Revised FFT guidelines for ROI (IRR) analyses
using TIPSY and FAN$IER.

Addendum to the existing guidelines published on the FFT ROI website:
Using TIPSY 4.3 and FAN$IER in FFT ROI Calculations (2013)

For ROI analyses involving ITSLs, these new guidelines supersede the use of FAN$IER's Existing Stand Replacement option to account for ITSL development cost (or stand knockdown cost).   Instead, development cost should now be entered as "Other Silviculture Costs" within FAN$IER's Cost Tab for the Treated Case regime (the new plantation).   The development cost "age" is zero. Schedule other activities in TIPSY and FAN$IER relative to this starting point. To find the development cost threshold, re-adjust development cost repeatedly until the IRR = 2%, if possible.

If the existing damaged stand appears to have future harvest potential, run a two-regime analysis using the Compare Tab. However, if professional judgement determines the existing stand clearly has no practical future harvest potential, conduct a simple IRR analysis on the Treated Case alone. The latter is more accurate and flexible than the alternative table method.

When judging future harvest potential, first identify which layer(s) has the greatest crop potential. Adjacent layers of roughly similar size and age may be combined. Next, assess their potential contribution to future stand growth and value based on a professional assessment of residual density, form, health, and the impact of overstory layers (e.g., shade, pathogen source, etc).   If warranted, a Base Case is then configured in TIPSY to model the performance of the future crop layer(s). The 2013 document (link above) discusses several options for modelling damaged stands with TIPSY.

For all ROI analyses, the follow table provides addition clarification for adjusting Silviculture Treatment Costs within FAN$IER's Cost Tab utilizing "User Specified" settings.   There is no need to adjust treatment costs prior to a regime's specified "Age at base year", since costs before that age are considered "sunk costs" and ignored. See the 2013 document for guidance on determining "Age at base year" for various scenarios.

Silviculture Treatment Cost sub-categories	Description
Survey & Prescription	Initial survey and prescription costs. Uncheck if these costs are included elsewhere, or do not apply. Normally covered by an existing FFT survey.
Site Prep	Uncheck if these costs are included elsewhere, or do not apply.
Destumping	If applicable, check and enter the cost. It does not affect growth prediction.
Tree Improvement	The incremental cost of improved seedlings. Pre-checked when genetic worth was specified in TIPSY; it can't be unchecked. When included in Planting cost, set "User Defined" cost to zero ($0).
Planting	Seedlings, labour, etc. Pre-checked when planting was specified in TIPSY.
Brushing and weeding	If applicable, check and enter the cost. It does not affect growth prediction.
Pre-Comm Thin	Pre-checked when Pre-commercial Thinning was specified in TIPSY.
Pruning	If applicable, check and enter the cost. It does not affect growth prediction.
Fertilization	Pre-checked when Fertilization was specified in TIPSY.
Other Silv Costs	Check and create (multiple) entries for costs not included above, e.g.: • ITSL development cost, or stand knockdown • Silv-surveys: stocking, free-growing, etc. • Other Create separate entries for activities in different years; lump if same year. Activity descriptions are optional, a title is usually sufficient.

FAN$IER's costs and prices are all standardized in 2006 dollars.   When entering "User Specified" costs, also specify the cost year (e.g., 2016 dollars) so that FAN$IER can adjust the cost to 2006 dollars (assumes 2%/yr inflation).