



Three Rivers District Council

## **CORPORATE GIS OFFICER**

# **PROJECT INITIATION DOCUMENT (P.I.D. Lite)**

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# Project Initiation Document (P.I.D. Lite)

## Document Control

### Document Change History

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1.0		October 2019	Initial PID report

### Distribution

Name	Position	Organisation/ Service

### Approval

Name	Position	Date approved

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## 1 Introduction

### 1.1 Purpose of the document

The Project Initiation Document (Lite) consolidates information required regarding the fundamental aspects of the project and is the basis against which the project is evaluated and prioritised.

- Why is this project important
- What will the project do, what outcomes will be delivered, what are the success factors and risks
- How much will it cost, what resources are required

*\*\* This document is a "lite" version of the full Project Initiation Document (PID) required when initiating the project fully. The full PID contains additional information.*

- How will the project be implemented, how will it be managed
- When will the project be implemented
- Who will be involved and who will be impacted

**NOTE:** When a PID is recommended to Council and approved as part of the budget setting process, the relevant Chief Officer will be deemed to have the necessary Delegated Authority to enter into any contract in respect of the project and within the budget agreed.

### 1.2 Executive Summary

1.2.1 The Council utilises IT software ArcGIS, a Geographical Information System, for capturing, managing, analysing and displaying a wide range of spatial data. This software is used extensively to varying degrees across the Council either as a stand alone product or as an integral part of the Uniform software.

1.2.2 The Council does not have a corporate GIS team or strategy. Each team currently manages their own data but there is an absence of any responsibility for the day to day running of the system. A permanent, full time Officer post is required to create a central resource to manage the system on a day to day basis, ensure data integrity and quality and drive system change and updates.

1.2.3 Currently, the Council's GIS data is fragmented and the data is often duplicated and manipulated without any governance which often jeopardises the quality and integrity of the data.

1.2.4 The project will support strategic objectives relating to organisational efficiency and effectiveness and use of resources.

1.2.5 This would be a corporate resource, utilised by whole Council for the benefits of all.

## 1.3 Project Objectives

- 1.3.1 Creation of a central resource to take corporate responsibility for reviewing, managing, updating and maintaining the Council's GIS systems.
- 1.3.2 Responsible for co-ordinating and monitoring other team's use of GIS to ensure a comprehensive and up to date GIS database
- 1.3.3 Engagement with internal departments to ensure GIS systems are utilised where and when appropriate
- 1.3.4 Supporting the Customer Strategy through provision of a front customer facing accessible and managed GIS system
- 1.3.5 Formulation of a GIS strategy intended to improve customer contact and increase efficiencies. The Strategy will detail how the Council will use GIS to enable digital access to information and data and how this can be used to improve service productivity and performance whilst informing and supporting the day to day operational management of services. It will also provide more transparent information for our customers.
- 1.3.6 User training provided as appropriate.

## 1.4 Background

- 1.4.1 A Geographic Information System (GIS) integrates hardware, software, and data for capturing, managing, analysing, and displaying a wide range of spatial data. It allows us to view, understand, question, interpret, and visualise data in ways that reveal relationships, patterns, and trends in the form of maps, reports, and charts. It can help answer questions and solve problems by looking at data in a way that is quickly understood and easily shared.
- 1.4.2 Three Rivers DC uses ArcGIS, purchased through its vendor ESRI. As a result of a recent upgrade, arising from a server migration project, the Council are using software v10.7.1. This is currently supported by ESRI. This is a desk top software although access to an online version is also provided, via different licences, enabling the system to be used for capturing data remotely. The Council currently have 21 concurrent licences with a current annual maintenance cost of approximately £20,000.
- 1.4.3 ArcGIS is used to create, store and show a wide range of spatial data. This includes data created and owned by the Council and data from third parties. The Council is reliant on ArcGIS to create new maps / plans, record new spatial data and search for property / land information, including development constraints. The Uniform software also uses ArcGIS to pull the mapping and constraint information through to the correct modules. Public Access (the web based public facing element of Uniform) also relies on ArcGIS.
- 1.4.4 The software is used extensively to varying degrees across the Council either as a stand alone product or as an integral part of the Uniform software. Ten departments currently use GIS with a further three departments seeking training and support to use the system to assist with their roles and responsibilities. The most significant users currently are the Environmental Protection, Transport and Parking Projects, Economic and Sustainable Development and Landscape teams. The spreadsheet attached as **Appendix A** details current users of the system and potential additional users.

## 1.5 Current Issues and Priorities

- 1.5.1 The Council does not have a corporate GIS team or strategy. Each team currently manages their own data, which could continue with appropriate training, but this does not negate the need for a central resource to manage the system on a day to day basis, ensure data integrity and quality, drive system changes and updates. There is an absence of any responsibility for the day to day running of the system. An Officer from the Economic and Sustainable Development team holds the role of data custodian but this is a legacy role which has become diluted over time due to staff changes and other team priorities.
- 1.5.2 The Customer Contact Programme Manager has been involved in the last 2 years due when it was recognised the Ordnance Survey base maps used by the GIS system was not being updated regularly and 'ownership' of the system for a new upgrade was required. This Officer now has responsibility for ensuring the Ordnance Survey base maps are updated, however, he does not use GIS currently in his day to day work so has a limited overview or technical knowledge of the system.
- 1.5.3 The Economic and Sustainable Development Team are well versed in the day to day running of ArcGIS, but they do not possess the technical expertise to implement and manage new software. Furthermore, they do not have the capacity to manage this corporate system or to train others in its use.
- 1.5.4 It is evident that no service has the capacity to drive through the improvements required in the management of the existing system and to enable the Council to explore further opportunities in the use of GIS. In addition, by previously relying on individual Officers to support their own teams any overview of the system, and skill and expertise has been diluted and continues to be so.
- 1.5.5 ICT are available to support the infrastructure for this system, but as this is a line of business system the day to day running of the system, including management of the data and strategy should reside within the service areas.
- 1.5.6 There is a £19,000 annual budget allocated for GIS but this solely covers the licence and system maintenance (from the previous ICT maintenance budget) and no other budgets are available.
- 1.5.7 The system has not been managed effectively since its introduction some years ago. The data is often duplicated and manipulated without any governance which often jeopardises the quality and integrity of the data. ArcGIS needs to be managed more effectively with a clean live database that is managed and structured.
- 1.5.8 This is especially important in the context of the INSPIRE directive, a European Directive which seeks to make mapping data publicly available, but equally important if the Council wish to actively pursue a GIS strategy to make improvements and efficiencies in our service provision.
- 1.5.9 There is no obvious single service area within which the responsibility of the ArcGIS should sit. In order to both implement the upgrade and assist the end users in using the software more effectively the Council would benefit from a central contact or team who are responsible for implementing and maintaining ArcGIS. Such a model is used by Councils elsewhere, including Watford Borough Council and Chiltern South Bucks District Council.

- 1.5.10 The Council could consider working closer with another Authority to establish a shared corporate GIS team. Contact has been made with the Head of Transformation at WBC. Whilst WBC may consider a shared role in the future, which will add resilience to both Councils, the current set up of the TRDC GIS system needs significant input and they would decline to be involved at this stage. It is expected this view would be repeated by other LAs.
- 1.5.11 An alternative proposal would be to seek consultant support for the initial part of the project including evaluating and reviewing the existing system and the provision of a professional GIS system, which could in future then be managed and maintained by a new Officer or shared services Officer role.
- 1.5.12 Either proposal would require training of staff across a number of departments.

### **1.6 Implications of project not being complete**

- 1.6.1 If the proposal is not supported Officers will have to continue to utilise the current fragmented system with wasted resource on repetition and low confidence in the accuracy of the information.
- 1.6.2 The system will continue to be poorly maintained due to a lack of internal resource and expertise.
- 1.6.3 The Council and users will be unable to fully realise the benefits of a corporate GIS system and the efficiencies it provides.
- 1.6.4 Incorrect information could be provided to our customers
- 1.6.5 A lot of officers rely on the software, which the Council pays a significant amount of money for. It is important that the investment in GIS software is returned.
- 1.6.6 Failure to comply with the EU Inspire Directive (now in UK law) regarding accessible and transparent spatial data
- 1.6.7 The Council is not able to provide the LLC to the Land Registry in the prescribed format and timescales, or in doing so needs to buy in additional resource and expertise at a cost.
- 1.6.8 The Tree and Landscape team cannot provide the information in the format that it is requested (i.e. TPO layer exports as required by organisations such as railway operators, Highways Agency) and this reflects badly in terms of our public image.
- 1.6.9 Departments will seek alternative GIS/mapping systems provided externally with associated costs leading to the continued fragmentation of the existing system and information held by the Council. There is a cost to this.
- 1.6.10 Reliance on specific individuals from other departments to provide the necessary data/mapping, which is at a cost to those other department as it takes Officers away from their core work and priorities.
- 1.6.11 This project underpins and supports both of the Council's strategic themes because it provides the mechanism to deliver improved and more efficient Council services which supports the aims and objectives of the Strategic Plan, specifically:

- 1.2 support local businesses and the local economy, and
- 2.4 we will provide a safe and healthy environment

1.6.12 This is also true of the following performance indicators

CP05 – Satisfaction with Three Rivers District Council

CO02 – Public perception of how well informed they feel about public services

CP46 – The perception of value for money from Three Rivers District Council

## 2 Business Case

The business case for the project is about supporting strategic objectives relating to organisational efficiency and effectiveness and use of resources.

### Why should this project be undertaken?

- The project will deliver efficiencies for staff within the Council
- A more joined up and professional way of working
- Improved data sharing across the Council and reduction in repetition
- Support channel shift across the Council
- Confidence in data
- Support the Council's drive towards digitisation and reducing paper/printing
- Maximising the use of the existing systems including integration of external information/spatial data
- Improved customer service

### How will project success be measured?

Direct indicators

- Corporate GIS mapping resource created
- Reduction in face to face visitors
- Reduction in phone calls
- Enquiries able to be answered by CSC as opposed to departmental officers
- Increase in online submissions
- Reduction in printing and postage
- Reduction in Officer time spent on administrative duties
- Customer Satisfaction

**The PID proposal is for a full time, permanent post.**

Essentially a GIS Officer would need to:

- Initially review and evaluate current GIS platform.
- And manage and maintain a corporate GIS system providing technical support to teams

This would enable the system to be brought up to date but this would be the minimum requirements and would not allow the Council to fully utilise the potential of the system and make potential efficiencies savings. The employment of a full time, permanent resource would allow:

- An Officer to create and maintain the structures to underpin the council wide use of GIS as a central business system. Creating necessary storage protocols, capturing and maintaining council information in accordance with GIS standards of good working practice and data quality best practice
- Develop and deliver a comprehensive range of GIS services to internal services, partners and other stakeholders as required

- Provide a problem resolution service to corporate GIS users
- Provide expert GIS analysis and consultancy services to colleagues and partners to support and inform council strategy and service delivery.
- Formulation of a GIS strategy to identify opportunities where GIS can help the authority develop existing or new services especially through channel shift and self-service.
- Promote use of and benefits of GIS within the Council
- Develop and manage a front facing, customer accessible Council Web Mapping System

## 2.1 Project Definition

## 2.2 Outputs and Outcomes

### Outputs

- A central Officer resource providing management of the system
- Usable GIS system
- Rollout of training to departments – more knowledgeable staff
- Improved spatial knowledge of the District and ability to analyse the data
- More effective dealing with departmental specific enquiries i.e. TPO and TCA enquiries (so more staff time within the team and CSC to undertake other functions)
- Formulation and adoption of a GIS strategy
- Improved responses and thus relationships with external Partners/Stakeholders

### Outcomes

- Strong infrastructure and well-used managed systems
- Easily accessible and high quality information
- Develop applications to support effective service delivery
- Use GIS to support the council's Customer Experience strategy
- Improved public image/reputation

## 2.3 Benefits

There is a growing awareness of the economic and strategic value of GIS. The benefits generally fall into five basic categories:

- cost savings and increased efficiency
- better decision making
- improved communication
- better record keeping
- managing geographical data
- overlaying spatial data onto a visible map to assist efficient and effective knowledge and decision making

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By not keeping information current, the Council risks using incorrect information in its decision making and providing inaccurate information to its residents.

One recent example of where GIS data could have provided an improved service or outcome was in responding to consultation responses with regard to the recent siting of a new bus shelter in TRDC. Public responses to the proposed siting of the bus stop raised concern regarding potential increases in anti-social behaviour. The ability to have anti-social hotspots mapped and overlaid with existing and proposed street furniture would provide a strong analytical tool for assisting with responses to consultations and also in planning future street furniture locations.

With regard to specific current use/projects:

- a) Property Services ought to be among the departments that use GIS given the nature of their services. Regrettably they do not use it as they have never had training on GIS nor a dedicated property system holding data which could be displayed spatially via GIS. As part of the transformation of the service delivery of the property function, GIS would be a valuable tool in making the service more effective and efficient.
- b) The Land Registry is to take charge of the Local Land Charges Register (LLC) nationally from all 326 local authorities in England. The current local authority LLC records need to be cleansed, formatted and transferred to Land Registry in their required format. These records are expected to be captured spatially despite not currently being held by Three Rivers DC in this format.

Official searches of the LLC Register will, after migration, be obtained from Land Registry rather than the Local Authority. The Enquiries of Local Authorities (CON29) will still be carried out by the local authority and currently there are no plans for the Land Registry to take over this function.

The project has commenced in phases and there is currently no indication which phase will include Three Rivers District Council. However, the Land Registry anticipates that all local authority Registers will be transferred by approximately 2024. Any new corporate GIS Officer will need to work with the existing Officers to enable the relevant data to be captured in the required format.

The lack of spatial data held currently is likely to result in additional costs for this project to ensure TRDC data can be provided to the Land Registry in the correct format.

- c) TRDC Elections - The Electoral Registration Officer (ERO) and Returning Officer (RO) are responsible for boundary reviews within Three Rivers. Currently Electoral Services are undertaken a statutory polling district, place and station review following which changes to boundaries and polling stations may occur.

Other electoral reviews take place from time to time that affect different boundary types within the district i.e. parliamentary, county and parish. The current maps that we rely on are now somewhat dated and unfit for purpose. Where any changes are agreed by committee or boundary review bodies i.e. LGBCE Officers have to utilise the services of Watford mapping services for which a charge is payable dependent upon the amount of work required. When undertaking reviews the ERO/RO has to make available up to date maps in order that public consultations can take place. Where suggestions for changes are made and agreed then new maps detailing any changes are also published. The provision of good quality maps to fulfil our statutory obligations require high level technical support which would be more effectively and efficiently provided were we to have that facility in-house.

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- d) Hertfordshire CC need to set up access to allow TRDC and the other 9 Districts to see the 'Growth Map' web app [showing all 10 District Local Plan Growth Data overlaid many other data]. However, they need to hand on the administration of this person to the relevant person in Three Rivers DC. The person they are looking for would likely be fairly technical and would understand for example how your existing web mapping is configured and maintained.

Currently there is no suitable person for this responsibility to be passed to. Handing it to an existing member of staff or team could result in implications for their core work or in the absence of any technical specialist the maps may not be administered/managed properly.

- e) Landscape – the Tree and Landscape team use the current system for plotting TPO's as and when they are made and confirmed. The CSC then refer to the system when dealing with TPO enquiries. However, the system is not used to its full capacity and issues around governance and training often means there are errors/deletions of data. If the system was a public facing version of GIS mapping the public could deal with their own TPO searches. Statutory authorities request TPO information (i.e. Highways Agency, railway operators) but the team is unable to provide the information in the format required.

Enabling the system to be utilised by the public (or CSC if appropriate) would free up professional officer time and allow them to focus on core responsibilities.

## **3 Project Costs**

### **3.1 One off project costs**

3.1.1 The salary for a Senior GIS Officer at WBC is banded 8-12 of which band 8 is £26, 876 up to £40,760. For a GIS & Local Land and Property Gazetteer Officer (with responsibility for the Council's street naming and numbering service) the salary is band 5 £24,799 to £26,999. These salaries are excluding the £874 Local Allowance.

3.1.2 Recruitment websites for GIS roles suggest salaries of approximately £43,000 excluding on costs.

3.1.3 Any Officer would be expected to take responsibility for the corporate GIS system and ensure their knowledge is both disseminated to and used by other teams which means recruiting at a more experienced, senior level.

3.1.4 The costs of the post including on costs and fringe allowance would equate to £54,315.

3.1.5 In addition a Council wide training programme is required but this could be incorporated through HR training budgets.

### **3.2 Financial viability**

3.2.1 As indicated above a number of services would benefit from the ability to manage spatial data.

3.2.2 A central resource to manage the data would reduce the time of individuals to respond to enquiries, particularly professional Officers and increase efficiencies across the Council.

3.2.3 A customer facing system would promote channel shift for Council contact. If appropriate the CSC could utilise the system to provide information rather than professional Officers.

3.2.4 Overall, this is a small investment multiplied across the whole Council for a necessary corporate resource.

### **3.3 Resources and skills**

3.3.1 The existing resource is not available and needs to be provided in house.

3.3.2 Managed and up to date spatial data will support numerous projects across the Council.

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Has the project been agreed by the Head of ICT?

Yes	X
No	

### 3.4 Equalities

Is this project responding to an Equality Impact Assessment?

Yes	
No	X

If yes, please provide brief details of the EIA...

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Has an [Equality Impact Assessment](#) been undertaken for this project?

Yes	
No	X

If yes, what are the outcomes and how do these link to the project?

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### 3.5 Data Protection Impact Assessment (DPIA)

Has a [Data Protection Impact Assessment](#) be completed for this project?

Yes	
No	x

If yes, please attach a copy

If no, why not?

\_\_\_\_\_Not relevant, not personal data.

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### 3.6 Risks

#### [Risk Management Strategy](#)

Nature of Risk	Consequence	Suggested Control Measures	Response (tolerate, treat, terminate, transfer)	Risk Rating (combination of likelihood and impact)
Continued fragmentation of GIS system	Poor utilisation of the GIS system with increased professional Officer time to respond to enquiries/find information, inability to respond to enquiries	In accordance with this PID	Treat as per PID recommendation	Residual risk is significantly reduced if PID is implemented.  Rating 4

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Risks arising from poor data quality	Reputational, financial and legal risks have already occurred and will continue to pose a threat until this is rectified  Incorrect data used by services or provided to customers.	In accordance with this PID	In accordance with this PID	Residual risk is significantly reduced if PID is implemented.  Rating 6/8
Ongoing lack of development in new technologies/ processes which are reliant on or supported by GIS capability	Increased Officer resource to provide information, use of external support at a cost, reputational damage  Inability to full deliver on Council's channel shift aspirations	In accordance with this PID	In accordance with this PID	Residual risk is significantly reduced if PID is implemented.  Risk rating 6
Costs to Council due to essential external support/ consultancy required to produce spatial data	Increased costs of providing spatial data using third parties/ outsourcing  Reputational damage	In accordance with this PID	In accordance with this PID	Residual risk is significantly reduced if PID is implemented.  Risk rating 6
Total price of resource is over the PID value	Sufficient GIS staffing/support resource is not provided	Continue to review recruitment costs of providing the resource, speak to other LAs	Tolerate	Risk rating 4
Time savings and efficiencies not achieved to the level expected	GIS resource not utilised effectively or efficiently across the Council, poor rollout of knowledge.	Ensure appropriate training disseminated, ensure consideration given to GIS utilisation in projects	Tolerate	Risk rating 6
Potential for GIS systems to be desupported and out of date if we do not have technical capability to	Lack of GIS resource	In accordance with this PID	In accordance with this PID	Residual risk is significantly reduced if PID is implemented.  Risk rating 6

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install and manage latest software versions			
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Very Likely ----- Likelihood ----- Remote	Low 4	High 8	Very High 12	Very High 16
	Low 3	Medium 6	High 9	Very High 12
	Low 2	Low 4	Medium 6	High 8
	Low 1	Low 2	Low 3	Low 4
	----- Impact -----> Unacceptable			
-----> Likelihood Score				

**Impact Score**  
 4 (Catastrophic)  
 3 (Critical)  
 2 (Significant)  
 1 (Marginal)

**Likelihood Score**  
 4 (Very Likely (≥80%))  
 3 (Likely (21-79%))  
 2 (Unlikely (6-20%))  
 1 (Remote (≤5%))