

Gravel Extraction and Flood Risk Assessments

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Presented by

John Beckett,

Development Control

Role of the Environment Agency

- The Environment Agency is the leading public organisation for protecting and enhancing the environment in England and Wales.
- The Environment Agency works to **protect** and **improve** the quality of air, land and water.
- We bring our experience of working nationally, regionally and locally to help make policy and influence new laws. This is vital so that we do not create problems in one area while solving them in another.
- Our vision for the environment:
**a better place for people and wildlife,
for present and for future generations.**
- **Our long-term objective –**
Everyone will have the opportunity to enjoy a high-quality environment, now and for future generations. More people will care for, use, appreciate and enjoy their environment

Development Control

Statutory Consultee in the Planning Process

we manage very real risks by:

- limiting and adapting to climate change
- reducing flood risk
- Pollution prevention

Function of Development Control :-

- Flood Risk Management
- Flood Risk Reduction
- Floodplain Preservation
- Our aim is to reduce flood risks through preventive planning, restoration of rivers and floodplains, better management of the disposal of surface water

Important Legislation

- Planning Policy Statement 25(PPS25)
- Water Resources Act 1991
- Land Drainage Act 1991

Agency Concerns

- Unless properly controlled by the planning authorities, gravel extractions and other mineral workings potentially have a substantial adverse impact on the water environment. In Flood Defence terms the immediate concerns of the Agency are:-
 - (a) to safeguard the physical integrity of watercourses by allowing adequate margins between the river bank and the excavation;
 - (b) to preserve the effectiveness of local land drainage systems;
 - (c) to preserve the effectiveness of the floodplain for Flood Defence purposes

Planning Policy Statement 25 (PPS25)

- Planning Policy Statements (PPS) set out the Government's national policies on different aspects of land use planning in England.
- Planning Policy Statement 25: Development and Flood Risk (PPS25) was published on the 7 December 2006 by the Government.
- PPS25 replaces Planning Policy Guidance Note 25: *Development and Flood Risk*, published in 2001.
- The aims of planning policy on development and flood risk are to:-
 - ensure that flood risk is taken into account at all stages in the planning process;
 - to avoid inappropriate development in areas at risk of flooding;
 - and to direct development away from areas at highest risk;

Planning Policy Statement 25

- The Environment Agency will respond to mineral plan consultations according to the same planning procedures for other development plans.
- PPS25 acknowledges in Table D2 that sand and gravel deposits are water compatible development and development of this nature is therefore appropriate.
- Gravel extraction can be undertaken in the floodplain but needs to be carried out in a way that does not exacerbate flooding.
- A Flood Risk Assessment is therefore required under the terms of PPS25 and the Environment Agency need to approve satisfactory proposals within the Flood Risk Assessment.

Flood Risk Assessment (FRA)

A satisfactory FRA should illustrate:-

- all temporary and permanent works;
- ancillary buildings;
- batching plants;
- settlement lagoons;
- overburden mounds.

Topographical survey of historic ground levels.

Reinstatement – detailed scheme which should incorporate all of the requirements that are brought forward via the pre-planning discussion process ie,

- required easements alongside the river;
- Proposed finished ground levels;
- Shallow marginal areas;
- Islands;
- Deep water;
- Planting of native species.

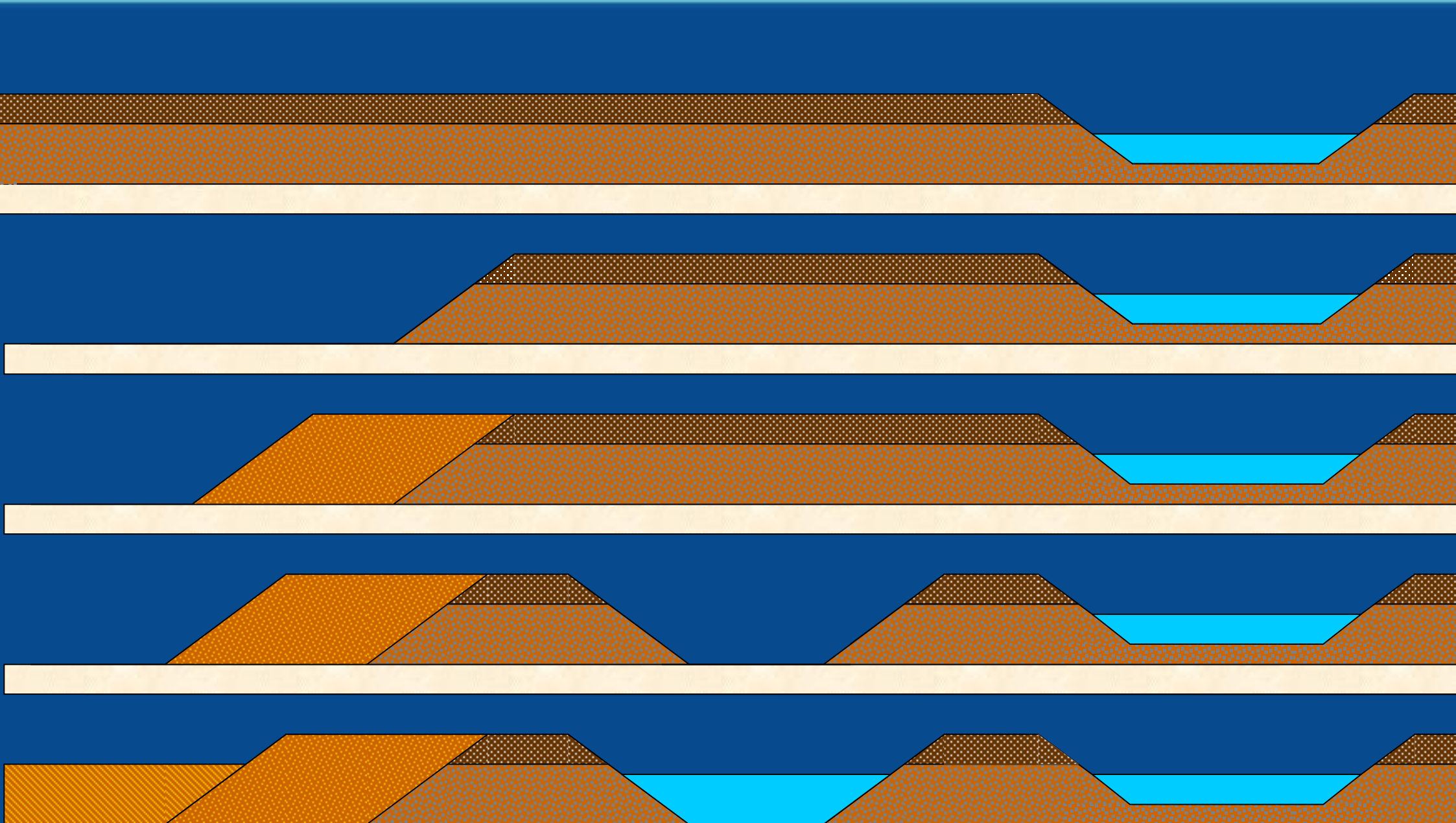
Programme of works illustrating the timescales involved for the extraction cells and year expected to be

Reinstatement

- Reinstatement sites in the Midlands – River Tame, Middleton Hall 2001

Middleton Hall

Stages in Creating a Braided Channel



Middleton Hall

- Islands were created immediately
- The aim was to provide the conditions for the river to create other habitats
- So far it has created Exposed Riverine Sediment (ERS), shallows, backwaters, and small areas of reed-bed and wet woodland. These should to continue to expand slowly
- Channel is still in “self-restoration” phase. It is unlikely to reach equilibrium for decades
- River work complements wetland creation

Middleton Hall

Middleton Hall

- Corridors of the River Trent and River Tam are gravel rich
- River Cole at Colesh during works

- River Cole – river diversion

Lesson for the Future

- Major environmental enhancements can be achieved in conjunction with increased extraction, profitability and sustainability i.e. reduction in amount of mineral “sterilised”
- This requires good designs/designers and input from EA and County and District councils
- Everyone can win if we work together