



**Forest Practices Authority**  
**Visual Management TECHNICAL NOTE**  
**No. 02-04**

***VISUAL ANALYSIS PROCEDURE***

(Guide to the Natural and Cultural Values Evaluation Sheets – 5. Landscape)

**This document describes the procedure for completion of the Landscape Evaluation Sheet. It is a condensed form of some of the key elements of Chapters 2, 5 and 6 of *A Manual for Forest Landscape Management* (hereafter referred to as the Manual), with relevant pages referenced where appropriate. Clearly visual analysis is not a linear process, however the following should provide the reasoning and steps to guide the direction and stages of your analysis work. It attempts to describe in a linear format what essentially is a circular and iterative process.**

**Some level of review and analysis of visual aspects is required for all proposed operations. However the amount of detail will depend on the viewing sensitivity, the operational complexity, and the prominence, scale and contrast of each planned operation. The procedure will assist in your decision on how far to take the analysis. This will often depend on your experience and judgment of visual management matters and community concerns.**

For visual values, it is essential that you think OUTSIDE the operational area and try to SEE these values from the viewing perspective of the public. This is a departure from most other natural and cultural values which are assessed on-site.

The purpose of the analysis and ensuing prescriptions is; firstly, to ensure that forestry activities, where visible, are well integrated into the landscape scene; secondly to ensure that the degree of visual change is appropriate to the character of the scenery and the public viewing circumstances; and thirdly, to try to limit or avoid visual exposure and impact.

Although forest planning may normally be driven by operational and/or economic goals, the evaluation process gives a direct insight into the visual status of the coupe area. The Forest Practices Code (FPC) requires that a balance be achieved between the visual landscape values, as a key social/cultural aspect of the land, and the above often competing goals. Nevertheless, for the most sensitive landscapes around the State, where operations are likely to strongly conflict with the visual character, simply achieving a balance may not be adequate and a greater level of protection will be required.

Visual design goals and principles will need to be given priority in such cases and the coupe scale, configuration, scheduling, etc. should be adjusted accordingly.

In the following the term 'coupe' can generally be considered as synonymous with 'operational area' (i.e. inclusive of roads, quarries etc.).

<b>MAIN VIEWPOINTS</b>	
Identifying viewpoints	<p>The aim of the steps here is to identify all public viewpoints with views to the proposed forestry activities. It is from these that visual analysis will be required.</p> <ul style="list-style-type: none"> <li>• Determine locations from which the proposed forest operation might nominally be viewed. Determine how exposed or prominent the proposed operation may be. Start by reviewing 1:25000 maps or for State forest, see Oracle viewpoint database and/or use Viewfinder</li> </ul>

	<p>program. The Public Sensitivity of a viewpoint can be determined from the Manual (p. 51, Table 2) or refer to the 1:100,000 Public Sensitivity Map (held in Forestry Tasmania districts and company offices). Note that Public Sensitivity levels will occasionally need to be adjusted by the planner in accordance with local knowledge of public use and any changes to the importance of an area for the public.</p> <ul style="list-style-type: none"> <li>• On a 1:25,000 map mark provisional viewpoints that are “representative” of viewing from different directions and distances.</li> <li>• If possible, run exploratory seen-area analysis for the coupe (manually or by GIS etc.) to identify probable viewing from public-use-areas and roads. This is particularly useful for coupes in the Background and Middle ground (see pp. 111-112 of the Manual).</li> <li>• Confirm these by travelling the roads and visiting viewpoints or lookouts checking for additional roads and settlements etc. from which the operation will be viewed.</li> <li>• Review <u>actual</u> viewing (excluding those areas screened by foreground/roadside vegetation), and confirm or adjust viewpoint locations to arrive at a limited number of viewpoints that ‘represent’ all key viewing opportunities and directions.</li> <li>• Record these selected viewpoint locations and arcs of viewing accurately on the 1:25000 map.</li> </ul>
<p>Completing the table to determine LMOs.</p>	<ul style="list-style-type: none"> <li>• Enter the principal viewpoints in the table. List them in descending order of importance and complete details for the various parameters below.</li> <li>• Viewing <b>Distance Zones</b> are defined on p.52 of the Manual.</li> <li>• For <b>Public Sensitivity Levels</b> see the first dot point under <b>Identifying viewpoints</b> above.</li> <li>• <b>Scenic Quality</b> is defined on p.167 of the Manual. Refer to the appropriate Landscape Character type (p. 160) for the area and the respective Scenic Quality “Frames of Reference” (pp.172-183) or (for State Forest only) see mapped inventory used in LMO map composition.</li> <li>• Refer to the matrix in Table 3 (p. 54 of the Manual) to determine the Landscape Priority Zoning (pp. 42-43) and respective recommended <b>Landscape Management Objective</b> (LMO) for the coupe or (for State Forest only) refer to LMO map composition. This sets the appropriate minimum visual standard for the operation for each particular viewing situation.</li> </ul>
<p><b>VISUAL REVIEW</b></p>	
<p>Overview</p>	<ul style="list-style-type: none"> <li>• The next step is the visual analysis which may be simple or comprehensive depending on viewing and operational circumstances. The aim is to describe the <b>key visual factors</b> affecting the operation including the landscape character, viewing opportunities and conditions, associated viewing concerns (or lack of concerns) and the type of operation. This will give an initial estimate of the visual implications of the operation.</li> </ul>

	<ul style="list-style-type: none"> <li>• Once you have undertaken the review, you should have some idea of the <b>general principles</b> that might be integrated into the operation to limit negative visual effects. Later, in the next stage, these will give a basis for development of specific prescriptions that can be summarised in the text box.</li> <li>• At this point try to estimate whether the operation is likely to satisfy the recommended LMO standards (see pp. 42-45 of the Manual).</li> </ul>
Steps in the Visual Review	<ul style="list-style-type: none"> <li>• Take pre-operational photo-panorama records of the operational area as seen from <b>viewpoints</b> identified in the Main Viewpoints section using overlapping photos (three or more side by side for later joining). Use a standard lens or if you have a camera with a 'panorama setting', use a wide-angle lens setting for a view that takes in the operational area along with the surrounding landscape. (Digital software is available free to 'stitch' photos together to give a wide panorama.) The time of day is important for taking photos. Arrive at the viewpoint when the operational area has front or side-lighting. Avoid backlighting (see p. 116 of the Manual).</li> <li>• Check whether the coupe will be seen as <b>skyline</b>. (see pp. 146-147). If so, take a telephoto shot for use in detailed analysis later in the office. Remember that for viewpoints lower than the coupe, the position of the 'effective skyline' will vary with different viewing distances and changes in the vertical viewing angle. Thus as you move closer in, the 'actual' ridgeline will become hidden by terrain and trees slightly in front on the brow of the ridgeline.</li> <li>• In the field review describe the <b>landscape character</b> of the scene into which the coupe is to appear (see pp. 20, 122). Make a written and/or graphic/sketch record of the landscape character, outlining the principal topographical features, patterns and shapes, and the existing vegetation which all contribute to the landscape appearance. Identify dominant lines, patterns and scales in the scene.</li> <li>• Now consider the type of operation and how much of the coupe will be exposed from any viewpoint, along with the degree of colour and textural contrast to be expected from the operation. What scale or 'apparent size' will it present within the scenery and what boundary lines and shape will be exposed? Compare this with the landscape character as defined earlier. (Note that existing paddocks, plantation areas or coupes may sometimes be visually jarring in appearance and will not be useful as an indicator for planning future coupes.)</li> <li>• If seen as <b>skyline</b>, consider the angle of the coupe boundary crossing the skyline with respect to view rays from the viewpoint. Alignment diagonally across the skyline will provide a smooth, flowing edge (as shown in the second and third diagrams on p. 68 of the FPC). Alignment directly back to the view ray will result in sharp edge impacts along the skyline. To avoid this, consider what reshaping and/or rescheduling options are required to cross the skyline with a smooth flowing</li> </ul>

edge. (This situation will normally require 3D visual analysis for design and confirmation of the best solution.)

- If full retention of a **skyline** forest zone is seen as a management option, avoid creating a straight-line prominent clearing edge that will be seen parallel to and in front of (i.e. below) the skyline. This will appear unnatural and contrived. Vary such harvesting boundaries by elevating the boundary slightly up minor ridges and down drainage lines (see the diagram on p. 70 of the FPC).
- Where coupes occur beside a public main road, identify any internal corners of the road that target viewing into the coupe. Are any steep slopes proposed for harvesting that will be viewed directly ahead along the road? If so take photos to record targeted roadside forest clumps or zones that should be retained for amenity purposes.
- Check further during the site visit for screening by roadside embankments and/or by forest or trees which remain outside or could be retained inside the coupe for visual amenity. Even with sensitive foreground views it may sometimes be acceptable to expose the least prominent parts of a coupe to viewing along the road. Full screening is often effective but is not always necessary. Therefore consider the length of roadside exposure of the operation – is this short or extensive, would the harvesting expose only the edge or look deep into the coupe? (The latter would suggest the need for some degree of screening.) How much harvesting disturbance already exists along roadsides? (If too much, further disturbance in the short term may not be acceptable; if none at all, only limited scale disturbance may be acceptable; while if a few openings exist, this may indicate greatest flexibility for further change.) From these enquiries, note possible options for improved coupe presentation. Again, the key principle of limiting the effects on the visual character of the scene or area is just as important for roadside situations.
- Where **spur roads** (either new or planned for upgrading) join the main road, consider the prominence of the junction and the alignment design as well as clearing requirements. In general the clearing width at the spur junction should be kept to a minimum and the road design should have an 'S-bend' to avoid direct viewing back deep into the coupe.
- With **roads** or spurs seen from further afield, what is the potential for exposure of bright coloured road surfacing material or road batters? How strongly will this contrast with the surrounding forest? Does this review give a good reason for redesign of the roading or placement of landings and the need for retention of a screening zone of forest? Is it possible to re-spread topsoil on batters to aid in rapid revegetation etc?

(see next page for an example)

	<p><b>Example:</b></p> <p><b>Visual Review Summary</b></p> <p><i>The proposed coupe would be seen mainly from the Huon Highway near Strathblane as well from parts of Dover. It is located on the mid to lower slopes at the far eastern end of the native forest hillside which forms the southern backdrop immediately across the bay from Dover. (i.e. near Mg1/Moderate SQ = Apparent Result; and skyline position). The forested hill has an 'undisturbed/ apparently-natural' appearance at present and because of this, any exposed forest change will need to be limited in visual scale, contrast and duration. The existing plan already retains native forest zones along the lower and mid-slopes against paddock. These will assist in reducing the scale of the operation.</i></p> <p><i>Overall however, the planned coupe would be seen in front of and across the skyline. The northern section (on slopes in front of the skyline ridge) would be easily seen, possibly as a moderate-scaled clearing, and the top boundary to the east cuts across the ridgeline and could create a sharp skyline edge with the remaining forest. (see sketch/photo from photo point 1).</i></p> <p><i>Because of the existing character of the scenery, to satisfy the Apparent Result VMO in this situation it will be necessary to limit the ground surface exposure and ensure that the skyline has a smooth, flowing transition with the forest at the upper edge.</i></p> <p><i>Modelling of boundaries in 3D will be required along with progressive monitoring of the visual effects at the clearing stage.</i></p>
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**PREDICTIVE VISUAL ANALYSIS**

<p>Overview</p>	<ul style="list-style-type: none"> <li>• Following the above Visual Review, the next step is to judge the level of visual impact of the planned operation on the scenery from each viewpoint. Often visual effects will be obvious and straightforward but this needs to be looked at systematically from the key viewpoints and documented. Start by considering the proposed visual effects of the operation against the character of the scenery as examined in the field from the viewpoints, or in photo-panoramas of the scenery. The operation will integrate into the scenery of the area more successfully if: <ul style="list-style-type: none"> <li>- it is not strongly exposed to outside viewing; or,</li> <li>- it follows the flow and is in scale with the patterns of terrain, vegetation cover and land use.</li> </ul>           If this is the case, further analysis may not be required.         </li> <li>• However further visual analysis of a proposed operation seen from sensitive viewpoints will usually be required where: <ul style="list-style-type: none"> <li>- it will appear in skyline; or</li> <li>- due to steep slopes or large scale it will have heightened prominence; or</li> <li>- it has potential to extend recent nearby excessive impact within the landscape; or</li> <li>- alternatively, it is to occur in a scene with a total lack of introduced vegetative change (indicating that initially only a small change would be</li> </ul> </li> </ul>
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	<p>acceptable).</p> <p>In such cases, analysis (using 3D predictive analysis or simulation and 'seen-area' review) will be needed to appreciate visibility, scale, shape and visual contrast etc. These situations are referenced on the second page of the Evaluation Sheet for notification to the FPB following analysis. Additionally, operations beside important roads will need detailed assessment.</p> <ul style="list-style-type: none"> <li>• <b>3D graphic analysis</b> is useful for rear foreground (&gt;500m) viewing to predict the exposure/impact of the planned coupe layout. It also allows comparison of alternative design options including minor and major boundary changes. 3D graphic views should be compared with photos taken from the same viewpoints. <b>Sketching or montage predictions</b> on photos or scans of photos should be used to identify and gauge potential visual exposure and dominance of the coupe in the scenery.</li> <li>• Aspects of design to consider in assessing the potential impact include: <ul style="list-style-type: none"> <li>- the scale of the exposed operation (which is a product of its overall size, the size of the seen area exposed to the viewer, the terrain, slope and aspect to the viewer, and viewing distance);</li> <li>- exposed straight-line or rectilinear boundaries, including corners;</li> <li>- viewed spur roads aligning to a viewpoint;</li> <li>- the expected time delay before new forest growth will lessen soil contrast. (Delayed planting, slow growth or poor stocking will result in enduring medium-term contrast and therefore greater impact.)</li> </ul> </li> <li>• The visual analysis process will lead your thinking towards possible ways to limit the impact of the operation. For convenience of explanation, this aspect has been set apart in the Prescriptions stage following.</li> </ul>
Notification to FPB	<p>Refer to the listed notification categories and decide whether the operation is of sufficient priority or sensitivity for notification to the FPB. Along with the completed Notification and Evaluation Sheets, additional information must be submitted to provide a complete description of visual conditions, analysis carried out, and design prescriptions developed for the operation. This required information is listed on the first page of the Evaluation Sheet.</p> <p>Each visual analysis will be stored for monitoring and later review of the prescriptions and actual visual impact. Please note that replies to Notifications will not be sent out by the FPB for all operations as in the past.</p>
<b>PRESCRIPTIONS</b>	
	<ul style="list-style-type: none"> <li>• The aim now is to identify necessary adjustments that can be made to reduce visual effects and improve visual presentation as seen from the various viewpoints. Chapter 5 of the Manual will assist with generic practices to reduce impact and exposure of changes. Here consider ways of reducing the exposure</li> </ul>

Prescriptions (continued).

and apparent scale of the operation such as through changes to coupe boundaries (including sub-division of the coupe and sequenced harvesting or early planting of parts), retention of screening clumps, screened landing locations, spur road alignment, harvesting and establishment treatments etc.

- Changes such as these may be reviewed iteratively in 3D graphics to help assess their effectiveness. Such graphics are also useful in discussions of relative visual worth to other parties, such as landowners and planners.
- Prescriptions are then entered into the text box with reference to photos and plans of the operation.
- After confirming that the landscape measures adopted will achieve the recommended Landscape Management Objective (see section below), transfer prescriptions to the body of the FPP.

**Example:**

**Recommended prescriptions recorded on the evaluation sheet**

*Analysis by 3D graphic predictions confirms that the planned northern boundary (on slopes in front of the skyline ridge) would expose a large scale clearing and the top boundary would create a sharp skyline edge (see sketch/photo and from 3 photo points). No landings or road spurs will be visible.*

*It is recommended that the northern and upper boundaries be changed to reduce the small-scale area of ground surface seen and give a more satisfactory skyline edge which flows smoothly into the forest at the upper edge. This design is displayed in the 3D graphic and on the attached plan.*

*Harvesting near the northern boundary will be undertaken on a face moving from south to north. The visual effects will be monitored by the supervising Forest Practices Officer (FPO) from the key photo viewpoints as harvesting approaches the boundary. Minor adjustments to the recommended boundaries will be made by the FPO if necessary to ensure that the visual objectives are met. (It is advisable to use binoculars to identify individual trees for harvesting or retention. This information can be communicated to the tree faller by radio.)*

**Prescriptions actually transferred to the body of FPP**

- *The northern harvesting boundary which partly forms a skyline will be marked carefully so that a smooth forest edge is achieved.*
- *Harvesting near the northern boundary will be undertaken on a face moving from south to north. The visual effects will be monitored by the supervising Forest Practices Officer (FPO) from the key photo viewpoints as harvesting approaches the boundary. Minor adjustments to the recommended boundaries will be made by the FPO if necessary to ensure that the visual objectives are met. (It is advisable to use binoculars to identify individual trees for harvesting or retention. This information can be communicated to the tree faller by radio.)*

## ADOPTED LANDSCAPE MANAGEMENT OBJECTIVE

- Now estimate whether the **Recommended LMO** (Landscape Management Objective) will actually be achieved or exceeded (ie. excessive impact) by the operation as now proposed. Refer to the definitions and photos on pp. 42-45 of the Manual for LMO's and compare the expected or predicted effect of the operation with that recommended. Objectives range from **Inevident** (very low impact), **Apparent** (moderate impact) to **Dominant** (higher level impact). Remember, however, that these are to be considered with respect to the landscape character of the surrounding scene.
- A low level of exposure or small-scale change will usually be visually unobtrusive and therefore satisfy a higher level LMO. But also don't forget to note key factors such as straight line and rectilinear shapes of exposed clearfell boundaries, landings and spur roads.
- So if the visual change is expected to be low, list on the table on the second page of the Evaluation Sheet the **Adopted LMO** as the same or higher level (ie. lesser impact) than the LMO recommended.
- If the visual change is expected to be of higher impact than recommended, rethink the coupe in an attempt to design visually adequate options and prescriptions. Look for ways to limit the exposure through reshaping or by retaining screening zones. By making small changes to boundaries or reserved areas, the visual result can often be improved dramatically. If this is not possible, more wide-sweeping measures such as re-subdivision and re-scheduling of the coupe may be necessary to achieve satisfactory visual results.
- In summary, the role of visual management is to achieve quality visual outcomes through effective visual analysis and planning. Aim to achieve the recommended LMO or higher. (Note each LMO has set time periods for achieving respective visual standards.)
- As a general principle, planned operations which are predicted to significantly fall short of the Recommended LMO will not be acceptable under the FPC. In other words, it is not adequate for an operation with a recommended LMO 'A' (Inevident Alteration) to proceed if a high impact LMO 'C' (Dominant Alteration) is predicted.

**(For further information or to comment on the Technical Note please contact Bruce Chetwynd, Senior Landscape Planner, FPA.)**

## Document Control Log Table

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