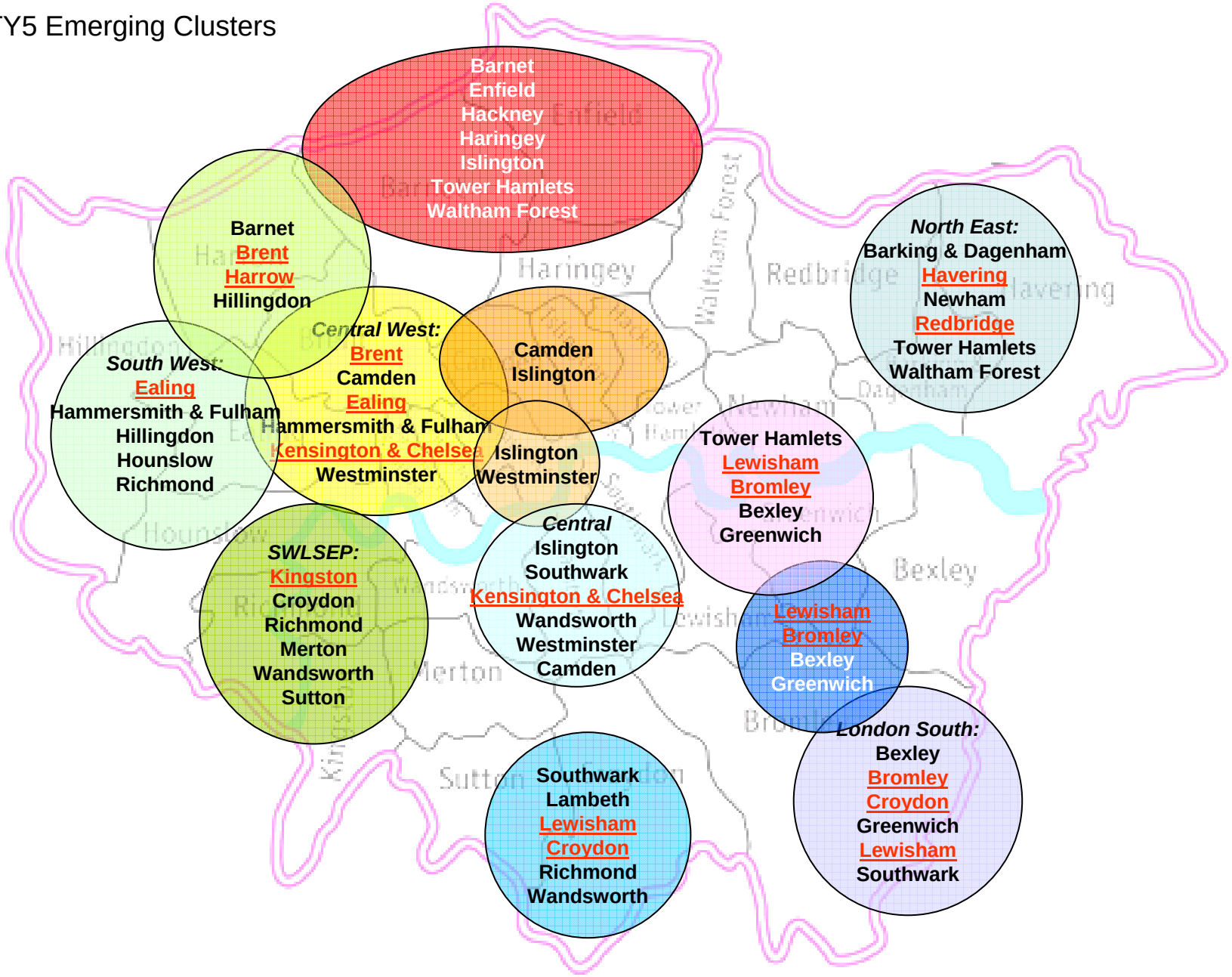TY5 Emerging Clusters