

*Department of  
Finance,  
Services and  
Innovation*

Investigation into Land  
Property Information  
Central Register of  
Restrictions – Stage 1

DFSI

12 December 2016



Martin Hoffman  
Secretary  
Department of Finance, Services and Innovation  
1 Prince Albert Road, Queens Square  
Sydney NSW 2000

12 December 2016

Dear Martin

**Report - Investigation into Land and Property Information Central Register of Restrictions (CRR)**

We are pleased to provide our report detailing our findings and observations in relation to our investigation into the omission of relevant Roads and Maritime Services (RMS) information on the Central Register of Restrictions (CRR) in 2016.

Please don't hesitate to contact me on 02 8266 2774 if you would like to discuss our findings.

Yours sincerely,

A handwritten signature in grey ink that reads 'Cassie Michie'.

Cassandra Michie  
Engagement Leader  
Forensic Services

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## Disclaimer

This report has been prepared pursuant to terms of reference dated 2 November 2016, which fully sets out the scope of our review and nothing within this report is intended to imply that we have carried out any work beyond that scope.

For the purposes of preparing this report, reliance has been placed on the representations, information and instructions provided to us. We have not sought to verify the accuracy or completeness of the information made available to us, nor have we conducted any procedures in the nature of an audit of the information or assumptions therein in any way, other than has been specifically stated in this report.

Whilst our engagement involved the analysis of financial information and accounting records, it did not constitute an audit in accordance with Australian Auditing Standards or a review in accordance with Australian Auditing Standards applicable to review engagements and accordingly no such assurance is provided in our report.

The report has been prepared subject to the provisions and qualifications stated herein, for the sole use of Department of Finance, Services and Innovation. PwC, its partners, its agents and servants specifically deny any liability whatsoever to any other party who may use or rely on the whole, or any part, of this report or to the parties to whom it is addressed for the use, whether in whole or in part, for any other purpose than that herein set out. This report should not be used for any other purpose without PwC's prior written consent.

We do not accept any duty of care (whether in contract, tort (including negligence) or otherwise) to any person other than you, and will not be responsible for any loss suffered by a third party who relies upon this report.

This report is prepared based on information made available to us up to the date of this report and we reserve the right to amend our opinions, if necessary, based on factual information that comes to our attention after that date.

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# 1 Executive Summary

## 1.1 Background

The CRR provides prospective purchasers and others with information about potential and actual government or authority interests in a parcel of land. The information is provided through a “Yes/No” flag, which confirms if a parcel of land has an interest or not. The CRR is open to public scrutiny as interested parties rely on the accuracy of the CRR in making decisions on property.

In 2016, an incident occurred whereby two files for a number of Roads and Maritime Services (RMS) parcel interests affected by the F6 Corridor (Southlink) and Werrington Arterial projects had not been uploaded into the Central Register of Restrictions (CRR) (the 2016 Incident). The CRR is maintained by Land and Property Information (LPI - DFSI). The files were provided by RMS on 22 June 2016, and following LPI’s validation checks of the files, were ready for upload into the CRR on 27 June 2016. However, the parcel interests were not fully uploaded into the CRR until 24 October 2016. As a result, enquirers received incorrect responses to their CRR inquiries during the period 27 June 2016 to 24 October 2016.

The Secretary of the Department of Finance, Services and Innovation (DFSI) engaged PwC on 4 November 2016 to conduct an independent investigation into LPI and RMS processes to identify the reasons for RMS property interests not being uploaded into the CRR, and to provide recommendations to improve the accuracy and reliability of the CRR going forward. Throughout the investigation it was identified that a 2014 file had also not been uploaded and PwC’s scope was broadened to investigate both incidents. We note that the 2014 Incident is covered in our Stage 2 report.

## 1.2 Overview of findings

An Information Agreement dated 13 October 2009 was entered into between the Roads and Traffic Authority (RTA, now RMS) and the Registrar General (now Office of the Registrar General, ORG) for LPI to upload parcel interests for areas affected by RMS projects. Since 2009 RMS have provided LPI with files to be uploaded on 16 separate occasions (i.e. 16 submissions).

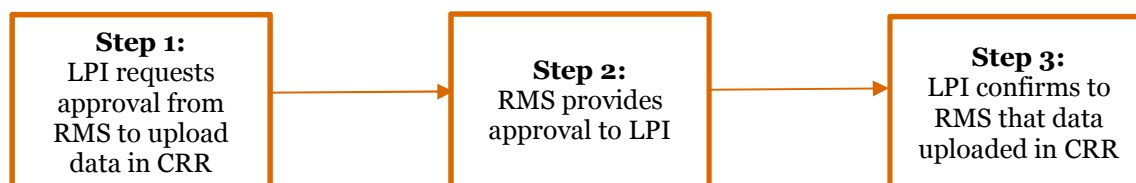
Overall, we found that the process for uploading files in CRR was informal and at times inconsistent with no formal policies or procedures. It appears that weaknesses in the upload process have existed since the commencement of the Information Agreement on 13 October 2009. Consequently, incidents such as the Incident investigated in this report may have occurred at any point in time.

We also note that in February 2015, LPI transitioned the process internally from one retiring staff member to another staff member involved in the Incident. There were no changes to staff in 2016 that impacted the Incident.

### Understanding the past practice

In order to understand the past process for uploading files into the CRR, and the extent the past practice was followed in the 2016 Incident, we reviewed seven submissions, the most recent prior submissions, for the period from May 2014 and April 2016. We found the following:

- 1) As illustrated in the diagram below, LPI would validate the file data and request RMS to approve the upload into the CRR. RMS would subsequently approve and in some instances LPI would confirm that the upload had occurred.



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**Step 1:** For all 7 submissions, LPI requested approval from RMS to upload the files.

**Step 2:** For all 7 submissions, RMS approved the upload within the same day or up to 19 days later.

**Step 3:** In 3 out of 7 submissions, LPI provided confirmation of the upload to RMS. Per the evidence provided, the most recent confirmation was in June 2015.

- 2) As part of (1) above, LPI checks the integrity of data and compares the files provided by RMS against LPI's ITS system which contains the latest titling information. Any discrepancies identified are considered exceptions (e.g. cancelled titles). For exceptions identified, they were resolved in most instances by LPI and in some instances LPI would notify RMS that the exceptions had been resolved.

### **Process undertaken in relation to the Incident**

Based on the discussions with LPI and RMS' management, and a review of email correspondence relevant to the Incident, it is evident that LPI followed their standard practice to validate the data provided by RMS and LPI Spatial Services, and further identified a number of exceptions.

On this occasion, LPI requested RMS to "confirm" the exceptions identified rather than requesting RMS' approval to upload the files. RMS did not respond to the exceptions request until September 2016 and also did not follow up with LPI as to why approval to upload had not been sought. LPI also did not follow up its exception confirmation request. We note:

- It appears that LPI was waiting on the confirmation of exceptions to upload the whole file which was outside of the normal practice.
- Since RMS had not previously managed exceptions, RMS incorrectly assumed that the file had been uploaded even though their approval had not been sought, as was the past practice.
- LPI did not expressly state in their email that the files would not be uploaded until the exceptions had been confirmed.

Noting that there were no formal policies or procedures relating to the upload of RMS files into the CRR, we found for the 2016 Incident, LPI deviated from its past practice as observed in our review of the seven RMS file submissions. This deviation, together with the controls weaknesses detailed in section 3.3 below, contributed to the Incident.

## **1.3 High level recommendations**

We set out below our recommendations to enable ORG, LPI and RMS to improve the accuracy and reliability of the CRR going forward:

- 1) Perform an end-to-end review of CRR process to identify key operational risks and control weaknesses in relation to people, skills, process and systems used. This should include analysis of historical exceptions and development of procedures including roles and responsibilities for the resolution and sign off of exceptions.
- 2) Develop and document a policy, workflow program and assign accountabilities relating to the CRR process to capture details of actions taken throughout the end to end process to prompt any actions that are required to be taken when they fall due and the creation of an audit trail to evidence the completion of the actions.
- 3) Develop a sign off process to have both LPI and RMS acknowledge completeness for the upload of the file. This should include quality checks undertaken by LPI to ensure completeness and accuracy of the upload compared to the parcel interests provided by RMS.
- 4) Review RMS' current CRR access privileges and assess their appropriateness in line with RMS' roles and responsibilities. Further, consider the capability and potential risks of RMS being able to undertake the Bulk CRR upload.

- 5) Develop or update policies and procedures in line with the findings from the end to end review above.
- 6) ORG, LPI and RMS to consider findings of the end-to-end process review in the new CRR agreements to ensure the process aligns to the roles and responsibilities in the new CRR agreements and clarity around functions performed to ensure accuracy and completeness of the CRR.
- 7) Provide training to the staff who are relevant to the CRR process on the process and respective roles and responsibilities.
- 8) Update LPI's risk register for the CRR related risks.
- 9) Develop a review program to assess whether policies and procedures are being followed.
- 10) At the moment procedures are being conducted by individuals rather than by role. We recommend that the activities are ran by a role, with specified email account, to allow multiple individuals to be trained to undertake the procedures in order to avoid dependency on one key individual.

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## 2 Background, scope and approach

### 2.1 Background

The CRR provides prospective purchasers and others with information about potential and actual government or authority interests in a parcel of land. The information is provided through a “Yes/No” flag, which confirms if a parcel of land has a restriction or not. The CRR is open to public scrutiny as interested parties rely on the accuracy of the CRR in making decisions on property.

In 2016, an incident occurred whereby two files for a number of Roads and Maritime Services (RMS) parcel interests affected by the F6 Corridor (Southlink) and Werrington Arterial projects had not been uploaded on the Central Register of Restrictions (CRR) (the 2016 Incident). The CRR is maintained by Land and Property Information (LPI - DFSI). The files were provided by RMS on 22 June 2016, and following LPI’s validation checks of the files, were ready for upload into the CRR on 27 June 2016. However, the parcel interests were not fully uploaded into the CRR until 24 October 2016. As a result, enquirers received incorrect responses to their CRR inquiries during the period 27 June 2016 to 24 October 2016.

### 2.2 Scope

Secretary of the Department of Finance, Services and Innovation (DFSI) engaged PwC on 4 November 2016 to conduct an independent investigation into LPI and RMS processes to identify the reasons for RMS property interests not being uploaded into the CRR, and to provide recommendations to improve the accuracy and reliability of the CRR going forward. Throughout the investigation it was identified that a 2014 file had also not been uploaded and PwC’s scope was broadened to investigate both incidents. We note that the 2014 Incident is covered in our Stage 2 report.

#### Scope exclusion

In addition to the scope exclusion set out in the Disclaimer section, to date we did not consider:

- 1) The process for uploading files into the CRR for other participating agencies set out in **Appendix A**.
- 2) The files uploaded into the CRR outside the Investigation Period
- 3) The accuracy and completeness of the information within the files uploaded into the CRR.

### 2.3 Approach

#### 2.3.1 Desktop review of documents

We performed a desktop review of the relevant procedures and documents relating to the Incident and to the general CRR process to understand:

- 1) The details of the Incident.
- 2) The objectives and history of the CRR.
- 3) The process and controls of the CRR including relevant systems in use.
- 4) The roles and responsibilities of individuals associated with the CRR.

**Appendix B** summaries the information and records provided by both LPI and RMS in this investigation.

In order to understand the usual process for uploading files into the CRR, and the extent the past practice was followed in the 2016 Incident, we reviewed seven property file submissions for the period from May 2014 and April 2016.



### *2.3.2 Fact finding interviews*

Leveraging the information gained from performing the above activities, we held a number of fact finding meetings with the relevant LPI and RMS staff to understand and clarify the Incident and the general CRR process (the full list of meeting attendees is provided at **Appendix C**).

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## 3 Work performed and findings

### 3.1 Background of the CRR

The CRR was introduced in 1990 and was legislated in New South Wales (NSW) in 2000 pursuant to Section 206 of the Conveyancing Act 1919 (the Act). The CRR is an electronic database and provides prospective purchasers and others with information about potential and actual government or authority interests in a parcel of land. The information is provided through a “Yes/No” flag, which confirms if a parcel of land has a restriction or not.

The CRR has been maintained by Land and Property Information (LPI - DFSI) on behalf of participating agencies who periodically submit data to LPI. We understand that there are a total of 11 participating agencies including RMS who provide files for areas affected by their projects to LPI to upload into the CRR (the full list of current participating agencies is provided at **Appendix A**).

Based on our discussions held with LPI management, we understand the key users of the CRR include the following:

- 1) prospective purchasers of land and properties
- 2) solicitors and conveyancers
- 3) information brokers
- 4) authorised CRR agencies such as RMS.

### 3.2 Roles and responsibilities

The Information Agreement between the Roads and Traffic Authority (RTA, now RMS) and ORG dated 13 October 2009 was signed by both parties (Item 1 – **Appendix B**). We note that the Information Agreement expired in October 2010 and both ORG and RMS have continued to operate based on the expired Information Agreement.

We note that clause 5.3 of the Information Agreement allows ORG to nominate a representative who has full authority to act on behalf of ORG. In this report, we refer to LPI as the representative of ORG.

#### **LPI (the representative on behalf of ORG)**

In accordance with the Information Agreement, LPI’s key responsibilities relating to the accuracy of information uploaded into the CRR include the following:

- 1) Provide title updates for RMS’ review and bulk upload RMS files and ongoing updates as a result of any parcel subdivisions or conversions, including change of ownership (*clause 5.1*).
- 2) Fully responsible for the issuing of CRR responses to customers (*clause 5.2*)
- 3) Maintain records of the changes made to RMS property information recorded into the CRR. All relevant details relating to any changes made such as date, time and authors who made the change should be maintained (*clause 6.2*).
- 4) Act with reasonable care in relying upon or using RMS property information (*clause 6.3*).
- 5) Take reasonable steps to ensure that LPI provides and maintains the CRR in accordance with the relevant legislation and the Information Agreement (*clause 6.5*).

#### **RMS**

In accordance with the Information Agreement, RMS key responsibilities relating to the accuracy of information uploaded into the CRR include the following:

- 1) Be responsible for the accuracy and currency of RMS Property Information entered into the CRR or provided to LPI (*clause 6.1*).
- 2) Notify LPI of any alteration or amendment to the CRR data and to promptly and carefully check all input data against the computers resultant output from the parcel addition, deletion and modification facilities and immediately notify LPI of any error (*clause 6.4*).

Based on discussions held with RMS management, we understand that RMS is of the view that the Property Information referred to in the Information Agreement means the files provided to LPI and this does not extend to specific lot/plan information which is provided to LPI by LPI Spatial Services and subsequently validated and uploaded into the CRR by LPI. LPI Spatial Services obtain such information from the files provided by RMS. The delivery of files by RMS to LPI and file upload and validation by LPI would appear to be the practice that both agencies had adopted since 2009.

Further, during our discussions with RMS management, they informed us that they were not aware of the Information Agreement, and had based their processes on arrangements developed over time directly with LPI. It would appear that the Information Agreement responsibilities listed above were not used by either LPI or RMS to define their processes in relation to their respective roles in the CRR process.

### 3.3 Review of the CRR process

In order to understand the usual process for uploading files into the CRR, and the extent the past practice was followed in the 2016 Incident, we:

- 1) Reviewed seven file submissions for the period from May 2014 and April 2016.
- 2) Reviewed documents relevant to the CRR process (Items 2, 3 and 12 – **Appendix B**).
- 3) Held fact finding meetings with relevant LPI and RMS staff to understand the current processes and controls in place, as well as the processes that took place in relation to the two files that were not fully uploaded.

We set out below our understanding of the process (This is also summarised at **Appendix D**). As previously noted, the process was inconsistently followed over time and not all steps detailed below were followed for each of the submissions.

- 1) When a project has been determined as viable and feasible by RMS, they create a file (i.e. electronic map) containing information that affects the land and/or use of land by the proposed project.
- 2) RMS provide the files to LPI.
- 3) LPI forward the files to LPI Spatial Services requesting the extraction of specific lot/plan information relating to affected areas in the files provided by RMS. LPI Spatial Services obtain this information using the cadastre database called DCDB (the DCDB database is maintained by LPI Spatial Services).
- 4) LPI Spatial Services provide LPI with the extracted data in an excel spreadsheet.
- 5) LPI distribute the extracted data internally for validation to LPI's ITS system. The ITS system contains the latest titling information and is more current than the DCDB database used by LPI Spatial Services. Any discrepancies identified were considered exceptions (for example, due to a title being cancelled) and are extracted.
- 6) For exceptions identified, they were resolved in most instances by LPI and in some instances LPI would notify RMS that the exceptions had been resolved. RMS stated that they first started receiving exception files from LPI in 2014 (exact date could not be recalled). They further noted that on occasions they were informed that LPI was taking ownership of resolving the exceptions.
- 7) Where exceptions are emailed by LPI to RMS, they are internally reviewed by RMS, and where necessary, resolved. Once resolved, RMS provides the updated exceptions file to LPI.
- 8) When the exceptions are resolved, either by LPI or RMS, LPI requests RMS for their approval to upload the data into the CRR.
- 9) LPI uploads the data into the CRR once the approval to upload is received from RMS. We were informed by LPI that no checks are completed to ensure that an upload was successful. LPI receives an internal confirmation when the files have been uploaded into the CRR.
- 10) On some occasions LPI advises RMS by email that the files have been uploaded and provides RMS with a file containing a list of all parcel interests uploaded into the CRR. RMS informed us that they do not complete any accuracy checks of the information uploaded into the CRR.

We summarise below our analysis of the seven submissions including the Incident which was added for comparative illustration only.

**Table 1 – Summary of LPI-RMS Email submissions**

Ref	Date	STEP 1 Exceptions Identified?	STEP 1 Exceptions Resolved By?	STEP 2 LPI Request to RMS for approval upload data into the CRR? (A)	STEP 3 No. of Days Between LPI receipt of RMS file and LPI request for approval	STEP 4 RMS approval of LPI Request? (B)	STEP 4 No. of Days between A and B	Data uploaded into the CRR? <sup>1</sup>	STEP 5 Confirmation of upload into the CRR provided by LPI to RMS?
1	May-14	✓	LPI	✓	3	✓	2	Yes	✓
2	Jun-14	✓	LPI	✓	16	✓	Same day	Yes	✓
3	Aug-14	✓	Not specified	✓	10	✓	9	No	✗
4	Feb-15	✓	LPI	✓	5	✓	19	Yes	✗
Transition of staff in LPI following Feb-15 submission									
5	Jun-15	✓	Not specified <sup>2</sup>	✓	13	✓	Same day	Yes	✓
6	Oct-15	✓	RMS <sup>3</sup>	✓	14	✓	14	Yes	✗
7	Apr-16	✗	N/A	✓	7	✓	Same day	Yes	N/A
8	Jun-16 <sup>4</sup>	✓	Not Resolved	✗	N/A	✗	N/A	No	N/A

We found the following from review of the additional 7 email submissions:

- 1) In 6 of the 7 submissions, exceptions were identified by LPI and resolved as follows:
  - a. In 3 of the 6, LPI resolved the exceptions.
  - b. In 1 of the 6, RMS resolved the exceptions.
  - c. In 2 of the 6, no emails were provided to confirm the resolution of exceptions.

We note that RMS were not directly asked to resolve exceptions in any of the 6 submissions.

<sup>1</sup> We note that we have not tested the upload of data into the CRR. Reliance has been placed on information provided by LPI.

<sup>2</sup> While LPI emailed exceptions to RMS, we have seen no evidence of approval requested by LPI or given by RMS.

<sup>3</sup> In requesting approval for upload from RMS, LPI emailed exceptions to RMS and requested approval to upload remaining and matched data in the CRR. Subsequently, RMS emailed LPI and for all the titles listed as exceptions, provided the newly created titles in the buffers in their stead. It appears that in this instance RMS was involved in the resolution of exceptions.

<sup>4</sup> We were advised by LPI that on 24 June 2016, RMS provided an additional file relating to the Garfield Project. This file was successfully uploaded into the CRR. We understand that no exceptions were identified and the data was uploaded into the CRR without request for approval to upload from RMS.

- 2) For all 7 submissions, LPI requested RMS' approval to upload data into the CRR.
- 3) The average number of days from LPI receiving a file from RMS, to requesting their approval to upload is 9.7 days. In 4 out of the 7 email chronologies, the period of time was above this average. Overall, the timeframe appears reasonable.
- 4) For all 7 submissions, RMS provided approval to LPI to complete the upload of data into the CRR within the same day or up to 19 days later.
- 5) In 3 of the 7 submissions, LPI provided confirmation of the upload to RMS. One submission did not require an upload, therefore, no LPI confirmation was required. In 3 of the 7 submissions, no emails were provided to confirm the upload.

### Process Weaknesses

Our review identified the following LPI and RMS process weaknesses and gaps contributing to the Incident, inability to meet the objectives of the CRR and obligations set out in the Information Agreement:

- 1) There is no policy relating to the CRR process and no detailed role descriptions, other than those contained in the expired Information Agreement.
- 2) There is a lack of end-to-end procedures including escalation process, management of file exceptions and follow up for processes not completed.
- 3) There is a single point of contact relating to the CRR process placing heavy reliance on an individual to ensure timely process execution and no supervision of the process.
- 4) The process is not aligned to the Information Agreement and there is a lack of clarity around obligations within:
  - a) Clause 6.1 which requires RMS to be responsible for the accuracy and currency of the RMS property information entered into the CRR but does not define what constitutes "Information" which could mean the accuracy of files and/or folio identifiers of the parcel interests.
  - b) Clause 6.4 which requires RMS to carefully check all input data against the computer resultant output but this step is not currently reflected in the process. Nor is it practical for bulk CRR uploads as RMS can only undertake this check for one parcel of interest at a time. Further, RMS informed us that they are not able to extract data uploaded into the CRR by submission file.
  - c) Clause 6.4 (sic) which requires the Registrar-General to ensure the CRR is maintained in line with the legislation and this Information Agreement but some of the agreement requirements are not reflected in the established processes by virtue of the clarity and misalignment of the process identified in clauses 6.1 and 6.4 above. Further, based on our discussions with the LPI and RMS, stakeholders outside of the ORG were not aware of the requirements and meaning of the information contained within the Information Agreement.
- 5) The Information Agreement expired in October 2010 and both parties have been operating under the expired agreement and the Agreement terms have not been reviewed relative to the actual roles and responsibilities of the parties
- 6) There is a lack of process review of the CRR. We were advised that since the CRR was set up no reviews have been undertaken to test its operational effectiveness and therefore the LPI risk register does not have any CRR associated risks listed. We understand that going forward the ORG will undertake an oversight role of the CRR process with focus on period review of the process and policy administration.
- 7) There is a lack of training on the responsibilities of the parties contained in the Information Agreement, with particular regard to the CRR process<sup>5</sup>.

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<sup>5</sup> LPI provided materials of training provided by LPI to RMS in 2009. However, this training related to the use of the CRR rather than the CRR process.

- 8) RMS/LPI Spatial Services files are created using the DCDB database. However, we understand that this database can have a two to three month time lag in comparison to the LPI's ITS system, leading to a larger proportion of the exceptions generated.
- 9) There are certain parcels of interest converted by LPI Spatial Services that do not get validated by LPI nor do they get sent to RMS. These are parcels of interest where a cadastre ID is identified but plan ID and number and lot ID and number are not identified. LPI advised that these parcels relate to unowned land including creek crossings, closed roads, and crown land.
- 10) No quality control checks are completed by LPI or RMS to ensure that the parcels uploaded by LPI were successfully uploaded into the CRR.

## 3.4 Review of the Incident

### Overview

We found that, LPI followed their standard practice to validate the data provided by RMS and LPI Spatial Services, and further identified a number of exceptions.

On this occasion, LPI requested RMS to "confirm" the exceptions identified rather than requesting RMS' approval to upload the files. RMS did not respond to the exceptions request until September 2016 and also did not follow up with LPI as to why approval to upload had not been sought. LPI also did not follow up its exception confirmation request. We note:

- It appears that LPI was waiting on the confirmation of exceptions to upload the whole file which was outside of the normal practice.
- Since RMS had not previously managed exceptions, RMS incorrectly assumed that the file had been uploaded even though their approval had not been sought, as was the past practice.
- LPI did not expressly state in their email that the files would not be uploaded until the exceptions had been confirmed.

Noting that there were no formal policies or procedures relating to the upload of RMS files into the CRR, we found for the 2016 Incident, LPI deviated from its past practice as observed in our review of the seven RMS file submissions. This deviation, together with the controls weaknesses detailed in section 3.3 above, contributed to the Incident.

### Chronology

We set out below a chronology of the events that led to the Incident:

On 22 June 2016, RMS emailed two files for Southlink and Werrington Arterial projects to LPI. On the same day, the files were emailed to LPI Spatial Services for extraction of parcel interests affected by these projects.

On 23 June 2016, LPI received 12 files from LPI Spatial Services as follows:

- 1) Two excel files of 38,444 (Southlink) and 420 (Werrington Arterial) of parcel interests where cadastre ID, plan ID and number and lot ID and number were identified. This information was also received in a text format in two test files.
- 2) Two excel files 51 (Southlink) and 2 (Werrington Arterial) of parcel interests where cadastre ID was identified but plan ID and number and lot ID and number were not identified.

LPI advised that these parcels relate to unowned land including creek crossings, closed roads and crown land. These parcels do not get validated by LPI nor were they sent to RMS. This information was also received in a text format in two test files.

- 3) Two .pdf and two .jpeg files containing original RMS file information.

On 27 June 2016, LPI validated the data contained within the two excel files in (1) above to LPI's ITS system which identified 16 exceptions. On the same date, LPI emailed the exceptions to RMS, requesting RMS to confirm the exceptions provided. We note that the email did not make any reference to files being uploaded or not being uploaded.

We were informed by the RMS that they distributed internally the exceptions files for review on 27 June 2016. However, RMS was unable to identify a copy of this email. They further noted that they understood that the upload, except for the exceptions, had been completed.

On 30 September 2016, RMS emailed LPI asking to check if files unrelated to Southlink and Werrington Arterial had been uploaded into the CRR. On the same day, LPI emailed RMS stating that that no response had been received to the June exceptions email (originally provided on 27 June 2016).

On 18 October 2016,

- 1) LPI emailed RMS asking for their confirmation of the data in the 22 June 2016 files so it could be uploaded into the CRR.
- 2) RMS replied saying that they thought that the upload had already been “done” and confirmed the data as requested.
- 3) LPI forwarded the email from RMS internally requesting it to be action by LPI’s ICT section.
- 4) LPI’s ICT section replied saying that the files were done on 27 June 2016. We note that LPI’s ICT section have informed us that the reference to “done” in this email meant “validated” and not uploaded.
- 5) LPI emailed RMS confirming that the files were “implemented” on 27 June 2016. LPI advised that they considered the reference to “done” in (4) above to mean “uploaded”. RMS stated they understood this email confirmed that the Southlink and Werrington restrictions had been uploaded into the CRR on 27 June 2016.

On 21 October 2016, following an enquiry from a conveyancer, it became apparent that for a particular parcel interest, the CRR certificate issued for the title reference had no reference to the interest held compared to a letter received by their client advising an interest in the property for a road project.

On 24 October 2016, LPI requested an internal investigation be made to understand if the enquired parcel of interest was part of any recent files received from RMS. LPI located the files of interest (Southlink and Werrington Arterial) and confirmed that they have not been “ran” however 25,433 parcels were immediately uploaded into the CRR.

Table 2 below provides details in relation to the parcel interests that were not fully uploaded into the CRR.

**Table 2 List of parcel interests**

Number of parcel interests provided by LPI Spatial Services	Number of parcel interests where folio identifiers were unidentified	Number of parcel interests with exceptions	Number of parcel interests already into the CRR	Number of parcel interests not up-loaded into the CRR
<b>38,864</b>	<b>53</b>	<b>16</b>	<b>13,362</b>	<b>25,433</b>

### 3.5 High level recommendations

We set out below our recommendations to enable ORG, LPI and RMS to improve the accuracy and reliability of the CRR going forward:

- 1) Perform an end-to-end review of CRR process to identify key operational risks and control weaknesses in relation to people, skills, process and systems used. This should include analysis of historical exceptions and development of procedures including roles and responsibilities for the resolution and sign off of exceptions.
- 2) Develop and document a policy, workflow program and assign accountabilities relating to the CRR process to capture details of actions taken throughout the end to end process to prompt any actions that are required to be taken when they fall due and the creation of an audit trail to evidence the completion of the actions.

- 3) Develop a sign off process to have both LPI and RMS acknowledge completeness for the upload of the file. This should include quality checks undertaken by LPI to ensure completeness and accuracy of the upload compared to the parcel interests provided by RMS.
- 4) Review RMS' current CRR access privileges and assess their appropriateness in line with RMS' roles and responsibilities. Further, consider the capability and potential risks of RMS being able to undertake the Bulk CRR upload.
- 5) Develop or update policies and procedures in line with the findings from the end to end review above.
- 6) ORG, LPI and RMS to consider findings of the end-to-end process review in the new CRR agreements to ensure the process aligns to the roles and responsibilities in the new CRR agreements and clarity around functions performed to ensure accuracy and completeness of the CRR.
- 7) Provide training to the staff who are relevant to the CRR process on the process and respective roles and responsibilities.
- 8) Update LPI's risk register for the CRR related risks.
- 9) Develop a review program to assess whether policies and procedures are being followed.
- 10) At the moment procedures are being conducted by individuals rather than by role. We recommend that the activities are ran by a role, with specified email account, to allow multiple individuals to be trained to undertake the procedures in order to avoid dependency on one key individual.



# Appendices

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## Appendix A List of CRR participating agencies

The 11 participating agencies of the CRR include the following:

- 1) Ausgrid
- 2) Department of Defence
- 3) Department of Education and Communities
- 4) Department of Industry
- 5) East Australian Pipeline
- 6) Endeavour Energy
- 7) Jemena Gas Networks (NSW) Ltd
- 8) Office of Environmental and Heritage
- 9) Rail Corporation NSW
- 10) Roads and Maritime Services
- 11) Transgrid

## Appendix B Information relied upon

**Table 3: List of information replied upon**

Ref	Document name	Provided by
1	Information Agreement Central Register of Restrictions Between Roads & Traffic Authority and Registrar General of NSW	LPI
2	Pre 1 July 2016 CRR and RMS process	LPI
3	Bulk CRR upload administrative procedure for RMS from 1 July 2016	LPI
5	Central Register of Restriction six online access options for CRR authorities February 2015	LPI
6	Changes at Land and Property Information Circular June 2016 (No. 2016/07)	LPI
7	Chronology of First Notification to LPI of CRR-RMS Issue	LPI
8	CRR RMS 2016 Incident Chronology dated 4 November 2016	LPI
9	Part 24 Central Register of Restrictions of Conveyancing Act 1919 No 6	LPI
11	Chronology of the CRR – RMS 2016 Incident including embedded email correspondence and documents	LPI
12	RMS CRR process map dated 7 November 2016	RMS
13	Email correspondence in relation to seven submissions for the period from May 2014 and April 2016	LPI
14	LPI – Central Register of Restrictions User’s Guide, dated 17 August 2009	LPI
15	Central Register of Restrictions, Training Slides	LPI

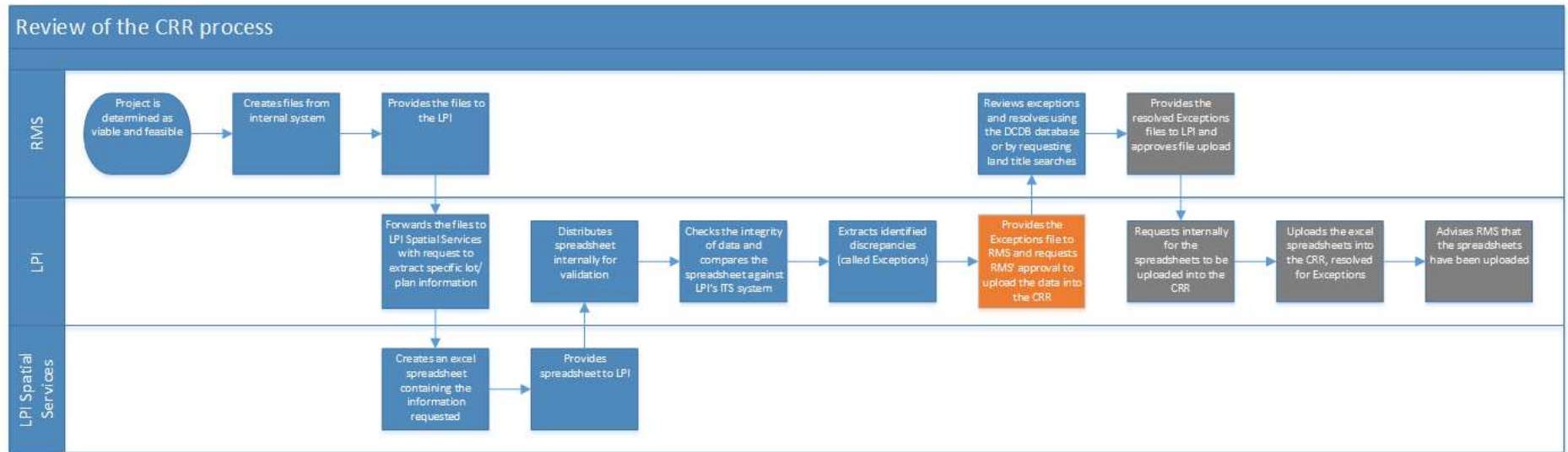
## Appendix C List of individuals interviewed

**Table 4: List of individuals interviewed**

Ref	Organisation	Title
1	DFSI	Program Director, Strategic Programs and Performance Management Office
2	ORG	Registrar General
3	ORG	Director ORG
4	ORG	Director ORG
5	LPI	Chief Information Officer
6	LPI	Lead Developer Business Applications
7	LPI	Director Customer Service and Delivery
8	LPI	Director Legal and Dispute Resolution
9	LPI	Senior Developer
10	LPI	Manager, Online Services and Delivery, Customer Services Delivery of LPI TRS
11	RMS	Principal Manager Infrastructure Property
12	RMS	Manager Road Corridor
13	RMS	Team Leader Road Corridor
14	RMS	Manager Land Information and Titles

## Appendix D Review of the CRR process

We reviewed documents relevant to the CRR process (Items 2, 3 and 12 – **Appendix B**) and held fact finding interviews with relevant LPI and RMS staff to understand the current processes and controls in place as well as the processes that took place in relation to the two files that were not fully loaded. We set out below our understanding of the process and observations in relation to its appropriateness.



The steps marked in Grey did not take place for the 2016 Incident.

The step marked in Orange in relation to exceptions took place on a small number of occasions and in most instances LPI managed the exceptions.



*Department of  
Finance,  
Services and  
Innovation*

Investigation into Land  
Property Information  
Central Register of  
Restrictions – Stage 2

DFSI

12 December 2016



Martin Hoffman  
Secretary  
Department of Finance, Services and Innovation  
1 Prince Albert Road, Queens Square  
Sydney NSW 2000

12 December 2016

Dear Martin

**Report - Investigation into Land and Property Information Central Register of Restrictions (CRR) – Stage 2**

We are pleased to provide our report detailing our findings and observations in relation to our investigation into the omission of relevant Roads and Maritime Services (RMS) information on the Central Register of Restrictions (CRR) in 2014.

Please don't hesitate to contact me on 02 8266 2774 if you would like to discuss our findings.

Yours sincerely,

A handwritten signature in grey ink that reads 'Cassie Michie'.

Cassandra Michie  
Engagement Leader  
Forensic Services

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## Disclaimer

This report has been prepared pursuant to terms of reference dated 2 November 2016, which fully sets out the scope of our review and nothing within this report is intended to imply that we have carried out any work beyond that scope.

For the purposes of preparing this report, reliance has been placed on the representations, information and instructions provided to us. We have not sought to verify the accuracy or completeness of the information made available to us, nor have we conducted any procedures in the nature of an audit of the information or assumptions therein in any way, other than has been specifically stated in this report.

Whilst our engagement involved the analysis of financial information and accounting records, it did not constitute an audit in accordance with Australian Auditing Standards or a review in accordance with Australian Auditing Standards applicable to review engagements and accordingly no such assurance is provided in our report.

The report has been prepared subject to the provisions and qualifications stated herein, for the sole use of Department of Finance, Services and Innovation. PwC, its partners, its agents and servants specifically deny any liability whatsoever to any other party who may use or rely on the whole, or any part, of this report or to the parties to whom it is addressed for the use, whether in whole or in part, for any other purpose than that herein set out. This report should not be used for any other purpose without PwC's prior written consent.

We do not accept any duty of care (whether in contract, tort (including negligence) or otherwise) to any person other than you, and will not be responsible for any loss suffered by a third party who relies upon this report.

This report is prepared based on information made available to us up to the date of this report and we reserve the right to amend our opinions, if necessary, based on factual information that comes to our attention after that date.

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# 1 Executive Summary

## 1.1 Background

In 2014, an incident occurred whereby a file for a number of Roads and Maritime Services (RMS) parcel interests affected by the Westconnex project was not successfully uploaded on the Central Register of Restrictions (CRR) (the 2014 Incident). The CRR is maintained by Land and Property Information (LPI - DFSI). The file was provided on 29 August and parcel interests were supposed to be uploaded on 18 September 2014. However, the upload failed and the parcel interests were not fully uploaded into the CRR until 11 November 2016. As a result, enquirers may have received incorrect responses to their CRR inquiries during the period 18 September 2014 to 11 November 2016.

Following a previous incident where two 2016 files were not uploaded to the CRR (Stage 1 report), PwC were engaged by DFSI on 4 November 2016 to conduct an independent investigation into LPI and RMS processes to identify the reasons for RMS information not being available on the CRR and provide recommendations to improve the accuracy and reliability of the CRR going forward. Throughout the investigation it was identified that the 2014 file had also not been uploaded and PwC's scope was broadened to investigate both incidents.

## 1.2 Overview of findings

Based on the discussions with LPI and RMS' management, and a review of email correspondence relevant to the 2014 Incident, it is evident that LPI followed their standard practice to validate the data provided by RMS and LPI Spatial Services, and further request approval from RMS to proceed with the upload of the data into the CRR.

However, the 2014 file was not uploaded due to:

- 1) An error made in manually updating a program specification used by LPI to upload the data into the CRR.
- 2) A system limitation whereby the system report generated following an upload did not show the parcel interests which were uploaded and if an upload was successful or not.
- 3) The absence of a manual control to check if the upload had been processed into the CRR.

We note that from 11 November 2016, LPI has made enhancements to the upload process to resolve these issues as follows:

- The program specification used for the upload into the CRR is now automated, reducing the risk of manual error.
- The system report generated following an upload now shows the parcel interests uploaded, and LPI now compares these to the data uploaded into the CRR in order to confirm the upload was successful.

We note that the above enhancements need to be validated as part of the recommended process improvements in Stage 1 report, to ensure the system and process are robust to prevent the same incident occurring in the future.

---

## 2 Background, scope and approach

### 2.1 Background

In 2014, an incident occurred whereby a file for a number of Roads and Maritime Services (RMS) parcel interests affected by the Westconnex project was not successfully uploaded on the Central Register of Restrictions (CRR) (the 2014 Incident). The CRR is maintained by Land and Property Information (LPI - DFSI). The file was provided on 29 August and parcel interests were supposed to be uploaded on 18 September 2014. However, the upload failed and the parcel interests were not fully uploaded into the CRR until 11 November 2016. As a result, enquirers may have received incorrect responses to their CRR inquiries during the period 18 September 2014 to 11 November 2016.

We note that from 11 November 2016, LPI has made enhancements to the upload process to resolve these issues as follows:

- The program specification used for the upload into the CRR is now automated, reducing the risk of manual error.
- The system report generated following an upload now shows the parcel interests uploaded, and LPI now compares these to the data uploaded into the CRR to ensure completeness and accuracy of the upload.

### 2.2 Scope

Following a previous incident where two 2016 files were not uploaded to the CRR (Stage 1 report), PwC were engaged by DFSI on 4 November 2016 to conduct an independent investigation into LPI and RMS processes to identify the reasons for RMS information not being available on the CRR and provide recommendations to improve the accuracy and reliability of the CRR going forward. Throughout the investigation it was identified that the 2014 file had also not been uploaded and PwC's scope was broadened to investigate both incidents.

Stage 1 of our investigation focused on a detailed review of the CRR process and 2016 Incident where files were not uploaded on a timely basis. Please refer to our Stage 1 report for further details.

Stage 2 of our investigation specifically relates to the 2014 Incident to detail what happened.

#### Scope exclusion

In addition to the scope exclusion set out in the Disclaimer section, to date we have not:

- 1) Considered the files uploaded into the CRR outside of the 2014 Incident.
- 2) Validated the accuracy and completeness of the information within the shape files uploaded into the CRR.

### 2.3 Approach

Leveraging our knowledge and understanding of LPI's and RMS' processes in relation to the CRR process from Stage 1 of our engagement, we performed the following procedures in Stage 2 in order to understand the origin of the 2014 Incident and its impact on enquirers:

- 1) We held a number of fact finding meetings with the relevant LPI and RMS staff to understand and clarify the 2014 Incident in relation to the CRR process (the full list of meeting attendees is provided at **Appendix B**).
- 2) Review of email chronologies provided by LPI for the period 29 August 2014 to 18 September 2014.

**Appendix A** summaries the information and records provided by both LPI and RMS in this investigation.

---

## 3 Work performed and findings

### 3.1 Review of the Incident

#### Overview

We found for the 2014 file, LPI followed their standard practice to validate the data provided by RMS and LPI Spatial Services, and further requested approval from RMS to proceed with the upload of the data into the CRR. The 2014 file was not uploaded due to an error made in manually updating a program specification used by LPI to upload the data into the CRR and the absence of a manual control to check if the upload had been processed into the CRR. Furthermore, there was a system limitation whereby the system report generated following an upload did not show the parcel interests which were uploaded and if an upload was successful or not.

#### Chronology

We set out below a chronology of the events that led to the Incident:

On 29 August 2014, RMS emailed one file of an area affected by WestConnex Stage 2 to LPI requesting an addition to the CRR. On the same day:

- 1) LPI emailed RMS' file to LPI Spatial Services for extraction of parcel interests affected by WestConnex project. LPI Spatial Services responded to LPI to confirm that the data would be provided by close of business 8 September 2014.
- 2) LPI responded to RMS to confirm that RMS' file had been provided to LPI Spatial Services. They noted that the extraction of the relevant parcels would not be completed until 8 September 2014.

On 30 August 2014, RMS emailed LPI to confirm that the completion date in (2) above would not be a problem.

On 8 September 2014:

#### LPI Spatial Services provided eight files to LPI

LPI extracted the following information from RMS' file:

- 1) Two files, one excel file and one text file of 19,119 parcel interests where cadastre ID, plan ID and number, and lot ID and number were identified (the "WestConnex 2 Data").
- 2) Three files, two identical excel files and a text file containing 24 parcel interests where cadastre ID, plan ID and number, and lot ID and number were not identified.  
  
LPI noted that these parcels relate to unowned land including creek crossings, closed roads and crown land. LPI Spatial Services also confirmed that they were not of any concern.
- 3) Three additional files, .dbf file, .xml file and .jpeg file containing original RMS file information.

#### LPI validated the extracted parcel interests

- 1) LPI validated the WestConnex 2 Data by reconciling it to LPI's ITS system which contains the latest titling information. A list of 34 exceptions were identified, classified as parcels not known to ITS i.e. cancelled titles.
- 2) LPI noted that no data had been uploaded into the CRR at this stage.

#### LPI emailed the files provided by LPI Spatial Services to RMS

- 1) LPI requested RMS to approve the upload of the data into the CRR. LPI confirmed that 19,085 known parcels of land were to be uploaded (i.e. 19,119 parcels, less 34 exceptions).

On 18 September 2014:

- 1) LPI emailed RMS to request an update regarding their email request to approve the upload on 8 September 2014.
- 2) RMS provided their approval via email to LPI requesting the upload of the data into the CRR as soon as possible.

- 3) LPI attempted to upload the WestConnex Stage 2 Data into the CRR, which produced an exceptions file containing **37 exceptions<sup>1</sup>**.

We understand that LPI did not email RMS to confirm that the upload had been completed and RMS did not follow up with LPI to confirm that the upload had taken place.

### **LPI identified that the upload had not taken place**

On 2 November 2016, following a review of all converted RMS files (converted by LPI Spatial Services) as a result of the June 2016 Incident, LPI identified that the 2014 file had not been uploaded.

LPI confirmed that the data was not uploaded due to an error made in manually updating a program specification used by LPI to upload the data into the CRR. LPI advised that the program specification is used to complete the pre upload validation checks to identify parcels not known to ITS system. The program specification contains a set wording to enable the data to be checked but not uploaded into the CRR. When approval is obtained to upload the data into the CRR, the set wording from the program specification is removed and re ran to enable the upload.

On 18 September 2014 when LPI attempted to upload the data into the CRR, the set wording in the program specification used for the ITS validation checks had not been removed. Therefore, no data was uploaded into the CRR.

Further, LPI confirmed that no checks were completed to ensure that the upload was successful and there was no system report available to check that the upload had been successful.

### **LPI process improvements**

We note that from 11 November 2016, LPI have made enhancements to the CRR upload process whereby:

- 1) The program specification used for the ITS validation checks no longer has to be manually amended when finalising the upload of the data into the CRR. LPI's program to upload the data into the CRR now has two separate buttons, one to validate data, and one to upload data.
- 2) Previously, upon completion of an upload into the CRR, the system report only recorded the number of exceptions. The log now includes details of parcels uploaded into the CRR. Using this information, LPI complete a manual check comparing the data included in the CRR to the log, in order to confirm the upload was successful.

Table 1 below provides details in relation to the parcel interests that were not fully uploaded into the CRR.

**Table 1 List of parcel interests**

Number of parcel interests provided by LPI Spatial Services	Number of unidentified parcel interests	Number of parcel interests with exceptions	Number of parcel interests already uploaded into the CRR	Number of parcel interests not uploaded into the CRR
<b>19,143</b>	<b>24</b>	<b>37<sup>2</sup></b>	<b>8,324<sup>3</sup></b>	<b>10,758</b>

<sup>1</sup> When the data was originally validated by LPI on 8 September 2014, 34 exceptions were identified. LPI informed us that the ITS system is continuously updating. Therefore, when LPI re-ran the upload on 18 September 2014, updates in ITS resulted in 37 exceptions.

<sup>2</sup> We note that the revised number of exceptions reported by LPI on 18 September 2014 has been used in the table.

<sup>3</sup> LPI confirmed to us that 8,324 parcels included in the 2014 file were already uploaded on the CRR prior to September 2014, as part of another buffer uploaded on the CRR.

# Appendices

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## Appendix A Information relied upon

Ref	Document name	Provided by
1	Email correspondence in relation to the 2014 Incident for the period from August 2014 to November 2016	LPI
2	LPI Report – Final Summary of CRR-RMS Westconnex 2 Report	LPI



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## Appendix B List of meeting attendees

Ref	Organisation	Title
1	LPI	Lead Developer Business Applications
2	LPI	Director Customer Service and Delivery
3	LPI	Senior Developer
4	RMS	Director, Customer Engagement and Planning Division
5	RMS	Manager Land Information and Titles

