

# Draft Environmental Assessment

Cuyahoga Area Wide Radio System, Cuyahoga County, Ohio

Homeland Security Grant Program/ Urban Area Security Initiative

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**FEMA**

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ENVIRONMENTAL ASSESSMENT  
Cuyahoga Area Wide Radio System

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## **1.0 INTRODUCTION**

### **1.1 Project Authority**

The following is an Environmental Assessment for the installation of a communications tower for an area-wide radio system in Cuyahoga County, Ohio.

Funding for this project was awarded under the Department of Homeland Security's (DHS) Fiscal Year 2006 Homeland Security Grant Program (HSGP) / Urban Area Security Initiative (UASI) (CFDA# 97.008, Federal Pass-Thru #2006-TU-T6-0051, Recipient Grant Agreement # S06-UASI-18-0234, Public Law # 109-90) in the amount of \$4,760,000.00. The HSGP is now administered by the DHS Federal Emergency Management Agency's (FEMA) Grant Programs Directorate. This federal grant is to be awarded to the Cleveland/Cuyahoga County Urban Area, passed through by the State of Ohio. The grant will allow Cuyahoga County to join Ohio's Multi-Agency Radio communications System (MARCS), provide equipment and tools necessary to improve the coordination and response efforts of emergency first responders, and improve emergency preparedness and homeland security efforts.

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), DHS Management Directive 5100.1 "Environmental Planning Program," and FEMA's regulations implementing NEPA (44 CFR Part 10), DHS/FEMA must fully understand and consider the environmental consequences of actions proposed for federal funding. The purpose of this Environmental Assessment (EA) is to meet DHS/FEMA's responsibilities under NEPA, evaluate the proposed action and alternatives for potential impacts to the human environment, and to determine whether to prepare a Finding of No Significant Impact (FONSI) or a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the proposed project.

### **1.2 Project Location**

The project site is located at the N-11 Filtration Plant; also know as the Crown Water Works, located at 955 Clague Road in the City of Westlake, Cuyahoga County, Ohio. Westlake is approximately one mile south of the southern shore of Lake Erie. It is a 15-minute commute via I-90 to downtown Cleveland. Specifically, the site is located on a parcel of land occupied by the City of Cleveland's wastewater treatment facility (hereafter referred to as "parent parcel"). The proposed tower would be located approximately 320 feet southeast of the treatment facility on previously disturbed ground consisting of manicured lawn and a field of taller grasses, up to two feet in height. Refer to Appendix A for maps (Regional Map, Site Locator Map, Zone Map, etc.) showing the project location.

The parent parcel measures approximately 2,526,044 square feet and is identified by the City of Westlake as Parcel Identification Number 214-17-001. Latitude and longitude are 41° 28' 20.2" North, 81° 52' 40.8" W. The proposed project area shares the same address as the parent parcel. The facility occupying the parent parcel is a part of the City of Cleveland public water works regional system where waste water is processed, filtered, and distributed into the municipal systems of the surrounding area.

### **1.3 Purpose and Need**

FEMA's UASI grant program addresses the unique multi-disciplinary planning, operations, equipment, training, and exercise needs of high-threat, high-density urban areas, and assists them in building and sustaining capabilities to prevent, protect against, respond to, and recover from threats or acts of terrorism. A specific objective is to provide interoperability among emergency first responders in the event of a natural disaster or act of terrorism, and to assist the community in recovering from such events.

During an event that requires multiple agency response, the existing system in Cuyahoga County is overloaded, because priority situations are shared with non-priority situations. Furthermore, the County currently does not have the capacity to communicate both within its borders and with surrounding communities. Therefore, there is a need to find a permanent solution to link communications throughout Cuyahoga County to better serve emergency services and the communities. The County's telecommunication system needs additional tower capacity to accommodate expanded needs and to provide area equipment the necessary coverage to ensure for an integrated system.

### **1.4 Existing Facility**

In the Cleveland Urban Area, first responders across 69 municipalities currently operate on 47 incompatible legacy voice communications systems. The Tactical Interoperable Communications Scorecard ranked the Cleveland region's interoperable communications system in the bottom five nationally. The inability of Cuyahoga County's emergency first responders to readily communicate with one another both within the County and with surrounding communities threatens the public's safety and may result in unnecessary loss of property and lives. Emergencies do not confine themselves to jurisdictional borders, and the sharing of resources can be only achieved through timely and effective communication. With its interstate highway systems, airports, international port and waterways, Cuyahoga County is a critical link in the region and recognizes its responsibility to facilitate emergency responses to border jurisdictions and across state lines.

## **2.0 ALTERNATIVE ANALYSIS**

Several alternatives were considered to meet the purpose and need stated above. The following three alternatives were reviewed and analyzed in greater detail.

Alternative 1 – No Action.

Alternative 2 – Crowne Filtration Plant (Proposed Action): Construction of a public safety communications tower and compound on land owned by the City of Cleveland at 955 Clague Road in the City of Westlake, and identified by Parcel Identification Number 214-17-001.

Alternative 3 – Cleveland Electric Illuminating: Tower extension and equipment collocation at an existing tower site on land owned by the Cleveland Electric Illuminating at 700 Clague Road in the City of Westlake.

## **2.1 Alternative 1 – No Action Alternative**

Under the No Action Alternative, Cuyahoga County would continue to use its existing communication systems, meaning there would be no interoperability for the entire public safety community, which would continue to threaten public safety and possibly result in loss of property and lives during an emergency event. The No Action Alternative would entail no construction activity, no new facility or equipment, etc.

## **2.2 Alternative 2 – Crown Filtration Plant (Proposed Action)**

The proposed project is one of fifteen sites where towers will be erected or where collocation of equipment and antennas is possible under a plan to improve radio coverage and emergency response under Ohio's Multi-Agency Radio Communications System (MARCS). The Proposed Action entails the construction of a 299-foot lattice communications tower within a 4,900 square-foot fenced equipment compound. A 288 square-foot equipment shelter would be located in the compound, and a 12-foot-wide gravel access road, approximately 350 feet long, would be constructed to connect the proposed communications site to Detroit Road. Subsequent to the tower's construction, eight communications antennas would be attached to the tower and associated equipment installed in the shelter and compound.

The proposed construction area encompasses approximately 14,000 square feet of previously disturbed land comprised of maintained lawn and a small field of grasses. Proposed site plans depicting the layout of the proposed communications compound, as well as other project specifications are included in Appendix A. Construction equipment to be used on the site is typical of equipment used in communication facility construction, including: a small front end loader /bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. The staging area for the construction of the site would be in the immediate vicinity of the proposed tower compound; the site is located on a field measuring approximately 300 feet by 600 feet with ample space to accommodate equipment and material delivery and staging. Duration of construction will be approximately 60 to 75 days.

## **2.3 Alternative 3 – Cleveland Electric Illuminating (Action Alternative)**

Alternative 3 would entail extension of and co-location of equipment on an existing tower located on land owned by the Cleveland Electric Illuminating (CEI) at 700 Clague Road in the City of Westlake. This alternative would extend the height of the existing 195-foot CEI monopole tower by at least 30 feet to accommodate the co-location of six (6) transmit and two (2) receive omni type antennas and four (4) six-foot microwave dishes. Under this alternative, a 281 square-foot equipment shelter would also be placed within the existing approximately 4,900 square-foot fenced equipment compound near the tower base. The tower compound is within a CEI power substation, which would make it difficult, but possible, for construction vehicles to access the tower site, approximately 300 feet from Canterbury Road.

Construction equipment scheduled to be used on the site is typical of equipment used in communication facility construction, including: a small front end loader /bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection),

construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. The staging area for the construction of the site would be inside the tower compound and in the immediate vicinity of the tower compound, inside the substation as space permits. Duration of construction will be approximately 60 to 75 days.

Radio coverage under Alternative 3 would be significantly reduced compared to the coverage provided by the new tower under the Proposed Action, and therefore would result in a reduction of the system's overall coverage reliability. Furthermore, the tower extension and addition of new antennas and coax would increase the structural load on the existing section of the tower and its foundation. Modifications including the addition of plates to strengthen the existing 195-foot tower and excavation around the existing foundation as well as other site improvements that would be necessary under Alternative 3 make it less feasible and cost effective than the Proposed Action.

## **2.4 ALTERNATIVES CONSIDERED AND ELIMINATED FROM FURTHER CONSIDERATION**

The following alternatives were considered and eliminated from further consideration:

**Verizon CLEV457 at Clague Road & Sperry Drive, Westlake** - At this site, the radio frequency coverage would be insufficient. The six transmit and two receive antennas for the 800 MHz public safety communications system require a minimum of 40 feet (clear) vertical tower space, plus vertical isolation from the cellular antennas. Due to the existing tower loading at 160 feet and above, the resultant antenna mounting heights would not be sufficient to provide the necessary in-building RF coverage in northwest Cuyahoga County. Additionally, four six-foot microwave dishes would also be required at this tower site to support inter-site links for the system. The required centerline mounting location for three of the four dishes would be coincident with the cellular and 800 MHz antennas' mounting location on the tower, and therefore, not possible to implement because of their inability to support the microwave dish loads.

**CEI tower at 780 Canterbury Road, Westlake** - As with the Verizon tower on Clague Road, this alternative would be insufficient in terms of loads added by the increased tower heights and additional weight from the microwave dishes. The radio frequency coverage would not be sufficient at this location.

## **3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

### **3.1 PHYSICAL ENVIRONMENT**

#### **3.1.1 Soils and Farmland**

The project area lies within a large regional structure composed of a variety of strictly sedimentary rocks deposited in the Paleozoic Era, Silurian through Devonian Periods. The subsurface geology of the project area is reported as predominately Allis type soil, which is characterized as a silty clay loam with very poor drainage. Based on the Soil Conservation Service STATSGO data, the vicinity geology is characterized as composed of loam and silty loam, with unweathered bedrock. A Web Soil Survey is provided in Appendix A.

The Farmland Protection Policy Act (FPPA) was considered in this EA. The FPPA was enacted in 1981 (P.L. 97-98, Sec. 1539-1549; 7 U.S.C. 42091, et seq.) and requires federal agencies to “minimize the unnecessary conversion of farmland to non-agricultural uses.” The Natural Resources Conservation Service (NRCS) is responsible for protecting significant agricultural lands from irreversible conversions that result in the loss of essential food or environmental resources. Consultation with the Cuyahoga County NRCS office determined that the project alternatives are not located in nor will they affect designated prime and unique farmlands. Therefore, the requirements of the FPPA (7 CFR 4201) have been satisfied. A Record of Communication (ROC) containing the NRCS consultation is included in Appendix B.

#### **Alternative 1 – No Action Alternative**

Under the No Action Alternative, there would be no impacts to soils or farmland, as no construction activities would occur.

#### **Alternative 2 – Crowne Filtration Plant (Proposed Action)**

The Proposed Action is not located on prime or unique farmland.

Short term and minor impacts to soils are anticipated during the construction phase. Implementation of this action would disturb approximately 14,000 square-feet of soil at the proposed tower compound, and along the proposed access road. Best Management Practices (BMPs) to control soil erosion, such as swales and silt fences, would be utilized during construction. After construction, the site would be covered with gravel, and any remaining exposed soil would be seeded and mulched, which would help prevent soil erosion. Depth of excavation for the tower foundation is estimated at up to 60 feet. Spoils from the tower foundation drilling would be hauled off site and disposed of at an appropriate facility. Other ground disturbing activities, such as for conduit or shelter foundation trenching, would excavate no deeper than 36 inches. Spoils from this excavation will be used to backfill the trenches and to slightly build up the grade of the tower compound (not more than 6 inches) from the existing grade. Soils stored on site before haul-off, backfill or redistribution on site would be covered to avoid any soil runoff due to precipitation during the construction process. Any minor amount of soil remaining would be disposed of in a proper manner and hauled to a facility that is authorized to accept this soil.

Soils investigation at this site included shovel tests dug during the Cultural Resources Survey (See Appendix B). Shovel tests pits measuring 20 inches by 20 inches dug at the proposed project site and access road indicated that the soils consisted of a mixture of various shades of brown, yellowish brown, grayish brown and gray clay, clay loam, and loam mixed with gravel, indicating fill dirt. A previous Phase I ESA completed in 2006, on file at the FEMA Region V Office, did not indicate any evidence of suspect soil contamination at this site.

#### **Alternative 3 – Cleveland Electric Illuminating**

Alternative 3 is not located on prime or unique farmland.

Short term and minor impacts to soils are anticipated during the construction phase. Implementation of this action would disturb approximately 2,000 square-feet of soil at the existing tower compound and require trenching lines for underground routing of power and Telco lines to the equipment shelter. BMPs to control soil erosion, such as silt fences, would be utilized during construction. After construction, the site would be covered with gravel, and any

remaining exposed soil would be seeded and mulched, which would help prevent soil erosion. Depth of excavation for tower foundation improvements are estimated at 30 feet. Spoils from the tower foundation drilling would be hauled off site and disposed of at an appropriate facility. Other construction activities at the site would not excavate deeper than 36 inches for conduit or shelter foundation trenching. Spoils from this excavation will be used to backfill the trenches or hauled off site. Soils stored on site before haul-off or backfill would be covered to avoid any soil runoff due to precipitation during the construction process. Any minor amount of soil remaining would be disposed of in a proper manner and hauled to a facility that is authorized to accept this soil.

No soils investigation was conducted at this site, and no current environmental assessment was available for the existing telecommunications compound. However, during the site reconnaissance to evaluate the feasibility of this alternative, no visual indication of soil contamination (i.e. staining, leakage, odors) was observed.

### **3.1.2 Water Resources and Water Quality**

A site visit conducted on March 20, 2006 did not indicate any evidence of stressed vegetation, discolored soils or surface water, pits, ponds, lagoons, fill ports and/or vent pipes associated with underground storage tanks, drums, debris piles, or areas of borrow or fill. Storm water runoff appears to flow in a northerly direction toward Lake Erie, located approximately a mile to the north.

The project area is located within the Black-Rocky Watershed which flows into Lake Erie. Information provided by Mr. Mohammad Hauge, Assistant Manager of the Crown Filtration Plant (Refer to ROC in Appendix B), indicates that stormwater at the project area percolates into the ground surface where it flows into either the water shed via the Clague Creek where it is discharged into Lake Erie or it flows into a 48-foot subsurface stormwater pipe that discharges directly into the lake. The aquifer in the area is characterized as till over bedrock interface. The Cuyahoga interface formation is weathered and fractured in nature. Groundwater wells in the area draw from sandstone aquifers. Potable water is provided by the City of Westlake.

In 2004, the EPA's National Assessment Database conducted a national watershed report that characterizes the condition and vulnerability of aquatic systems in each of the watersheds in the United States. The indicators (not specified) of the condition of the watershed are scored and assigned to one of three categories: good water quality, threatened water quality with less serious problems, and impaired water quality with more serious problems. The Black-Rocky Watershed characterization is indicated to have a good quality status and according to the Water Quality Attainments portion of the report, the designated "*fish consumption, designated tiered aquatic life uses and contact reaction*" have all scored the highest at "*Fully Supported*" and the threatened status is listed as "*No.*"

#### **Alternative 1 – No Action Alternative**

Under the No Action alternative, there would be no impacts to surface or groundwater resources.

#### **Alternative 2 – Crowne Filtration Plant**

Impacts to water resources and water quality in the vicinity of the project are expected to be minor and short term, limited to the construction phase of the project. As discussed in Section

3.1.1, BMPs would be used to control soil erosion and any exposed soil would be covered with mulch or another covering. Long term impacts to water resources and water quality are not anticipated, as there are no water bodies in the immediate vicinity of this project.

### **Alternative 3 – Cleveland Electric Illuminating**

Impacts to water resources and water quality in the vicinity of the project are expected to be minor and short term, limited to the construction phase of the project. As discussed in Section 3.1.1, BMPs would be used to control soil erosion and any exposed soil would be covered with mulch or another covering. Long term impacts to water resources and water quality are not anticipated, as there are no water bodies in the immediate vicinity of this project.

### **3.1.3 Floodplain Management (Executive Order 11988)**

Executive Order 11988 requires Federal agencies to avoid, to the extent possible, actions in or affecting floodplains. According to the FEMA Flood Insurance Rate Map (FIRM) for Cuyahoga County, the Proposed Action and Alternative 3 are located in zone ??, and therefore not located in a 100-year or a 500-year flood zone. The FIRM is included in Appendix A.

#### **Alternative 1 – No Action Alternative**

No impact to floodplains would occur if no project action is taken.

#### **Alternative 2 – Crowne Filtration Plant**

No impacts to floodplains are anticipated, as the site is not located in a floodplain.

#### **Alternative 3 – Cleveland Electric Illuminating**

No impacts to floodplains are anticipated, as the site is not located in a floodplain.

### **3.1.4 Air Quality**

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. CAA established two types of national air quality standards: primary standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly; secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation and buildings. The current criteria pollutants are: Carbon Monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), Lead (Pb), Particulate Matter (PM<sub>10</sub>), and Sulfur Dioxide (SO<sub>2</sub>).

The State of Ohio is in attainment for five of the six criteria pollutants mandated by the EPA. It has been in attainment for CO since 1999, Pb and NO<sub>2</sub> since 1978, PM-10 since 1996, and SO<sub>2</sub> since 1982. Cuyahoga County last exceeded the NAAQS for Ozone in 1994 (EPA 2004c).

#### **Alternative 1 – No Action Alternative**

No impact to air quality would occur if no project action is taken.

#### **Alternative 2 – Crowne Filtration Plant**

Short term and temporary impacts to air quality may occur during the construction phase, resulting from airborne dust and diesel fuel emissions from bulldozers, cranes, drill rigs,

concrete trucks, and other heavy equipment which may temporarily increase pollutant levels. Dust emissions can vary greatly from day to day depending on the level of activity and the weather. To reduce these temporary impacts to air quality, construction areas would be watered down when necessary. To reduce the emission of criteria pollutants, fuel-burning equipment operations would be kept to a minimum.

Once construction is complete, no long term impacts to air quality are anticipated. The propane-fired emergency generator does not generate pollutants that significantly contribute to the degradation of the quality of air, and will be used in emergency situations only (i.e. during a power outage). The generator will only remain in use until the primary power to the area is restored.

### **Alternative 3 – Cleveland Electric Illuminating**

Short term and temporary impacts to air quality may occur during the construction phase, resulting from airborne dust and diesel fuel emissions from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment which may temporarily increase pollutant levels. Dust emissions can vary greatly from day to day depending on the level of activity and the weather. To reduce these temporary impacts to air quality, construction areas would be watered down when necessary. To reduce the emission of criteria pollutants, fuel-burning equipment operations would be kept to a minimum.

Once construction is complete, no long term impacts to air quality are anticipated. The propane-fired emergency generator does not generate pollutants that significantly contribute to the degradation of the quality of air, and will be used in emergency situations only (i.e. during a power outage). The generator will only remain in use until the primary power to the area is restored.

## **3.2 BIOLOGICAL ENVIRONMENT**

### **3.2.1 Terrestrial and Aquatic Environment**

The Proposed Action is located on land occupied by the Crowne Filtration Plant, a wastewater treatment facility for the City of Cleveland, located within the city limits of Westlake. The project area consists of previously disturbed maintained lawn and a small field of grasses that are approximately two feet tall or less. Roads are located to the south and west of the project area. No wetlands are located on the proposed project property.

The Ohio Department of Natural Resources (ODNR) and the US Fish and Wildlife Service (FWS) were consulted regarding possible biological resources present in or near the proposed project area. Information from the ODNR indicated there was no data regarding officially designated wilderness areas or wildlife preserves, listed threatened or endangered species, designated critical habitat, or proposed threatened or endangered species or critical habitat in the project area. The FWS indicated that the proposed project site is located within the historical range of several Federal- and state-listed Endangered species, which are discussed below in Section 3.2.3, along with their associated habitats. Further consultation with the FWS indicated that the proposed project area is not located in a bird flyway zone, and based on the project design, should not have a significant impact on migrating birds. The referenced agency correspondence is included in Appendix B.

**Alternative 1 – No Action Alternative**

No impact to the terrestrial or aquatic environment is anticipated if no project action is taken.

**Alternative 2 – Crowne Filtration Plant**

Because the project area is occupied by a wastewater treatment plant and consists of previously disturbed land consisting of fill dirt (See Cultural Resources Survey in Appendix B) covered by maintained lawn and a small field of grasses, the project area appears to have limited value for plant and wildlife species.

There was no evidence of wildlife, wetlands or water bodies at or in the vicinity of the site. Construction would require the disturbance and removal of the lawn/grasses at the 14,000 square-foot proposed project site. There are no trees, shrubs or other plants located in the project area. Minimal short-term and no long-term impacts to the terrestrial environment are anticipated.

**Alternative 3 – Cleveland Electric Illuminating**

Construction associated with modification of the existing tower site would require minimal disturbance and removal of vegetation. The site consists of previously disturbed gravel-covered land associated with the construction of the existing telecommunications compound. There was no evidence of wildlife, wetlands or water bodies at or in the vicinity of the site. Therefore, no impact to terrestrial or aquatic environments is expected.

**3.2.2 Wetlands (Executive Order 11990)**

Under Executive Order 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and preserve and enhance their natural and beneficial values. The term wetland refers to areas that are inundated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, intrastate lakes, rivers, streams (including intermittent streams), mudflats sloughs, and similar areas.

**Alternative 1 – No Action Alternative**

No impact to wetlands would occur if no project action is taken.

**Alternative 2 – Crowne Filtration Plant**

Site visits indicated no evidence of potential wetlands at or in the vicinity of the proposed project area. Based on a review of the FWS *National Wetlands Inventory Map* for the USGS Cuyahoga Quadrangle, wetlands do not exist at or in the immediate vicinity of the proposed project site. Therefore, no impacts to wetlands are anticipated. The wetland map is included in Appendix A.

**Alternative 3 – Cleveland Electric Illuminating**

No wetlands have been identified at this site or in its immediate vicinity. Therefore, no impacts to wetlands are anticipated.

**3.2.3 Threatened and Endangered Species**

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, the project area was

evaluated for the potential occurrences of Federally listed threatened and endangered plant and animal species. The ESA requires any federal agency that funds, authorizes or carries out an action to ensure that their action is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitats (FEMA 1996).

ODNR and FWS were contacted regarding the presence of threatened and endangered species and critical habitat at the project site and vicinity. ODNR indicated that a review of their databases contained “No Data” of rare species in the project area. In contrast, FWS indicated the following state- and/or federally-listed endangered species in Cuyahoga County: Indiana bat (*Myotis sodalis*), Piping plover (*Charadrius melodus*), Peregrine Falcon (*Falco pergrinus*), Golden-Winged Warbler (*Vermivora chrysoptera*), Yellow-Bellied Sapsucker, and King Rail (*Rallus elegans*).

Correspondence from ODNR-Division of Wildlife indicates that due to the location of the project and type of work involved, the project will not have an impact on the above-referenced endangered species. Furthermore, site reconnaissance for this project indicated that the habitats for these species are not present at or near the proposed project site. ODNR requested that work immediately cease and the Division of Wildlife be contacted should any of the protected species be observed during construction. Refer to Appendix C for ODNR and FWS correspondence.

In a letter dated January 8, 2007 (Appendix B), FWS provided criteria for communications projects which are not expected to have any impact on Federally-listed threatened, endangered or candidate species. The letter also stated that projects that meet the recommended criteria are not expected to have any impacts on Federal wilderness areas, wildlife refuges, or designated critical habitat. The criteria include:

1. Replacement of an existing tower with a new tower that has equal or less potential for adverse impacts.
2. Purchase of existing towers of antenna structures for the continued use without physical modification to the configuration, height, access and/or footprint.
3. Cell tower placement on existing structures, with associated equipment installed within previously disturbed areas and with no significant increase in height (10% of original tower height or 20 feet, whichever is greater).
4. Construction of new tower, less than 300 feet tall, and installation of associated equipment within previously disturbed areas.
5. Construction of new tower, less than 300 feet tall, and installation of associated equipment upon agricultural land that has not lain fallow for more that one growing season.
6. Construction of a new, or expansion of existing, equipment shelters with footprints not more than 625-square-feet, in previously disturbed areas (developed commercial and industrial areas; agricultural fields not fallow for more than one year; manicured lawns; paved, graveled graded, filled, or otherwise un-vegetated areas; or areas within the existing tower compound) that do not require impacts to trees.

**Alternative 1 – No Action Alternative**

No impacts to threatened and endangered species would occur.

### **Alternative 2 – Crowne Filtration Plant**

Based on information obtained from ODNR and FWS, characterization of the site as previously disturbed, the nature of the work involved, and the absence of suitable habitat, impacts to Federally-listed threatened or endangered species, candidate species, species of concern, or designated critical habitats are not anticipated. The Proposed Action involves construction of a new 299-foot-tall tower and installation of antennas and ancillary equipment within an area that has been previously disturbed; therefore, the proposed action meets FWS criterion number 4.

Should any protected species be observed during construction, work shall immediately cease and ODNR-Division of Wildlife shall be contacted.

### **Alternative 3 – Cleveland Electric Illuminating**

Based on information obtained from ODNR and FWS, characterization of the site as previously disturbed, the nature of the work involved, and these absence of suitable habitat, impacts to Federally-listed threatened or endangered species, candidate species, species of concern, or designated critical habitats are not anticipated.

Should any protected species be observed during construction, work shall immediately cease and ODNR-Division of Wildlife shall be contacted.

### **3.2.4 Migratory Birds**

Under the Migratory Bird Treaty Act, taking, killing, or possessing migratory birds is unlawful. Migratory birds are a Federal trust resource that the FWS is authorized to protect, and the Service has put forth “Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers” addressing potential adverse impacts of towers on migratory birds. This guidance is available on-line at <http://www.fws.gov/migratorybirds/issues/towers/comtow.html>. The siting of new towers, increasing at an estimated six to eight percent annually, creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating neotropical songbirds. Within this group, thrushes, vireos and warblers appear to be the most vulnerable. The problem is especially acute at tall, lighted, guyed towers, particularly in inclement night time weather conditions during spring and fall songbird migrations.

Based on information provided by Pyramid and Motorola, consideration has been given to the FWS guidelines. The tower design does not utilize guy wires for support, and the tower will be located in the vicinity of two other towers on commercial properties to north. Lighting will be required on the tower to comply with FAA regulations. Medium intensity dual lights (white lights during the day and red lights at night) will be utilized. The FWS guidelines recommend avoidance of red lighting at night. However, the use of white lights at night is problematic for tower sites located in proximity to heavily suburban areas.

The FWS was contacted for information regarding the potential of the proposed tower to impact migratory birds, and responded that the project is not located in a major flyway area, and based on the project design, should not result in any significant impacts to migratory birds. FWS correspondence is included in Appendix B.

### **Alternative 1 – No Action Alternative**

No impacts to migratory birds would occur.

### **Alternative 2 – Crowne Filtration Plant**

The proposed site is not located in a major bird flyway area and the project design (which includes the use of a lattice design rather than guy wires) is not anticipated to have significant impacts on migratory birds.

### **Alternative 3 – Cleveland Electric Illuminating**

The proposed site is not located in a major bird flyway area and the project design is not anticipated to have significant impacts on migratory birds.

## **3.3 HAZARDOUS MATERIALS**

The preparation of this EA included a Phase I Environmental Site Assessment (ESA) with an environmental database search, inquiries with state and local agencies, and a site reconnaissance. The information obtained from these sources and observations has been compiled into a Phase I ESA, prepared by C&S Engineers, Inc., dated April 2006 (on file at the FEMA Region V Office). The Phase I ESA, which included a site reconnaissance, did not reveal evidence of recognized environmental conditions for hazardous materials in the vicinity of the project area. No staining, distressed vegetation, or chemical storage of any kind was observed in the project area.

The environmental database search conducted by EDR included queries to multiple federal and state agencies. The regulatory database report did identify three Resource Conservation and Recovery Act (RCRA) sites located within the referenced search radii on the federal regulatory databases that were reviewed.

The occupant of the parent parcel containing the proposed project area, the City of Cleveland Division of Water, is listed as small quantity generators (SQGs) of hazardous waste, but has no violations. The two other sites listed are identified BO Oil Company (23655 Detroit Road located approximately 1,050 feet southwest) and Caldwell Properties, LTD (1270 W. Melrose Drive located approximately 1,264 feet south), which are both listed as SQGs, also have no reported violations. Based on the lack of violations, these RCRA generators are not considered hazardous material environmental concerns for the project area.

The EDR report identified the following sites within the referenced search radii on the state regulatory databases that were reviewed:

The proposed project's parent parcel is identified as the City of Cleveland Crown Pumping, listed an inactive LUST site with a "No Further Action letter" issued by the State of Ohio. Since this previous release appears to be closed and approved of by the State, the LUST is not considered an environmental concern for the proposed project area. The proposed project site is also listed as a UST site with one 1,000-gallon diesel tank and one 2,000-gallon gasoline tank, both "Currently in use." Based on the distance of these tanks from the proposed project area (over 1,000 feet northwest) and the lack of a reported releases associated with them, the active tanks at the parent parcel are not considered to be an environmental concern at this time.

The BP Oil Company (23655 Detroit Rd) plotted 1,053 feet southwest from the proposed project site is listed as an inactive LUST site with a “No Further Action letter issued” by the state. This site is also listed as a Historical Auto Station site from 1973 to 1980. Westwood County Club (22625 Detroit Rd) is plotted 2,036 feet east of the proposed project site and is listed as an “Active” LUST facility. Based on a consideration of distance, the presence of roadways and subterranean features (such as building foundations and utility corridors), neither the BP site or the Westwood County Club are considered to be an environmental concern for the project area.

#### **Alternative 1 – No Action Alternative**

There would be no hazardous materials issues under the No Action Alternative.

#### **Alternative 2 – Crowne Filtration Plant**

The tower construction would require soil excavation. Based on a review of the information presented in the Cultural Resources Survey (Appendix B) and the EDR report within the referenced Phase I ESA (Appendix B) and observations made during the site reconnaissance that indicate that the site consists of grassy unimproved land covering surficial soils indicated to be fill dirt, soil excavation in the vicinity of the project is not anticipated to impact any hazardous materials.

Although subsurface hazardous materials are not anticipated to be present in the project area, construction activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the construction of the project would be handled and disposed of by the county in accordance with applicable local, state, and federal regulations.

#### **Alternative 3 – Cleveland Electric Illuminating**

The tower extension construction would require soil excavation. Based on a review of the observations made during the site reconnaissance that indicate that the site consists of a gravel covered telecommunications facility, soil excavation in the vicinity of the project is not anticipated to impact any hazardous materials.

Although subsurface hazardous materials are not anticipated to be present in the project area, construction activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the construction of the project would be disposed and handled by the county in accordance with applicable local, state, and federal regulations.

### **3.4 SOCIOECONOMICS**

#### **3.4.1 Zoning and Land Use**

Both Alternative 2 and Alternative 3 are located in the west part of Cuyahoga County, which has a zoning ordinance. A zoning map depicting the project location and surrounding land uses is included in Appendix A.

#### **Alternative 1 – No Action Alternative**

The No Action Alternative would have no impact upon the existing zoning designation and current land uses in the area.

### **Alternative 2 – Crowne Filtration Plant**

The Proposed Action is located within the Exclusive Industrial (EI) Zoning District. The EI District is located north and south of Highway 90, east of Bradley Road, north of Detroit Road, south of the railroad lines and west of Windsor Drive, except in areas zoned as other districts. Based on its location within the EI District, where the operation of a communications facility is considered an essential service and is deemed compatible with adjacent land uses, impacts to zoning or land use are not anticipated under this alternative.

### **Alternative 3 – Cleveland Electric Illuminating**

Alternative 3 is located within the Exclusive Industrial (EI) Zoning District. The EI District is located north and south of Highway 90, east of Bradley Road, north of Detroit Road, south of the railroad lines and west of Windsor Drive, except in areas zoned as other districts. Based on its location within the EI District, where the operation of a communications facility is considered an essential service and is deemed compatible with adjacent land uses, impacts to zoning or land use are not anticipated under this alternative.

## **3.4.2 Visual Resources**

Visual resources refer to the landscape character (i.e., what is seen), visual sensitivity (i.e., human preferences and values regarding what is seen), scenic integrity (i.e., degree of intactness and wholeness in the landscape character), and landscape visibility (i.e., relative distances of seen areas) of a geographically defined view shed.

The proposed project area is located in a mixed use area on grassy land owned by the City of Cleveland that is occupied by a waste water treatment plant. The land to the north of the project area consists of grassy land with woods further north, followed by Highway 90. Industrial properties and several communications towers are located to the north beyond the highway. The land to the east of the project area consists of grass followed by a small wooded area with a residential area beyond. The land to the south of the project area is Route 254, followed by residential structures. The land to the west and northwest consists of grass followed by multiple structures associated with the filtration plant. Highways and roads visually fragment the landscape surrounding the project area, with large structures and communications towers further fragmenting the landscape to the north, west, and northwest.

### **Alternative 1 – No Action Alternative**

There would be no impact to visual resources under the No Action Alternative.

### **Alternative 2 – Crowne Filtration Plant**

The proposed project area encompasses approximately 14,000 square-feet of land, and would include a 4,900 square-foot fenced equipment compound and a 12 foot wide gravel access road measuring approximately 350 feet in length to connect the proposed communications site to Detroit Road.

The primary constituents in the view shed consist of a freeway followed by Sperry Drive, unimproved land that is partly wooded, and railroad tracks to the north; residences to the east; Route 254 followed by residences to the south; and the filtration plant followed by Clague Road to the west.

No hiking trails, parks, or other sites of scenic integrity were identified in the project view shed. Trees border the parent parcel to the east and south of the project area that would appear to limit any view from the residences in those areas. These residences already have a view of the filtration plant, and therefore it is not anticipated that the addition of another communications tower in the area would have an adverse impact.

### **Alternative 3 – Cleveland Electric Illuminating**

The proposed project area encompasses approximately 2,000 square-feet of land, including an existing 4,900 square-foot fenced equipment compound with access through the CEI substation property from Canterbury Road.

The primary constituents in the view shed consist of railroad tracks lined by trees followed by a residential area to the north; another telecommunications compound, followed by a commercial property and associated parking, and Clague Road to the east; a roadway and a freeway followed by commercial/industrial property to the south; and commercial/industrial properties to the west.

No hiking trails, parks, or other sites of scenic integrity were identified in the project view shed. Trees border the parent parcel to the north, as well as the residential land to the north of the railroad tracks that would appear to limit the view from the residences. These residences already have a view of another nearby tower and the freeway, and therefore it is not anticipated that the expansion of the communications compound would have an adverse impact.

### **3.4.3 Noise**

Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is the average measure of sound. The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses.

Noise, defined herein as undesirable sound, is federally regulated by the Noise Control Act of 1972 (NCA). Although the NCA gives the EPA authority to prepare guidelines for acceptable ambient noise levels, it only charges those federal agencies that operate noise-producing facilities or equipment to implement noise standards. The EPA's guidelines, and those of many federal agencies, state that outdoor sound levels in excess of 55 dB DNL are: "normally unacceptable" for noise-sensitive land uses such as residences, schools, and hospitals. Sensitive receptors in the proposed project area include residences to the east and south.

### **Alternative 1 – No Action Alternative**

There would be no impact to the noise levels under the No Action Alternative.

### **Alternative 2 – Crowne Filtration Plant**

Construction activities, including the use of heavy equipment, would cause a temporary and short term increase in noise levels in the project area. The project is located in a moderately populated area, and the nearest receptor is a residential area located more than 300 feet east of the project area, and residences located more than 400 feet south of the proposed compound beyond Route 254. Therefore, the levels of noise generated during the construction of the tower compound are not anticipated to adversely impact the local population.

Noise levels can vary from day to day depending on the level of activity and the weather. To reduce impacts to noise levels, workers would keep equipment operations to a minimum and limit the project activities that increase noise levels to daylight hours.

No long term effects are anticipated under the Proposed Action; once construction of the communications facility is complete, activity would be limited to monthly maintenance visits.

#### **Alternative 3 – Cleveland Electric Illuminating**

Construction activities, including the use of heavy equipment, would cause a temporary and short term increase in noise levels in the project area. The project is located in a sparsely populated area, and the only nearby receptors are the residences to the north beyond the railroad track that are located more than 250 feet north of the site. Therefore, the levels of noise generated during the tower extension are not anticipated to adversely impact the local population.

Noise levels can vary from day to day depending on the level of activity and the weather. To reduce impacts to noise levels, workers would keep equipment operations to a minimum and limit the project activities that increase noise levels to daylight hours.

#### **3.4.4 Public Services and Utilities**

No utilities or solid waste services currently exist at the project area. Cleveland Electric Illuminating Company electricity and Dominion East provides natural gas services to the parent parcel and surrounding area. Potable water, as well as sanitary and storm sewer services are provided by the City of Rocky River.

#### **Alternative 1 – No Action Alternative**

Under the No Action Alternative, there would be no impacts to essential public services or utilities.

#### **Alternative 2 – Crowne Filtration Plant**

Electricity is available from an overhead line proposed for installation to the east/southeast of the site, and an above ground propane tank will be installed within the compound. The activities at the site would not generate any waste materials for which solid waste services would be necessary.

#### **Alternative 3 – Cleveland Electric Illuminating**

Electricity is available at the existing compound and an above ground propane tank would be installed within the compound. The activities at the site would not generate any waste materials for which solid waste services would be necessary.

#### **3.4.6 Environmental Justice (Executive Order 12898)**

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

The U. S. Census Bureau estimated in 2002 that City of Westlake had a population of 31, 760. In 2007, the City of Westlake estimated its population had grown to 33,927. Census Bureau

data indicates that there are approximately 277.3 persons per square mile (U.S. Census Bureau, 2000) in Ohio. According to the City of Westlake website, 31,719 persons reside in the city and approximately 29,477 of the population are White, 402 are Hispanic, and 301 are African American, while the remaining population is comprised of American Indians, Alaskan Natives, or other races. Out of the 31,719 persons living in the City of Westlake, 872 persons or 3.8% were reported to be below the poverty level, which is below the national percentage of 12.4 for the same year (U.S. Census Bureau, 2000). A site reconnaissance verified that there are streets with homes to the east, south, southeast, and north within a one-half mile radius of the project area. (See Site Locator Map in Appendix A).

#### **Alternative 1 – No Action Alternative**

Under the No Action Alternative, there would be no disproportionately high and adverse effects on minority or low-income populations. All populations could potentially be adversely affected by a loss of radio coverage during an emergency.

#### **Alternative 2 – Crowne Filtration Plant**

Under the Proposed Action, no disproportionately high and adverse impacts on minority or low-income populations are anticipated. The radio coverage upgrade would benefit all populations by improving communication related to public safety and emergency response.

#### **Alternative 3 – Cleveland Electric Illuminating**

Under Alternative 3, no disproportionately high and adverse impacts on minority or low-income populations are anticipated. The radio coverage upgrade would benefit all populations by improving communication related to public safety and emergency response.

### **3.5 CULTURAL RESOURCES**

Consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA). Requirements include identifying significant historic properties and districts that may be affected by a federal undertaking and mitigating adverse effects to those resources. Section 106 of NHPA requires Federal agencies to go through a review process to consider the effects of proposed actions on historic properties, which may include consultation with the appropriate State Historic Preservation Office (SHPO). Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP). As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE) for historic properties, "is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist."

#### **3.5.1 Historic Properties**

A review of the NRHP on-line database was conducted in September 2007. No listed historic properties were identified within a one-mile radius of the locations of the Proposed Action or Alternative 3. Based on the results of a 2006 Cultural Resources Survey, some of the residential and commercial structures within a one-mile radius of the site were reported to be over 50 years old. Under NHPA Section 106, the Ohio Historical Society/Ohio Historic Preservation Office (SHPO) was consulted regarding the Proposed Action and potential impacts to historic properties. The SHPO concluded that no archaeological or historic resources would be affected in the project's APE (the SHPO response and Cultural Resources Survey are provided in Appendix B).

The SHPO has not been consulted regarding Alternative 3 at the Cleveland Electric Illuminating site. However, CEI is located one-half mile north-northwest and shares relatively similar view shed and is already developed with an existing tower compound. Therefore, based on the information provided, it appears that no cultural resources, archaeological or historic, would be affected in the vicinity of this alternate.

**Alternative 1 – No Action Alternative**

Under the No Action Alternative, no impact to historic resources would occur.

**Alternative 2 – Crowne Filtration Plant**

Under the Proposed Action, no impacts to historic properties are anticipated. Consultation with the Ohio SHPO determined that the proposed communications tower will have no adverse effect on documented properties listed on or eligible for the National Register of Historic Places located within the project's APE.

**Alternative 3 – Cleveland Electric Illuminating**

Under Alternative 3, no impacts to historic properties are anticipated. This alternative involves the placement of equipment on an existing tower, and would not increase the current tower height or significantly alter the current appearance.

**3.5.2 Archaeological Resources**

A state records review and a field examination of the proposed project area found no previously recorded archaeological sites or evidence of archaeological remains within the project's APE. A Cultural Resources Survey was conducted in May 2006 for the proposed project area by ASC Group, Inc. The ground surface of the APE for direct effects was determined to consist of mown grasses and other weeds. Shovel tests at the area of the proposed access road and in the proposed equipment compound indicated that soils in the proposed project area were previously disturbed and consisted of fill dirt. Therefore, based on the fill soils located in the proposed project area, it was determined that there would be no cultural resources at the proposed project area to be adversely affected. The Cultural Resource Report is included in Appendix F. The Ohio SHPO was also consulted regarding potential impacts of the proposed project on archeological resources. The SHPO concluded that for the proposed project at the Crowne Filtration Plant site, no archeological sites were identified, no further archaeological work is necessary, and no further coordination with the SHPO was required unless the project changed or archaeological remains are discovered during construction activities.

**Alternative 1 – No Action Alternative**

Under the No Action Alternative, no impact to archaeological resources would occur.

**Alternative 2 – Crowne Filtration Plant**

Under the Proposed Action, no impacts to archaeological resources are anticipated. Consultation with the Ohio SHPO determined that for the proposed communications tower site, no archeological sites were identified, no further archaeological work is necessary, and no further coordination was required unless the project changed or archaeological remains are discovered during construction activities.

### **Alternative 3 – Cleveland Electric Illuminating**

Under Alternative 3, no impacts to archaeological resources are anticipated. This alternative involves the placement of equipment on an existing tower. Excavation around the base of the existing tower would take place on previously-disturbed ground.

### **3.5.3 Indian Religious Sites Investigation**

In spring 2006, the Federal Communication Commission's (FCC) Tower Construction Notification System (a voluntary email system) was used to facilitate coordination with the following tribes under Section 106 of NHPA regarding the proposed communications tower: Shawnee Tribe of Oklahoma, Tonawanda Band of Seneca, Onondaga Indian Nation, Cayuga Nation, Tuscarora Nation, Lac Courte Oreille Band of Chippewa Indians, Pokagon Band of Potawatomi Indians, Eastern Shawnee Tribe of Oklahoma, Ottawa Tribe of Oklahoma, Delaware Tribe of Indians, Shawnee Tribe, and the Seneca Nation of Indians. Several of the notified tribes responded that had no concerns with the proposed action. Others, per their stated procedures, indicated they would not respond given the nature of the project, and therefore had no objections. Additional information was requested by two tribes; following review of the supplemental information both tribes indicated they had no objection. However, no responses were received from the Lac Courte Oreille Band of Chippewa Indians, or Pokagon Band of Potawatomi Indians. Therefore, the matter was referred to the FCC. The FCC responded that a "Proposed Construction of Communications Facilities Notification of Final Contact" would be sent to those tribes, which concludes coordination efforts if no response is received within 20 days; no responses were received from the tribes. Tribal coordination documentation is provided in Appendix B.

Indian tribes have not been consulted about the presence of religious sites or cultural resources in the vicinity of Alternative 3. However, the Cleveland Electric Illuminating site is already a developed tower compound and the alternative involves the placement of equipment on an existing tower which would not increase the current tower height or significantly alter the current appearance. Excavation around the base of the existing tower would take place on previously-disturbed ground.

### **Alternative 1 – No Action Alternative**

Under the No Action Alternative, no impacts to Indian religious sites would occur.

### **Alternative 2 – Crowne Filtration Plant**

Under the Proposed Action, no impacts to Indian religious sites are anticipated. If artifacts or human remains are encountered during construction activities, work shall cease immediately and the applicant shall notify FEMA, the SHPO, and local authorities, if appropriate.

### **Alternative 3 – Cleveland Electric Illuminating**

Under Alternative 3, no impacts to Indian religious sites are anticipated. If artifacts or human remains are encountered during construction activities, work shall cease immediately and the applicant shall notify FEMA, the SHPO, and local authorities, if appropriate.

## **4.0 CUMULATIVE IMPACTS**

Cumulative impacts are those effects on the environment that result from the incremental effect of the action when added to past, present and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative

effects can result from individually minor, but collectively significant, actions taking place over a period of time. No on-going or proposed actions are known for the project area.

## **5.0 PUBLIC PARTICIPATION**

A Public Notice of intent to fund the proposed communications tower at 955 Clague Road in Westlake, Cuyahoga County, Ohio was published in the September 21, 2006 edition of *The Plain Dealer* and public comments were solicited concerning the proposed action. No responses regarding the proposed action were received. A copy of the Public Notice is included in Appendix B.

## **6.0 SUMMARY/CONCLUSION**

Cuyahoga County is examining options to achieve communications interoperability for first responders in the event of a natural disaster, act of terrorism, or other emergency situation. One alternative entails the construction of a new 299 foot lattice tower and associated equipment shelter within the previously disturbed Crown Water Works filtration plant compound, another alternative considered was the modification of an existing tower and collocation of new antennas on that tower.

In Compliance with NEPA, this EA describes the anticipated effects that two Action Alternatives and a No Action alternative would have on farmland, water resources and water quality, floodplains, biological resources including threatened and endangered species and migratory birds, air quality, socioeconomics, historic properties, and cultural resources. No adverse long term impacts to any of the resource areas are anticipated with either of the action alternatives.