



19 August 2009

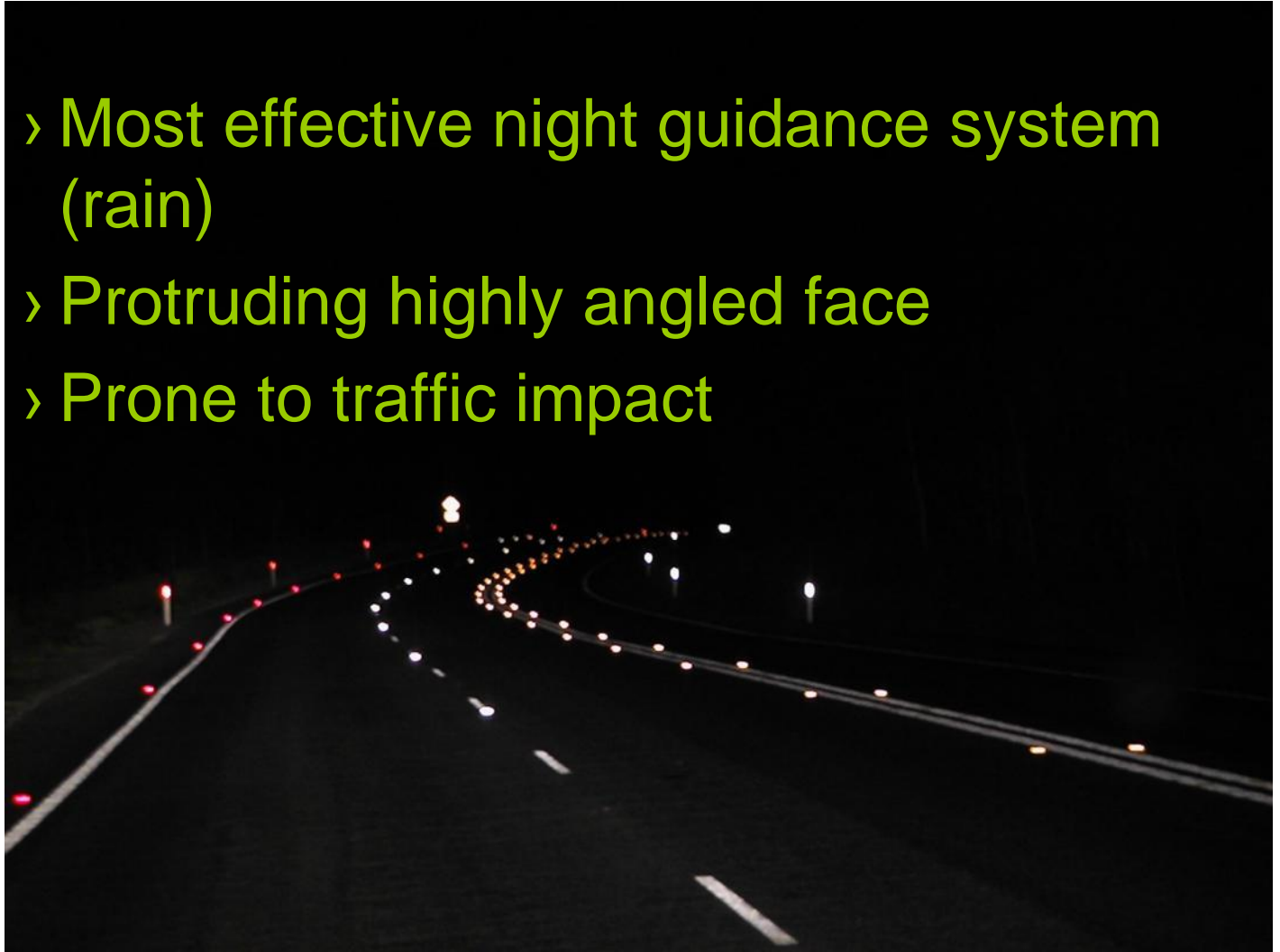
RRPM Alternative Materials

NZRF Conference Nelson

Retroreflective Raised Pavement Markers (RRPM's)



- › Most effective night guidance system (rain)
- › Protruding highly angled face
- › Prone to traffic impact



RRPM installation



- › Hazardous operation (high risk)
 - » Exposure of staff to passing / oncoming traffic
 - » Exposure to hazardous materials
- › Stationary operation
- › Manual handling



R & D RRPM's

A Different approach

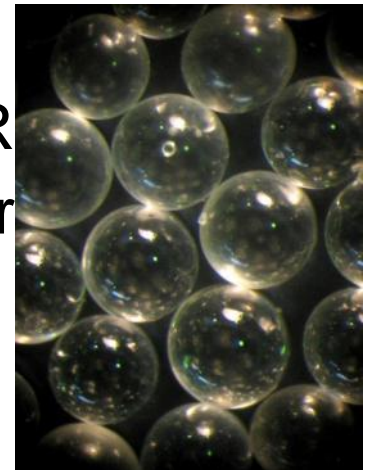
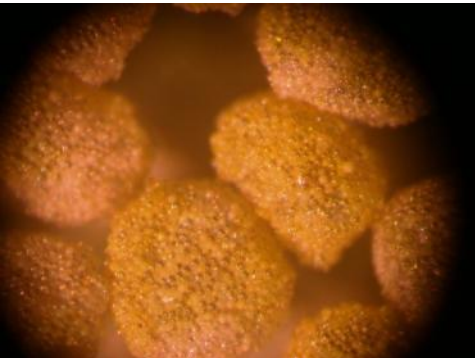


› Substrate

- » Two part cold applied plastic (Degadur)
- » Durable hard wearing high build material
- » White, Yellow, Red colours
- » Extruded 100mm x 200mm x 8mm

› Reflective surface additives

- » 3M wet reflective elements (2.4 R
- » 1.9 R.I. Airport glass bead (Potter
- » Ratio 2:3 (element : bead)
- » Drop height for embedment



RRPM Alternative materials

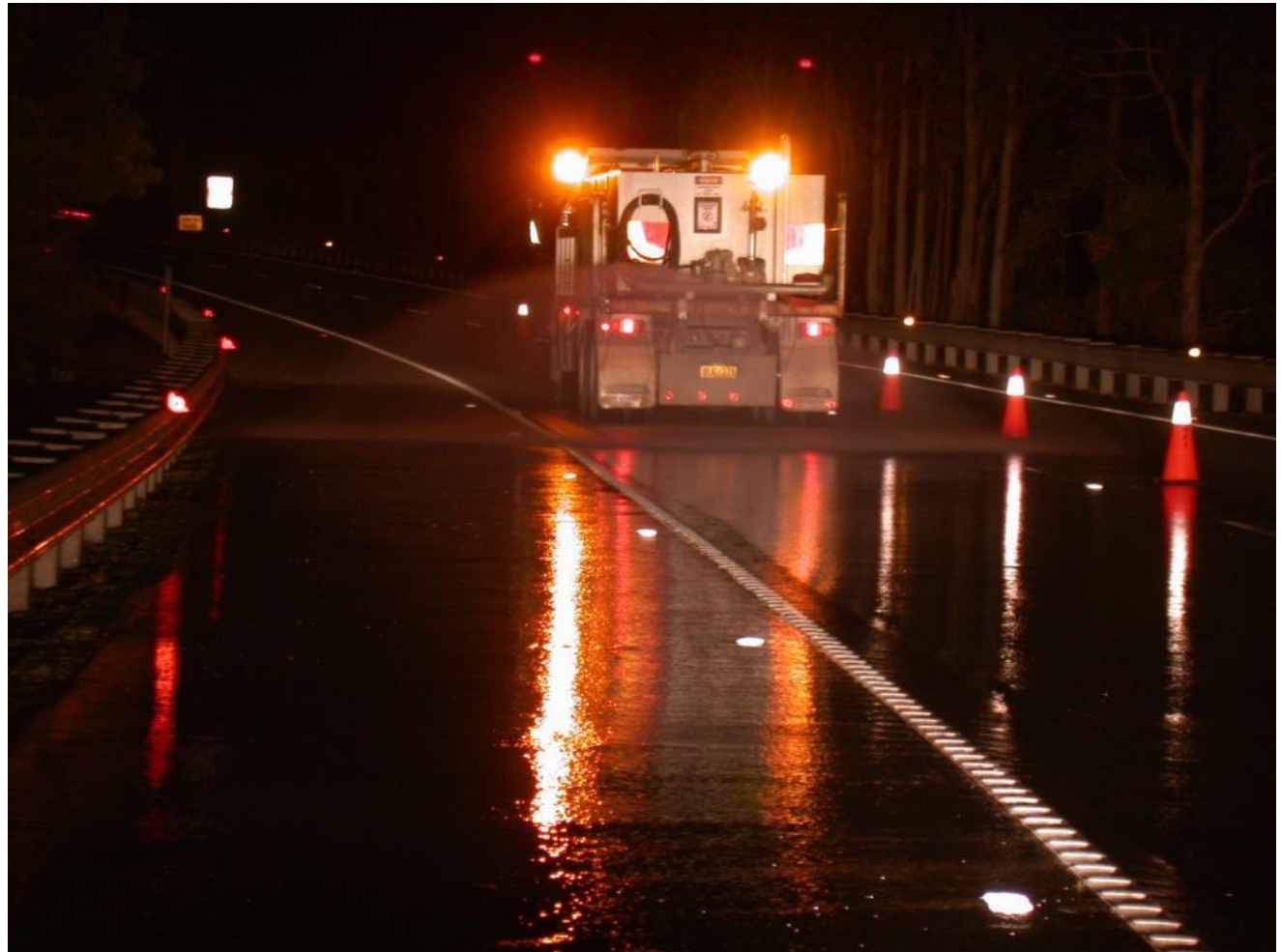
White in dry conditions



R & D RRPM's Simulated wet night conditions



R & D RPPM's



R & D RRPM's Comparison with approved RRPM



R & D RRPM's Actual rain conditions



R & D RRPM's Benefits



- › Automated mobile application
- › Reduced OHS risk – no personnel on road
- › Simplified maintenance
- › Reduced cost
- › Not directional
- › Durability



R & D RRPM's



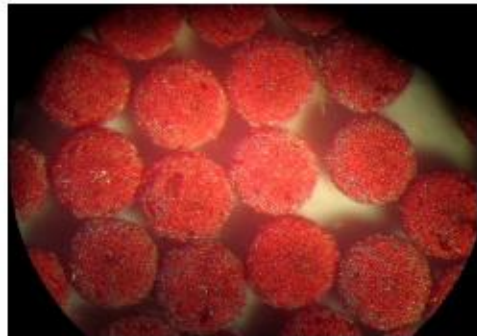
› Problems

- » No 3M Red wet element
- » Bi-directional finish

› Recent Developments

- » Potters Visymax Ultra (White, Yellow, Red)
- » Offers Superior dry night visibility
- » Use 50:50 blend with the 3M wet element

- › A true alternative to traditional RRPM's for some applications



RRPM Alternative Next Step



- › Automated Field trial
- › Successful Application – Project Proceeds

