

North Bay Materials



Delivery Services

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StormFlow Bioretention Soil Mix – Material Specification

Blend Composition

- 65% Concrete Sand
- 20% Screened Topsoil
- 15% Organic Compost

Manufacturing & Mixing Process:

Bioretention Soil Mix #6 is produced at a **paved, approximately 7-acre blending facility in Northern California**. Materials are blended using a controlled **slab-mixing process on pavement**, based on a **computer-generated production order** to ensure consistency and accurate proportions.

Component material testing — including **sand sieve analysis, topsoil reports, and compost analysis**.

Product Notes & Lead Time

- This material is classified as a **custom engineered blend**.
- Natural variation in raw materials may occur while maintaining overall blend specifications.

Intended Applications

Designed for use in **bioretention systems**, including:

- Bioswales
- Rain gardens
- Stormwater treatment areas
- Low-impact development (LID) projects

Infiltration Rate (0% Slope)

0.54 in/hr

Slope-adjusted infiltration decreases as follows:

Ground Slope	Estimated Infiltration
0%	0.54 in/hr.
4%	0.43 in/hr.
8%	0.32 in/hr.
12%	0.22 in/hr.
16%+	0.14 in/hr.

Saturated Hydraulic Conductivity (ASTM F1815)

11.38 in/hr

Chemical Analysis

Parameter	Result	Interpretation
pH	7.25	Neutral – Ideal for most landscape plants
E.C.	2.17 mmho/cm	Moderate soluble salts
Total Dissolved Salts	1388.8 ppm	Elevated –leaching recommended
C.E.C.	14.8 meq/100g	Good nutrient holding capacity
Organic Matter	11.0%	Adequate for bioretention use
SAR	5.5	Moderate sodium influence
ESP	6.4%	Monitor for long-term compaction

Nutrient Analysis (ppm)

Nutrient	Result
Nitrate	0.04
Phosphorus	59.71
Potassium	612.07
Sulfur	120.00
Sodium	216.89
Calcium	1857.20
Magnesium	370.91
Boron	1.74

Boron Advisory

Boron-sensitive plant species may be adversely affected. Because boron is difficult to leach from soil, sensitive species should be avoided in this mix.

Organic Matter

Organic matter content is **adequate at 11%**.

No additional amendment required at installation.

Optional:

2–3 inch compost top-dressing may improve moisture retention in exposed systems.

Performance Notes

- Infiltration decreases with compaction and slope
- Elevated sodium may reduce long-term permeability without gypsum treatment
- Proper drainage and clean irrigation water are critical
- Blend supports stormwater filtration and vegetation establishment

Compliance & Testing

- Hydraulic conductivity tested per **ASTM F1815**
- Suitable for engineered bioretention and LID systems
- Lab analysis available upon request
- Proprietary blend formulation (supplier confidential)

Applications

- Municipal bioswales
- Commercial stormwater planters
- Parking lot filtration systems
- Rain garden retrofits
- Erosion control plantings
- Vineyard and ranch drainage systems

Packaging & Delivery

Available In:

- Bulk cubic yard delivery by the Dump Load
- Bulk Super Sack -White Tote Bags on Pallets (2 cubic yards)
- Small residential-friendly dump truck loads for tight access areas
- **10 cubic yard minimum order required**

Delivered throughout: Northern California

Disclaimer:

All listed data/testing results is provided by the material producer or 3rd party laboratory. North Bay Materials does not perform or offer in-house aggregate testing. All materials are natural blend, meaning they are machine processed not machine made. North Bay Materials does not guarantee specific nutrient analysis or exact composition percentages. It is the responsibility of the installer to ensure product suitability for intended application.

Material Limitations and Liability:

Please note: Due to natural shifting and separation that can happen during transportation, material or aggregate gradations are only guaranteed at the producer's facility — not at the jobsite. North Bay Materials and our suppliers make no claims or guarantees that this material will meet specific project requirements, specifications, or design standards. It is the buyer's responsibility to confirm suitability and obtain any necessary approvals or certifications prior to use. All materials are provided as is, with no warranties — express or implied — including but not limited to warranties of merchantability or fitness for a particular purpose. We do not guarantee how the material will perform once installed or in any finished work. By purchasing, the buyer agrees that North Bay Materials and our suppliers are not liable for any damages — including indirect, incidental, special, or consequential losses such as lost profits — whether based on warranty, contract, negligence, or any other legal theory, even if those damages were foreseeable.



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