



SMR

The *smart* alternative

www.smruk.com

info@smruk.com

01252 710772

CONTENTS

- What is SMR
- How SMR Works
- SMR Benefits: Landfill Diversion & Performance
- SMR Benefits: Superior Structural Performance
- SMR Application 1: Hand-Mix
- Appendix A9 Sign off: Hand-Mix
- Other SMR Methodologies: Batch Mix – Hub Recycling & Mobile Plant

WHAT IS *SMR*?

Structural Material for Reinstatement as per the SROH 2010 3RD Edition

A cement based proprietary binder

COSHH = Irritant



The *sm*art alternative

HOW *SMR* WORKS

SMR is a cementitious binder that when mixed with spoil uses the free moisture present to start a re-action which results in a high quality structural re-instatement material being created. To achieve this SMR has three properties:

- Dries out and stabilises excess moisture for optimum compactability
- Bonds soil particles increasing its density
- Strengthens the soil by as much as 600%

LANDFILL DIVERSION

By the addition of SMR Proprietary Binder into the recycling process we are able to fully recover all the waste back into superior recycled backfill materials.

Compare this with traditional recycling centres which can only typically recycle 50%-60% of your waste. Therefore, because the addition of SMR Proprietary Binder enables our recovery rates to be vastly higher than traditional methods, our customers are safe-guarded against the constant increase in landfill and disposal prices.

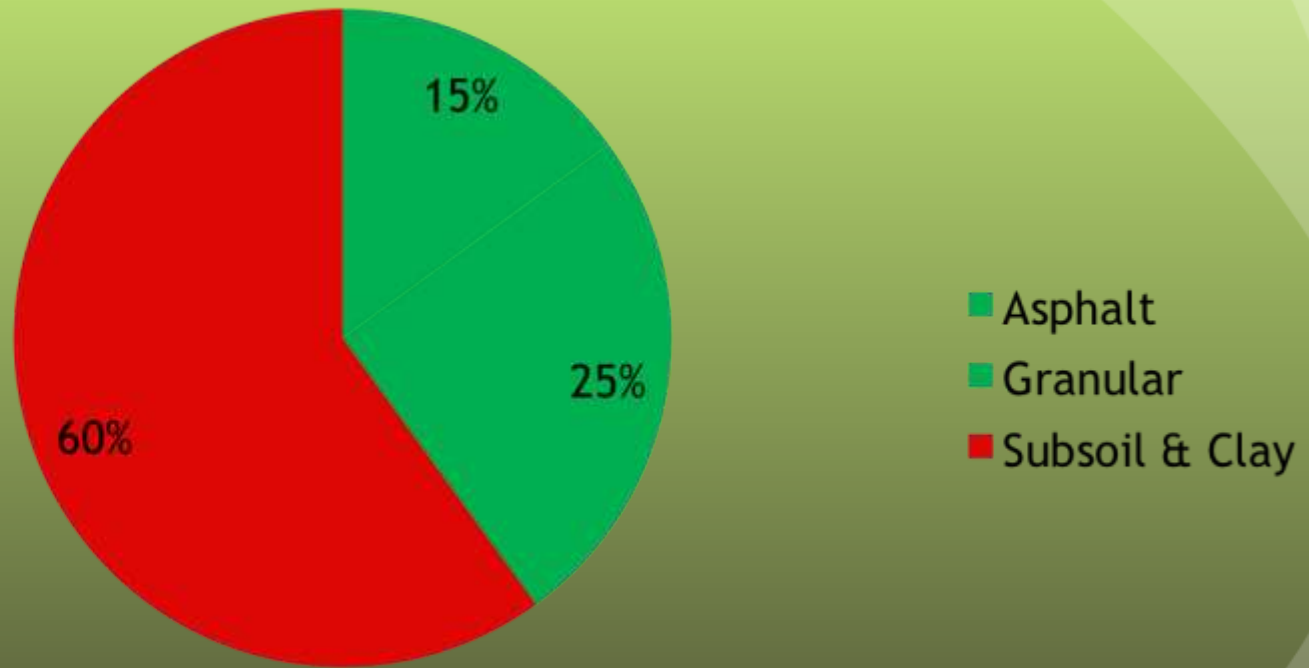
"Due to future increases in landfill tax, lack of landfill sites and consumer/ public interest in environmental concerns, I would recommend the use of SMF/ SMR. We could potentially recycle 100% of our site spoil by using a soil stabiliser, without it only around 45% can be reused. This method also helps towards our target to reduce waste".

Morgan Est Reflective Report – Emma Swindale.



The **smart** alternative

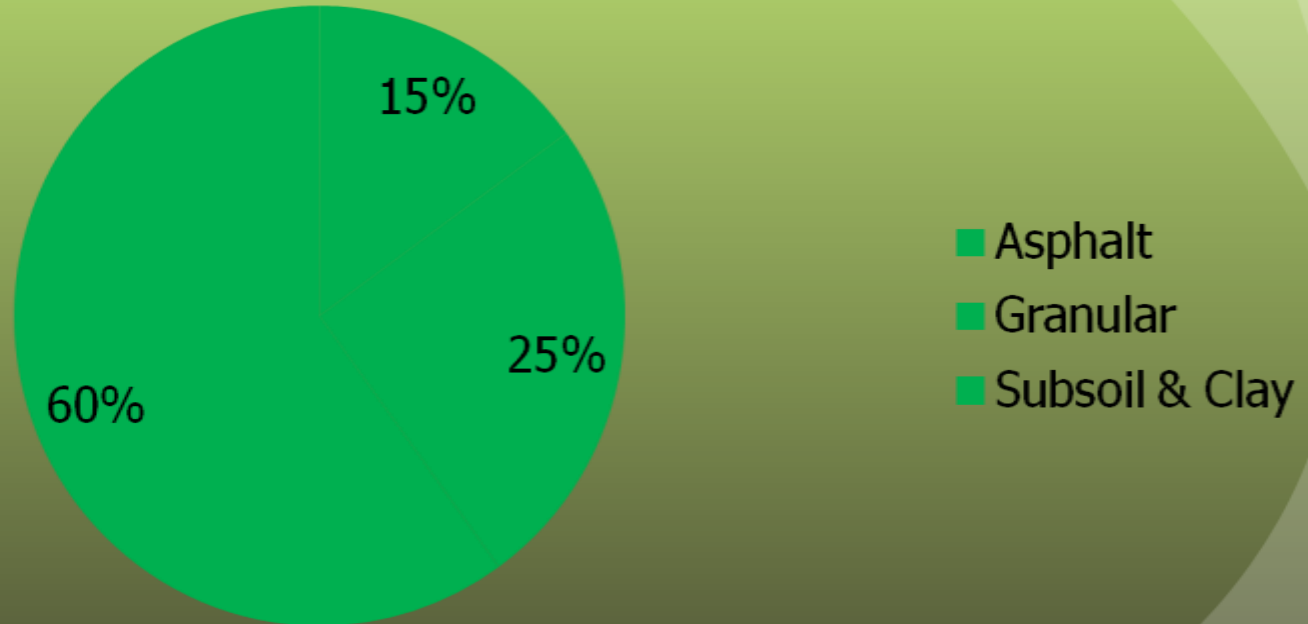
TRADITIONAL RECYCLING: UTILITY WASTE



The *smart* alternative

SMR RECYCLING: UTILITY WASTE

Utility Waste Segment



The smart alternative

A SUPERIOR REINSTATEMENT

- ✓ COMPRESSIVE STRENGTH 2N/MM²+
- ✓ CBR GENERALLY IN EXCESS OF 60%+
- ✓ NO PLUG AND BEAM EFFECTS



The smart alternative

APPLICATION 1: HAND-MIX

SMR Hand-Mix is typically used on small excavations (<2 square metres). This method of using the SMR product allows a small excavation to be fully reinstated within 2 hours. The process involves one utility crew carrying out the following steps:

- Arrive at site and put out Chapter 8 signing and guarding
- Excavate
- Mix in SMR with the excavated soil
- Repair or install the service
- Backfill with SMR mixed soil
- *Reinstate using permanent cold lay material*
- Take down Chapter 8 signing and guarding
- Leave site
- <..\..\..\SMR\SMR videos\SMR Hand-Mix Video March 2010\SMR Hand-Mix - BBUSL March 2010.mpg>
- <..\..\..\SMR\Hand-Mix\SMR Case Study 3 Hand-Mix.pdf>
- <..\..\..\SMR\Hand-Mix\SMR Trial Results Sept 2013 - Hand-Mix BBUSL - Southern Water.pdf>

APPENDIX A9 SIGN OFF: HAND-MIX



South Yorkshire Laboratory
Station Road
Ecclesfield
Sheffield
S35 9YR
Tel: 01142037023
Fax: 01142037028

John.Mollart@Sheffield.Gov.Uk

Vernon.Silcock@Sheffield.Gov.Uk

APPENDIX 9 TRIAL (HAND MIXED ONLY) REPORT ON ALTERNATIVE
REINSTATEMENT MATERIALS (ARM'S)

FINAL REPORT/RECOMMENDATIONS

Test Report: S/09/095/PW

Report Author: Mr. A.J. Menezes

Signatories for Approval:

A handwritten signature in blue ink, appearing to read 'JM', is written over a light blue circular stamp.

Mr. John Mollart

A handwritten signature in blue ink, appearing to read 'V Silcock', is written over a light blue circular stamp.

Mr. Vernon Silcock

The logo for SMR (Smart Materials Recycling) features the letters 'SMR' in a large, bold, green font. The letters are set against a background of a green recycling symbol (three chasing arrows forming a triangle) and a green recycling symbol (three chasing arrows forming a triangle). The entire logo is set against a green background.

The *smart* alternative

OTHER SMR METHODOLOGIES

- SMR Hub Recycling Facilities
- SMR Mobile Batching Plant

SMR Hub Recycling Centres



SMR Mobile Batching Plant



Summary

- Time efficient
- Reduction of carbon footprint
- No landfill costs
- No quarried aggregates
- Reach recycling targets
- Meet your KPI's
- A superior performing product





SMR

The *smart* alternative

www.smruk.com

info@smruk.com

01252 710772