THE ISSUES: Pinto Lake experiences seasonal algae blooms (typically from May through December) resulting from an excessive amount of phosphorus (and nitrogen to a lesser degree) in its waters. These blooms frequently produce toxins that can cause serious impacts, including death, on human health and wildlife communities. Most of the phosphorus that triggers these blooms has already accumulated in the lake's bottom (referred to as internal loading) due to a historical legacy of sediment runoff and deposition, from land use changes starting in late 18th century. However, sediments and nutrients continue to enter the lake today as a result of runoff from roads, agricultural fields, and leaky septic systems. In order to reduce or eliminate the occurrence of these blooms it is important to address both the legacy sediment and the current inputs.

THE SOLUTIONS: Improving Pinto Lake water quality takes a village. Federal and State grant assistance programs, local agencies, landowners, farmers, and neighbors all working together will make a difference. The City of Watsonville, Resource Conservation District, Santa Cruz County Parks, and surrounding property owners are collaborating on the installation of lake bottom treatments to prevent further release of sediment bound nutrients, an instream sediment basin, and road improvements in the County park that reduce sediment runoff.

WHAT CAN I DO? If you live, work or farm in the Pinto Lake Watershed, the individual things you do on your own property are an integral part of improving the lake so it is safe and enjoyable for our pets and families. Managing erosion and runoff, careful applications of fertilizers and nutrients, irrigation management and septic system care are all part of the solution. Look inside this brochure for tips on what you can do and a list of local resources.

RESOURCES
Resource Conservation District of Santa Cruz County
820 Bay Ave, Ste 136
Capitola, CA 95010
(831) 464-2950
www.rcdsantacruz.org
Services: Technical assistance, financial assistance, equipment loans, irrigation evaluations, and more.

Natural Resources Conservation Service (NRCS)
820 Bay Ave, Ste 136
Capitola, CA 95010
(831) 475-1967
Services: EQIP cost-share and technical assistance for agriculture.

County of Santa Cruz Environmental Health Services
701 Ocean Street
Santa Cruz, CA 95060
(831) 454-2022
www.scceh.com
Services: Technical assistance and permits for septic systems.

PUBLICATIONS
Slow it, Spread it, Sink it!
www.rcdsantacruz.org/publications

Save our Septics
1. **Prevent sediment runoff during winter storms**
   - Avoid farming on steep slopes.
   - Align furrows in order to minimize slope drainage as much as possible.
   - Cover drainage channels with plastic or dense vegetation.
   - Plant and establish winter cover crops on furrows and roads before rains come.
   - Install tile drains and tile drainage reuse systems if feasible.

2. **Minimize the amount of nutrients that can potentially runoff during winter storms**
   - Reduce or eliminate the use of slow-release fertilizers that can runoff or leach during winter.
   - Take soil and/or plant tissue tests to determine your crop’s nutrient needs.
   - Match fertilizer application to crop nutrient needs.
   - Avoid fertilizer application immediately before rain storms.

3. **Contain sediment/nutrient runoff within your field**
   - Install a sediment catchment basin at each low point collecting drainage from your field.

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**IRRIGATION & NUTRIENT MANAGEMENT**

1. **Avoid irrigation runoff and nutrient leaching**
   - Have an irrigation specialist evaluate the distribution uniformity (DU) of your irrigation system.
   - Implement recommendations in order to improve your irrigation DU.
   - Avoid over watering by matching irrigation scheduling to plant needs throughout the season.
   - Use weather-based data or soil moisture sensors to monitor crop water demand and inform your irrigation scheduling.
   - Avoid nutrient loss (runoff or leaching) by maintaining an efficient irrigation system.

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**SEPTIC SYSTEM MAINTENANCE**

1. **Prevent a failing system**
   - Know the location of your septic tank and leachfield.
   - Inspect your system every 1-3 years and have it pumped every 3-5 years.
   - Don’t drive, park or build on any part of your system. Compacting soil can damage pipes and the tank.
   - Reduce the amount of water flowing to your tank (repair leaks, run washing machines and dishwashers sparingly and install water-saving devices).
   - Separate greywater from septic and install a greywater sump or reuse system.
   - Never dispose of hazardous or non-biodegradable waste in sinks or toilets.

2. **Signs of a failing system**
   - Sewage surfacing over the tank or leachfield (especially after storms).
   - Slow draining toilets or drains.
   - Lush green growth over the leachfield.
   - Sewage back-ups in the house.
   - Frequent sewage odors.

3. **Repair failures**
   - Contact the environmental health department for technical advice and permits.
   - Use a professional septic contractor.
   - Be sure there are no leaky fixtures and limit use until it can be repaired.

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**EROSION CONTROL & RUNOFF**

1. **Prevent sediment runoff during winter storms**
   - Use the “slow it, spread it, sink it,” philosophy with techniques that slow water down, spread it in the landscape so it can sink back into the ground.
   - Protect downspout outlets from bare soil and add more downspouts to spread out the runoff.
   - Minimize bare soil by covering with mulch or vegetation.
   - Plant low water use or native vegetation to reduce water use.
   - Plant deep rooted plants and trees on sloped land. Roots help hold soil in place and foliage reduces erosion from rain drop impact.
   - Install a large rain catchment system to store rain water for later use and reduce runoff.
   - In areas with appropriate soil permeability, install a rain garden to capture runoff so that it can sink back into the ground.

2. **Minimize the amount of nutrients that can potentially runoff**
   - Limit use of fertilizers and follow all application instructions.
   - Clean up pet waste.
   - Do not allow runoff to go directly into the lake without pre-treatment.