November 2008

IRRIGATION SYSTEM, MICRO-IRRIGATION

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 441

MICRO-IRRIGATION

A micro-irrigation system, also known as drip or trickle irrigation, is used for distribution of water directly to the plant root zone by means of surface or subsurface applicators.

PRACTICE INFORMATION

Micro-irrigation systems may be installed as part of a Conservation Management System to efficiently and uniformly apply irrigation water and/or chemicals directly to the plant root zone to maintain soil moisture for optimum plant growth, without excessive water loss, erosion, reduction in water quality, or salt accumulation.

Micro-irrigation is suited to orchards, vineyards, row crops, windbreaks, greenhouse crops, and residential and commercial landscape systems. These systems can be used on steep slopes where other methods would cause excessive erosion or on areas where other application devices interfere with cultural operations.

Micro-irrigation can influence runoff and deep percolation by raising the soil moisture level and decreasing available soil water storage capacity. The movement of dissolved substances below the root zone may affect ground water quality. As with all irrigation, there may be effects to downstream flows or aquifers and the amount of water available for other water uses.

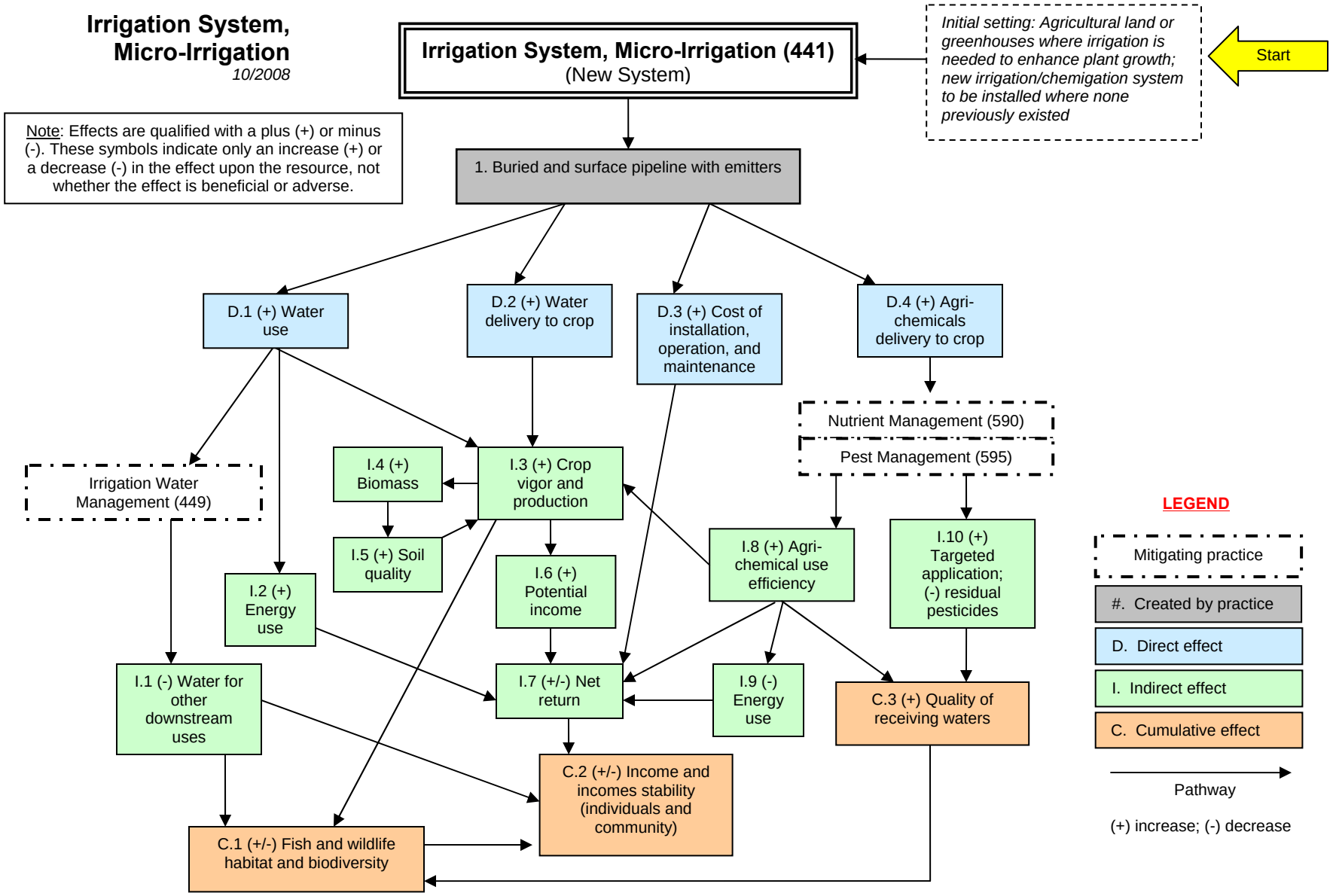
COMMON ASSOCIATED PRACTICES

Irrigation System, Micro-irrigation is commonly used in a Conservation Management System with the following practices:

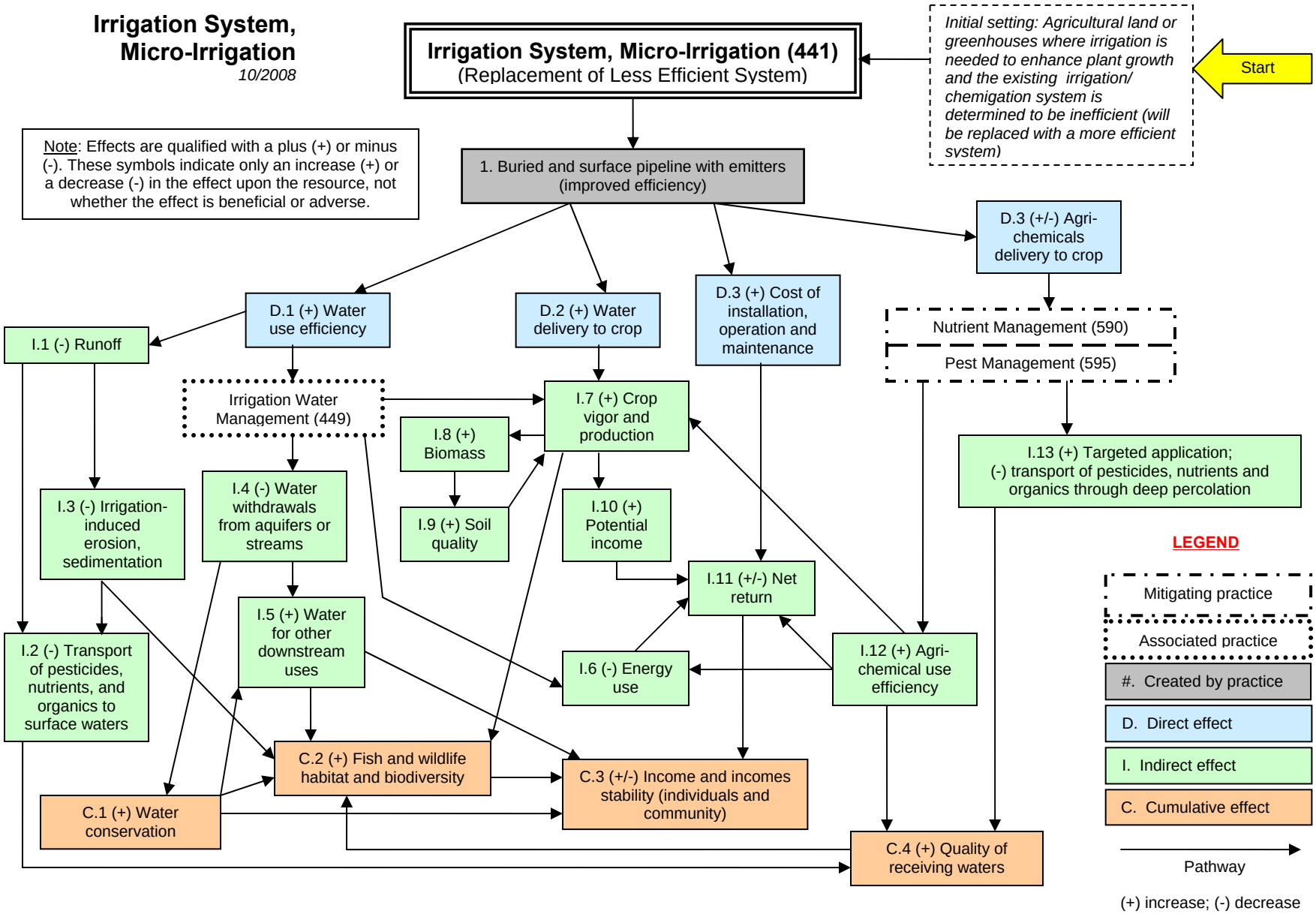
- Water Well (642)
- Irrigation Reservoir (436)
- Pumping Plant (533)
- Irrigation Water Conveyance, Pipeline (430 series)
- Irrigation Water Management (449)

For further information, refer to the practice standard in the local Field Office Technical Guide and associated practice specifications and job sheets.

The following pages identify the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.



The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.



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