Land Parcel Identification System (LPIS) Rebuild Project

Dr. Deirdre Fay/Frank Barrett

Registered Forester Information Meeting – Hotel Kilmore, Cavan

12th March 2020
Chair: Deirdre Fay

Agenda

- LPIS Rebuild Overview/Examples/iNET – FB
- Forestry Parcel Transformation Process – SM
- Frequently Asked Questions – SM/FB
- Q&A Session

Presenters: Frank Barrett (FB)/Sonja Maurus (SM)
Project Background

• Land Parcel Identification System (LPIS) – spatial database
• Digitising of Ordnance Survey Ireland (OSI) 6 inch maps
• > 1.3 million land parcels (> 130,000 farmers). Includes forestry parcels + related schemes/felling
  Area based payments are based on LPIS database
• Has worked well - administrative & payment perspective

Most people know the department processes payments to farmers. Here it paid out €1.2 billion to Ireland’s farmers. On day one last October, 93 per cent of the farmers received their advance payment. No other farmer in Europe is as lucky, and the whole process is online,
Rationale

• Current LPIS database & IT infrastructure dated
• Functional at macro level
• Issues at micro level
• Fundamental upgrade & restructure of LPIS
• Using latest software & technology
• Improved service: foresters, agents, landowners
Positional Accuracy

- 6 inch maps – main mapping base
- Positional accuracy issues
- Land parcels misaligned with current ortho-imagery (county borders, rivers, lakes streams)
- Land parcels misaligned with real world features (hedgerows, streams, fences)
- Parcels correctly positioned in new system
Administrative Boundaries

- LPIS based townland and DED boundaries
- Parcels with > 1 townland → split
- Followed real word feature (RWF)
- Some no longer exist eg., hedge removed
- Admin boundaries where no RWF on ground
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Parcel Renumbering

- Renumbering parcel for every change
- Difficulty in tracing parcels back/forward
- Reduced requirement to renumber parcels in new system
Objectives

• Alignment to national mapping standard
• Improved quality & accuracy
• New web based spatial application – latest software & technology
• Fully functional & compliant with regulatory requirements
• Enhanced usability of data
• Support changes required under new CAP
Alignment to Ordnance Survey Ireland Prime 2 database

- Combines all OSi current & historical databases
- Geographic objects - uniquely identified & referenced
- Seamless digital database
- Updated on ongoing basis
What does this mean for Farmers/Forest owners?

• All land parcels will be renumbered – 10 digits for each parcel
• Parcel boundaries may change (realignment)
• Parcels may be split (if crossed by road or river)
• Parcels may be merged (if administrative boundaries with no real world feature on the ground)
• Minimal increase/decrease in Gross Area (GA) or Maximum Eligible Area (MEA)/Max Allowed Area(MAA)
Main Benefits

- Parcels positioned correctly
- Improved LPIS data quality & accuracy
- More stable database
- Reduced requirement to re-digitise & re-number parcels
- Reduced risk of adverse inspection finding
- Improved service to farmers/forest owners
- Up to date with latest technology → GNSS
- Proactive response to changes required under new CAP
Rollout of new LPIS

• 6 counties → Louth, Meath, Monaghan, Cavan, Leitrim, Longford – live for 2020
• All land parcels in the above counties whether the applicant is based there or not
• All land parcels declared in other counties by applicants based in the above counties
• Progression on county by county basis
• Phased development over 2 year period
• All counties live in new system by 2022
Communications Campaign

- Information letters to farmers/forest owners – Jan/Feb 2020 (Louth last year...)
- Detailed information in BPS application pack
- Information Meeting with Agents (Feb 2020)
- Meeting with Farmers Charter (March 2020)
- Information Meeting with Registered Foresters (March 2020)
- Public Information Sessions (March 2020)
### Examples of Parcel Transformation – Contract 1

<table>
<thead>
<tr>
<th>Contract</th>
<th>Parcel</th>
<th>Old GIS</th>
<th>New LPIS</th>
<th>Area Change</th>
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</thead>
<tbody>
<tr>
<td>CN5XXX</td>
<td>X1340XXXX</td>
<td>1.73</td>
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<td><strong>12.39</strong></td>
<td><strong>12.40</strong></td>
<td><strong>-0.01</strong></td>
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</table>
Examples of Parcel Transformation – Contract 1
Examples of Parcel Transformation – Contract 1
Examples of Parcel Transformation – Contract 1
Examples of Parcel Transformation – Contract 2

0.18 Reduction due to re-alignment
Examples of Parcel Transformation – Contract 3

- Old Boundary
- New Boundary

0.08 increase in area after nudge repair
Examples of Parcel Transformation – Contract 4

- GPS mapped boundary unchanged. Area change of 0.04 on eastern boundary due to re-alignment.
Examples of Parcel Transformation – Contract 5

- Remove newly constructed dwelling houses from contract area
Examples of Parcel Transformation – Contract 6

Old Boundary

New Boundary
Examples of Parcel Transformation – Contract 7
LPIS Rebuild & iNET

• Teething problems encountered...
  Digitising contracts (Form 1/Form 2/Form 3)...
  Missing spatial layers...
  Ad hoc mapping tasks... now fixed...
  forestryonline@agriculture.gov.ie/076 1064451

• LPIS iNET system uses ITM – Irish Transverse Mercator
  → Change your settings on your GNSS Receiver

• Map screen looks slightly differently

• iNET layers now symbolised differently

• Some elements of digitising and functionality changed....
LPIS Rebuild & iNET
LPIS Rebuild & iNET

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LPIS Rebuild & iNET
GPS data for Form 2 Submissions

- Data submission protocol (formats, structure...)
- Must be PDF in the following format:

<table>
<thead>
<tr>
<th>Contract</th>
<th>Easting</th>
<th>Northing</th>
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</table>

Irish Grid (IG)  
Irish Transverse Mercator (ITM)

<table>
<thead>
<tr>
<th>Contract</th>
<th>Easting</th>
<th>Northing</th>
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<tr>
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</table>

- GPS survey points logged beginning/end of undefined boundaries and along the boundary where change in the external boundary direction only.

- External plot boundary marked on certified species map will be used to digitise contracts where GPS data and plot boundary lines not consistent.
iNET: Using iNET PDFs & Adobe for Improved Map Submissions
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Thank You