

# SPRINKLER SYSTEM

## PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service – Practice Code 442



### SPRINKLER SYSTEM

A distribution system that applies water by means of nozzles operated under pressure.

### PRACTICE INFORMATION

Sprinkler systems may be applied as part of a conservation management system to accomplish one or more of the following:

- Efficient and uniform application of water on irrigated lands.
- Improve plant condition, productivity, health and vigor.
- Prevent the entry of excessive nutrients, organics and other chemicals in surface and ground water.
- Improve condition of soil contaminated with salts and other chemicals.
- Reduce particulate matter emissions to improve air quality.
- Reduce energy use.

This standard applies to the planning and functional design of all sprinkler system components (e.g. laterals, risers, nozzles, heads, pressure regulators).

Individual sprinkler design discharge rates covered by this standard typically have design nozzle discharge rates exceeding 1 gallon per minute. Areas must be suitable for sprinkler water application, and have a water supply of adequate quantity and quality. This standard applies to planning and design of sprinkler application systems for:

- meeting crop water demands.
- crop cooling, frost protection or bloom delay.
- leaching or reclamation of saline or sodic soils, or soils contaminated by other chemicals that can be controlled by leaching.
- application of chemicals, nutrients, and/or waste water.
- dust and particulate control from 1) confined animal pen areas 2) unpaved roads, 3) staging areas, and 4) equipment storage yards.

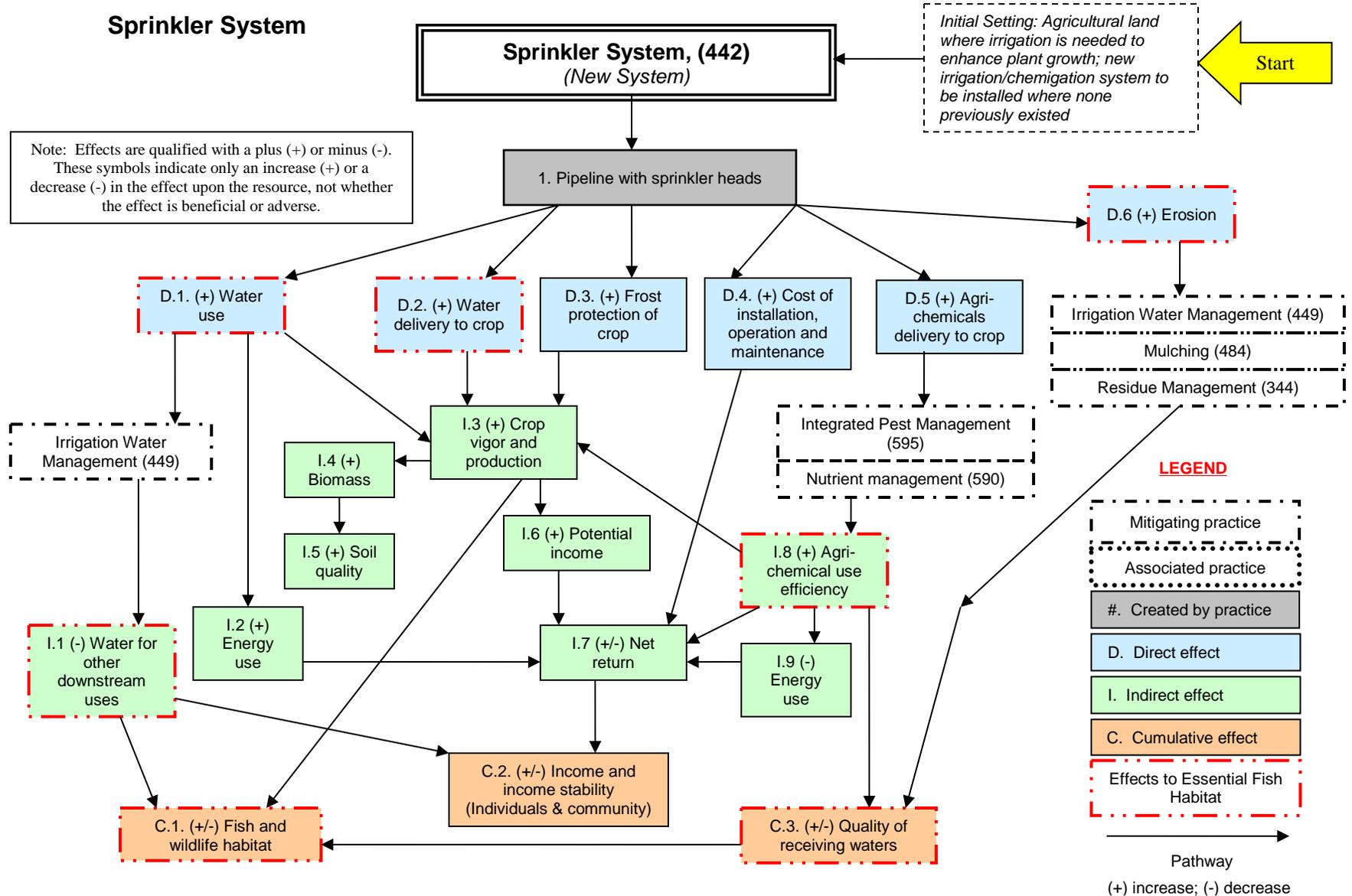
This standard applies to re-nozzling existing sprinkler systems to reduce pressure, reduce flow rate, or increase distribution uniformity.

### COMMON ASSOCIATED PRACTICES

- Irrigation Water Conveyance,
- Irrigation Water Management.

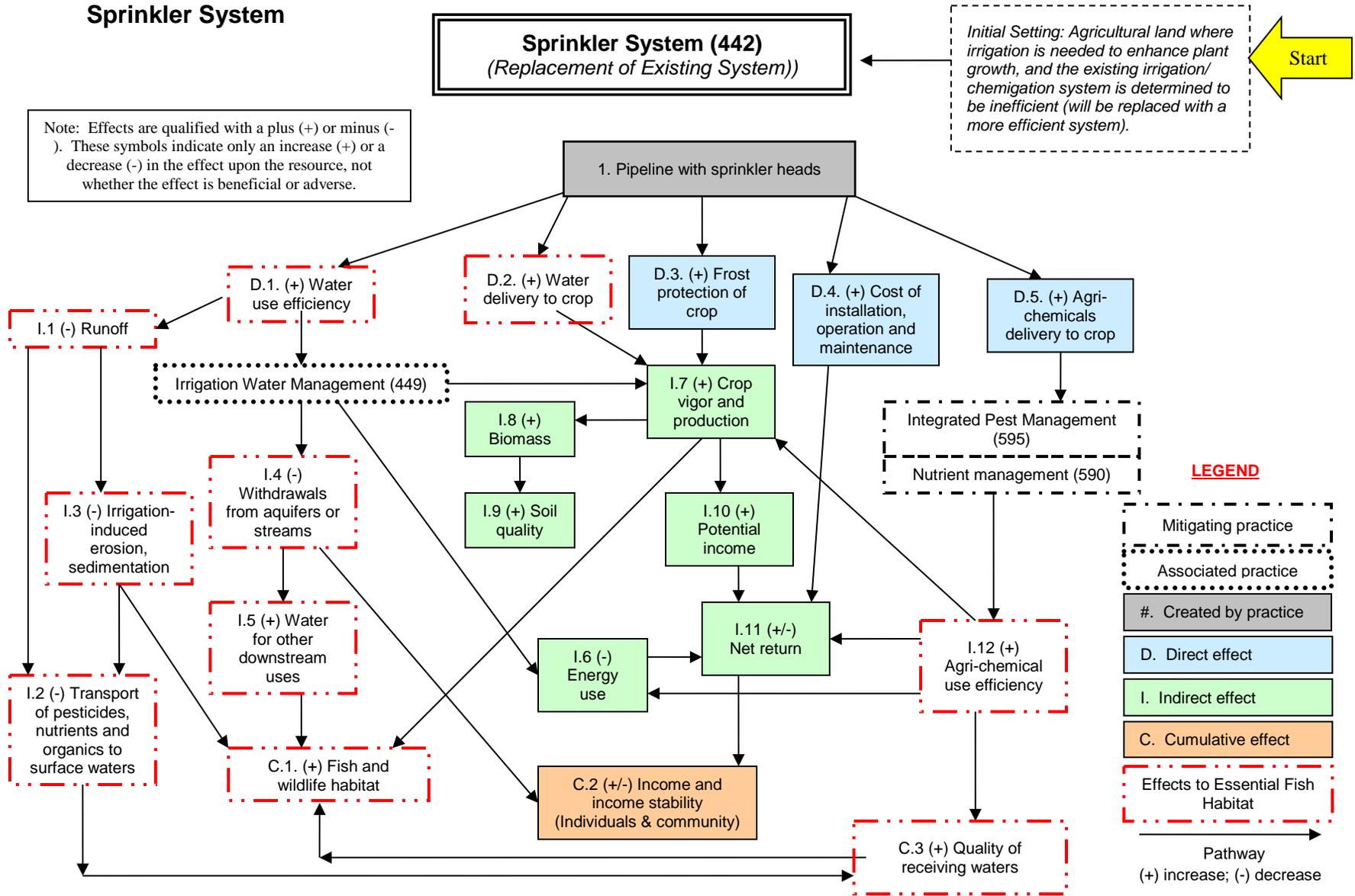
The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners 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.

### Sprinkler System



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.

# Sprinkler System



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.