

BUD Soil Program at COVENTRY LANDFILL



May 26, 2015

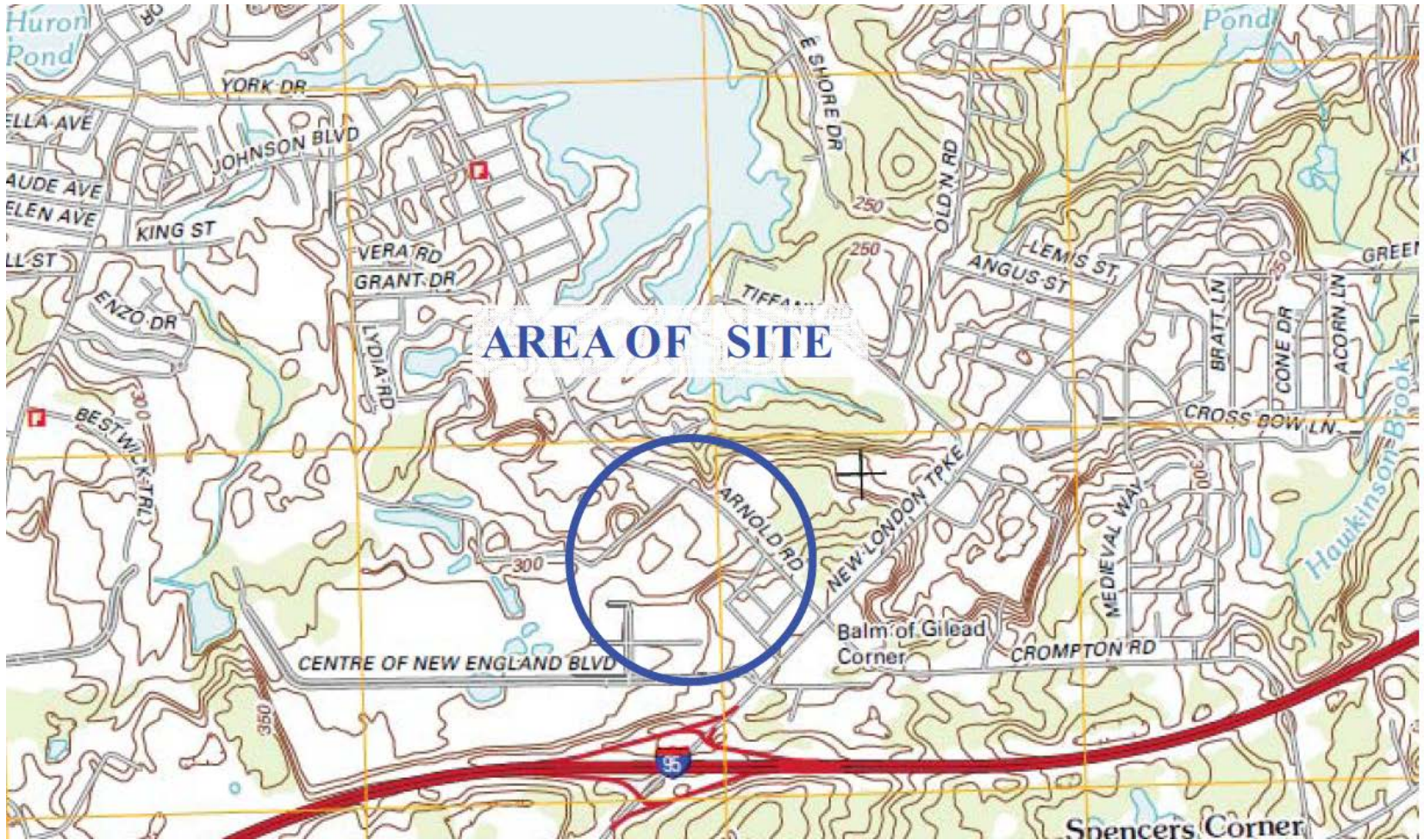


Introduction

- The Town Landfill on Arnold Road was active from the late 1940s to mid 1970s
- Town shares obligation with PRP Group (consisting of entities that disposed of waste at the Landfill) to close under the current RIDEM Solid Waste Regulations
- Initial capping cost estimates including purchase of subgrade and capping soils were over \$5,000,000



LANDFILL LOCATION



LANDFILL SITE



Proposed Remedy

- Capping of Landfill with two foot thick clean soil cap
- Cap will incorporate landfill gas vents
- Active treatment of contaminated soil/groundwater
- Change of groundwater classification under Landfill to non-drinking water quality (RIDEM GB)
- Imposition of Environmental Land Usage Restriction on Landfill property
- Prohibition by Town ordinance of use of groundwater for potable purposes in areas downgradient of Landfill until groundwater meets drinking water quality standards
- Post-closure monitoring of Landfill gas and groundwater



Capping of Landfill

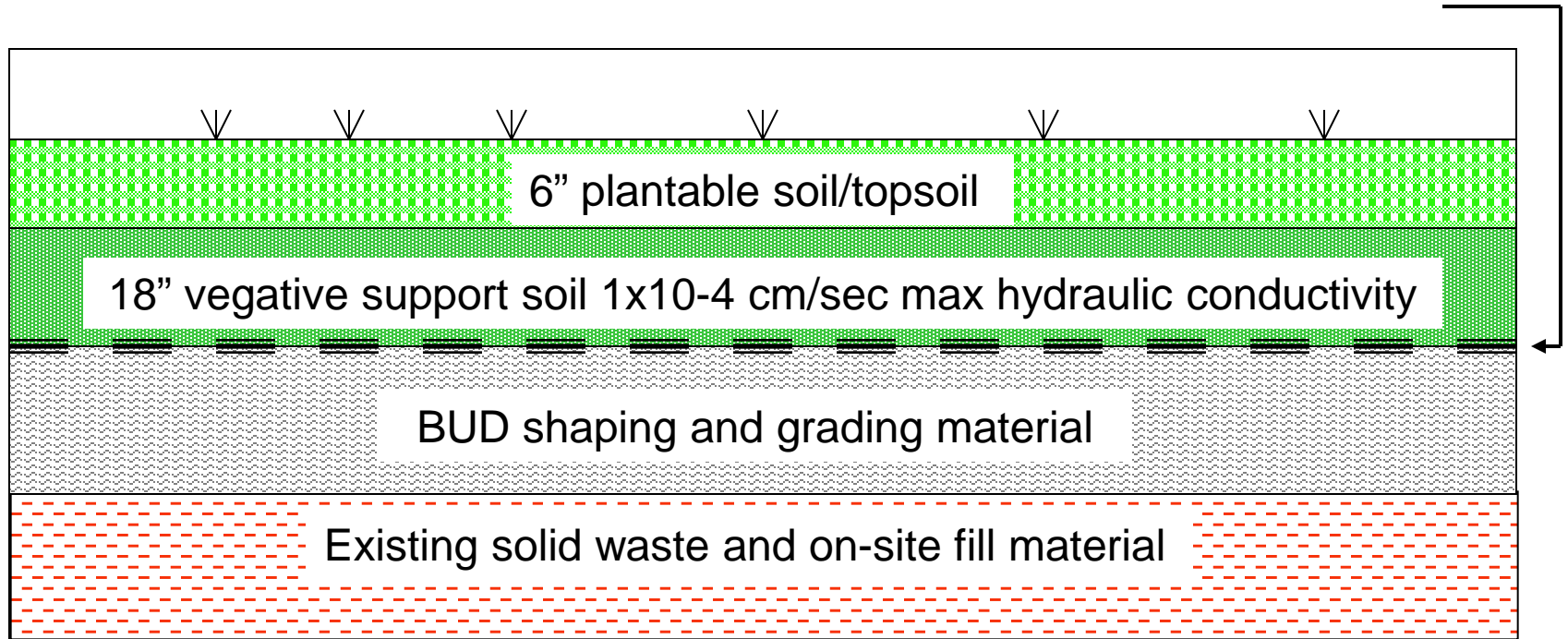
- Part of capping process will entail regrading of existing Landfill before the clean soil cap is installed
- Regrading is required under RIDEM subgrade soil requirements in order to limit surface water infiltration through cap and to control stormwater runoff and soil erosion
- Regrading and subgrade shaping would have required a minimum of 88,000 cubic yards of material at a cost of about \$2 million



CROSS SECTION OF FINAL CAP CONSTRUCTION

Soil Cap Detail, (grasses areas) (typical) not to scale

non-woven geotextile marafi 140-n or equivalent (6 oz fabric),
used as warning barrier to limit future excavation



Program

- Use of Beneficial Use Determination (“BUD”) materials under program established by RIDEM under R.I.G.L. Section 23-18.9-16 and RIDEM Guidelines
- Use of BUD materials in closure of a landfill can result in significant cost savings



What is a BUD Program?

- BUD Program involves reuse of certain types of solid waste in lieu of new materials for certain purposes (e.g., landfill closure)
- Examples of such types of solid waste include urban fill from construction and/or excavation projects, catch basin cleanings, street sweepings and dredged materials
- To qualify for a BUD program, a detailed application must be filed and approved by RIDEM after a public hearing



Coventry LF BUD Program

- Program will include delivery and use of 300,000 cubic yards of BUD materials over approximately 3 years
- BUD materials will be used in regrading of Landfill and construction of subgrade to eliminate steep side slopes and to ensure proper drainage of surface water off the top of the Landfill

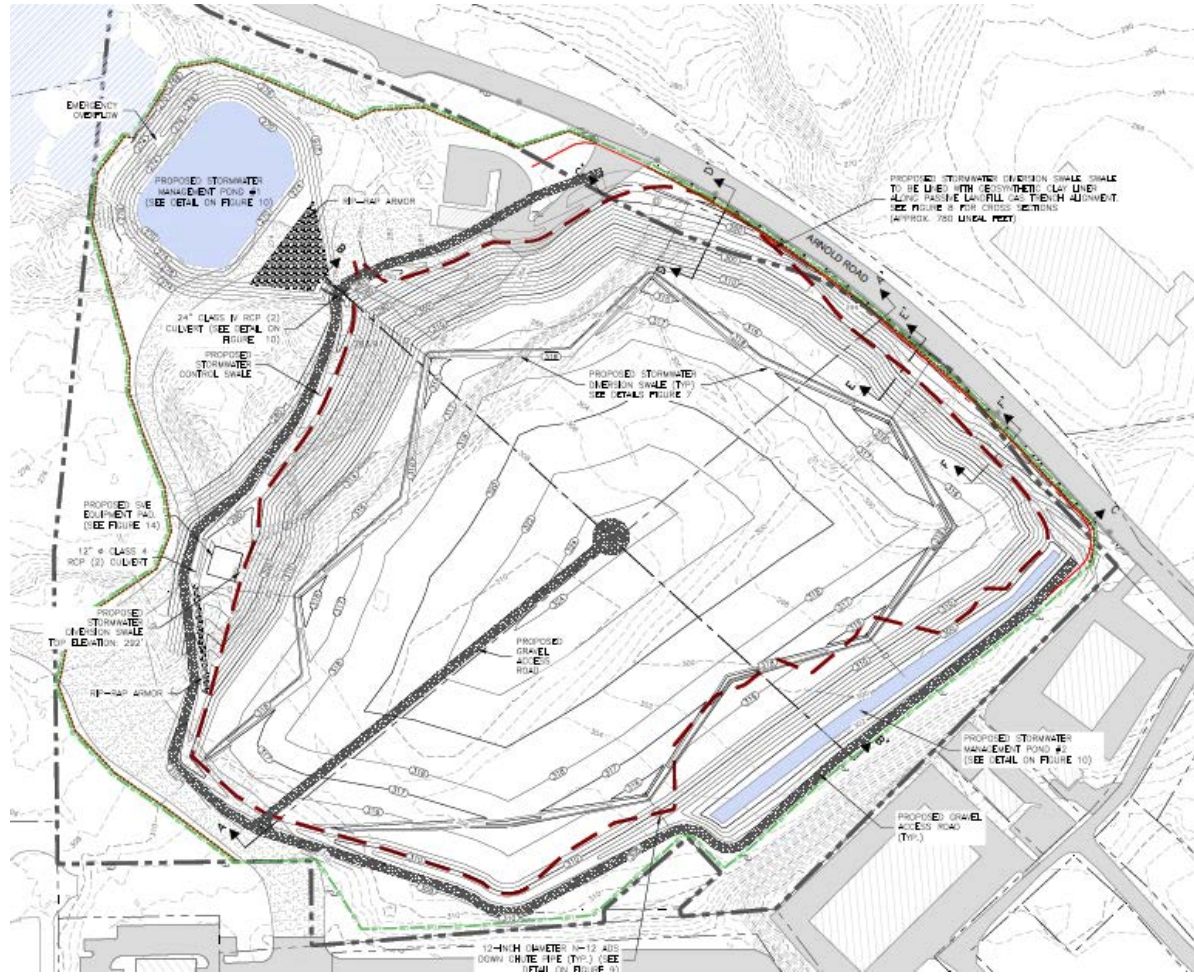


Town's Proposed BUD Program

- Height of Landfill in the center will be raised about 12 to 13 feet above current elevation
- When capping is completed, top of Landfill will have about 10 relatively flat acres available for use by Town for potential installation of ground-mounted solar electric system
- Potential net remedial costs savings from combination of total excess net revenue from acceptance of BUD materials and subgrade soil cost offset: up to approx. \$4 million



Proposed Final Grades of Capped Landfill



Elements of Town's Proposed BUD Program Application

- Materials Management Plan contains specific requirements for delivery, acceptance, use and management of BUD materials
- Acceptable materials will have specific chemical and physical characteristics, maximum allowable contaminant levels (RIDEM direct exposure standards for industrial/commercial soil, Arsenic <19 ppm and Benzo(a)pyrene ≤ 4 ppm) and allowable organic content
- No materials classified as hazardous under federal or state law will be allowed



List of Acceptable Materials, Characteristics and Contaminant Levels

- Urban fill (impacted soil)
- Incinerator ash (coal and wood ash)
- Street sweepings
- Catch basin cleanings
- Dredge spoils
- Other acceptable materials in accordance with the MMP



Pre-characterization of BUD Materials Prior to Delivery

- Physical consistency of the recycled soil will generally be silty, sandy or gravelly soil.
- All material will be laboratory analyzed.
- Incinerator Products are analyzed for RCRA-8 Metal and TCLP and Total Cyanide
- Soils are analyzed for RCRA-8 Metals (TCLP for exceedances of the 20 times rule), Total Petroleum Hydrocarbons (TPH), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds and Total Polychlorinated Biphenyls at a rate of one sample for every 500 cubic yards



Acceptance Criteria

- No Hazardous Waste
- Generally meeting RIDEM I/C DEC
- Arsenic up to 19 mg/kg
- Benzo(a)pyrene up to 4 mg/kg
- More specifics available in package



Truck Route to and from Coventry Landfill

- Access to the Site is from Arnold Road. Arnold Road can be reached from Interstate 95 by taking exit 7 to the New London Turnpike north. Turn left on Arnold Road, the Site will be on the left. The distance from Interstate 95 to the Site is less than 1/2 mile.



Interim Stormwater Management During Construction

- Silt fence around active BUD areas and Turbidity curtain in existing former wash pond.
- Active work area will be limited in size (less than 5 acres) to limit erosion.
- Surface water controls are in place to receive flow during construction.
- Site has been graded such that no stormwater leaves the Site.



Recordkeeping and Reporting Requirements

- During hours of operation a gate attendant will be on-site to record weights and material deliveries. Weight slip records of loads will be maintained on Site. Information will include date and time, hauler and a classification of the material delivered.
- Truck drivers will receive a written protocol for on Site safety.



Following the Completion of Active Remediation

- Maintenance of final soil cap
- Stormwater management and control
- Continued soil/groundwater treatment (as necessary)
- Continued landfill gas monitoring
- Continued groundwater monitoring at downgradient boundary (northern edge of Arnold Road) to determine compliance with groundwater quality standards and completion of 30 years monitoring as required by the solid waste regulations.



BUD Contractor

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BUD Packages Available From

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Thank You!

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