safety because: a) they provide habitat for disease vectors (such as mosquitoes and rodents); and b) they can catch fire, creating large amounts of toxic smoke and hazardous liquids that can contaminate air, water, and soils.
- TDF offers the potential advantage of decreasing emissions of sulfur oxides ("SO<sub>x</sub>") when used to replace high sulfur coal.

CRE is relying on empirical evidence derived from actual CFBs currently operating throughout Asia, where accurate emissions and power production readings were able to be obtained and observed first-hand. These CFB facilities operate safely, efficiently and in compliance with all applicable environmental requirements. CRE has concluded after significant study and research that the SHI-provided CFBs possess superior technology and quality for the specified application.

As a result of its findings, EPA supports the responsible use of tires as a fuel source, so long as the facilities: (1) have a tire storage and handling plan; (2) have secured a permit for all applicable state and federal environmental programs; and (3) are in compliance with all the requirements of that permit.

**Crawford Renewable Energy's Advanced Technology Facility**

CRE plans to develop a 90 MW dedicated tire-to-energy facility using TDF as its fuel source. The facility will operate on approximately 800-900 tons of waste tires per day, and will process the tires on-site into useable TDF. The project is designed to generate electrical power for sale to regional markets at a rate more favorable than prevailing rates. The facility will include buildings to house the generating units, tires, tire processing equipment, and processed TDF. CRE's generating operation will be almost entirely under roof.

CRE's facility will employ CFB technology to process TDF feed-stocks and produce the quantity and quality of steam used to drive steam turbines to generate electricity. This technology has been in use since the 1970s, and has a demonstrated track record of high operating reliability.

CFB combustion systems use a heated bed of sand-like material, suspended (fluidized) within a rising column of air to gasify-combust many types and classes of fuel, including TDF. This results in vastly

improved combustion efficiency. As a result, Fluidized Bed technology is environmentally favorable, and air emissions are inherently lower than conventional technologies for the following reasons:

- Low combustion temperatures and low excess air within the bed reduce the formation of certain emissions, particularly NO<sub>x</sub>.
- Lower formation of thermal NO<sub>x</sub> than any fossil fuel (approximate 80% decrease).
- Approximate 30% reduction of CO<sub>2</sub> compared to coal.
- High combustion efficiency results in flue gases that contain lower amounts of carbon monoxide.
- Emissions such as SO<sub>x</sub> and NO<sub>x</sub> will be abated within the Fluidized Bed system by injecting limestone into the bed and ammonia into the vapor space.
- The process results in complete carbon burnout (approximately 99.9%).

These features of Fluidized Bed technology, combined with the technology's proven experience with a variety of fuels, have allowed facilities using the technology to comply with some of the most stringent air quality regulations in the country (including six biomass-to-energy plants in California). Moreover, in addition to the use of this advanced technology, CRE plans to install state-of-the-art emissions controls to further protect public health and the environment. Coupled with the CFB technology, add-on emissions controls are expected to remove more than 99.9% of all potential air pollutants.

In addition, residual ash material from the combustion of TDF at the CRE facility will be regularly tested and handled in accordance with all applicable laws and regulations. This material has the potential for reuse, and CRE has purchasers for the bottom ash (which is a rich source of zinc), and intends to seek authorization for reuse of other ash as aggregate for road construction by local road builders, thereby further conserving landfill capacity. If the material cannot be beneficially reused due to market conditions, it will be shipped off-site as residual waste for proper disposal at an authorized facility. In addition, the CRE facility is being designed to generate minimal quantities of wastewater, which will be suitable for discharge in accordance with applicable water quality regulations.

To summarize, CFB technology offers efficient and nearly complete combustion, relatively low emissions, favorable ash properties, low operating cost, and environmentally-sound energy production from waste.

#### **Reuse of a Former Federal Munitions Site**

In addition to the positive environmental aspects of using CFB technology, CRE has selected an historic brownfields site for its Crawford County facility. CRE is pleased that a portion of the former federal munitions manufacturing site will be returned to productive use and generate future tax revenues for Greenwood Township, Crawford County, and the Conneaut School District, while also meeting applicable cleanup standards under Pennsylvania's Land Recycling Act.

#### **Project Benefits Summary**

Overall, the CRE tire-to-energy project will provide significant benefits in the three "Es" of Energy, Environment, and Economy. The major benefits can be summarized as follows:

- Energy

The CRE project will generate approximately 90 MW (net) of needed energy. To address part of the country's growing energy demand, the CRE facility will generate about 665,000 MW hours of electricity per year, which is the energy equivalent of more than 1,000,000 barrels of oil per year and enough to power to serve approximately 45,000 homes. In addition, the CRE facility will offer regional customers an opportunity to have a locally-generated supply of reliable power at a cost savings over conventional fuels.

- Environment

Waste tire disposal is a significant problem in Pennsylvania and throughout the United States. The CRE facility will address this problem through state-of-the-art Fluidized Bed technology and add-on emissions controls, thereby converting an environmental and public health problem into needed energy with relatively low emissions. As part of the process, valuable steel will be recovered and recycled, and ash material will be beneficially reused. Indirect positive environmental effects will include conservation of diminishing landfill space, and less reliance on dirtier conventional fuels to obtain electrical power. In addition, because the CRE facility will be located on a former munitions manufacturing site, a non-productive brownfields site will become a productive energy facility on a site that meets or exceeds applicable cleanup standards under Pennsylvania's Land Recycling Act.

- Economic

The CRE strategy of using TDF to produce energy has a significant net economic benefit. Converting waste tires into fuel for energy generation creates needed power from an abundant solid waste, free of pricing and supply issues associated with natural gas and oil imports. As a result, CRE will be able to sell electricity to the grid at long-term beneficial prices, thereby improving the fiscal outlook for power costs in the regional area.

In addition, the CRE facility represents an important step towards diversification of the Commonwealth's energy portfolio. This will, in turn, provide citizens with increased energy security and less vulnerability to pricing pressures and market manipulations (such as OPEC's cutting of oil production to artificially inflate oil prices). Pennsylvania will have greater energy independence, which will help keep energy prices lower and more stable for consumers.

Hundreds of local jobs will be created. In addition, CRE will negotiate PILOT agreements with Greenwood Township, Crawford County, and the School District to partially offset tax savings from the KOZ tax abatement designation.

### ALTERNATIVE SITE ANALYSIS

#### Site Criteria

The CRE Plant has the following unique real estate needs:

- Access to Rail and Ground Transportation

The Plant is projected to utilize approximately 900 tons of TDF per day. In an effort to further reduce emissions attributed to the Plant, CRE is committed to maximizing the use of rail as a delivery method. Current projections are for 80% of the tires to arrive by rail, with ground transportation by truck delivering the balance of the fuel supply. This dual transportation method assures the continuous operation of the facility in the event that one transportation system is temporarily disabled. Using rail as the primary delivery method will decrease traffic congestion and noise that would otherwise be caused by trucks delivering the TDF. Accordingly, access to a major rail line is required.

- Access to Cooling Water

The CRE Plant will use approximately 975 gallons per minute ("GPM") if the coolant water is re-circulated through multiple cooling towers. Accordingly, a source of water which can provide approximately 1,400,000 gallons of water per day must be available.

- Access to the Electric Power Grid

CRE is in the business of making electricity. It is essential the CRE Plant be close to a major sub-station connected to the PJM Grid.

Based on the foregoing, Passport Development, LLC performed an analysis of other available sites. In performing this analysis, Passport focused on properties having the above attributes with an overall size in excess of 50 acres. Passport searched local real estate websites in the Crawford County area, and also examined property listings for Crawford County in two national databases, Loop Net and Co-Star. No vacant properties with the required parameters were found to be available. Furthermore, Passport interviewed Mark Turner, Executive Director of the Crawford County Economic Progress Alliance, who is a recognized expert in industrial development land and facilities in the Crawford County area. Mr. Turner reported that he was aware of no other site in the area which would provide the above-referenced requirements.

Passport concluded that the HON, Inc. site at the Keystone Regional Industrial Park offered the necessary site parameters, enhanced by the fact that the property is a brownfield site.

In summary, the CRE project presents a unique opportunity for the Crawford County region to profit from an environmentally-friendly economic development project which will enhance the local tax base, provide much-needed family-sustaining jobs, and provide a new source of reliable electric power at affordable rates.

Demographics

An analysis of the U.S. Census (2000) statistics surrounding the target site indicate that in a one-mile radius there is a total population of 42 persons residing within 16 households. Further analysis shows that within a three-mile radius there are a total of 1,090 persons residing in a total of 411 households. These statistics show that the target site is sparsely populated, which supports the alternative site analysis in terms of total population in the target site zone. There are no proximate schools, playgrounds, churches or other public gathering places, which further supports this site selection.