

## RESTRICTIONS ON ENERGY OUPUT FOR VRA RANGES.

The Licensing & Regulation Division (LRD) of the Victorian Police is responsible for certification of civilian rifle ranges in Victoria. LRD have advised that many VRA ranges, **including Wellsford range**, approved for fullbore shooting under the National Rifle Association of Australia's Standard Shooting Rules, are restricted to a maximum muzzle energy output of 4745.4 joules or 3500 foot-pounds, the LRD stress this is an absolute maximum, and that our rifles/loads should be well below this level.

Shooters travelling to Qld are advised that additional restrictions apply to muzzle velocity in that state, with a maximum allowable limit of 998 meters per second or 3274 feet per second being enforced. Bullets of up to 145 grains weight are restricted by the maximum velocity limit even though they do not generate anything near the maximum energy limit, whilst bullets beyond that weight are restricted by individual velocity limits.

The table below, reproduced from the Qld Rifle Association document, defines the velocity limits for a fairly comprehensive range of bullet weights used in various NRAA target rifle disciplines. Shooters in the F Open, F/TR and Match Rifle disciplines will be required to certify that the loads that they use on the various VRA ranges, comply with these limitations. It is expected that Target Rifle & F Standard shooters using the .308 Winchester & .223 Remington calibres will not attain the maximum velocities specified for the bullet weights that they use.

Projectile Weight in grains	Max velocity m/s	Max velocity ft/s	Energy Joule	Energy ft-lb
80	998	3274	2581.5	1904
90	998	3274	2904.2	2142
105	998	3274	3388.2	2499
130	998	3274	4195.0	3094
140	998	3274	4517.6	3332
150	989	3242	4745.4	3500
155	973	3189	4745.4	3500
160	957	3139	4745.4	3500
170	929	3045	4745.4	3500
180	903	2960	4745.4	3500
185	890	2919	4745.4	3500
190	879	2881	4745.4	3500
200	856	2808	4745.4	3500
210	836	2740	4745.4	3500
215	826	2708	4745.4	3500
220	816	2677	4745.4	3500
230	799	2618	4745.4	3500
240	782	2563	4745.4	3500
250	766	2511	4745.4	3500