

## What is Orthophotography?

Orthophotography shows natural and man-made details on the earth's surface. OSNI orthophotographs are created from high quality aerial images. Distortions caused from the earth's surface and aircraft movement are removed. The result is a scale-accurate image offering a detailed bird's eye view of the landscape.



## Key Features

The photographs are taken in optimal weather conditions to provide the best possible images.

Imagery is no older than March 2003 and will be updated for accuracy and currency.

Distortions caused by camera tilt and topographical variation are removed by an orthorectification process for a scale accurate image.

Orthophotography is an actual image, rather than a representation, and therefore can provide different types of information such as shape, size, patterns, shadows, colour and texture making them easier for some people to understand.

OSNI orthorectified photography can be used by itself or along with other data displayed in the Irish Grid Co-ordinate system.

## Technical Information

- ◆ Each pixel represents a real world distance of 25cm
- ◆ The photographs are taken from an altitude of 5000 feet
- ◆ Fully geo-referenced digital orthophotography is available in ECW format
- ◆ Average file size of 7mb per tile
- ◆ Orthophotograph tile layout follows OSNI 1:10 000 scale mapping layout



# Orthophotography



## Applications

- ◆ Base mapping for GIS
- ◆ Urban planning
- ◆ Watershed analysis
- ◆ Civil engineering
- ◆ Environmental assessment
- ◆ Engineering design
- ◆ Asset management
- ◆ Municipal and government maps
- ◆ Right-of-way mapping
- ◆ Public and private land development

## Orthophotography in Action

Orthophotography is utilised by a number of organisations and businesses. One such organisation is the Environment and Heritage Service (EHS). As the statutory agency with responsibility for nature conservation in Northern Ireland, the EHS holds and manages approximately 5,200 hectares of land as National Nature Reserves (NNRs). In addition to NNRs, EHS is responsible for the declaration of Areas of Special Scientific Interest (ASSIs). These contain some of the best examples of the range of habitats and species present in Northern Ireland.

EHS use orthophotography day to day for a variety of purposes. Because orthophotographs are a snapshot in time and provide a record of a specific date, landuse and landscape changes can be identified. Traditional maps by their nature are a cartographic representation of an area whereas orthophotographs are an actual real life image and can show detail not displayed on maps. For this reason, the EHS use orthophotographs to aid in habitat mapping, identifying ASSI damage and illegal dumping sites and the identification of other features not normally shown on maps such as habitat boundaries, new hedges or fences and even sheep dips. Orthophotographs have also proved useful to the EHS by improving efficiency in assessing planning consultations by reducing the need for site visits.

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