

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

WATER HARVESTING CATCHMENT

(No.)
Code 636



DEFINITION

A facility for collecting and storing runoff from precipitation.

PURPOSE

Provide water for livestock, fish, wildlife, and/or other purposes by sealing of the watersheds or contributing areas to increase, collect, and store runoff water for future use.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to areas where there is a need for additional water. The contributing area shall have a potential to furnish the quantity and quality of water required for the intended use.

It also applies to simple curbs and diversions constructed to collect and store runoff from high runoff areas such as rock outcrops or existing paved or impervious areas, including roofs.

CRITERIA

Planned work shall be in conformance with all Federal, state, and local rules and regulations.

Impact to cultural resources, wetlands and Federal and state protected species shall be evaluated and avoided or minimized to the extent practicable during planning, design and implementation of this conservation practice in accordance with established National and Florida policy, General Manual (GM) Title 420-Part 401; Title 450-Part 401, Title 190-Parts 410.22 and 410.26, National Planning Procedures Handbook (NPPH) Florida Supplements to Parts 600.1 and 600.6, National Cultural Resources Procedures Handbook (NCRPH), National Food Security Act Manual (NFSAM), and the National Environmental Compliance Handbook (NECH).

Each water harvesting catchment shall be designed according to a plan suited to the water requirements and the site conditions. The following points shall be considered in designing water harvesting catchments:

1. The area of the catchment apron shall be large enough to yield the required amount of runoff from the expected storms.
2. The catchment apron shall be smooth and impervious to insure that adequate runoff occurs. Compacted earth, treated earth, wax, rubber, plastic, asphalt, concrete, steel, and other such suitable materials are acceptable for this purpose.
3. When required, foreign runoff shall be diverted from the catchment area to prevent damage and excessive sedimentation.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

4. When required, an overflow pipe or auxiliary spillway will be installed to prevent damage to the catchment apron from runoff in excess of that needed to maintain the design capacity of the conveyance system. If sediment is expected to be a problem, a sediment trap will be installed between the catchment apron and the storage basin.
5. The storage basin shall be of adequate size, impermeable, and durable to hold water for the intended purpose. Earth basins and tanks constructed of steel, concrete, butyl rubber, and similar facilities are acceptable. Above ground tanks shall be designed for the anticipated loading using sound engineering practices. All tanks shall be protected from ultraviolet degradation. Earth basins shall be designed in accordance with Florida NRCS conservation practice standard Pond, Code 378. All storage basins shall be protected from 10-year-frequency storms. An overflow device shall be installed in all storage basins.
6. The catchment apron and storage areas shall be protected from damage by weather, animals, vandals, wildlife, and traffic. Fencing shall be installed as necessary.
7. When collecting runoff from a roof, design the gutters according to Florida NRCS conservation practice standard Roof Runoff Structure, Code 558.

CONSIDERATIONS

Consider the effects the practice has on surface and ground water. Factors may include changes in evaporation, timing of releases from the catchment, and the impact of the type of catchment on surface water versus ground water.

Evaporation control measures may be needed to insure that adequate storage capacity is maintained.

Consider covered storage and/or storage tanks to store runoff.

Consider the effects of standing water on mosquito breeding.

PLANS AND SPECIFICATIONS

Plans and specifications for water-harvesting catchments shall be in keeping with this

standard and shall describe the requirements for installing the practice to achieve its intended purpose.

As a minimum, plans and specifications shall include:

- Location of water harvesting catchment.
- Overall plan view.
- Profile showing grades and locations of structural components.
- Structural plans and section views as required.
- Material requirements.

OPERATION AND MAINTENANCE

A site specific operation and maintenance (O&M) plan shall be provided to the landowner. The (O&M) plan shall include, but not be limited to, the following provisions:

1. Inspecting and testing of appurtenances such as valves, pumps, and pipelines;
2. Maintaining erosion protection at outlets;
3. Checking for debris, minerals, algae and other materials that may restrict system flow;
4. Controlling all vegetation, wildlife, rodents, or burrowing animals from the apron, if applicable;
5. When required, maintaining all fences to prevent unauthorized human or livestock access; and
6. Inspecting the catchment area for signs of ultraviolet degradation of flexible materials.

REFERENCES

Florida NRCS Conservation Practice Standard
Pond, Code 378
Roof Runoff Structure, Code 558
General Manual
Title 420-Part 401
Title 450-Part 401
Title 190-Parts 410.22 and 410.26
National Cultural Resources Handbook
National Environmental Compliance Handbook
National Food Security Act Manual
National Planning Procedures Handbook
Florida Supplements to Parts 600.1 and
600.6