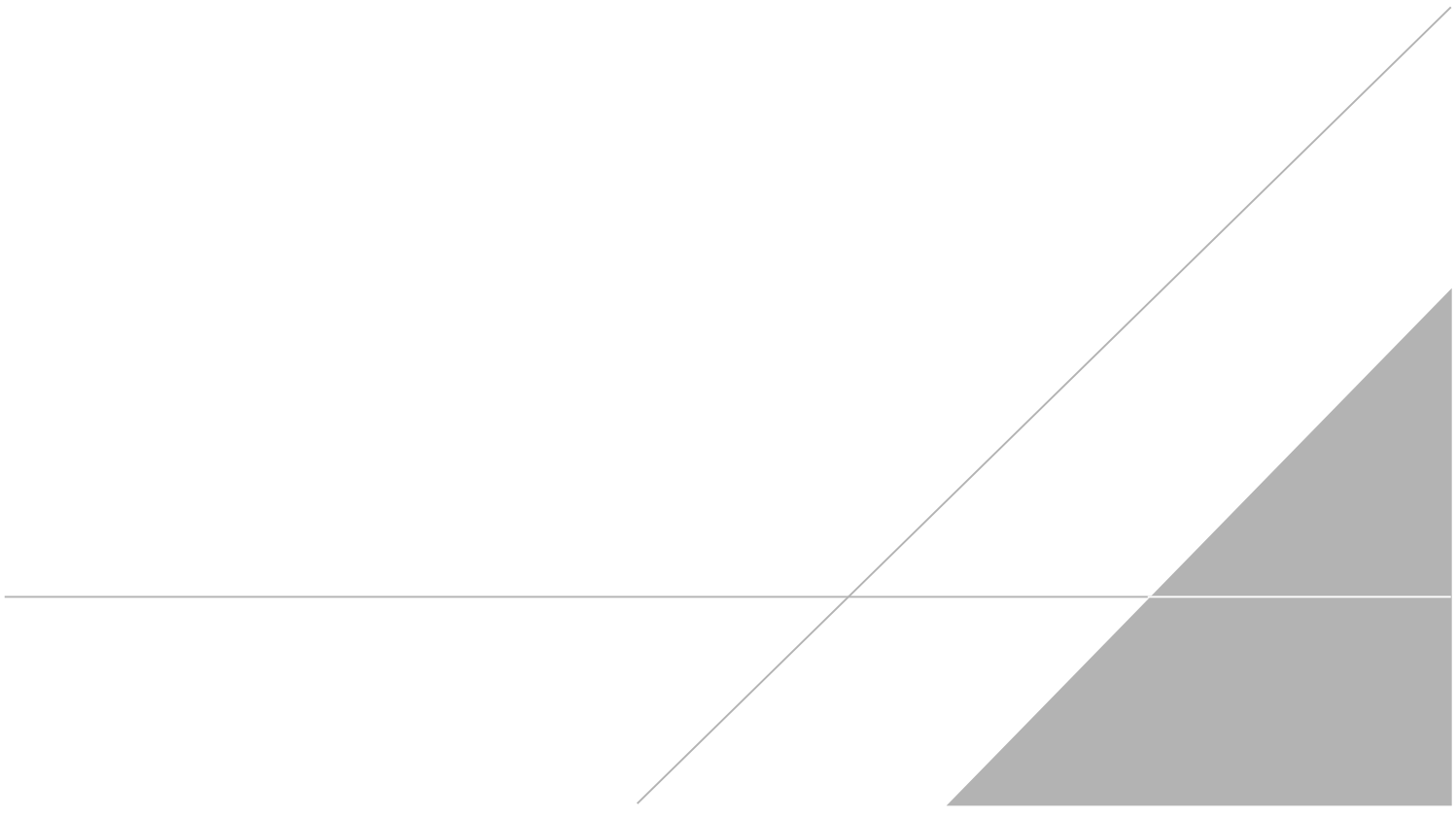
Appendix C

Dust Monitoring Plan



DUST CONTROL PLAN

- FOR -

MAN-O-TREES, INC.

- CONCERNING -

DUST CONTROL ACTIVITIES
HANNA DRIVE, BUFFALO, NEW YORK 14203

UNION SHIP CANAL PUBLIC SPACE PROJECT

Prepared by

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Plan:	Dust Control Plan (DCP)
Project:	Buffalo Urban Development Corporation Buffalo lakeside Commerce Park (BLCP) Site Union Ship Canal Public Open Space Parcel 3 Development Project Hanna Drive at Ship Canal Parkway, Buffalo, New York 14203
General Contractor:	Man-O-Trees, Inc. 1500 Union Road, Suite 201 West Seneca, NY 14224 (716) 853-0944
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Table of Contents **Page**

Section 1

GREAT LAKES ENVIRONEMTAL & SAFETY CONSULTANTS

Introduction

1.0 INTRODUCTION

The purpose of this plan is to identify standards, practices, and procedures to minimize personnel exposure to airborne particulates generated as part of the material handling activities to be conducted at Hanna Drive, Buffalo, New York as part of the Union Ship Canal Public Open Space Parcel 3 Development Project. Where identified, the material and material piles will be re-used on this project or transported off site for disposal. This Plan describes procedures that must be followed to minimize exposures to workers, the public, as well as the environment.

Section 2

GREAT LAKES ENVIRONEMTAL & SAFETY CONSULTANTS

Hazard Evaluation

2.0 HAZARD EVALUATION

Based on previous experience with the activities to be conducted at the site, the principal hazard identified is airborne particulates (i.e., dust) generated as part of the material handling operations. Workers have the potential for exposure to airborne particulates during the construction activities that manage or process the material. The principal routes of exposure would be through incidental ingestion or inhalation of dust from the construction activities. These exposures will be negligible if workers use proper personal hygiene, as well as engineering and administrative controls as defined in this Plan.

Construction activities that involve material handling at the site require that site workers to undertake protective measures. This section identifies potential fugitive dust sources and control techniques associated with the material moving activities. The potential sources include those associated with typical construction activities, such material staging, handling and transport of the material. The following potential dust sources have been identified for this project:

2.1 Material Excavation, Handling and Staging

The primary contributing factors to fugitive dust emissions during material excavation, handling, and staging is based on moisture content of the materials, type of handling equipment (i.e., loader, excavator, etc.), drop heights, handling rate, and meteorological conditions, including wind speed and precipitation. The management of the material handling can potentially result in fugitive dust emissions.

2.2 Vehicular Traffic

The primary source of fugitive dust from vehicular traffic is a result of contact between the vehicle wheels and the ground surface. Fugitive dust emissions associated with movement of vehicles on-site will be a function of vehicle speed, vehicle weight, number of wheels, silt content of the road material, moisture content of the road material, and the frequency of precipitation events. Of these factors, control of moisture content and vehicle speeds for on-site areas will be implemented as the primary fugitive dust control measures. In addition, vehicular tires will be periodically inspected for cleanliness and

cleaned as necessary, to prevent excessive material (i.e., materials) from being tracked onto paved surfaces.

Section 3
Hazard Control Strategies

GREAT LAKES ENVIRONEMTAL & SAFETY CONSULTANTS

3.0 HAZARD CONTROL STRATEGIES

Hazard control strategies will be implemented in all areas of the material handling activities to insure both worker and public safety. Control measures will be required any time dust stays in the air for 5 minutes or reaches 20 feet in height. In addition, control measures are required when dust plumes exceed 20 percent visual opacity.

Dust control will be achieved primarily through application of water or an approved dust palliative. Water for dust abatement will not be appropriated from surface waters. Application rates for the dust palliative will follow the manufacturer's recommendations, as necessary. All dust palliatives used will be biodegradable. Based on this guidance the following control strategies may be employed to mitigate the generation and migration of fugitive dust during material excavation and handling activities.

3.1 Engineering Controls

Typical engineering controls to be utilized to control airborne hazards during the material handing activities are as follows:

- applying water on the stockpiles and other surfaces which may give rise to airborne dust;
- spraying water on temporary roads at the end of the work shift to form a thin crust;
- misting equipment;
- covering, when in motion, open-bodied vehicles transporting materials likely to release airborne particulates;
- A windsock will be installed and maintained so that wind direction can be determined

If the dust suppression techniques do not lower visual observations, the specific task generating the fugitive dust may be suspended until appropriate corrective measures are identified and implemented to remedy the situation.

3.2 Administrative Controls

All workers must have site-specific training relative to the safe work practices necessary to minimize exposure to dust as part of the material handling activities. The training will include at a minimum:

- the use of proper Personal Protective Equipment (PPE);
- a job site walk-over to show the designated "work zones" at the site;
- areas where eating and drinking are permitted;
- the areas where PPE will be donned and where PPE will be doffed;
- proper worker decontamination procedures;
- proper equipment decontamination procedures; and
- proper use of the windsock

3.3 Personal Hygiene

The following personal hygiene rules will be observed at all times at the site.

- Eating, drinking, chewing gum or tobacco smoking, or any practice that increases the probability of hand-to-mouth contact is strictly prohibited in the work areas.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth contact of contaminants is permitted only in designated areas after hands and face are thoroughly washed.

- Carrying food, beverage, matches, lighters, Chap-Stick, cosmetics, etc., around the worksite is prohibited.

- Be conscious of any personal habit that could introduce dust into the body (i.e., wiping face or nose with a dirty hand, running a dirty hand through hair, etc.)

- Check that- any regularly worn item is Clean. Examples include dirty watchbands, neck chains and/or a dirty liner on your safety helmet.

3.4 Personal Protective Equipment (PPE)

The purpose of PPE is to minimize contact of the worker or his/her clothing with dust at work site. PPE may include:

- Washable or disposal cloth coveralls
- Steel toe work boots
- Safety glasses meeting ANSI 287
- Hardhat meeting ANSI Z89
- Leather/cotton gloves as needed
- Hearing protection
- Disposable respirator for particulates

3.5 Air Monitoring (PPE)

The effectiveness of dust controls will be evaluated through the use of real-time monitoring utilizing a dust meter (i.e., RAM-1 Real Time Aerosol Monitor or equivalent). The use of water spray will be optimized so that fugitive dusts are sufficiently controlled, while preventing generation of surface-water runoff. The ambient air monitoring program will consist of one monitoring station located immediately downwind of subgrade excavation, grading, and material handling activities.

Normal operating conditions for fugitive dust control are dictated by ambient air monitoring results. In accordance with the NYSDEC TAGM No. 4031, "Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites (October 27, 1989), the ambient air monitoring action level for PM-10 is 150 ug/m^3, integrated over a fifteen minute period. If the 150 ug/m^3 action level is exceeded, then an upwind background measurement will

be taken. If the downwind levels are less than 100 ug/m^3, then no further action is required. However, if the number is higher than 100 ug/m^3, additional dust control measures must be taken. In accordance with the Material/Fill Management Plan, air monitoring data will be recorded in a field logbook daily and copies transmitted to the Engineer on a weekly basis and posted on site as necessary.

Section 4

GREAT LAKES ENVIRONEMTAL & SAFETY CONSULTANTS

Contact Information

4.0 CONTACT INFORMATION

In the event of an emergency, the following individuals are to be contacted:

Name	**Cell Phone #**	**Work Phone #**
John Stock; Superintendent	(716) 570-1181	(716) 677-5577
Dave Pfeiffer; President	(716) 807-8550	(716) 677-5577
Keith Kabeary Project Manger	(716) 860-6932	(716) 677-5577

Engineer	Malcolm Pirnie, Inc. 50 Fountain Plaza Suite 600 Buffalo, New York 14202 Tel: 716-667-0900 Fax: 716-667-0279
New York State Department of Environmental Conservation	NYSDEC Region 9 Office 270 Michigan Avenue Buffalo, NY 14203 Tel: (716) 851-7200 Fax: (716) 851-7252
Local Emergency Responders	Town Of Lackawanna Fire Station #1 66 Ridge Road Lackawanna, NY 14218 716 823-0211 or 911