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SUMMARY OF ACCOMPLISHMENTS
LAKE DARLING WATERSHED

Past 10 Years

The drainage area into Lake Darling is 12,500 acres. About 8,100 acres are in Washington County, 2,000 acres in Jefferson County, and 1,900 acres in Keokuk County. There are 71 different landowners within the watershed.

There have been 162 construction projects completed on private land in the past 10 years. These 162 projects involved 59 different landowners. In other words, 83 percent of all landowners have completed projects.

Of these 162 projects, 72 involved two or more landowners (group projects). This makes 45 percent of the projects that were involved in group effort and cooperation. Of the 162 projects completed, 30 were in Jefferson County, 25 in Keokuk County, and 107 in Washington County. So the overall balance between counties is very good, per drainage areas involved.

The total cost of the 162 projects was $1,599,337 of which $1,141,302 in cost share funding was spent ($141,181=WSPF, $250,696=Public Lake, $114,823=WPF, and the balance from 319 funding). Of the 162 projects, 35 were erosion control ponds. One waterway was constructed, and the remainder were tile outlet terraces and tile outlet sediment and water control basins.

The total combined drainage areas of the pond structures were 4,020 acres. The total combined pond surface areas of these structures are 102.9 acres. The total drainage areas treated with terraces and basins were 1,745 acres. This added to the pond drainage areas equals 5,765 acres controlled.

In addition to private lands, the following has been happening within the park area:

- Sixteen erosion control ponds and one sediment and water control basin were completed within the past few months within the DNR park grounds. They control runoff from 437 acres, provide 12.18 acres of pond surface area, and stop over 1220 T/year of sediment delivery to the lake.
- Thirteen additional sediment control ponds have been completed this summer. Some of these sites have easements with adjacent landowners. They control runoff from 182 acres, provide 7.0 acres of pond surface area, and stop over 490 T/year of sediment delivery to the lake.
- Construction has been completed on eight road culvert sites within the park. One of those was a culvert extension to solve an erosion problem, and one was for repair of the area around an existing riser. The remaining six sites involved placing a riser on existing culverts to stabilize gully erosion and serve as silt traps. One of these six sites involved a 632-acre drainage area and will create a wetland filter to provide a positive impact on the water quality from this watershed.
- Two more dams will be constructed on DNR land in conjunction with the dredging contract for the purpose of storing the dredged material.

Landowners are being encouraged to consider continuous CRP, especially field borders for bird habitat and riparian filters along streams and ponds.

We need to remember that there were many projects completed prior to the past 10 years.

A detailed analysis of the drainage area indicates that 75% of the runoff from private lands either flows into tile outlet terraces and basins or erosion control ponds. Each of these permanent practices traps 95% of the sediment from the area flowing into them. In other words, 75% of the private land runoff has a 95% reduction in sediment delivery potential to the Lake. Of the remaining 25% of private lands, some is non-HEL land, some is in CRP, and some is grass and woodland. A very high percentage of the highly erodible land in the watershed is controlled.

Lake renovation plans are in the development stages with the local people taking an active part in planning recommendations. This includes the design and reconstruction of the lake spillway, dredging, plus many other facility improvements. Dredging plans include determining safe deposit areas of the dredged material. This may involve the design of a large structure to place the material from the dredged area.