



What to look for when approving Mound Systems

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Look out for...

- Many things to look to for in design, construction, maintenance and operations of mound systems
- Regulator needs to carefully review the design to see it meets suitable regulatory standards
- Check calculations and sizing
- Materials specification and certification
- Communication between designer and installer
- Experienced installer

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Suitability

- Site
- Availability of space
- Level of treatment required
- Affordability

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Pre-treatment

- Primary treatment – septic tank
- Outlet filter
- Non-domestic source?
- Fat, oil and grease

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Sizing

- Daily hydraulic load
- Need to design for organic load?
- Sand loading rate
- Linear loading rate
- Mound proportions and height
- Flank slope gradient / access for mowing
- Toe extended downslope
- Basal loading rate
- Footprint

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Location

- Orientation along contour
- Divert upslope drainage
- Cut and fill / uniformity of underlying soil
- Level ground
- Exposure to wind and sun
- Shading
- Buffers
- Protection from vehicles / stock

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Materials and vegetation

- Media selection appropriate
- Certification
- Blend subsoil with sand media at interface
- Topsoil quality and thickness
- Turf
- Covered from outset
- Vegetation maintained before occupancy

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Distribution system

- Pressure distribution
- Maintain levels
- Distribution manifold pipe sizing
- Orifice sizing and spacing
- Appropriate pump selection
- Clean water testing
- Squirt height demonstration (inspection)
- Periodic flushing of manifold

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Performance

- Uneven settling
- Collapse
- Uneven distribution / vegetation growth
- Check inspection ports for saturation
- Toe seepage
- Management of toe seepage
 - Vegetation
 - Soakage trench

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Checklist

- See checklist in: Designing and Installing On-site Wastewater Systems (WaterNSW) Checklist 9.1 (pages 111-113)
- https://www.watnsw.com.au/_data/assets/pdf_file/0003/58251/Designing-and-Installing-On-Site-Wastewater-Systems.pdf

Checklist 9.1 Installation of mound for use by plumbers and Council inspectors		
Owner's name:		
Address:		
Installation date:		
Mound coordinates:		
Is the mound positioned according to council and WaterNSW requirements for buffer distances?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the mound positioned according to Council and WaterNSW design requirements for contours and slopes?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Have at least two inspection ports been incorporated into the mound?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an indication of poor drainage on or near the mound area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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References

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References

- Converse, JC & Tyler EJ (2000). Wisconsin Mound Soil Absorption System: Siting, Design and Construction Manual, #15.24, University of Wisconsin-Madison, Small Scale Waste Management Project
- Whitehead, J & Geary P (2009). Sand Mounds for Effective Domestic Effluent Management, Water 36, 1 (pp 27-32)

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