

## Understanding Regulatory Requirements for Soil and Fill Recyclable Materials

### Contents

Introduction	1
Other ‘Restricted Use’ Soil and Fill	2
Soil and Fill at Contaminated Sites Undergoing Remediation	4
Dredged Material	5
Soil and Fill Recycling Services License	6
Protected Land Areas	7
Self-Help Compliance Considerations and Recommendations	8
Additional Information/Web Links	9
APPENDIX 1 Contaminant Standards for Non-Restricted Soil And Fill Material	12

### Disclaimer

*Readers of this information should review this document in its entirety and should not consider this reference document as the sole source of information sufficient to dictate any outcome or decision on the use and/or placement of soil and fill material. Readers should refer to the DEP rules and guidance provided throughout this document.*

### Introduction

Generally, **‘Soil’**, also commonly referred to as “earth” or “dirt”, is a mixture of organic matter and minerals. Some definitions distinguish dirt from soil by defining dirt as displaced soil. Soil is used for various purposes including agriculture, manufacturing, construction, and landscaping.

**‘Fill’** in general, refers to material placed on land for the purpose of filling low areas, changing the contours of an area, stabilizing existing grades, supporting road and construction/foundation activities or raising the grade of an area. Fill usually consists of natural soils, sands, clays, rock and gravel but may also include under certain conditions, processed recycled brick, block, concrete, glass, and ceramics, or combinations of these materials.

Soil and fill can be generated from a host of activities including mining, property development, construction/demolition, soil blending/manufacturing, dredging, landscaping, and remediation activities. For purposes of this document and applicable regulatory requirements, the terms “soil” and “fill” convey the same meaning.

Soil and fill that contains, or is mixed with debris (trash, garbage, lumber, plywood, metals, plastics, wire, wallboard, roofing materials, insulation, carpets, padding, sewage, etc. -

May 2, 2023

Updated May 8, 2024

either separately or in combination), is considered solid waste per [N.J.A.C. 7:26-1.6\(a\)6](#) and cannot be repurposed, recycled, or redeposited in any fashion and must be directed to a permitted solid waste disposal facility.

Soil and fill that does not contain debris but is determined to have concentrations of one or more contaminants that exceed New Jersey Department of Environmental Protection (DEP) Residential Soil Remediation Standards, is also considered solid waste but may, with appropriate approvals, be repurposed and beneficially reused at certain remediation sites, to close terminated landfills, as alternative daily cover material at operating landfills, or other uses as determined by the DEP. The DEP Waste Program refers to these materials as 'restricted use' soil and fill. Conversely, soil and fill that does not have contaminants that exceed DEP Residential Soil Remediation Standards is referred to as 'non-restricted' soil and fill recyclable material.

Specific 'restricted use' soil and fill materials such as [petroleum contaminated soil \(PCS\)](#) can be treated (depending on the degree of contamination) at certain DEP approved Recycling Centers (as listed in DEP's [Class B Recycling Facilities January 2023](#) list) and repurposed accordingly. While no longer generated in significant volumes, [coal combustion fly ash](#), [coal combustion bottom ash](#) or [paper fiber combustion ash](#) (ash produced by incineration of paper mill fiber and paper de-inking sludge by-products) are categorically approved for beneficial use as subbase fill in roadway construction and require no additional approval or authorization from the DEP (written or otherwise) unless destined for reuse at a contaminated site undergoing remediation. Please note that any soil or fill materials, restricted use or otherwise, destined for reuse at contaminated sites undergoing remediation, have separate and specific authorizations and requirements (discussed further below under 'Soil and Fill at Contaminated Sites Undergoing Remediation' heading).

## Other 'Restricted Use' Soil and Fill

New Jersey has legislated specific usage requirements for additional restricted use materials including 'Asphalt Millings' and 'Steel Slag' that may also be used for fill purposes.

'Asphalt Millings', also referred to as 'recycled asphalt product', 'recycled asphalt pavement' or 'RAP' is conditionally approved for use in:

- a. Asphalt manufacturing plants as feedstock for production of new asphalt.
- b. In road construction projects following approved NJDOT guidelines.
- c. Bedrock quarry reclamation.
- d. Underneath a guardrail of a public road or highway for weed suppression and erosion control.
- e. Singularly, or mixed with other non-restricted soil and fill recyclable materials for use as a base or subbase material in accordance with applicable engineering designs.

- f. As a surface material for a parking lot, farm road, or pathway, or in any other use or location as authorized by DEP.

The conditions for RAP use/placement as described above include pre-testing the area to determine the pH level. Use of asphalt millings in areas with a pH of four (4) or less has additional requirements and users must be able to demonstrate to DEP that the level of any contaminant in the RAP material is at or below a concentration such that, if leaching occurs, the dissolved concentration of the contaminant in the leachate is at or below all applicable drinking water quality standards established by the DEP and USEPA, and the applicable groundwater quality standards established by DEP. If this cannot be demonstrated, the DEP requires the installation of a non-restricted soil and fill recyclable material layer between the RAP and the groundwater aquifer at a depth to be determined by the DEP. A guidance document with additional details about the conditions for RAP use/placement is in development by DEP and will be added as a reference here when it becomes available.

'Steel Slag', is the nonmetallic material generated during smelting of iron ore or scrap steel to produce new steel. Provided the steel slag has been demonstrated to not contain contaminants at hazardous waste levels, rendering the material a hazardous waste pursuant to 40 C.F.R. Part 261, Federal Regulations on Identification and Listing of Hazardous Waste, the steel slag can be used:

- a. as an aggregate in making cement, concrete, or bituminous mixes such as pavement surfaces, wearing and binder courses, bases, surface treatments, seal coats, slurry coats, and cold patch;
- b. as an anti-skid material or snow and ice control aggregate;
- c. for stabilized shoulders and banks provided that an ecological evaluation is first performed and approved by the DEP when the slag is to be used for bank and erosion control adjacent to surface waters or other environmentally sensitive areas;
- d. as engineered aggregate base or sub-base courses up to eight inches thick under permanent structures, pavements, and sidewalks, except that thicknesses greater than eight inches and up to 24 inches may be used under non-residential permanent structures only if the greater thickness is supported by an engineering justification developed by a licensed professional engineer familiar with the material justifying why a thickness greater than eight inches is needed;
- e. as railroad ballast;
- f. as a replacement for limestone for the neutralization of mine drainage and industrial discharge, provided that uses in, or adjacent to, water abide by all other applicable laws, rules, and regulations;
- g. as soil amendment to adjust pH and reduce the leachability of contaminants in the soil. A use pursuant to this paragraph shall be evaluated and approved individually by either a licensed site remediation professional or the DEP prior to its implementation;

- h. in controlled industrial uses such as granular fills up to eight inches required for unpaved parking and storage areas, pipe and tank backfill, berm construction, and other industrial and construction activity;
- i. as a replacement for natural aggregate at steel mills;
- j. as alternate cover material for roads to working surfaces at solid waste landfills;
- k. as roofing granules; and
- l. as cover material up to eight inches for the installation of solar collectors.

## Soil and Fill at Contaminated Sites Undergoing Remediation

As noted previously, there are special regulatory requirements, approvals, considerations and definitions for soil and fill associated with sites undergoing remediation in New Jersey and the acceptable use of soil and fill materials at contaminated sites is very specific to the underlying conditions of the site being remediated.

Soil and fill used for remediation purposes must comply with the DEP's Technical Requirements for Site Remediation (N.J.A.C. 7:26E) and the most recent version of DEP's Fill Material Guidance for SRP Sites.

"Alternative fill" means material to be used in a remedial action that contains contaminants in excess of the most stringent soil remediation standards, site-specific alternative standards, or site-specific interim standards and does not contain free liquids. This also includes any material that contains contaminants that exceed criteria, or action levels for contaminants without standards, available on the DEP's website at [nj.gov/dep/srp](http://nj.gov/dep/srp). Alternative fill can be soil or non-soil.

Alternative fill containing waste debris (trash, garbage, lumber, plywood, metals, plastics, wire, wallboard, roofing materials, insulation, carpets, padding, sewage, etc. - either separately or in combination) are subject to regulation as a solid waste. Alternative fill exclusively containing recycled brick, block, concrete, glass, and ceramics (also considered inert solid aggregate substitute) is not subject to solid waste regulations unless abandoned.

"Clean fill" means material to be used in a remedial action that meets all soil remediation standards, site-specific alternative standards, or site-specific interim standards, does not contain extraneous debris or solid waste, and does not contain free liquids. This also includes any material that meets all criteria, or action levels for contaminants without standards, available on the DEP's website at [nj.gov/dep/rules/rules/njac7\\_26d.pdf?202105](http://nj.gov/dep/rules/rules/njac7_26d.pdf?202105). This material can be soil or non-soil.

"Historic fill material" means non-indigenous material, deposited to raise the topographic elevation of the site, which was contaminated prior to emplacement, and is in no way connected with the operations at the location of emplacement and which includes, without limitation,

construction debris, dredge spoils, incinerator residue, demolition debris, fly ash, or non-hazardous solid waste. Historic fill material does not include any material that is substantially chromate chemical production waste or any other chemical production waste or waste from processing of metal or mineral ores, residues, slag or tailings. In addition, historic fill material does not include a municipal solid waste landfill site.

Historic fill material, that meets the definition of alternative fill, that is determined to be a 'non-soil' such as asphalt millings, construction and demolition screenings or other debris (or is a mixture of soils and non-soils) intended for reuse requires specific beneficial use approval from the DEP. ([nj.gov/dep/dshw/rtrtp/bud.htm](http://nj.gov/dep/dshw/rtrtp/bud.htm)).

The use of alternative fill that increases site elevation above its original grade at any remediation site is only allowed at DEP's discretion and requires DEP review and written pre-approval pursuant to N.J.A.C. 7:26E-5.2(b)3.

## Dredged Material

Generally, "Dredged Material" refers to the sediments under a New Jersey body of water such as a bay, harbor, lake, stream and river, removed during a dredging (excavation) operation and displaced or moved to another location.

Reuse and repurposing of dredged material can include use as construction material (fill) or landfill cover, among other options. Dredging activities are regulated/permitted under the provisions of the following statutes: New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), Waterfront Development Law (N.J.S.A. 12:5-3 et seq.), Riparian Interests (N.J.S.A. 12:3-1 et seq. and 18:56-1 et seq.), Federal Water Pollution Control Act of 1972 as amended by the Clean Water Act of 1977 (33 U.S.C. § 1251), and Federal Coastal Zone Management Act (16 U.S.C. §§ 1451 et seq.).

While the above Acts provide the primary regulatory structure for the reuse of dredge materials, the materials can be regulated as a solid waste if the required permits or other authorizations are not secured, the material is debris laden or contaminated above standards and the material is abandoned, or the material is not used in accordance with the applicable permits or regulations.

Consistent with other soils and fills destined for reuse at contaminated sites undergoing remediation, dredged materials also require specific approval for use at these sites pursuant to the DEP Technical Requirements for Site Remediation (N.J.A.C. 7:26E) and the DEP Fill Material Guidance for SRP Sites. Additionally, an Acceptable Use Determination (AUD) must be obtained from the DEP Office of Dredging and Sediment Technology for the re-use of dredge materials.

## Soil and Fill Recycling Services License

Persons and businesses engaged, or intending to engage, in “soil and fill recycling services” defined as “the collection, transportation, processing, brokering, storage, purchase, sale or disposition, or any combination thereof, of soil and fill recyclable materials” are required to obtain a soil and fill recycling license (A-901 license) from DEP.

There are a number of exclusions, exceptions, and conditional exclusions and exceptions to the requirement to obtain an A-901 license based on the type of entity, the type of material involved, where the material is being used and volume limitations. The exclusions and exceptions are as follows:

- a) Departments, Divisions, Agencies, Commissions, or Authorities of the State, Federal Government, a State, or a Local Government.

Note: The above exception does not extend or apply to a business entity contracted by a government agency who engages in any of the aforementioned soil and fill recycling service activities.

- b) Businesses that exclusively, or in combination with other excluded or excepted soil and fill, handle Class A recyclable materials which are source separated non-putrescible metal, glass, paper, plastic containers, and corrugated and other cardboard. It should be noted only ‘processed glass’ is a potentially acceptable fill material.
- c) Businesses that exclusively, or in combination with other excluded or excepted soil and fill, handle source-separated Class B recyclable material shipped to a Class B recycling center approved by the DEP. Class B recyclable materials related to soil and fill can include: 1. source separated, non-putrescible, waste concrete, asphalt, brick and block; and 2. source separated petroleum contaminated soils.
- d) Businesses that exclusively, or in combination with other excluded or excepted soil and fill, handle restricted use soil and fill for beneficial use or repurposing which the generator has obtained prior approval from the DEP to transport to an approved and designated destination.
- e) Businesses that exclusively, or in combination with other excluded or excepted soil and fill, handle virgin quarry products including, but not limited to, rock, stone, gravel, sand, clay, and other mined products.
- f) Businesses that exclusively operate solar electric power generation facilities at a properly closed sanitary landfill where soil and fill materials have been previously deposited for permanent disposal.

- g) Businesses that exclusively, or in combination with other excluded or excepted soil and fill, handle non-restricted soil and fill recyclable material (identified as soils and fills that do not contain debris and do not have concentrations of one or more contaminants that exceed DEP's Residential Soil Remediation Standards) provided the business submits to the DEP by July 14 of each year, a completed certification form as prescribed by the DEP.
- h) A person possessing a license issued by the DEP under N.J.A.C. 7:26I authorizing the person to act as an Licensed Site Remediation Professional (LSRP) who is retained to remediate a specific contaminated site under the Administrative Requirements for the Remediation of Contaminated Sites at N.J.A.C. 7:26C-2.3(a)1 and such persons employed by the same firm as the LSRP who are performing remediation at the site and are managed, supervised or periodically reviewed by the LSRP during the performance of the remediation. This exception operates only for remediation of the contaminated site for which the LSRP has been retained, provided the LSRP has complied with the requirements of the Regulations of the New Jersey Site Remediation Professional Licensing Board, N.J.A.C. 7:26I, and with the Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C.
- i) A person possessing a certification issued by the DEP under N.J.A.C. 7:14B-16 authorizing a person to act as a Subsurface Evaluator (SSE) for unregulated heating oil tanks who is retained under the Heating Oil Tank System Remediation Rules, N.J.A.C. 7:26F, to remediate a discharge from one or more unregulated heating oil tank systems at a specific contaminated site. This exception operates only for remediation conducted by the subsurface evaluator at the site that is in conformity with the Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C.

Note: The above LSRP and SSE exceptions, do not extend or apply to any person or business entity subcontracted by the LSRP or the SSE who engage in any of the aforementioned soil and fill recycling service activities.

## Protected Land Areas

Certain land areas in proximity to streams, estuaries, coastal waters, wetlands, wildlife habitat and well heads are protected by various regulatory Acts including the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B et seq.), the Flood Hazard Area Control Act (N.J.S.A. 58:16A), the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et. seq.), the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.), the Waterfront Development Law (N.J.S.A. 12:5-3), the Tidelands Act (N.J.S.A. 12:3), the NJ Water Pollution Control Act (N.J.S.A. 58:10A et seq.), the Pinelands Protection Act (N.J.S.A. 13:18A-1 et seq.) and the Highlands Water Protection and Planning Act

(N.J.S.A. 13:20-1 et seq). Depending on the extent of the activity, most all these Acts have requirements that a permit is secured from the DEP and/or the overseeing Agency before excavation or deposition of any soil or fill materials occur.

## Self-Help Compliance Considerations and Recommendations

To ensure the safe and appropriate reuse, repurposing and recycling of soil and fill materials, ensure compliance with DEP's rules and regulations, avoid potential cleanup costs and associated liability including penalty exposure for violations under the Solid Waste Management Act, the Spill Compensation and Control Act and the various Acts regarding protected lands, it is recommended:

- a) Businesses examine their overall practices and operations relative to the collection, transportation, processing, brokering, storage, purchase, sale or disposition of soil and fill recyclable materials and determine if an A-901 license is required.
- b) Businesses that certify they only handle non-restricted soil and fill recyclable materials need to maintain legitimate quality control/quality assurance ("QA/QC") programs with appropriate recordkeeping and sample analysis records, if applicable.
- c) Generators of soil and fill, haulers and brokers of soil and fill, and entities in control of the locations receiving soil and fill should exercise diligence before moving, transporting or receiving these materials. Simply reviewing analytical data for contaminant levels without a debris assessment may be insufficient. It is recommended that the soil and fill be visually examined for the presence of debris, checked for malodorous smells (sewage, chemical, oil/gas), and that the origin of the material is ascertained. Soil and fill generated from construction, demolition, redevelopment activities and/or remediation activities are of particular concern.
- d) Determine whether the areas being excavated or intended for deposition of soils and fills are protected areas requiring specific permits.
- e) Check to see if generators, brokers and haulers of soil and fill are registered/certified with DEP to provide these services. Question what information is available regarding origin and quality of the soil and fill material. If they do not have the proper credentials, or cannot provide origin and quality information, do not do business. Also, be wary of internet solicitations for "free" or "cheap" fill.



## Additional Information/Web Links

- To send restricted use soil and fill to an operating landfill for use as daily or intermediate cover, the generator of the material should contact the landfill operator for acceptability and instructions. A list of NJ landfills currently operating can be found at:  
[nj.gov/dep/dshw/lrm/aocslf.htm](https://nj.gov/dep/dshw/lrm/aocslf.htm).
- Terminated landfills may only accept restricted use soil and fill in accordance with a DEP approved closure and post-closure plan. To obtain information regarding NJ terminated landfills undergoing closure that may be accepting restricted use material, generators should contact the DEP's Division of Sustainable Waste Management, Bureau of Solid Waste Permitting at (609) 292-9880.
- Authorization to use restricted use fill, in a manner other than at landfills or at remediations, requires submission of an application by the generator of the material (property owner, developer, general contractor, etc. who controls the material when and where first generated) and issuance of a Certificate of Authority to Operate a Beneficial Use Determination (CAO/BUD) project by DEP.
  - An electronic copy of the CAO/BUD Application Form and Instructions for completing the Form can be found at:  
[state.nj.us/dep/dshw/rntp/benuseap.htm](https://state.nj.us/dep/dshw/rntp/benuseap.htm)
  - To ensure all the information needed to complete the review is included, a CAO/BUD Application Review Checklist is provided at:  
[nj.gov/dep/dshw/rntp/benuse/budchklist.pdf](https://nj.gov/dep/dshw/rntp/benuse/budchklist.pdf)
  - For further information regarding the CAO approval process, including assistance with sampling and analytical plans, application requirements, beneficial use project evaluations, and status of project reviews, please contact the DEP's Beneficial Use Section at (609) 984-3438.
- Alternative or clean fill destined for use at a site being remediated pursuant to the Site Remediation Reform Act (N.J.S.A. 58:10C-1 et seq.) or the Brownfield and Contaminated Site Remediation Act (N.J.S.A. 58:10B-1 et seq.) under the supervision of a Licensed Site Remediation Professional (LSRP) must be managed in accordance with applicable Site Remediation rules and the most recent Fill Material Guidance for SRP Sites.
  - The Technical Requirements for Site Remediation, N.J.A.C. 7:26E can be found at:  
[dep.nj.gov/wp-content/uploads/rules/rules/njac7\\_26e.pdf](https://dep.nj.gov/wp-content/uploads/rules/rules/njac7_26e.pdf).
  - The Fill Material Guidance for SRP Sites can be found at:  
[nj.gov/dep/srp/guidance/srra/fill\\_protocol.pdf?version\\_4\\_0](https://nj.gov/dep/srp/guidance/srra/fill_protocol.pdf?version_4_0)

- Additional requirements for reusing recycled asphalt product in locations with a pH below four (4) can be found at [N.J.S.A. 13:1E-99.28a](#) and accessed using the link below:  
[New Jersey Statutes \(Unannotated\): 13:1E-99.28a Use of recycled asphalt pavement.](#)
  
- Additional requirements for reusing steel slag can be found at [N.J.S.A. 13:1E-99.28b](#) and accessed using the link below:  
[New Jersey Statutes \(Unannotated\) 13:1E-99.28b Steel slag use, aggregate; definitions.](#)
  
- Additional information on dredging permits and reuse requirements for dredge sediments can be found at:  
[nj.gov/dep/landuse/activity/dredging.html](http://nj.gov/dep/landuse/activity/dredging.html)
  
- For information regarding Soil and Fill Recycling Services License, or the [Non-Restricted Soil and Fill Certification Program](#), including guidelines, instructions for submissions and the certification form please visit:  
[nj.gov/dep/dshw/a901/a901frms.htm](http://nj.gov/dep/dshw/a901/a901frms.htm)  
[nj.gov/dep/dshw/a901/soil\\_fill\\_recyclable\\_materials\\_cert.pdf](http://nj.gov/dep/dshw/a901/soil_fill_recyclable_materials_cert.pdf)
  
- To check to see if generators, brokers and haulers of soil and fill are registered/certified with DEP, please review both listings included below:  
[Entities certifying for Non-Restricted Soil and Fill Recyclable Materials](#)  
[Soil and Fill Recycling Registration Holders](#)
  
- Some New Jersey municipalities have soil and fill ordinances which require approval from the municipality prior to importing and depositing fill. This requirement may be in addition to, or commensurate with, local construction and/or demolition permits.
  
- For additional information and requirements regarding Protected Land Areas, please visit:  
[DEP-Division of Land Resource Protection-Home](#)  
Freshwater Wetlands Protection Act  
Flood Hazard Area Control Act  
Wetlands Act of 1970  
Coastal Area Facility Review Act  
Waterfront Development Law  
Tidelands Act  
Highlands Water Protection and Planning Act



[Water Resource Management \(WRM\) | Department of Environmental Protection \(nj.gov\)](#)

NJ Water Pollution Control Act

[New Jersey Pinelands Commission | Home \(nj.gov\)](#)

Pinelands Protection Act

- The New Jersey Soil Erosion and Sediment Control Act ([N.J.S.A. 4:24-39 et seq.](#)), implemented by the Department of Agriculture and the State's [soil conservation districts](#), requires all construction activities disturbing greater than 5,000 square feet be developed in accordance with a plan to control erosion during construction. The plan must ensure that erosion will not occur once construction is completed. These land disturbance activities include (but are not limited to) such things as residential and commercial development, transportation and utility infrastructure, public facilities, and mining.
  
- Analysis to determine contaminant levels in soil/fill material generated either in-state or out-of-state, must be performed by a New Jersey Certified Laboratory, which employs only those test methods that have received specific certifications from DEP. Lists of Certified Laboratories are available from the DEP's Data Miner website at:  
[DEP | Division of Science and Research | Certified Laboratories](#)
  
- [Appendix 1](#) is attached to provide a streamlined and pre-sorted version of the Residential Standards to determine if a soil/fill material is appropriate for unrestricted use. Please note these standards are updated periodically and the full regulatory version found in DEP's rules at [N.J.A.C. 7:26D, Remediation Standards \(nj.gov\)](#) should be consulted to ensure the standards provided in Appendix 1 have not changed.
  
- Due to the complexities regarding the use of restricted (non-residential) soil/fill, the DEP recommends that you seek professional advice from Licensed Site Remediation Professionals who understand these requirements and routinely interact with the DEP's Contaminated Site Remediation and Redevelopment Program. The listing of Licensed Site Remediation Professionals can be found at:  
[DEP New Jersey Department of Environmental Protection \(DataMiner\)](#)

## APPENDIX 1

### CONTAMINANT STANDARDS FOR NON-RESTRICTED SOIL AND FILL MATERIAL

- Soil or Fill samples shall be analyzed for Total Metals (including mercury), Semi-Volatiles, Total Volatiles, Pesticides and PCB's and the results compared to the maximum acceptable contaminant concentrations in the table below. If the sampling results exceed the contaminant threshold of any of the parameters, the material should be handled as a solid waste and is not appropriate for re-use or deposition unless treated at a DEP approved facility to reduce the contaminant levels, approved for reuse through a Beneficial Use Determination (BUD) or if applicable, used as alternative fill destined for use at a site being remediated pursuant to the Site Remediation Reform Act (N.J.S.A. 58:10C-1 et seq.) or the Brownfield and Contaminated Site Remediation Act (N.J.S.A. 58:10B-1 et seq.) under the supervision of a licensed site remediation professional (LSRP) and managed in accordance with applicable Site Remediation rules and the most recent Fill Material Guidance for SRP Sites.

**IMPORTANT NOTE:** Soil or fill material with **test results below these standards noted herein**, or any updated standards not yet included here, **are not to be construed as acceptable for use at remediation sites**. Soil and fill for use at sites undergoing remediation have to comply with the technical guidance regarding the use of fill materials at remediation sites which can be found in the Fill Material Guidance for SRP Sites:

[nj.gov/dep/srp/guidance/srra/fill\\_protocol.pdf?version\\_4\\_0](https://nj.gov/dep/srp/guidance/srra/fill_protocol.pdf?version_4_0)

- The concentration values in the table are based on the most recent May 17, 2021 rule amendment, reflecting both Ingestion-Dermal Exposure Pathway and Inhalation Exposure Pathway residential standards, and sorted by Total Metals, Semi-Volatiles, Total Volatiles, Pesticides and PCB's. Please note these standards are updated periodically and the latest versions can be found in DEP's rules at:

[N.J.A.C. 7:26D, Remediation Standards \(nj.gov\)](https://www.nj.gov/regaffairs/rulemaking/rules/7-26D-RemediationStandards/nj.gov)

- Generally, for non-restricted soil and fill material (not for use at remediation sites), one (1) composite sample, taken at the point of soil/fill origin, is sufficient for every 20 cy of fill generated (1½ to 2 dump trucks) or less.



<b>Contaminant</b>	<b>Maximum acceptable contaminant concentrations for non-restricted soil and fill recyclable material based on DEP Soil Remediation Standards (mg/kg)</b> <b>Note: 1mg/kg = 1 ppm</b>
<b>Metals</b>	
Aluminum (total)	78,000
Antimony (total)	31
Arsenic (total)	19
Barium (total)	16,000
Beryllium	160
Cadmium	71
Cobalt (total)	23
Copper (total)	3,100
Cyanide	47
Lead (total)	200
Manganese (total)	1,900
Mercury (total) (elemental for indoor air)	23
Nickel (total)	1,600
Selenium (total)	390
Silver (total)	390
Vanadium (total)	390
Zinc (total)	23,000
<b>Pesticides</b>	
Aldrin	0.041
Chlordane (alpha and gamma forms summed)	0.27
4,4'-DDD (p,p'-TDE)	2.3
4,4'-DDE (p,p'-DDX)	2.0
4,4'-DDT	1.9
1,3-Dichloropropene (total)	4.8
Dieldrin	0.034
Endosulfan I and Endosulfan II (alpha and beta) (summed)	470
Endrin	19
Ethylbenzene	10
alpha-HCH (alpha-BHC)	0.086
beta-HCH (beta-BHC)	0.30
Heptachlor	0.15
Heptachlor epoxide	0.076
Lindane (gamma-HOCH)(gamma-BHC)	0.57
Methoxychlor	320

Toxaphene	0.49
<b>Semi-Volatiles</b>	
Acenaphthene	3,600
Acetophenone	7,800
Anthracene	18,000
Atrazine	220
Benzaldehyde	170
Benzo(a)anthracene (1,2-Benzanthracene)	5.1
Benzo(a)pyrene	0.51
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	5.1
Benzo(k)fluoranthene	51
1,1'-Biphenyl	87
Bis(2-chloroethyl)ether	0.63
Bis(2-chloroethoxy)methane	190
Bis(2-ethylhexyl)phthalate	39
Butylbenzyl phthalate	290
Caprolactam	290
2-Chlorophenol (o-Chlorophenol)	390
Chrysene	510
Dibenz(a,h)anthracene	0.51
3,3'-Dichlorobenzidine	1.2
2,4-Dichlorophenol	190
Diethylphthalate	51,000
2,4-Dimethylphenol	1,300
Di-n-butyl phthalate	6,300
2,4-Dinitrophenol	130
2,4-Dinitrotoluene/2,6-Dinitrotoluene (mixture)	0.80
Di-n-octyl phthalate	630
Fluoranthene	2,400
Fluorene	2,400
Hexachlorobenzene	0.43
Hexachloro-1,3-butadiene	8.9
Hexachlorocyclopentadiene	2.7
Hexachloroethane	17
Indeno(1,2,3-cd)pyrene	5.1
Isophorone	570
2-Methylnaphthalene	240
2-Methylphenol (o-cresol)	320
4-Methylphenol (p-cresol)	630
Naphthalene	6

Nitrobenzene	7.5
N-Nitrosodi-n-propylamine	0.17
N-Nitrosodiphenylamine	110
Pentachlorophenol	1.0
Phenol	19,000
Pyrene	1,800
2,4,5-Trichlorophenol	6,300
2,4,6-Trichlorophenol	49
<b>Volatiles</b>	
Acetone (2-Propanone)	70,000
Benzene	2.2
Bromodichloromethane (Dichlorobromomethane)	11
Bromoform	88
Bromomethane (Methyl bromide)	110
2-Butanone (Methyl ethyl ketone) (MEK)	47,000
Carbon tetrachloride	1.4
4-Chloroaniline	2.7
Chlorobenzene	510
Chloroform	590
2-Chloronaphthalene	4,800
Dibromochloromethane (Chlorodibromomethane)	8.3
1,2-Dibromo-3-chloropropane	0.87
1,2-Dibromoethane (Ethylene dibromide)	0.35
1,2-Dichlorobenzene (o-Dichlorobenzene)	6,700
1,3-Dichlorobenzene (m-Dichlorobenzene)	6,700
1,4-Dichlorobenzene (p-Dichlorobenzene)	780
Dichlorodifluoromethane (Freon 12)	16,000
1,1-Dichloroethane	120
1,2-Dichloroethane	5.8
1,1-Dichloroethene (1,1-Dichloroethylene)	11
1,2-Dichloroethene (cis) (c-1,2-Dichloroethylene)	780
1,2-Dichloroethene (trans) (t-1,2-Dichloroethylene)	1,300
1,2-Dichloropropane	19
1,4-Dioxane	7.0
Extractable Petroleum Hydrocarbons (No. 2 Fuel Oil and Diesel)	5,300
Extractable Petroleum Hydrocarbons (Other)	Sample-specific
2-Hexanone	390

Isopropylbenzene	7,800
Methyl acetate	78,000
Methylene chloride (Dichloromethane)	50
4-Methyl-2-pentanone (MIBK)	NA
Methyl tert-butyl ether (MTBE)	140
4-Nitroaniline	27
2,2'-oxybis(1-chloropropane)	3,100
Styrene	16,000
Tertiary butyl alcohol (TBA)	1,400
1,2,4,5-Tetrachlorobenzene	23
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.000051
1,1,2,2-Tetrachloroethane	3.5
Tetrachloroethene (PCE) (Tetrachloroethylene)	47
2,3,4,6-Tetrachlorophenol	1,900
Toluene	6,300
1,2,4-Trichlorobenzene	94
1,1,1-Trichloroethane	160,000
1,1,2-Trichloroethane	12
Trichloroethene (TCE) (Trichloroethylene)	3
1,2,4-Trimethylbenzene	780
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	NA
Trichlorofluoromethane (Freon 11)	23,000
Vinyl chloride	0.97
Xylenes (total)	12,000
<b>Polychlorinated Biphenyls (PCBs)</b>	
*= Total of the following compounds.	0.25*
Aroclor-1016	
Aroclor-1221	
Aroclor-1232	
Aroclor-1242	
Aroclor-1248	
Aroclor-1254	
Aroclor-1260	
Aroclor-1262	
Aroclor-1268	