# Oxford Flood Alleviation Scheme

# Integrated Assurance & Approval Plan (IAAP)

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|---|---|
| Authority Scheme Reference | IMSE500177 |
| Defra LDW Number | |
| Promoting Authority | Environment Agency (*in partnership with Oxfordshire County Council as Lead Local Flood Authority)* |
| Scheme Name | Oxford Flood Alleviation Scheme |

**Flooding from the River Thames, Oxford July 2007**

| | |
|---|---|
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# IAAP for Oxford Flood Alleviation Scheme

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|---|---|---|---|---|
| 1.0 | First draft (internal PM team only) | RH | 03/11/2014 | 03/11/2014 |
| 1.1 | Updated for SRO comments | RH | 10/11/2014 | 10/11/2014 |
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# Oxford Flood Alleviation Scheme
# Integrated Assurance & Approval Plan

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# 1 Scheme Context

Over 4300 properties (2014 baseline) are at risk of fluvial flooding in Oxford in the 1:100 year 'do nothing' scenario, this will rise to over 6000 by 2080 under current climate change guidance. Vital infrastructure such as two main arterial roads in to the city centre from the south and west and the main railway line are also at risk, together with other critical infrastructure. The risk to the majority of properties is managed by the Environment Agency's (and others') continued operation and maintenance of the weirs within Oxford and through ongoing clearance of watercourses. However, even with this ongoing work approximately 1700 properties are currently at risk within a 1:100 year flood event, this will rise to over 2650 by 2080 due to the impacts of climate change.

Flooding in Oxford is prolonged (floods typically rise slowly and last over 7 days) and complicated by the braided network of watercourses and narrowing of the floodplain south of the city, which effectively acts to funnel water. The city has seen many flood events in recent years.

The Oxford Flood Alleviation Scheme (FAS) is a proposed standalone project developed from the Oxford Strategy Appraisal Report (StAR), which was approved internally within the Environment Agency in September 2010. The Oxford StAR recommended a series of short term measures (localised works) which have since been implemented, but also noted that in the longer term larger structural option/s would be needed and that this need should be reviewed regularly.

The first review has now been completed (and is detailed within the Economic Case of the Strategic Outline Case (SOC)). This has demonstrated that a western conveyance channel (the most likely preferred option under the Oxford StAR) is now viable. A project team, supported by a Sponsoring Group and Programme Board consisting of Environment Agency, Oxfordshire County Council (Lead Local Flood Authority (LLFA)) and other key partners has been established to promote this project. No scheme details have been agreed or approved, but with an estimated present value (PV) cost of over £100m the scheme will follow the Green Book Five Case Business Model.

A Risk Potential Assessment was prepared and agreed with Defra/HM Treasury in August 2014 who confirmed the project can proceed to SOC production as a tier 2 project without completing a Project Validation Review.

# 2 Assurance and approval planning for the project

Integrated assurance and approval is defined as the planning, coordination and provision of assurance activities and approval points throughout the 'policy to delivery' lifecycle.

Project assurance, in conjunction with formal approval points, helps manage risk and improve delivery confidence. Both support the Senior Responsible Owner (SRO) and others responsible for successful delivery whilst providing funders and other stakeholders with the confidence that the project can deliver to time, budget and quality. All projects benefit from independent challenge.

An Integrated Assurance and Approvals Plan (IAAP) is the means in which the corporate Integrated Assurance and Approvals Strategy (IAAS) is applied to a programme or project. Whilst not mandatory for a tier 2 project Defra have requested we should have an IAAP in place.

This IAAP is designed to be read in conjunction with the Environment Agency's Integrated Assurance and Approval Strategy (IAAS) which applies to all projects and programmes in the Environment Agency. In accordance with this IAAS, the Oxford FAS IAAP is based on three lines of assurance.

- 1st line of assurance – ownership and management controls implemented through routine business operations
- 2nd line of assurance – compliance and risk scrutiny provided through routine activities designed to monitor quality, risk and compliance
- 3rd line of assurance – independent assurance provided by Environment Agency groups and external bodies.

The Environment Agency IAAS sets out an approval process that is mandatory for all projects and programmes in the Environment Agency. The process must be proportionate to the business case cost and risk of the project/programme.

Approval and assurance should be integrated such that assurance reviews are timed to inform business case approval. There are three main steps in business case approval, namely:

1. Project Sponsor approval: the sponsor is ultimately accountable for project success, and as such needs to ensure the signoff of the business case. This should be done for every identifiable project or programme, regardless of its cost or risk. On larger projects the SRO has overall accountability for the project.
2. Project assurance: The Environment Agency operates a national project assurance board for projects up to £10million, and the Large Project Review Group (LPRG) reviews all flood risk business cases over £10 million. These groups provide independent review of business cases. The Director's Major Projects Assurance Group (MPAG) will consider major projects before submission to the Environment Agency's Flood and Coastal Erosion Risk Management (FCRM) Committee of the main Board for approval.
3. Financial Scheme of Delegation (FSoD): The Environment Agency's FSoD sets the financial sign off limits for different levels of staff. This includes the sign off levels for

project business cases. The Oxford FAS (assuming a western conveyance scheme remains the leading option) will need to go to Defra and the HM Treasury for approval (Defra's current delegated limit is £100m).

Significant changes to business cases, for example cost increases, also require approval and ensure the business case is approved at the appropriate level at the appropriate time.

This IAAP draws together and maps out the different levels of assurance activities that the project will require, and identifies how these activities will inform key approvals.

# 3 Purpose and scope of this IAAP

This IAAP will be used by the Oxford FAS project team to plan and deliver assurance and approval activities in a coordinated way throughout the project lifecycle and will cover the Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC).

It will also be used to support Financial Scheme of Delegation approvals where these are required outside of the above process.

Clearly more detail is known about the next stage of the project lifecycle and the IAAP is a living document that will be updated throughout the project's lifecycle.

Once the FBC has been approved it will be updated to cover assurance activities through the delivery phase of the scheme.

# 4 Assessment of risks and determination of assurance requirements

Assessment of programme and project risks is well developed within the existing Environment Agency project management systems. A system of risk registers is used to record, analyse and manage risks. Should a risk occur it is dealt with as an issue.

The Oxford FAS risk environment will be assessed independently and in combination with the risks from other projects/programmes within the Environment Agency's portfolio and wider business risks. Figure 1 presents a pictorial representation of the risk environment. This does not illustrate the shared risk with the Local Councils, who are working with the Environment Agency to deliver the scheme.

Performance of the Oxford FAS will be reported to the Programme Board and if necessary the Project Sponsoring Group.

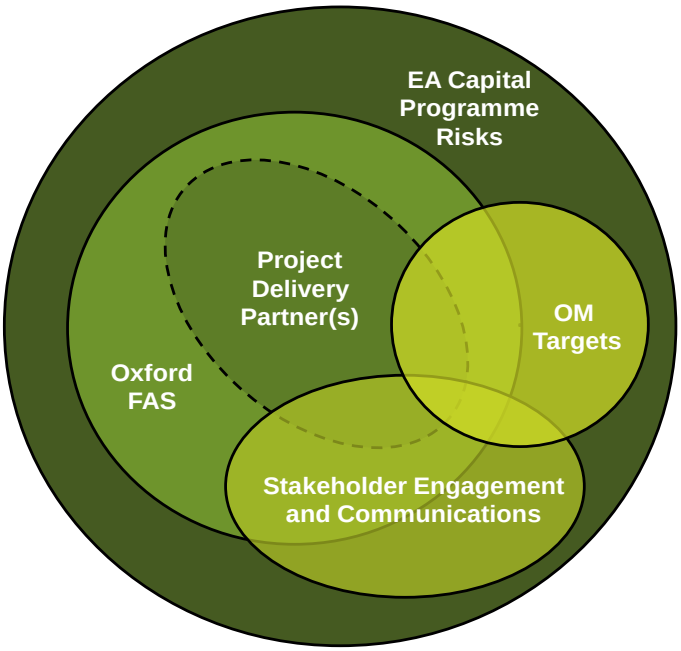



**Figure 1: Schematic diagram illustrating the Oxford FAS Risk Environment**

Risk management is a key feature in the determination of the target costs for a project and helps ensure the effective delivery of 'value' for the sponsoring organisations.

The Cabinet Offices' Office of Government and Commerce Gateway process will be used through the delivery of the Oxford FAS project and is integrated within the proposed assurance process. This ensures that external assurance is completed before each approval point.

Prior to each formal gateway review a Risk Potential Assessment will be produced and approved by the SRO.

If no Gateway reviews are planned in any financial year an Annual Assurance Review will be organised to provide support to the SRO so that the project remains on track to deliver.

This IAAP has been produced in conjunction with the Oxford FAS SRO, EA corporate assurance (LPRG and MPAG) and Defra.

# 5 Roles and responsibilities

The following tables present the responsibilities for each role within the assurance and approvals plan and all people who will have an input into the governance of the Oxford FAS.

**Table 1 – Roles & Responsibilities: Environment Agency**

| Individual / Groups | Responsibilities |
|---|---|
| Environment Agency Board (FCRM Committee) | • To consider for approval the Draft Oxford FAS SOC, OBC and FBC and agree their release to Defra. |
| Chief Executive<br>Executive Director of Operations<br>Executive Director of FCRM (SRO) | • To provide strategic guidance on the project.<br>• To act individually or jointly as required by the financial scheme of delegation in approving or otherwise the Oxford FAS SOC, OBC and FBC documents and FSoD documentation.<br>• The SRO is accountable for the overall success of the Programme in meeting the objectives, realising the benefits and integrating into the business operations. |
| Directors Major Projects Assurance Group (MPAG) | • To review business case submissions for major projects and recommend approval or otherwise. |
| Large Projects Review Group (LRPG) | • To review business case submissions for compliance with Defra policy, Treasury guidance and FCERM-Appraisal Guidance and thereby recommend approval or otherwise to the Environment Agency Officer who has the delegation to approve the business case. |
| Sponsoring Group | • To approve funding for the programme, advice on strategic and directional issues, approving progress, championing the programme and confirming successful delivery. |
| Programme Board | • To provide technical assurance and assist and advise the Senior Responsible Owner in the discharge of their duties. |
| Project Sponsor | • Promoting the project to Directors and ensuring alignment with Environment Agency objectives. Chairs the project Sponsoring Group. |
| Project Director | • Responsible for the alignment of the technical requirements with the Sponsor's aims and objectives. |
| Project Executive | • Day to day management of the project including programme and costs via internal Project Managers and external consultants providing specialist skills. |
| National Environment Assessment Service (NEAS) | • To advise and guide environmental matters for the Scheme.<br>• To manage environmental compliance at programme and project level. |

**Table 2 – Roles & Responsibilities: Key stakeholders**

| Individual / Groups | Responsibilities |
|---|---|
| Local Council Cabinet | • To provide strategic guidance to the project and over-sight to the proposed Oxford FAS project<br>• To sanction financial contributions |
| Local Council Scrutiny Committee | • To review and scrutinise the Oxford FAS project and make recommendations to the Cabinet, Members and Executive officers |
| Thames RFCC | • To carry out its statutory functions under s23 of FWMA 2010<br>• To ensure there is a coherent plan for communicating and managing flood risk within Oxford.<br>• To promote efficient, targeted and risk-based investment that optimises value for money and benefits for local communities |

# 6 Planned Assurance Coverage and Scheduling

Assurance reviews will be undertaken in accordance with the recommendations in the IAAS.

**Table 3 – Assurance Levels**

| Assurance Level | Assurance Reviews |
|---|---|
| Assurance 1<br>(Risk ownership and management) | Project Quality Assurance plans<br>Project Executive / Boards - project risk reporting and issue management<br>NEAS - Environmental performance<br>Programme Board (programme risks, financial reporting and forecasting)<br>Technical peer review |
| Assurance 2<br>(Business compliance and risk scrutiny) | SRO - Business compliance<br>Sponsoring Group |
| Assurance 3<br>(Business case compliance and Risk Assurance) | LPRG<br>MPAG<br>Defra Red Team / Assurance<br>HMT<br>OCG Gateway reviews |

Assurance responsibilities are scheduled in table 4 that is presented on the following page.

Assurance levels 1 and 2 are mostly quarterly actions, but issues are dealt with as they arise and escalated as appropriate. These provide assurance to overall progress and report on issues / exceptions.

Assurance level 3 – mostly at SOC, OBC and FBC. Annual assurance if no Gateways planned.

**Table 4 – Assurance Responsibilities**

| | Assurance 1 | | | | | Assurance 2 | | Assurance 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EA and Local Council Stakeholders | Quality Assurance Plans | Project Executive / Boards | NEAS (Assurance role) | Programme Board | Project Director | Sponsoring Group | LPRG | MPAG | Defra Red Team / Assurance | HMT | |
| **Risk Areas** | | | | | | | | | | | | |
| Project Mandates, project briefs and QA plans | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | |
| Change Control | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | |
| Review of Outline and Full Business Cases | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Costs | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| Budgets | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | |
| Time | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| Compliance with Defra Policy & EA Guidance | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Benefits Realisation | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | |
| Operational Integration | ✓ | | | | | ✓ | ✓ | | ✓ | | | |
| Procurement | | | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| Alignment with strategic business direction | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Consents and Authorisations | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| Project Risk Management | | | ✓ | ✓ | ✓ | ✓ | | ✓ | | | | |
| Programme Risk Management | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Programme Governance | | | | | | | ✓ | | ✓ | ✓ | ✓ | |

Note: In support of formal FSoD and approval at LPRG, MPAG may see it for review

# 7 Approvals

## 7.1 General Principles

Approvals are to be sought and gained from the Environment Agency, Local Councils, Defra and Treasury. These have been built into the Oxford FAS project organisation, governance and programme.

Business cases which have whole life costs above the £100m threshold and/or which affect internationally designated sites will be referred to Defra. Approvals for projects above £100m will follow the MPA Guidance on presentation of business cases with the following sequence: Strategic Outline Case (SOC); Outline Business Case (OBC) and finally Full Business Case (FBC).

These will be produced in line with the Green Book Guidance on Public Sector Business Cases using the 5 Case Business Model.

The route to business case approval for the Oxford FAS is to gain sequential approval from the Programme Board/Sponsoring Group (including Local Council Cabinets if necessary), the Environment Agency's Large Projects Review Group (LPRG), Major Projects Assurance Group (MPAG), and then the Environment Agency's FCRM Committee of the Board.

The planned expenditure of the Oxford FAS is over the Defra delegated limit. The Scheme will therefore be referred to Defra who in turn will refer the matter to HM Treasury.

## 7.2 Specific Assurance and Approvals Arrangements for the Oxford FAS

This section provides background to explain the current position and proposed route for approvals for the Oxford FAS following discussions with project partners and the Commercial and Assurance teams within the Environment Agency and Defra.

The Oxford FAS is a complex and challenging project leading to the delivery of major new infrastructure assets. The full funding for the project is yet to be secured, but a recent successful Local Enterprise Partnership bid and support from local councils and the Thames RFCC means that the project is already fully funded through the appraisal period.

There is high political support for the proposed project, especially since the flooding in January and February 2014.

Taking forward the development of a scheme without having the full funding in place to deliver it creates a number of risks, particularly of abortive costs in the event of the project not going ahead. However, there is a need to invest in the development of a scheme before the actual expected costs are known and the full funding package can be established. The recent Oxford FAS Initial Assessment confirmed that the medium sized western conveyance option has a benefit:cost ratio of 7.2. Given the number of properties at continued risk from flooding through Oxford along with the level of this risk and the earlier conclusions from the Strategy, Environment Agency Directors are being regularly briefed and continue to support the schemes development.

An Assurance and Approvals Manager is in place to oversee the assurance and approvals process on both the River Thames Scheme and Oxford Flood Alleviation Scheme.

Securing funding is critical to the successful delivery of the Oxford FAS scheme. A Funding and Benefits Realisation Manager has already been appointed and is working closely with key partner contacts who will hold and seek further funding. They will continue to ensure the project delivers the benefits. If not, then we will halt the scheme until a decision can be made whether to continue.

The following principles have been agreed between EA and Defra at the meeting held on 28 August 2014 (RPA review) and in subsequent telecoms/meetings.

1. The Oxford StAR was approved by the Environment Agency (A9 Approval) in September 2010. Although it recommended a 100 year strategic solution for reducing flood risk in Oxford, sign off only covered the initial short term measures work and 100 year maintenance costs as larger strategic options were not viable at the time. It did however note that subject to climate change a medium size channel would become viable in 30 years time and then further upstream storage options would become viable in future years. On first review the medium sized channel is now viable. The Oxford StAR was not passed to Defra for review, but in subsequent discussions Defra have confirmed we should work with the information now available and not restart the process. This was agreed at the RPA meeting on 28 August 2014. At this meeting Defra/HMT raised a number of questions, but the major issues were of funding and future delivery models.

2. Defra confirmed the project would be treated as a tier 2 project and would not require a Project Validation Review. This has enabled the project team to prepare the SOC immediately, focusing on the Strategic and Economic Case as per the guidance. This will be supplemented with the Financial, Commercial and Management Cases. At the same time Defra confirmed an IAAP should also be prepared.

3. Subsequent telecoms and meetings with Defra Officers confirmed we would use available information for the SOC, updated as necessary with new information rather than undertake any further work.

## 7.3 Timetable of Assurance and Approval activities

The table below summarises the principal assurance and approval activities that will be necessary for the Oxford FAS.

**Table 6 –Assurance and Approvals: Key Milestones**

| Activity | Date | Approx Value | Lead Approval / Assurance Forum |
|---|---|---|---|
| Oxford StAR | | | |
| Initial Form A (covers cost until SOC sign off) | 06/08/14 | £902k | EA PAB |
| Risk Potential Assessment (initial) | 28/08/14 | £140m (pv costs) | Defra/HMT |
| Full Form A for the appraisal of the Oxford FAS | Apr 15 | c£3-£5m | EA LPRG |
| SOC Approval | July 15 | £216m (whole life cash cost) | Defra/HMT |
| PAR for detailed design and construction (tbc) | Sept 16 | tbc | EA LPRG |
| Contract award for Oxford FAS Design & Build (tbc) | tbc | tbc | EA |
| OBC Approval | Dec 16 | tbc | Defra/HMT |
| FBC Approval | Apr 18 | tbc | Defra/HMT |

Notes: LPRG = Large Projects Review Group within Environment Agency

# 8 Cost and resources

In order to prepare and establish the Oxford FAS project, the Environment Agency approved a £902k budget in August 2014 to cover the Initial Assessment and SOC preparation. Assurance costs, where directly rechargeable until SOC approvals are embedded within this figure. In reality most assurance roles within the Environment Agency and Defra/HM Treasury are not directly recharged to projects. These costs will be assessed in further detail in due course

A Senior Responsible Owner (SRO) has been appointed and a project team established within the Environment Agency, supported by a Sponsoring Group and Programme Board.

# 9 Governance, reporting and communications

The Oxford FAS has been structured in accordance with the Office of Government Commerce guidance (PRINCE2 and Managing Successful Programmes – MSP). The governance model for the Scheme also follows this guidance.

A Sponsoring Group and Programme Board have already been set up and have met on several occasions. They consider projects that cover both Oxford and Abingdon but as these projects are hydraulically independent they will be delivered separately and independently of one another.

The **Sponsoring Group** comprises senior managers who have responsibility for setting the strategic direction of their respective organisations and are responsible for the investment decision; defining business direction and ensuring the strategic fit of the project within their respective organisation. They have sufficient delegated authority to make decisions on behalf of their organisation. The Sponsoring Group meet approximately every three months.

The Sponsoring Group have the following responsibilities:

(i) Confirming the strategic direction against which the project is to deliver.

(ii) Resolving strategic and directional issues.

(iii) Securing and approving (internal and external) partnership funding for the project.

(iv) Aligning the strategic direction of the project with that of the organisations corporate plan and political environment.

(v) Engaging local support and political will to drive and progress the project.

(vi) Endorsing partnership and collaborative working to deliver the project.

(vii) Endorsing and supporting the project through the approval gateways.

(viii) Championing the project: leading by example' communicating the benefits to all stakeholders and gaining wider political support.

(ix) Providing continued commitment and endorsement in support of the project objectives at executive and community events.

(x) Confirming successful delivery and sign-off of the project.

The composition of the Sponsoring Group is:

- Environment Agency Area Manager (Project Sponsor)
- Deputy Director of Oxfordshire County Council (LLFA)
- Local Council Senior Executives / Directors
- Chair of the Thames Regional Flood and Coastal Committee
- Chair of Oxfordshire LEP
- Key stakeholders including University of Oxford, Thames Water and Oxford Flood Alliance
- Defra.

The **Programme Board** is the main decision making board and its purpose is to drive the project forward and deliver the outcomes and benefits within the tolerances set by the Sponsoring Group. The Programme Board will meet approximately every three months. In between key issues will be dealt with by correspondence.

The Programme Board have the following responsibilities:

(i) Resolving strategic and directional issues, which need the input and agreement of senior stakeholders to ensure progress on the project.

(ii) Ensuring the project delivers within the agreed parameters (cost; organisational impact; expected/actual benefits realisation etc)

(iii) Defining an acceptable risk profile and risk thresholds for the project

(iv) Providing assurance through the project lifecycle.

The composition of the Programme Board is expected to be:

- Oxford FAS Project Director
- Senior Environment Agency managers
- Senior local council managers
- Defra
- Infrastructure UK

The Oxford FAS **Project Board** manages project issues and risks at a project level within tolerances set by the Programme Board and comprises the Environment Agency Project Executive, Senior User and external Senior Supplier. It meets by exception only**.**

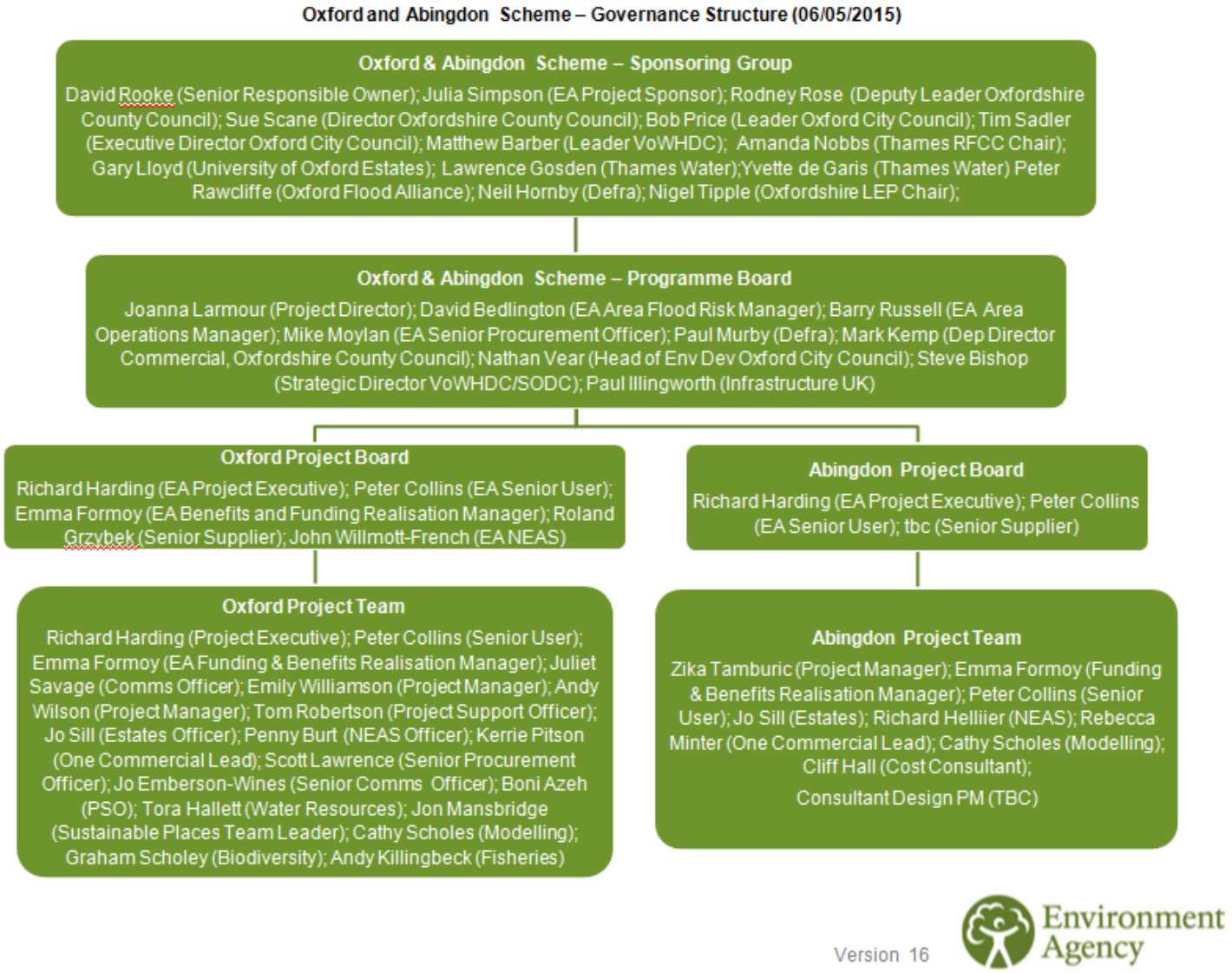
Other Details:

Day-to day reporting is a key feature of the management system between the Project Director, the Project Executive and the project team.

Key issues that need raising further are raised via Issue Reports and Registers. Monthly Highlight reports are produced for the Project Director by the Project Executive for wider circulation and use.

Diagrammatic representation of the governance and organisation for the delivery of the programme is indicated below as figure 2, which also indicates formal communication routes.

**Figure 2 – Governance and Organisation for the Oxford FAS**

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# 10 Managing outcomes, consequential assurance and escalation

Development and approval of the business case for a particular part of the work provides a mandate to the Project Director to undertake the project. The business case includes the five key elements required by HMT (i.e. Strategic, Economic, Financial, Commercial, Management Case), which together set out what has to be achieved, justifies the proposed course of action and how it will be achieved. Reports to the Sponsoring Group will be required where there is deviation from the business case beyond tolerance limits set by the Group. Similarly the Project Director has set tolerance limits for each level of governance. This will change as the project develops.

Subject to approval of the SOC and Form A the project will be sub-divided into stage plans with objectives and success criteria agreed for each. End stage reports will be audited by the Programme Board. Deviations from the project plan will be presented within the stage plan and how it might be bought back on track (or accepted). Further approvals may be sought should the deviations exceed tolerance levels.

The SRO is responsible for implementation of the actions and recommendations from assurance reviews. Coordination and reporting of these will be by the Programme Assurance Manager.

The Environment Agency has set up a Major Projects Leaders Community of Practise to share lessons learned, best practice and provide support to those undertaking these programmes and projects.

Consequential assurance and escalation is exceptional and the need for these is identified outside of the IAAP. If additional measures are required the IAAP will be updated to reflect the additional reviews.

# 11 Schedule

Figures 3 and 4 present the high level programme for assurance and approvals and detailed SOC stage for the Oxford FAS project respectively.

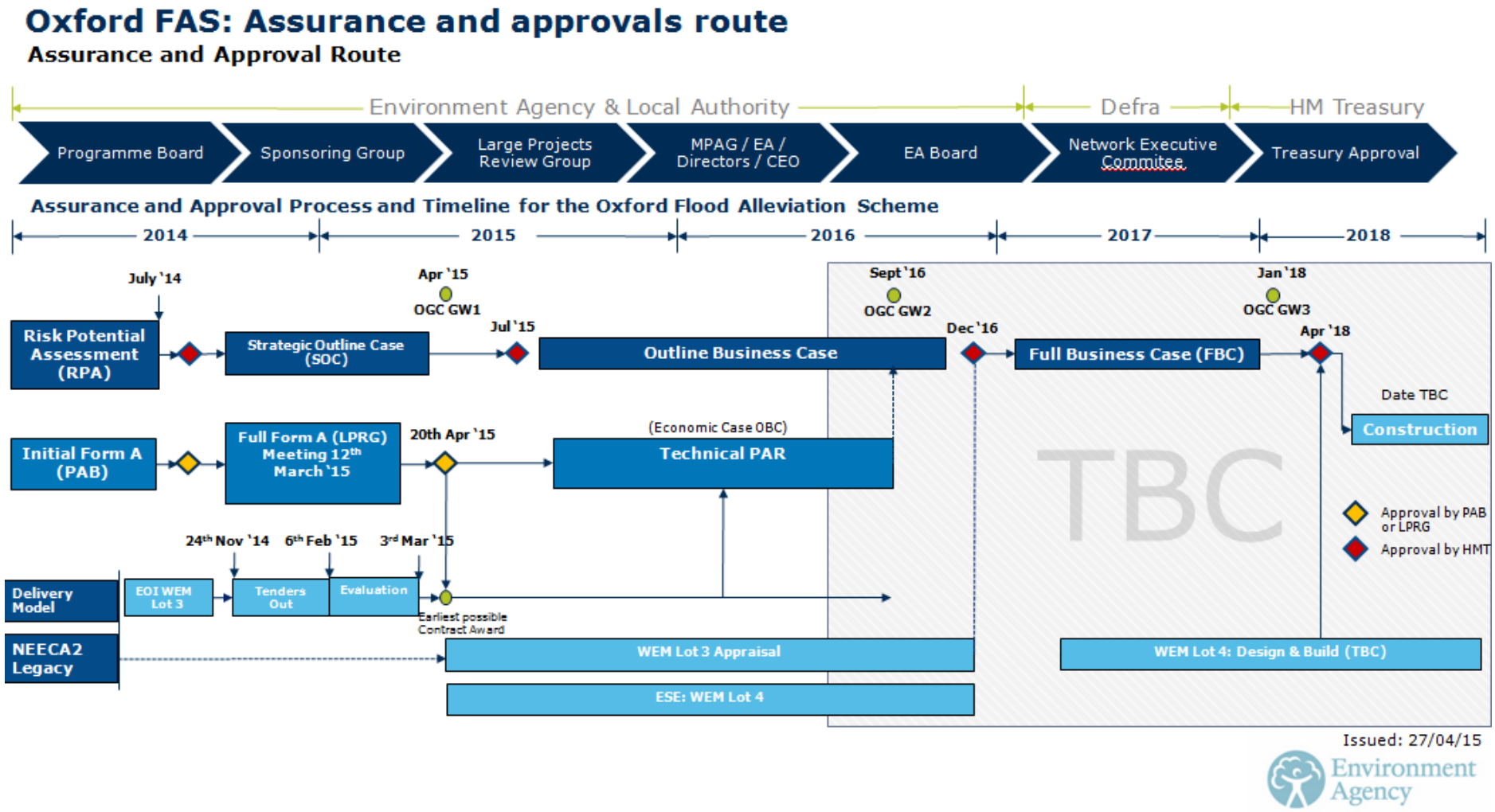


**Figure 3: Outline Approvals Process for the Oxford FAS**

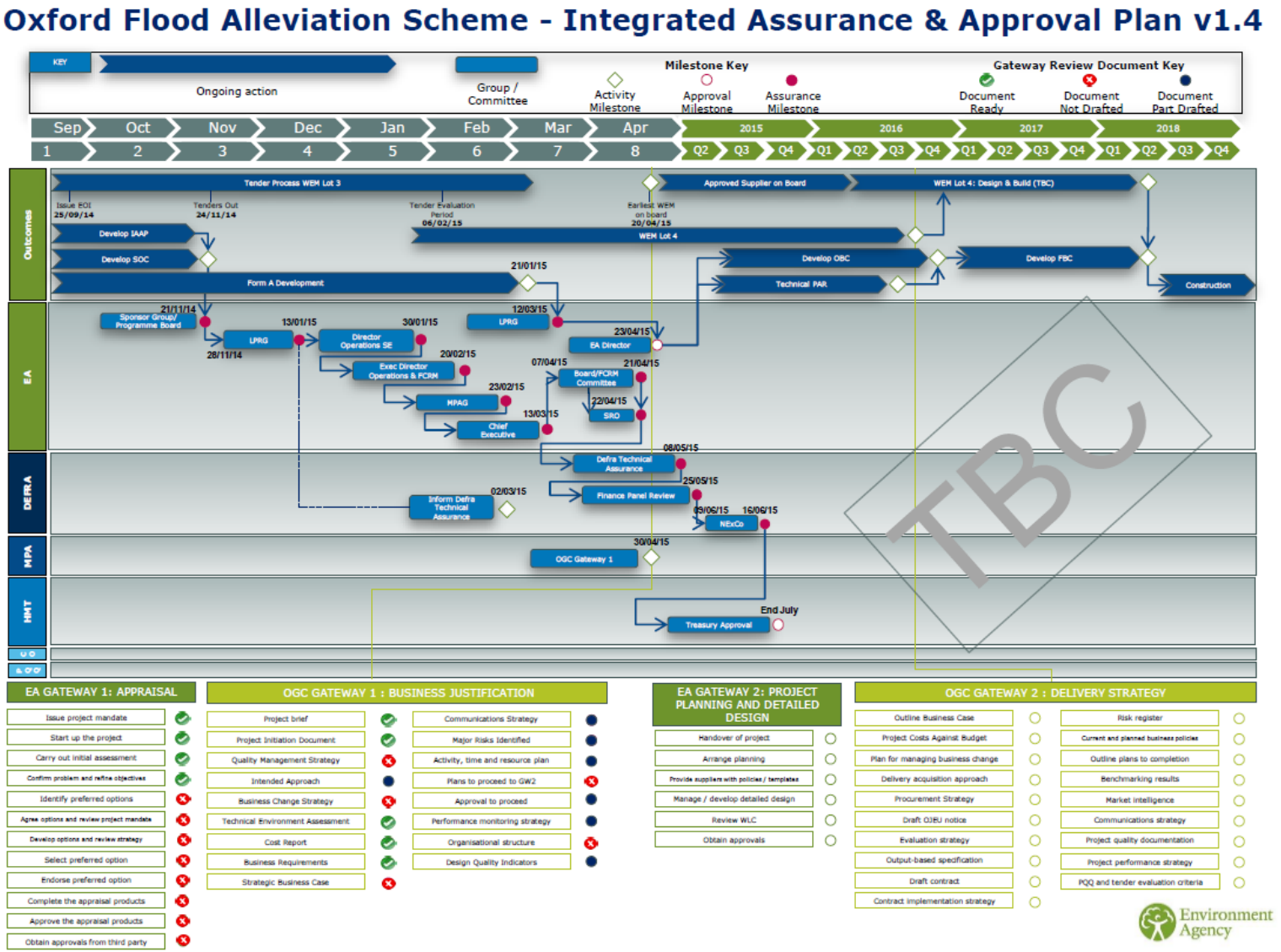


**Figure 4: Detailed IAAP programme for SOC stage of the Oxford FAS**