

## **East Ketley – Telford Millennium Community**

### **Sustainable (Urban) Drainage System (SuDS)**

#### ***Fundamental Design Requirements***

- Meet PPG25 guidelines and Regulatory requirements.
- Not derogate habitat for Newt Ponds (in NW corner of site).
- Provide long term operation/maintenance of scheme (note: approach to railway culvert needs modification).
- Consider Health & Safety issues.

#### ***Probable Design Focus for Scheme***

- System reliant upon gravity conveyance and proven control structures/mechanisms.
- Much of flood drainage from the development to be directed to Beveley Glen stream and outflow the site, in the NE corner, through the existing railway culvert.
- Major provision will include storage attenuation (up to 7,000m<sup>3</sup>) and could include;
  - ◆ 1 or 2 large pond features; or,
  - ◆ a series of smaller pond features.
- Incorporate, as feasible, swales (offering further flood attenuation) and reed beds (offering passive water treatment and habitat opportunities).
- Incorporate oil interceptors and silt traps from appropriate portions of the urban development & link roads.
- Include provision for managed (quantity and quality) inflows to the existing Newt Ponds.

#### ***Possible Optional Considerations for Scheme***

- Incorporation of;
  - ◆ Porous pavements;
  - ◆ Under driveway/carpark 'storage attenuation' systems;
  - ◆ Domestic rainfall harvesting systems.
- Where possible, focus attenuation ponds within 'ecological corridors' for site.
- Examine potential for developing soak-away systems in areas where re-engineering of made ground is proposed.

#### ***Unlikely Optional Considerations for Scheme***

- Possible use of mineshafts as drainage receptors.
- Provision of pumped systems.