

**Practice: 646 - Shallow Water Development and Management**

**Scenario: #1 - Management, Low Level**

**Scenario Description:**

This scenario addresses inadequate habitat for fish and wildlife on cropland. The resource concern is addressed by providing shallow water habitat for wildlife such as shorebirds, waterfowl, wading birds, mammals, fish, reptiles, amphibians, and other species that require shallow water for at least part of their life cycle. Sites are flooded up to a depth of 18" with an average depth of 9". Before flooding, fields are prepared by rolling residue if necessary. Water is provided by natural flooding and/or precipitation.

**Before Situation:**

There is inadequate habitat to provide optimum resting, nesting, and feeding habitat for waterfowl, shorebirds, and other wildlife (amphibians, reptiles, mammals, invertebrates, etc.).

**After Situation:**

A single or series of shallow water areas that are managed per standard and specification. Water levels are regulated to maintain temporary wildlife habitat. Timing and duration of flooding and de-watering is dependent on specific species requirements. Water is pumped into area to be flooded. Flooded sites vary from mudflats to water depths of 18" with an average depth of 9". The hydrologic conditions of ponding and saturation (frequency, depth, duration, timing) provides optimum seasonal habitat for waterfowl, shorebirds, and other wildlife (amphibians, reptiles, mammals, invertebrates, etc.). Associated practices include Structure for Water Control (587) and Dike (356) if needed. Depending on local conditions, other Conservation Practices may also be required.

**Scenario Feature Measure:** Acre of shallow water

**Scenario Unit:** Acre

**Scenario Typical Size:** 2

**Scenario Cost:** \$145.78

**Scenario Cost/Unit:** \$72.89

**Cost Details (by category):**

| Component Name                            | ID  | Component Description  | Unit | Price (\$/unit) | Quantity | Cost     |
|---|-----|--|------|-----------------|----------|----------|
| <b>Acquisition of Technical Knowledge</b> |     |  |      |                 |          |          |
| Training, Workshops                       | 294 | Educational seminar or series of meetings emphasizing interaction and exchange of information among a usually small number of participants.  | Each | \$44.18         | 1        | \$44.18  |
| <b>Labor</b>                              |     |  |      |                 |          |          |
| General Labor                             | 231 | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32         | 5        | \$101.60 |

**Practice: 646 - Shallow Water Development and Management**

**Scenario: #2 - Management, High Level**

**Scenario Description:**

This scenario addresses inadequate habitat for fish and wildlife on cropland. To facilitate practice code 643, 644, 645, or 395, seasonal shallow water is provided annually for target species by purchasing of water, lifting of such water, monitoring of the water quality, response by target plant community, use by target flora or fauna. Sites are flooded up to a depth of 18" with an average depth of 9". Before flooding, fields are prepared by rolling residue if necessary. Monitoring and adaptive management accomplished of existing water control structures is accomplished to meet very specific conditions needed to address previously identified degraded plant conditions or inadequate habitat for fish and/or wildlife. This high-level management is applied to lands used for crop, pasture, hay, forests or wildlife lands where target flora and fauna have been identified as a primary concern. Loss of some level of crop, forage, hay or forest products may occur depending on site specific conditions.

**Before Situation:**

The site has existing infrastructure (reliable water source, dikes, water control structures, pumps, gates) to provide a reliable seasonal water source. The site is not subject to frequent natural flooding. The potential benefits to target fauna and flora is not being captured. The purchase of water, supply of water and intensive management of season water, coupled with monitoring, adaptive management from highly trained individuals will fully address the identified degraded plant conditions and/or inadequate habitat for fish and/or wildlife.

**After Situation:**

A single or series of shallow water areas that are managed per standard and specification. Water levels are regulated to maintain temporary wildlife habitat. Timing and duration of flooding and de-watering is dependent on specific species requirements. Water is pumped into area to be flooded. Flooded sites vary from mudflats to water depths of 18" with an average depth of 9". The hydrologic conditions of ponding and saturation (frequency, depth, duration, timing) provides optimum seasonal habitat for waterfowl, shorebirds, and other wildlife (amphibians, reptiles, mammals, invertebrates, etc.). Associated practices include Structure for Water Control (587) and Dike (356) if needed and Pumping Plan (533) if a natural water source (i.e. precipitation for flooding) is not available. Depending on local conditions, other Conservation Practices may also be required.

**Scenario Feature Measure:** Acre of shallow water

**Scenario Unit:** Acre

**Scenario Typical Size:** 2

**Scenario Cost:** \$340.00

**Scenario Cost/Unit:** \$170.00

**Cost Details (by category):**

| Component Name                            | ID  | Component Description  | Unit      | Price (\$/unit) | Quantity | Cost     |
|---|-----|--|-----------|-----------------|----------|----------|
| <b>Acquisition of Technical Knowledge</b> |     |  |           |                 |          |          |
| Training, Workshops                       | 294 | Educational seminar or series of meetings emphasizing interaction and exchange of information among a usually small number of participants.  | Each      | \$44.18         | 1        | \$44.18  |
| <b>Equipment/Installation</b>             |     |  |           |                 |          |          |
| Water management, Flooding & dewatering   | 969 | Includes equipment, power unit and labor costs.  | Acre Foot | \$129.48        | 1.5      | \$194.22 |
| <b>Labor</b>                              |     |  |           |                 |          |          |
| General Labor                             | 231 | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour      | \$20.32         | 5        | \$101.60 |