

Nevada Department of Wildlife

Duck Stamp Program - Fiscal Year 2019

June 2018

#6

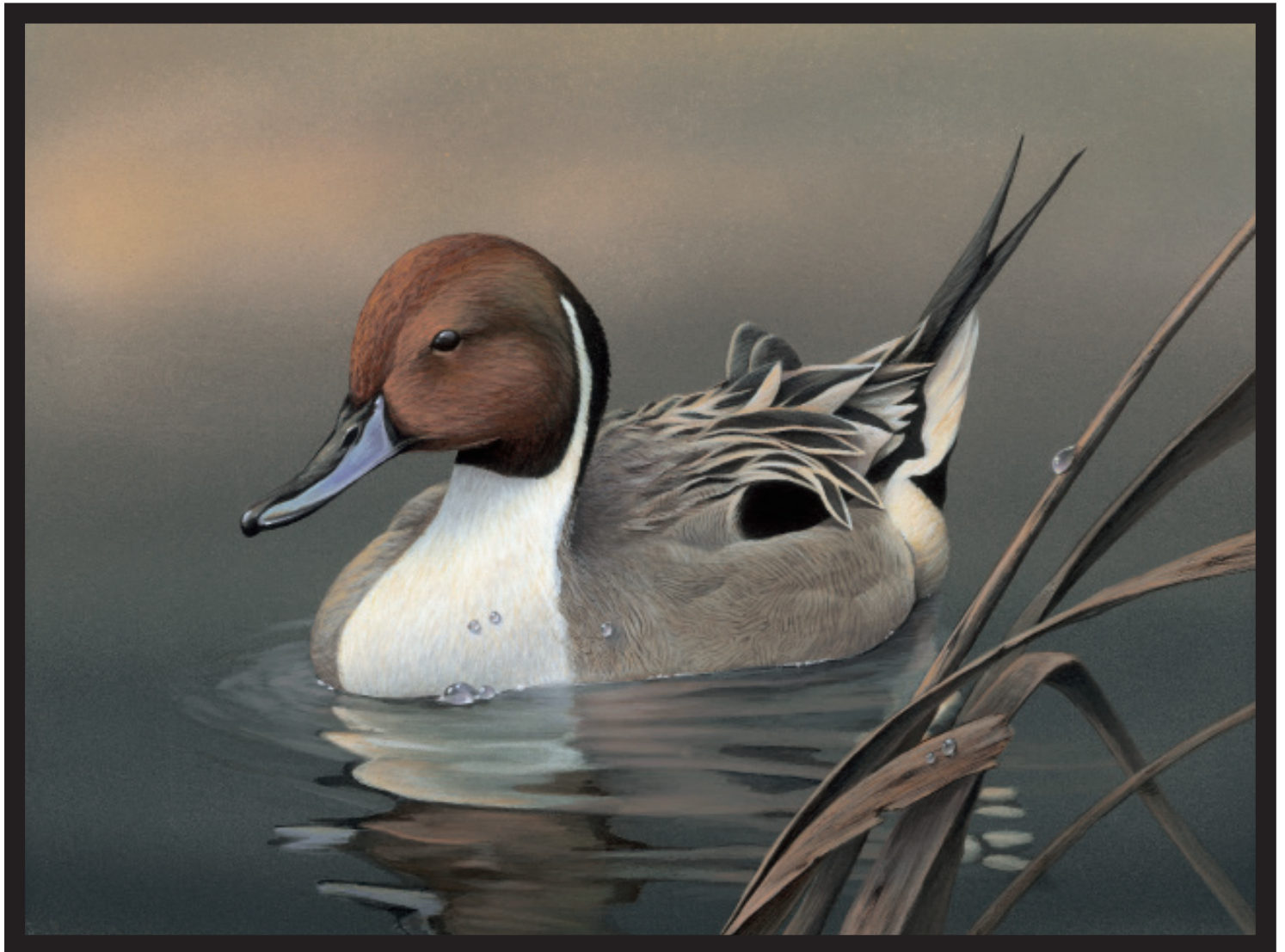


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Relevant Duck Stamp Nevada Revised Statutes

NRS 502.310 Duck stamps: Deposit of fees; accounting records; reimbursement of administrative costs. All money received pursuant to [NRS 502.300](#) must be deposited with the State Treasurer for credit to the Wildlife Obligated Reserve Account in the State General Fund. The Department shall maintain separate accounting records for the receipt and expenditure of that money. An amount not to exceed 10 percent of that money may be used to reimburse the Department for the cost of administering the state duck stamp programs. This amount is in addition to compensation allowed persons authorized to issue and sell licenses.

(Added to NRS by 1971, 940; A 1979, 300, 900; 1981, 539; 1985, 1708; 1993, 1668; [2001, 976](#); [2003, 1542, 2548](#))

NRS 502.322 Duck stamps: Use of money received pursuant to [NRS 502.300](#).

1. Before the Department may undertake any project using money received pursuant to [NRS 502.300](#), it shall analyze the project and provide the Commission with recommendations as to the need for the project and its feasibility.

2. Money received pursuant to [NRS 502.300](#) must be used for projects approved by the Commission for the protection and propagation of migratory game birds, and for the acquisition, development and preservation of wetlands in Nevada.

(Added to NRS by 1979, 300; A 1981, 539; 1985, 1708; 1993, 1668; [2001, 976](#); [2003, 1542](#))

NRS 502.324 Duck stamps: Reports to Legislature regarding program. The Department shall, not later than the fifth calendar day of each regular session of the Legislature, submit to the Legislature a report summarizing any projects undertaken, receipt and expenditure of money, and public benefits achieved by the program for the sale of state duck stamps.

(Added to NRS by 1979, 300; A 1985, 1353; 1993, 1668; [2003, 1543](#))

Progress Report on Duck Stamp Projects Funded in FY 2018

Ducks Unlimited Wetlands Conservation Support

The Nevada Department of Wildlife (NDOW) donated \$10,000 to Ducks Unlimited (DU) during FY18 to help them implement the migratory bird projects that were developed as a result of the North American Waterfowl Management Plan. The projects primarily consist of wetland restoration, forage establishment and production, and the purchase of conservation easements in the prairie potholes regions of Saskatchewan and Alberta. Band return data show that these two Canadian provinces are the sources of a significant number of waterfowl that pass through Nevada each year. The prairie potholes region has the highest density of breeding ducks in all of North America.

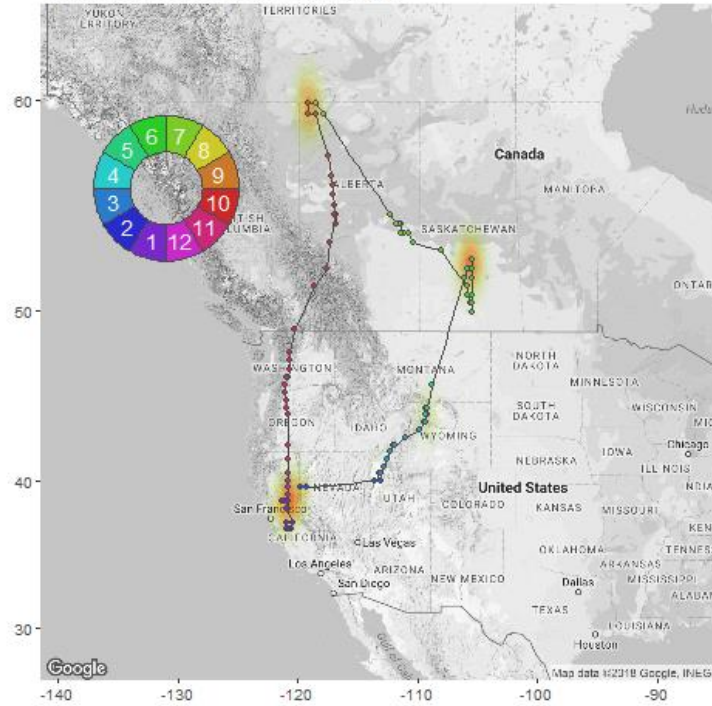


Technician Support for Nevada Waterfowl Projects

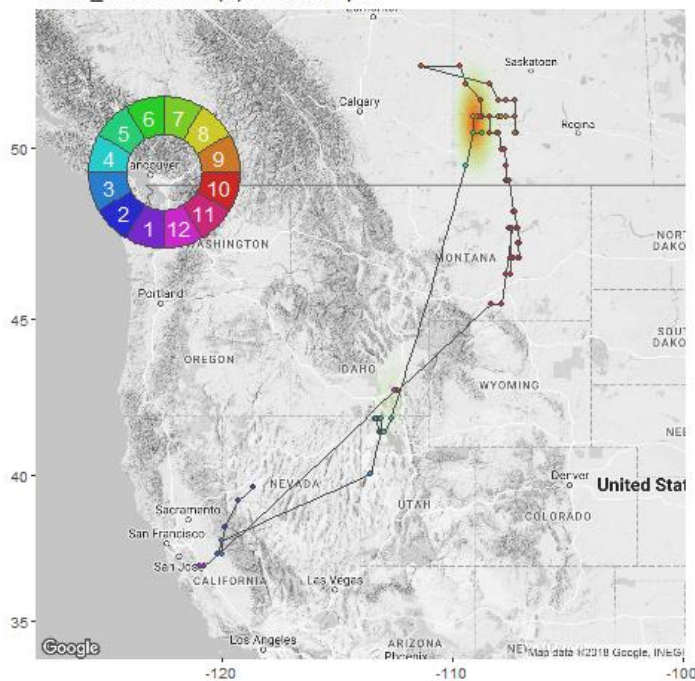
For the past five years, NDOW has used Duck Stamp funds to help pay for the attachment of more than 400 geolocator devices to 3 species of ducks: wood ducks, mallards, and canvasbacks. (FY19 will be the last fiscal year that NDOW will fund a graduate student technician for this project.) The attachment and subsequent retrieval of these devices has been more successful than initially planned. Given that, NDOW funds were also used to support a graduate student at the University of Nevada, Reno to continue to retrieve these devices, analyze the data, and write-up the results. The student, Nathan Cook, began work on the project in February 2017. He has retrieved numerous geolocators from wood ducks, helped install 63 geolocators on canvasbacks, conducted the 2017 spring breeding waterfowl survey, is taking classes at UNR, and has made excellent progress on the analysis of these geolocator data. He is expecting to

graduate in December 2018. Two examples of the maps being produced by this project are included below. They show canvasback movements after being fitted with these devices in western Nevada. The analysis of these tracking devices will help inform waterfowl habitat and population managers on stay duration and subsequent habitat requirements for conservation management.

CANV_208739809 (M) Locations plot



CANV_210701439 (F) Locations plot



Overton and Key Pittman WMAs Wetland Enhancement (Phase 2)

Funding was used to purchase water control structures, high-density polyethylene (HDPE) pipe, and other materials that will be used in the wetland enhancement projects at Key Pittman and Overton Wildlife Management Areas (WMAs). The future leveling of Pintail and Wilson ponds at Overton WMA will be a cut and fill balance that will result in more uniform pond bottoms that eliminate overly deep areas and spread water to areas that in their present state do not support shallow ponded conditions. The project will also improve water delivery efficiencies and drainage, thus improving the ability of WMA staff to manage waterfowl habitat at the WMA. These improvements will also allow NDOW to increase production of preferred waterfowl food plants. With the deeper areas within the two ponds filled, less water will be required to manage the units and NDOW will be able to provide better wildlife habitat for both waterfowl and hunters. At Key Pittman WMA, the enhancement project was completed and details are provided below.

Key Pittman WMA Wetlands Enhancement (Phase 3)

Duck Stamp program funds (\$34,053) were used to perform a wetland enhancement project at the Key Pittman WMA. NDOW partnered with Ducks Unlimited on this project to rehabilitate portions of the north units. This work resulted in more uniform wetlands that eliminated overly deep areas and increased the amount of shallow ponded conditions. Additional coordination took place with the U.S. Fish and Wildlife Service's Southern Nevada Field Office prior to construction regarding Ridgway's rails. These endangered rails were detected on the WMA for the first time during the 2017 spring surveys. After a review of the plans and location of the project, it was determined that adverse effects to the rails could be avoided. The project also replaced water control structures to improve water delivery and drainage, providing NDOW with an improvement in its overall ability to manage habitat at the WMA. This project enhanced approximately 40 acres of wetland and upland habitats on the WMA.



Wetland enhancement project at the Key Pittman WMA

Overton WMA Irrigation System Repair

Duck Stamp funds (\$2,649) were spent to replace pipe, fittings and valve parts that had failed in a main irrigation line that supplies water for multiple moist soil units on the north end of the Overton WMA. The valve and pipe had settled during prior year flood events and caused the failure. The repair enabled the staff at Overton to get water to the affected moist soil units that are used by migrating waterfowl. The repair was completed using WMA staff and equipment.

Overton WMA Water Outlet and Pipe Replacement

Concrete water outlet structures and galvanized culvert pipe were installed on moist soil units at the Overton WMA approximately 30 years ago. Due to the moisture and alkalinity of the soil at the WMA, the galvanized pipe deteriorated causing the pipe to collapse under the dikes. A total of \$2,178 was spent to purchase PVC pipe that the Overton WMA staff used to replace the failed culvert pipes.



Overton WMA

Overton WMA Farming

A total of \$3,500 was spent to purchase herbicides that were applied to the agricultural fields at Overton WMA. The treatments helped enhance the fields that provide forage for migrating waterfowl, turkeys, dove and various non-game birds that frequent the area. The application of herbicides also helps control the spread of noxious and other types of evasive weeds. This project was completed by the Overton WMA cooperator under the terms of the current farming and agricultural lease agreement.

Overton WMA Pipe Replacement Project (Phase 1)

The purpose of this project was to replace approximately 1,800 feet of pipeline that had collapsed in multiple locations on the A-series irrigation system. The replacement of the pipeline allows for a consistent flow of water into multiple moist soil units and ponds creating quality habitat for migrating waterfowl and shorebirds. The funds were used to purchase 18" PVC pipe, valves, glue and related parts needed for the replacement project. A total of \$29,591 was spent, including \$14,569 of Duck Stamp funding and \$15,022 of Habitat Conservation Fee funding. The pipeline was replaced by Overton WMA staff using WMA equipment.

Key Pittman WMA Wildlife Food Plots

A total of \$3,900 was expended on seed from Upland Game Bird Stamp funds and \$2,600 from Duck Stamp funds. Approximately 60 acres were planted in October with winter wheat, fall cereal rye, barley, alfalfa, Austrian winter pea and hairy vetch as a winter cover crop and to enhance hunter success while hunting the fields on the Key Pittman WMA. An additional 40 acres were planted in January with intermediate wheat grass, sand dropseed and sandberg bluegrass to enhance desirable vegetation in areas where the removal of noxious weeds left areas that were lightly vegetated or in areas where improved vegetation cover and variety is needed. Approximately 70 acres were over seeded in late February with spring wheat, oats, Ladak alfalfa, and native annual sunflower. The annual seeding projects are completed to increase forage production in wildlife feeding areas on the WMA and to enhance hunter opportunities. This project was completed by NDOW staff.

Eastern Nevada Properties Weed Control

Removal of noxious and other undesirable weeds enhances wildlife habitat, improves the appearance of an area and its public access, and limits the spread of weeds to other areas. The goal of this annual project is to remove noxious/invasive weeds such as Russian knapweed, hoary cress, perennial pepperweed (also known as tall whitetop), and Canada thistle found on several state-owned properties. The project is co-funded by the Duck Stamp and Upland Game Bird Stamp accounts since it benefits both waterfowl and upland species.

In the fall of 2017, NDOW hired the Tri-County Cooperative Weed Management Area to treat 330 acres on the Steptoe Valley and Wayne E. Kirch WMAs. An additional 387 acres were treated on these properties by NDOW staff, using herbicides purchased with Duck Stamp funds and funds from NDOW's Federal WMA grant.

Projects also were implemented on the Bruneau River WMA to treat bull thistle, Canada thistle, scotch thistle, perennial pepperweed, hoary cress, and black henbane. All treatments were implemented by NDOW biologists and fisheries Conservation Aids. Approximately 150 acres of thistle were treated in the Taylor Springs enclosure.

A week long treatment of a multitude of target species at the meadows on the state-owned Kingston Canyon property was treated in July of 2017, and a historic equine fence was removed. A contracted treatment of approximately 85 acres of meadow habitat on the Kingston Canyon property will be conducted during the summer of 2018 and the target species will be perennial pepperweed.



Steptoe Valley WMA

Proposed Duck Stamp Projects for State Fiscal Year 2019

| Title of Proposed Project (and project ID number) | Project Manager | \$ Requested from Duck Stamp Account | Other Funding Sources (in-kind contributions not quantified) |
|---|--------------------------|--|---|
| Technician Support for Nevada Waterfowl Projects (384) | Russell Woolstenhulme | \$13,910 | Nevada Waterfowl Association (\$4,980); USFWS providing in-kind services; NDOW's Federal WMA Grant to pay for NDOW personnel costs |
| Ducks Unlimited Wetlands Conservation Support (352) | Mike Zahradka | \$10,000 | N/A |
| Mason Valley WMA Moist Soil Food Plots (382) | Isaac Metcalf | \$10,000 | NDOW personnel costs to be covered by NDOW's Federal WMA Grant |
| Key Pittman WMA Food Plots (330) | Andrew Coonen | \$2,600 | NDOW's Upland Game Bird Stamp Account (\$3,900); NDOW personnel costs covered by Federal WMA Grant |
| Overton WMA Pipe Replacement Project - Phase 2 (360) | Bennie Vann | \$7,000 | NDOW's Habitat Conservation Fee Account (\$7,000); NDOW personnel costs covered by Federal WMA Grant |
| Eastern WMA Complex Weed Control (349) | Adam Henriod | \$10,000 | NDOW's Upland Game Bird Stamp Account (\$10,000); NDOW's Habitat Conservation Fee Account (\$10,000); Nevada Dept. of Agriculture (\$10,000) |

Proposed Duck Stamp Projects for State Fiscal Year 2019

| Title of Proposed Project (and project ID number) | Project Manager | \$ Requested from Duck Stamp Account | Other Funding Sources (in-kind contributions not quantified) |
|---|-----------------|--|---|
| Overton WMA Pintail and Wilson Pond Leveling - Phase 3 (351) | Bennie Vann | \$60,000 | NDOW's Wildlife Heritage Account (\$60,000); USFWS Federal Grant (\$300,000); NDOW personnel costs covered by Federal WMA Grant |
| Mason Valley WMA Saltcedar Treatment (381) | Isaac Metcalf | \$15,000 | NDOW personnel costs to be covered by NDOW's Federal WMA Grant |
| Totals | | \$128,510 | \$405,880 |

Duck Stamp Account Budget Status

| | |
|--|--------------|
| Balance in the Account at Start of FY 2018 | \$ 332,710 |
| Plus Estimated Revenue Accrued During FY 2018 | \$ 90,082 |
| Less Estimated Total FY 2018 Expenditures | (\$ 112,673) |
| Less Estimated Administrative Costs (10% of Revenue) | (\$ 9,008) |
| Estimated Balance at End of FY 2018 / Start of FY 2019 | \$ 301,111 |
| Plus Estimated Revenue to be Accrued During FY 2019 | \$ 90,082 |
| Less Estimated Administrative Costs (10% of Revenue) | (\$ 9,008) |
| Less Proposed New Project FY 2019 Expenditures | (\$ 128,510) |
| Estimated Balance at End of FY 2019 | \$ 253,675 |

Note: The budget information in this table is preliminary and subject to change.



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Technician Support for Nevada Waterfowl Projects
 Project Manager: Russell Woolstenhulme Phone: Email russellw@ndow.org
 Project Monitor: Russell Woolstenhulme Start Date: 7/1/2018
 Implementation Lead: Nevada Department of Wildlife End Date: 6/30/2019
 Partners: Nevada Waterfowl Association, U.S. Fish and Wildlife Service
 Project Category: Wildlife Population Protection or Enhancement
 Project Category: Wildlife Monitoring and Research
 Project Actions:
 Priority Resource: Small game
 Priority Species: Waterfowl
 County Location: Churchill, Washoe
 General Location: Ducks are captured and fitted with geolocators at Swan Lake, Carson River and the Stillwater Marsh. Their movements within the Pacific Flyway are then monitored.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|------------------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$13,910 | | |
| Nevada Waterfowl Association | \$4,980 | | |
| US Fish and Wildlife Service | | | \$3,700 |
| Project Totals | \$18,890 | | \$3,700 |

Project Proposal

1. Brief Purpose and Goal of the Project

To collect and analyze data from the geolocators that were attached to Nevada waterfowl as part of previous and ongoing Duck Stamp projects. The data will be used by NDOW and USFWS biologists as they manage northern Nevada waterfowl and set related hunting regulations. In addition, this student would be available for aerial waterfowl surveys, aerial survey data analysis, pre-season duck banding, and other associated waterfowl projects.

2. Project Approach and Tasks

Duck Stamp funding for this project will pay for the stipend and tuition of a Master's level graduate student to analyze 4 years of geolocator data which has been collected as part of previous and ongoing NDOW projects. This project's other funding sources will cover the remaining project costs: a Nevada Waterfowl Association (NWA) donation will cover the majority of the project's material costs, while NDOW's Federal Game Management Grant will pay for the remainder of the project materials. The specific project tasks are listed below.

1. Placement, retrieval, and data analysis of and related to >300 geolocators which have been placed on 3 species of ducks in western Nevada since 2014. Final result will be a MS thesis. Geolocators are placed on ducks before they are released at Swan Lake in Washoe County, and the Carson River and Stillwater marsh in Churchill County.
2. Compile and summarize the annual Nevada breeding waterfowl survey data.
3. Lead all pre-season duck banding efforts including logistics, field work, project summary, and compilation of banding schedules.
4. Assist with miscellaneous other waterfowl-related tasks.

3. Anticipated Beneficial Effects of the Project

The recent and successful efforts to equip ducks with geolocators has led to a large accumulation of data. This proposal would provide for an MS-level student to complete half of an MS degree using this data. Currently, this task is too large for current cooperators to accomplish. Recent volunteer efforts to conduct aerial waterfowl surveys may no longer be available and this position would fill that vacancy both to not only conduct the survey, but to also summarize the results. The results of the analysis will be used by NDOW and USFWS biologists to manage the state's waterfowl and may influence future modifications to related hunting regulations.

4. Project Schedule

October 1, 2018 through June 30, 2019 – MS student enrolled at UNR
July 1, 2018 through December 31, 2018 – Field work to deploy and retrieve geolocators
July 15 through October 31, 2018 – Band waterfowl and submit banding schedules
July 1, 2018 through June 30, 2019 – Analyze collected data and present results

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

The collection and analysis of data associated with this project will help NDOW and the USFWS implement the North American Waterfowl Management Plan, last updated in 2012. In addition, Canvasbacks, Northern Pintail and Redhead would benefit from this project and are listed as Species of Conservation Priority in NDOW's Wildlife Action Plan. This project would also help NDOW achieve a related goal from NDOW's 2004 Comprehensive Strategic Plan pertaining to using good science to manage wildlife habitat and implement related WMA Comprehensive Management Plans.

Special Reserve Account Project Cost Estimate Table

Name of Proposed Project: Technician Support for Nevada Waterfowl Projects
Name of Proposed Project Manager: Russell Woolstenhulme
Project ID: 384

Please provide a breakdown of your project's costs in the table below. Only include costs for the upcoming fiscal year for which you are applying. Only include in-kind services under item 7. NDOW personnel and travel expenses may not be covered by any of our Special Reserve Accounts - you must use alternative funding sources to cover these types of costs.

| <i>Project Components</i> | <i>Costs to be Paid by NDOW Special Reserve Account(s)</i> | <i>Costs to be Paid by Other Sources</i> |
|---|--|--|
| 1. Land Acquisitions | | |
| 2. Personnel Costs | | |
| A. NDOW Personnel | | |
| B. Other Personnel: Graduate student-related costs | \$ 12,505.00 | |
| C. Total Personnel Costs | \$ 12,505.00 | \$ - |
| 3. Travel Costs | | |
| A. Per Diem | | |
| B. Mileage | | \$ 2,180.00 |
| C. Total Travel Costs | \$ - | \$ 2,180.00 |
| 4. Equipment | | |
| A. | | \$ 2,600.00 |
| B. | | |
| C. Total Equipment Costs | \$ - | \$ 2,600.00 |
| 5. Materials | | |
| A. Trapping materials, biological supplies, bait corn | \$ 400.00 | |
| B. | | |
| C. | | |
| D. Total Materials Costs | \$ 400.00 | \$ - |
| 6. Miscellaneous | | |
| A. Utilities | \$ 600.00 | |
| B. Nevada Waterfowl Association overhead (3%) | \$ 405.00 | |
| C. Housing | | \$ 200.00 |
| D. | | |
| F. Total Miscellaneous Costs | \$ 1,005.00 | \$ 200.00 |
| 7. In-Kind Services | | |
| A. USFWS staff time | | \$ 3,700.00 |
| B. | | |
| C. Total In-Kind Services | \$ - | \$ 3,700.00 |
| Subtotals | \$ 13,910.00 | \$ 8,680.00 |
| Total Project Costs | \$ | \$ 22,590.00 |



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Ducks Unlimited Wetlands Conservation Support FY19
Project Manager: Mike Zahradka Phone: 775-688-1563 Email mzahradka@ndow.org
Project Monitor: Mike Zahradka Start Date: 7/1/2018
Implementation Lead: Nevada Department of Wildlife End Date: 6/30/2019
Partners: Ducks Unlimited
Project Category: Habitat Protection and Restoration
Project Category: Conservation Easements, Wetlands Restoration
Project Actions:
Priority Resource: General Habitat Improvement
Priority Species: Waterfowl
County Location: Other
General Location: Ducks Unlimited will use the donated funds to do habitat protection and restoration work in Alberta, Canada.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|-----------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$10,000 | | |
| Project Totals | \$10,000 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

To help Ducks Unlimited (DU) protect, restore and enhance waterfowl habitat in the prairie potholes region of Alberta, Canada. This is very important breeding and nesting habitat for many of the waterfowl that travel to Nevada.

2. Project Approach and Tasks

DU has agreed to NDOW's request that the funds we donate be used on wetland enhancement projects in the prairie potholes region of Alberta, Canada since banding data indicates that a fairly high percentage of waterfowl harvested in Nevada originate from that region. DU and its partners use the donations from NDOW and others to protect, restore and enhance wetlands in this region of Alberta. DU's partners in this

region includes the Nature Conservancy of Canada, Wildlife Habitat Canada, the Alberta provincial government and the federal government of Canada. This work is part of the ongoing implementation of the North American Waterfowl Management Plan.

3. Anticipated Beneficial Effects of the Project

Funds donated to Ducks Unlimited are used to restore, enhance and protect waterfowl habitat in Alberta. In addition to directly benefiting waterfowl, this also indirectly benefits Nevada hunters by helping increase or maintain waterfowl populations in Nevada.

4. Project Schedule

This is an annual contribution made to Ducks Unlimited and any clearances required in Canada have already been obtained.

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

This funding, consistent with the North American Waterfowl Management Plan and the Wetlands Conservation Act, will assist in the enhancement and maintenance of wetland habitats in Canada. These wetlands provide important habitat for migratory waterfowl, which in turn, migrate and stopover in Nevada and increase hunting opportunities. Funding this type of work is also consistent with the following portion of NDOW's mission: "To protect, preserve, manage and restore wildlife and its habitat for their aesthetic, scientific, educational, recreational and economic benefits to citizens of Nevada and the United States".



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Mason Valley WMA Moist Soil Food Plots
Project Manager: Isaac Metcalf Phone: 775-463-2741 Email: imetcalf@ndow.org

Project Monitor: Mike Zahradka Start Date: 7/1/2018
Implementation Lead: Nevada Department of Wildlife End Date: 6/30/2019
Partners:
Project Category: Habitat Creation or Enhancement
Project Category: Small game habitat enhancement
Project Actions: Drill seeding
Priority Resource: Small game
Priority Species: Waterfowl
County Location: Lyon
General Location: All of the proposed work will take place within the Mason Valley WMA boundaries near Yerington, NV

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|-----------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$10,000 | | |
| Project Totals | \$10,000 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

The purpose of the Mason Valley Moist Soil Food Plots Project is to enhance forage and cover for migrating waterfowl and shore birds. This project will increase the amount of available forage for migrating waterfowl and shorebirds after prescribed burn and mechanical treatments.

2. Project Approach and Tasks

Moist soil vegetation will be planted following spring prescribed burning or mechanical disturbances in the waterfowl ponds. Drill seeding of dried ponds and food plots will occur the fall of 2018 and June of 2019. The ponds will be flooded periodically throughout the summer to establish germination of moist soil vegetation and flooded in the fall. The moist soil units will provide forage for waterfowl and

shorebirds as well as provide WMA users with additional wildlife viewing and hunting opportunities. All of the funds awarded to this project will be used to purchase a seed mix appropriate for wetlands.

3. Anticipated Beneficial Effects of the Project

Waterfowl and shore birds will be the core beneficiaries. Mule deer and passerines will also benefit with the increased forage availability. Non-consumptive and consumptive WMA users will also benefit with more opportunities for wildlife viewing and hunting.

4. Project Schedule

This is an ongoing, recurring project.

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not Applicable

6. Relationship to NDOW Plans, Policies, and Programs

Annual vegetation control is identified in the Mason Valley WMA Conceptual Management Plan. Desired Outcome: Wildlife habitats that are in good ecological condition, capable of supporting a diverse array of wildlife species. Goal: Habitat is the key to the success of all wildlife populations. Effective habitat is an integral function of the Department of Wildlife. NDOW will preserve and protect quality habitat and enhance deficient habitats. Objective: Maintain, protect and enhance wildlife habitats on wildlife management areas (WMAs) by applying good science and best management practices through implementation of Comprehensive Management Plans on all WMA's through 2009. (Comprehensive Strategic Plan-2004-2009 page -1).



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Key Pittman WMA Food Plots
Project Manager: Andrew Coonen **Phone:** **Email:** acoonen@ndow.org
Project Monitor: Adam Henriod **Start Date:** 7/1/2018
Implementation Lead: Nevada Department of Wildlife **End Date:** 4/28/2019
Partners:
Project Category: Habitat Creation or Enhancement
Project Category: Small game habitat enhancement
Project Actions: Drill seeding
Priority Resource: Small game
Priority Species: Waterfowl
County Location: Lincoln
General Location: The Key Pittman WMA is located in the north end of the Pahrangat Valley, approximately 110 miles north of Las Vegas and 135 miles south of Ely.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|------------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$2,600 | | |
| NDOW Upland Game Stamp | \$3,900 | | |
| Project Totals | \$6,500 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

The goal of this project is to provide an increase in waterfowl and upland game bird use, thus leading to an increase in hunter and public use and hunter success. This will be achieved by completing annual food plot plantings and vegetation manipulation, thus enhancing existing habitat on the WMA for the benefit of wildlife.

2. Project Approach and Tasks

In October, the food plot fields are mowed, disked, seed drilled (fall/winter cereal grains and legumes) and irrigated. At the same time, the NW corner of the Frenchy Unit is mowed. In December and January

grass seed is broadcast in deficient habitats mostly created by noxious weed treatments or other mechanical disturbances such as fuel/fire breaks. In February or March, the food plots are seeded again with additional cereal grains, forbs, legumes and sunflower. At this time the northern impoundments are drained. In June, millet and sunflower is broadcast along portions of the pond edges. Grazing begins in mid-July. The desirable native vegetation (goose foot and alkali bulrush) has matured by mid-August and the northern impoundments are mowed and filled with water. During the last week of August, the food plots are strip mowed for the dove season. At the end of September, the dove season ends and the grazing lease ends and the cycle starts again. Due to the extended dove season conflicting with the waterfowl season opener, the food plots have to be mowed, disked, seeded and irrigated prior to the waterfowl opener starting around October 1st.

All of the funds awarded to this project will be used to purchase seed for the food plots.

3. Anticipated Beneficial Effects of the Project

The food plot program includes the planting of forbs, grasses, nitrogen fixing plants, and cereal grains. These provide forage for wildlife, maintain and improve the soil for better production, reduce noxious and invasive weeds, and eliminate the need for commercial fertilizer. This results in increased use of waterfowl, quail, dove, cottontail rabbit, and mule deer, improved harvest of game species, and a reduced need for noxious and invasive weed control. This project also benefits non-game species such as small mammals, raptors, song birds, reptiles, and other species.

4. Project Schedule

The implementation schedule of this project was described in the approach section above.

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

Annual habitat maintenance and enhancement is identified in all of the current WMA Conceptual Management Plans. Desired Outcome: Wildlife habitats that are in good ecological condition, capable of supporting a diverse array of wildlife species. Goal: Habitat is the key to the success of all wildlife populations. Effective habitat is an integral function of the Department of Wildlife. NDOW will preserve and protect quality habitat and enhance deficient habitats. Objective: Maintain, protect and enhance wildlife habitats on wildlife management areas (WMA's) by applying good science and best management practices through implementation of Comprehensive Management Plans on all WMA's (Comprehensive Strategic Plan). Achieve an overall goal of no net loss of wetland area or function and the long-term goal to enhance and increase wetland quantity and quality within the WMA (Wetland Conservation Plan).



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Overton WMA Pipe Replacement Project - Phase 2
Project Manager: Bennie Vann Phone: 702-397-2142 Email bvann@ndow.org
Project Monitor: Mike Zahradka Start Date: 8/1/2018
Implementation Lead: Nevada Department of Wildlife End Date: 10/1/2018
Partners:
Project Category: Habitat Restoration
Project Category: Riparian, Spring or Meadow Habitat Improvement
Project Actions: Water system improvement
Priority Resource: Small game
Priority Species: Waterfowl
County Location: Clark
General Location: The Overton WMA is located in the Moapa Valley of Clark County.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|-------------------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$7,000 | | |
| NDOW Habitat Conservation Fee | \$7,000 | | |
| Project Totals | \$14,000 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

The purpose of the project is to continue the replacement of the A-series pipeline that was started last year. The existing pipe has collapsed in multiple locations and is plugged with sediment buildup, thus not allowing sufficient water flow to maintain quality habitat for migrating waterfowl and shorebirds.

2. Project Approach and Tasks

The pipeline is being replaced in 3 phases; the first phase was completed during October of 2017. This second phase of the replacement will tie into the pipeline that was replaced last year at station #8 and continue approximately 800' to station #9 using 18" SDR 51 PVC pipe. All work will be done by WMA

personnel. All of the Duck Stamp and Habitat Conservation Fee funds awarded to this project will be used to purchase pipe material and related fittings.

3. Anticipated Beneficial Effects of the Project

The new pipe will help ensure consistent and adequate flows to the moist soil units, thus improving the habitat used by migrating waterfowl and shorebirds.

4. Project Schedule

This second phase of the project would start in early August of 2018 and should be completed by the end of September of 2018.

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

This project would help achieve the following goal from the Overton WMA Comprehensive Strategic Plan: "NDOW will preserve and protect quality habitat and enhance deficient habitat;" as well as the following related objective from the same document: "Maintain, protect and enhance wildlife habitats on wildlife management areas by applying good science and best management practices through implementation of the WMA's Comprehensive Management Plan."



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Eastern WMA Complex Weed Control
Project Manager: Adam Henriod Phone: 775-289-1690 Email ahenriod@ndow.org
Project Monitor: Adam Henriod **Start Date:** 7/2/2018
Implementation Lead: Nevada Department of Wildlife **End Date:** 6/30/2019
Partners:
Project Category: Habitat Restoration
Project Category: Riparian, Spring or Meadow Habitat Improvement
Project Actions: Herbicide application
Priority Resource: General Habitat Improvement
Priority Species:
County Location: White Pine, Lincoln, Nye
General Location: Weed control activities will take place at the following WMAs in eastern Nevada: Steptoe Valley, Wayne E. Kirch and Key Pittman WMAs.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|----------------------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$10,000 | | |
| NDOW Habitat Conservation Fee | \$10,000 | | |
| NDOW Upland Game Stamp | \$10,000 | | |
| Nevada Department of Agriculture | \$10,000 | | |
| Project Totals | \$40,000 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

NDOW is mandated by state law to control listed noxious weeds found on our properties. Removal of noxious and undesirable weeds improves the appearance of the treated area and public access, limits the spread of these weeds to other areas, and enhances wildlife habitat. The goal of this project is to realize

these benefits by removing such noxious/invasive weeds as Russian knapweed, hoary cress, perennial pepperweed, phragmites, and Canada thistle from the following three state-owned Wildlife Management Areas (WMAs): Steptoe Valley, Wayne E. Kirch and Key Pittman WMAs.

2. Project Approach and Tasks

Awarded funds will be used to purchase herbicides and hire contract labor to maintain and enhance current weed control efforts on NDOW-managed wildlife management areas. In order to address increasing issues with weeds, and given the substantial duties of NDOW staff related to tasks other than fighting weeds, we are in need of additional monies to contract out much of the weed spraying to improve the effectiveness of weed control efforts. Tri-County Weed Control is most likely to be contracted to conduct the spraying.

Examples of specific tasks to be accomplished by this project are provided below.

A. Perennial pepperweed (*Lepidium latifolium*), and hoary cress (*Cardaria draba*) will be treated in the spring and summer of 2019 by applying appropriate herbicides from ATV, truck, and backpack sprayers. The chemicals chosen for control of these species will be determined by the characteristics of the site and the life stage of the plant; all chemicals are applied according to their labels.

B. Ditches, water control structures, boating access points, parking lots and right-of-ways will be treated, as needed, in the summer of 2019 by applying glyphosate herbicide from ATV, truck, and backpack sprayers. Control of undesirable vegetation in ditches and water control structures is essential for water delivery to reservoirs, wetland impoundments, and irrigation of food plots.

C. Russian knapweed (*Acroptilon repens*), and Canada thistle (*Cirsium arvense*) will be treated in the fall of 2018 and spring of 2019 by applying appropriate herbicides from ATV, truck, and backpack sprayers.

D. Vegetation on wetland impoundments and reservoirs will be treated, as needed, with aquatic approved herbicides. Primary focus will be on phragmites (*Phragmites australis*) removal on the Key Pittman WMA. Treatments on reservoirs will be completed using a boat mounted sprayer, wetland impoundments will be treated with an ATV sprayer. Treatment of undesirable vegetation in these areas will improve feeding, resting, nesting, and brood rearing habitat for waterfowl.

3. Anticipated Beneficial Effects of the Project

There will be a major reduction in noxious and other types of invasive weed species at the treated areas, thus improving the quality of wildlife habitat.

4. Project Schedule

This project is an ongoing, yearly habitat management activity. Herbicide treatments on the WMAs will primarily occur in the late summer and fall of 2018 and the spring and summer of 2019. Please see the proposed tasks above for the timing of treatments for each type of targeted vegetation.

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

This program certainly falls within NDOW's general goal of maintaining and enhancing habitats. More specifically, the Conceptual Management Plans for the WMAs all contain goals and objectives such as the following: "Goal: Habitat is the key to the success of all wildlife populations. Effective habitat is an integral function of the Department of Wildlife. NDOW will preserve and protect quality habitat and enhance deficient habitats. Objective: Maintain, protect and enhance wildlife habitats on wildlife management areas (WMA's) by applying good science and best management practices through implementation of Comprehensive Management Plans."

Special Reserve Account Project Cost Estimate Table

Name of Proposed Project: Eastern Complex WMA Weed Control
Name of Proposed Project Manager: Adam Henriod
Project ID: 349

Please provide a breakdown of your project's costs in the table below. Only include costs for the upcoming fiscal year for which you are applying. Only include in-kind services under item 7. NDOW personnel and travel expenses may not be covered by any of our Special Reserve Accounts - you must use alternative funding sources to cover these types of costs.

| <i>Project Components</i> | <i>Costs to be Paid by NDOW Special Reserve Account(s)</i> | <i>Costs to be Paid by Other Sources</i> |
|-------------------------------------|--|--|
| 1. Land Acquisitions | | |
| 2. Personnel Costs | | |
| A. NDOW Personnel | | |
| B. Other Personnel | | |
| C. Total Personnel Costs | \$ - | \$ - |
| 3. Travel Costs | | |
| A. Per Diem | | |
| B. Mileage | | |
| C. Total Travel Costs | \$ - | \$ - |
| 4. Equipment | | |
| A. | | |
| B. | | |
| C. Total Equipment Costs | \$ - | \$ - |
| 5. Materials | | |
| A. Herbicide | \$ 4,000.00 | |
| B. | | |
| C. | | |
| D. Total Materials Costs | \$ 4,000.00 | \$ - |
| 6. Miscellaneous | | |
| A. Tri-County Weed Control Contract | \$ 26,000.00 | \$ 10,000.00 |
| B. | | |
| C. | | |
| D. | | |
| F. Total Miscellaneous Costs | \$ 26,000.00 | \$ 10,000.00 |
| 7. In-Kind Services | | |
| A. | | |
| B. | | |
| C. Total In-Kind Services | \$ - | \$ - |
| Subtotals | \$ 30,000.00 | \$ 10,000.00 |
| Total Project Costs | \$ | \$ 40,000.00 |



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Overton WMA Pintail and Wilson Pond Leveling - Phase 3
Project Manager: Bennie Vann Phone: 702-397-2142 Email bvann@ndow.org
Project Monitor: Mike Zahradka Start Date: 8/6/2018
Implementation Lead: Nevada Department of Wildlife End Date: 10/5/2018
Partners: Ducks Unlimited, Nevada Department of Wildlife
Project Category: Habitat Creation or Enhancement
Project Category: Small game habitat enhancement
Project Actions: Pond leveling
Priority Resource: Small game
Priority Species: Waterfowl
County Location: Clark
General Location: The Overton WMA is located in the Moapa Valley of Clark County.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|-----------------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$60,000 | | |
| NDOW Heritage Trust Account | \$60,000 | | |
| USFWS State Wildlife Grant | \$300,000 | | |
| Project Totals | \$420,000 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

This project would involve the leveling of Pintail and Wilson ponds at the Overton WMA. Both ponds were constructed without a great deal of design criteria integrated into their development. Consequently, they do not have the topographical characteristics to provide the quality and quantity of habitat consistent with their potential. Due to a lack of design features, they tend to be too deep in some areas while being completely dry in others. The result is excessive production of emergent vegetation, a lack of balance between the amount of open water to vegetative cover, reduced acreage of quality wetlands, diminished production of quality feed and feeding conditions for waterfowl along with decreased hunting

opportunity for sportsmen. In addition, these ponds currently require a great deal of water to fill with much of the water being wasted because it is not available for use by waterfowl due to overly deep pond areas or excessive vegetative growth.

2. Project Approach and Tasks

To determine how best to improve the Pintail and Wilson ponds, Ducks Unlimited conducted a topographic survey and prepared a 1-foot contour interval topographic base map, and in association with NDOW prepared a detailed engineering design for the two ponds during the winter of 2016. The design is a cut and fill balance that will result in more uniform pond bottoms that eliminate overly deep areas and spread water to areas that in the present state do not support shallow ponded conditions. The design will also improve water delivery and drainage providing improved overall habitat management ability. These improvements will allow NDOW staff to more readily conduct moist-soil vegetation management to increase production of preferred waterfowl food plants. Besides the habitat improvements, less water will be required to manage the units while still providing optimal habitats for both waterfowl and hunters. The final design includes earthwork calculations that were used for preparing cost estimates for the final construction phase of the project. The design will result in more uniform pond bottoms that eliminate overly deep areas and spreads water to areas that in the present state do not support shallow ponded conditions. The design will include installing new water control structures (WCSs) that, in association with proposed pond re-contouring, will improve water delivery and drainage, and the ability to manage habitat.

Work to be Performed by Ducks Unlimited:

- A. Conduct all contract administration, project controls, mobilization and demobilization.
- B. Comply with all permit requirements.
- C. Excavate pond bottoms and swales as shown on the plans.
- D. Clear, grub, and strip perimeter levees in preparation for levee improvement and placement of compacted fill operations.
- E. Place uncompacted fill material in pond units as shown on the plans.
- F. Place compacted fill to improve levee as shown on the plans.
- G. Construct islands in locations and orientation shown on plans.
- H. Construct rip-rap Overflow Weirs/Spillways in locations as shown on the plans.
- I. Install new WCSs.
- J. Place riprap erosion protection around water control structures.

Association with proposed pond re-contouring, will improve water delivery and drainage, and the ability to manage habitat.

3. Anticipated Beneficial Effects of the Project

The proposed design is a cut and fill balance that will result in more uniform pond bottoms that eliminate overly deep areas and spread water to areas that in the present state do not support shallow ponded conditions. The design will also improve water delivery and drainage providing improved overall habitat management ability. These improvements will allow NDOW staff to more readily conduct moist-soil vegetation management to increase production of preferred waterfowl food plants. Besides the habitat improvements, less water will be required to manage the units while still providing optimal habitats for both waterfowl and hunters.

4. Project Schedule

This project would start in July of 2018 and be completed by November 2018

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

In compliance with Nevada Board of Wildlife Commission Policy 66, the primary management emphasis at the Overton WMA is the production of quality waterfowl habitat and the provision of hunting opportunities. Improvements to these ponds will greatly enhance the chances of meeting the intent of that policy. This project also will help achieve the following goal from NDOW's Comprehensive Strategic Plan updated in 2014: "Protect and enhance migrating and local waterfowl and dove habitat;" as well as the following related objectives from the same document: "Provide adequate feeding and resting habitats for ducks and geese during the migration and wintering periods" and "Maintain and manage waterfowl habitats at the OWMA ponds and seasonal wetlands more efficiently, thus saving water and stretching limited water supplies as much as possible".

OVERTON WILDLIFE MANAGEMENT AREA



- | | | | | | | | |
|--|--------------------|--|--------------------|--|--------------------------|--|----------------------|
| | Check Station | | Picnic Area | | Non-ADA Vaulted Toilet | | River |
| | Kiosk/Amphitheater | | Campground | | ADA Accessible Blind | | Road |
| | Parking | | ADA Vaulted Toilet | | Non-ADA Accessible Blind | | Overton WMA Boundary |



No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data.

Projection: UTM Zone 11 North, NAD83



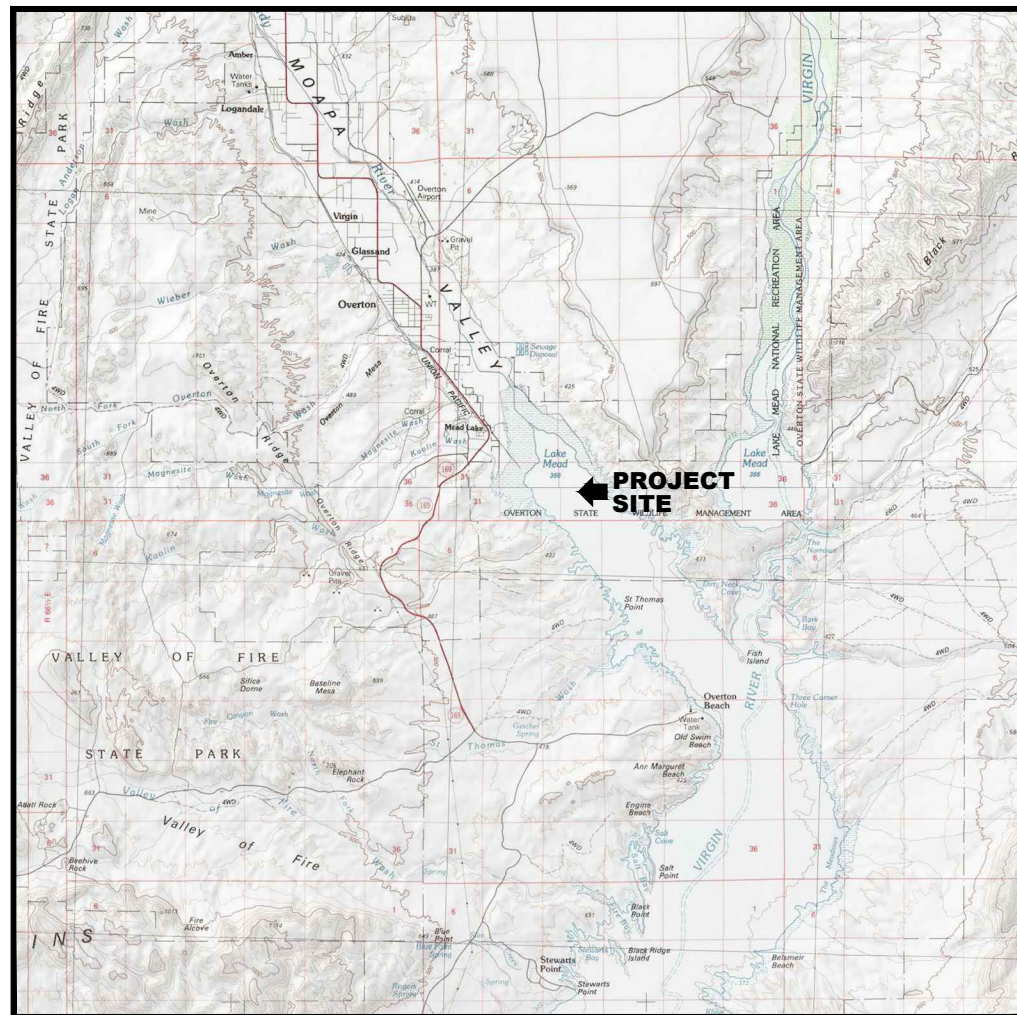
9/18/2015



US-NV-36-1 OVERTON WMA PINTAIL & WILSON POND LEVELING

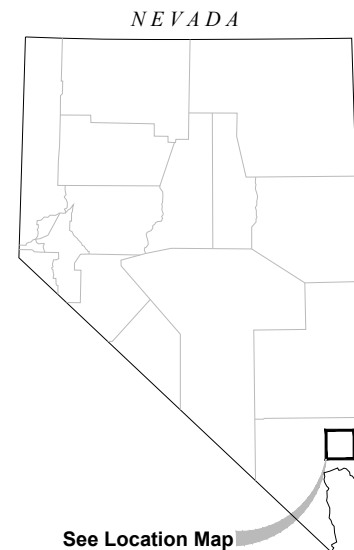


LOCATION MAP



NOT TO SCALE

VICINITY MAP



See Location Map

SHEET INDEX

- 1 Cover Sheet
- 2 Definitions & Legend
- 3 Sheet Index
- 4 Site Plan
- 5 Plan & Profile / Section Sheet
- 6 Detail Sheet

SURVEY DATUM

Horizontal and Vertical Control:
The horizontal datum for this survey is the Nevada Coordinate System of 1983, East Zone (2701), NAD 83 (2011), Epoch Date 2010.00 in U.S. Survey Feet. The vertical datum for this survey is the North American Vertical Datum of 1988 (NAVD88) computed using GEOID12. Both datums were derived from Static GPS observations corrected using the National Geodetic Survey (NGS) Online Positioning User Service (OPUS) program. Static GPS observations were collected on April 9, 2015. The NGS OPUS Solution Report is on file at the WRO engineering department in Rancho Cordova, California.

MAP DATA

CONTOUR INTERVAL: 1 FOOT

AERIAL PHOTO: NAIP 2013

PROJECT DIRECTORY

Ducks Unlimited, Inc.
Western Regional Office
3074 Gold Canal Drive
Rancho Cordova, Ca. 95670-6116
Ph. (916) 852-2000

100% DESIGN

Unauthorized Changes & Uses
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes must be in writing and must be approved by the preparer of these plans.



PRELIMINARY
NOT FOR CONSTRUCTION



| REV. NO. | DESCRIPTION | DATE | APPROVED |
|----------|-------------|------|----------|
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| | | |
|--|-------------------------|-------------------------|
| PROJECT NO. US-NV-36-1 | DATE: 11/22/2016 | DESIGNED BY: JR. |
| OVERTON WMA WETLAND RESTORATION | | DRAWN BY: JS |
| APPROVED BY: | | SURVEYED BY: JM |
| | | CHECKED BY: |
| | | SHEET NO. 1 of 4 |

GENERAL NOTES:

- Ducks Unlimited makes no representations as to the existence or nonexistence of utilities. It is the responsibility of the contractor to comply with the provisions of all applicable utility notification regulations. The contractor will be liable for any damage to utilities caused by construction activities.
- The engineer does not represent that the location of utilities shown on the plans are exact or complete. It shall be the responsibility of the contractor to determine the presence of, actual locations of and make provisions for all watercourses and utilities. The contractor shall verify location, depth and height. Their verification shall be coordinated by the contractor with the appropriate utility company.
- The contractor shall exercise extreme caution when working in the vicinity of overhead power lines. Verify location in the field and protect in place.
- At least 2 working days prior to beginning any digging or excavation work, the contractor shall notify underground service alert (a.k.a. USA North) at www.usanorth.org or by phone at 811 or 1-800-227-2600, to determine locations of existing utilities.
- In accordance with generally accepted construction practices, the contractor will be solely and completely responsible for the conditions of the job site including safety of all persons and property during performance of the work. The contractor shall ensure that all work is performed in accordance with occupational safety laws, including the design and construction of proper shoring of trenches. The duties of the project engineer do not include review of the adequacy of the contractor's safety in, on, or near the job site.
- It is the responsibility of the contractor to be knowledgeable about the project specifications and permits. All work shall be completed in compliance with the contract documents. The contractor shall have copies of the most current approved plans, specifications and permit conditions on site during all work operations.
- The project site and adjacent areas contain sensitive habitat areas for protected wildlife, and may include endangered species. The contractor shall protect wildlife and water quality, and minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- Should it appear that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained on these plans or in the specifications, the contractor shall contact the construction manager for such further explanations as may be necessary.
- Should the contractor find any discrepancies between the conditions existing in the field and the information shown on the drawings, he shall notify the construction manager before proceeding with construction.

SURVEY POINT DESCRIPTORS

| | | | |
|------|----------------------------------|------|---|
| CTBM | Bench Mark (permanent) | RDSH | Road Shoulder |
| CTBT | Bench Mark (temporary) | RDSN | Road Sign |
| CTCP | Survey Control Point (permanent) | RDTO | Road, Toe of Slope |
| CTCT | Survey Control Point (temporary) | RDTP | Road, Top of Slope |
| DIFL | Ditch Flowline | SDMH | Storm Drain, Manhole |
| DIGB | Ditch Grade Break | SDPI | Storm Drain, Pipe Invert |
| DITO | Ditch Toe | SDPT | Storm Drain, Pipe Top |
| DITP | Ditch Top | SSMH | Sanitary Sewer, Manhole |
| ELBX | Electric, Box or Pullbox | SWFL | Swale Flowline |
| ELGY | Electric, Guy Wire | SWGB | Swale Grade Break |
| ELPP | Electric, Power Pole | SWTO | Swale Toe |
| ELSN | Electric, Warning Sign | SWTP | Swale Top |
| ELTR | Electric, Transformer | TFBL | Topo Feature, Building |
| ELTW | Electric, Tower | TFBR | Topo Feature, Brush |
| ELVT | Electric, Vault | TFCO | Topo Feature, Concrete (pad, slab, etc.) |
| FNAP | Fence Angle Point | TFFL | Topo Feature, Flowline |
| FNCR | Fence Corner | TFCB | Topo Feature, Grade Break |
| FNGT | Fence Gate | TFGS | Topo Feature, Ground Shot |
| FNLN | Fence Line | TFRK | Topo Feature, Rock Or Rocky Area Boundary |
| IRCO | Irrigation Concrete Pad | TFTL | Topo Feature, Tree line |
| IRCP | Irrigation Control Panel | TFTO | Topo Feature, Grade Break at Toe |
| IRPI | Irrigation Pipe Invert | TFTP | Topo Feature, Grade Break at Top |
| IRPM | Irrigation Pump | TFTR | Topo Feature, Tree |
| IRPT | Irrigation Pipe Top | WAEW | Edge of Water |
| IRVL | Irrigation Valve | WAHW | High Water Mark |
| IRWL | Irrigation Well | WAUW | Under Water Ground Shot |
| LVCL | Levee Centerline | WAWS | Water Surface |
| LVGB | Levee Grade Break | WCFL | Water Control Structure, Flowline/Invert at Structure |
| LVTO | Levee Toe of Slope | WCFR | Water Control Structure, Frame Top |
| LVTP | Levee Top of Slope | WCHW | Water Control Structure, Headwall |
| RDCL | Road, Centerline | WCPI | Water Control Structure, Pipe Top at Outlet |
| RDED | Road, Edge of Dirt Road | WCPT | Water Control Structure, Pipe Top at Outlet |
| RDEG | Road, Edge of Gravel Road | WCST | Water Control Structure, Top of Structure |
| RDEP | Road, Edge of Paved Road | WCWW | Water Control Structure, Wing Wall |
| RDBG | Road Grade Break | | |

ABBREVIATIONS

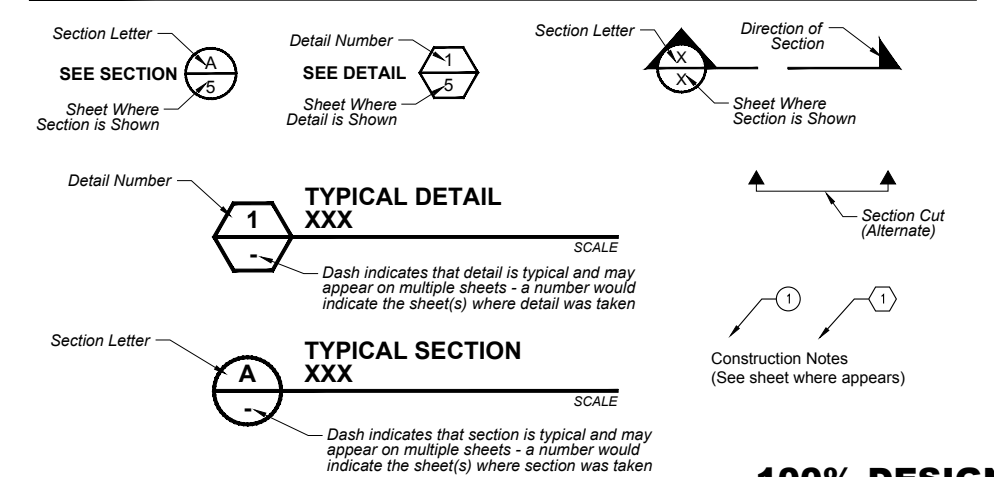
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|-----------|----------------------------|-------|--------------------------------|-----|----------------------------|
| AB | Aggregate Base | MISC | Miscellaneous | WWF | Welded Wire Fabric |
| AC | Acre | (N) | New | X:1 | Slope, Horizontal:Vertical |
| APPROX | Approximate | N | North | | |
| BM | Benchmark | NIC | Not In Contract | | |
| CAP | Corrugated Aluminum Pipe | NTS | Not To Scale | | |
| CC | Center to Center | OC | On Center | | |
| CF | Cubic Foot | OD | Outside Diameter | | |
| CFS | Cubic Foot Per Second | PIP | Pressure Irrigation Pipe | | |
| CL | Centerline | PP | Power Pole | | |
| CMP | Corrugated Metal Pipe | PSI | Pounds per Square Inch | | |
| CMPA | Corrugated Metal Arch Pipe | PT | Pressure Treated | | |
| CONC | Concrete | PVC | Polyvinyl Chloride | | |
| CP | Control Point | QTY | Quantity | | |
| CY | Cubic Yard | R | Right | | |
| DEMO | Demolish | RCB | Reinforced Concrete Box | | |
| DIA | Diameter | RD | Road | | |
| Dp | Pipe Diameter | REF | Reference Dimension | | |
| Dr | Riser Diameter | REQD | Required | | |
| DU | Ducks Unlimited, Inc. | ROW | Right Of Way | | |
| D/S | Downstream | S | South | | |
| E | East | SCH | Schedule | | |
| EG | Existing Ground | SS | Stainless Steel | | |
| EL | Elevation | SDR | Standard Dimension Ratio | | |
| EX, EXIST | Existing | SF | Square Feet | | |
| FG | Finished Grade | SHT | Sheet | | |
| FL | Flowline | SP | Special | | |
| FRG | Final Rough Grade | SPECS | Specifications | | |
| FT | Foot, Feet | SY | Square Yard | | |
| FTG | Fitting, Footing | STA | Station | | |
| GA | Gauge | STD | Standard | | |
| GB | Grade Break | TBD | To Be Determined by Engineer | | |
| H | Height | TBM | Temporary Benchmark | | |
| HDPE | High-Density Polyethylene | TE | Top Elevation | | |
| ID | Inside Diameter | TEMP | Temporary | | |
| IE | Invert Elevation | TOL | Top of Levee | | |
| IG | Initial Grade | TOB | Top of Berm | | |
| IN | Inch, Inches | TYP | Typical | | |
| INV | Invert | USA | Underground Service Alert | | |
| IPS | Iron Pipe Size | U/S | Upstream | | |
| L | Length, Left | VLV | Valve | | |
| LBF | Pounds-Force | W | Width, West (where applicable) | | |
| LF | Linear Feet | W / | With | | |
| MAINT | Maintenance | WCS | Water Control Structure | | |
| MAX | Maximum | WS | Water Surface | | |
| MIN | Minimum | WSEL | Water Surface Elevation | | |

LEGEND & STANDARD SYMBOLS

| | | | |
|--|-----------------------------------|--|---|
| | Existing Fence Line - Barbed Wire | | Existing Power / Telephone Pole |
| | Existing Fence Line - Chain Link | | Existing Electric Guy Wire |
| | Existing Fence Line - Stockade | | Existing Electric Transformer |
| | Existing Guard Rail | | Existing Electric Tower |
| | Power / Telephone Overhead Lines | | Existing Electric Vault |
| | Underground Gas Line | | Existing Blind |
| | Electric Line | | Existing Gate Valve |
| | Force Main Line | | Existing Air Relief Valve |
| | Sanitary Sewer Line | | Existing Alfalfa / Overflow Valve |
| | Storm Drain Line | | Existing Irrigation Well |
| | Existing Ditch | | Existing Irrigation Pump |
| | Existing Levee | | Existing Water Meter |
| | Existing Swale | | Existing Fire Hydrant |
| | Existing Road - Dirt | | Existing Manhole |
| | Existing Road - Gravel | | Existing Drain Inlet |
| | Existing Road - Paved | | Existing Sewer Cleanout |
| | Existing Trees / Brushline | | Existing Natural Gas Meter / Valve |
| | | | Existing Sign |
| | | | Existing Pipe / Culvert |
| | | | Existing Water Control Structure (Precast Concrete) |
| | | | Existing Water Control Structure (Full Round) |
| | | | Existing Water Control Structure (Half Round) |

| | | | |
|--|---------------------------------|--|------------------------------|
| | Water Control Structure ID# | | New Power Pole |
| | Revision Number Identifier | | New Gate Valve |
| | Cut/Borrow Area / Pothole | | New Air Relief Valve |
| | Fill Area | | New Alfalfa / Overflow Valve |
| | New Swale Centerline / Flowline | | New Irrigation Pump |
| | New Levee Centerline | | New Water Control Structure |
| | Improved Levee Centerline | | New Water Control Structure |
| | Remove Existing Levee | | Benchmark |
| | Design Water Surface Elevation | | Temporary Benchmark |
| | | | Control Point |
| | | | Grading Example |

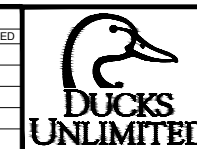
DETAILING CONVENTIONS



100% DESIGN



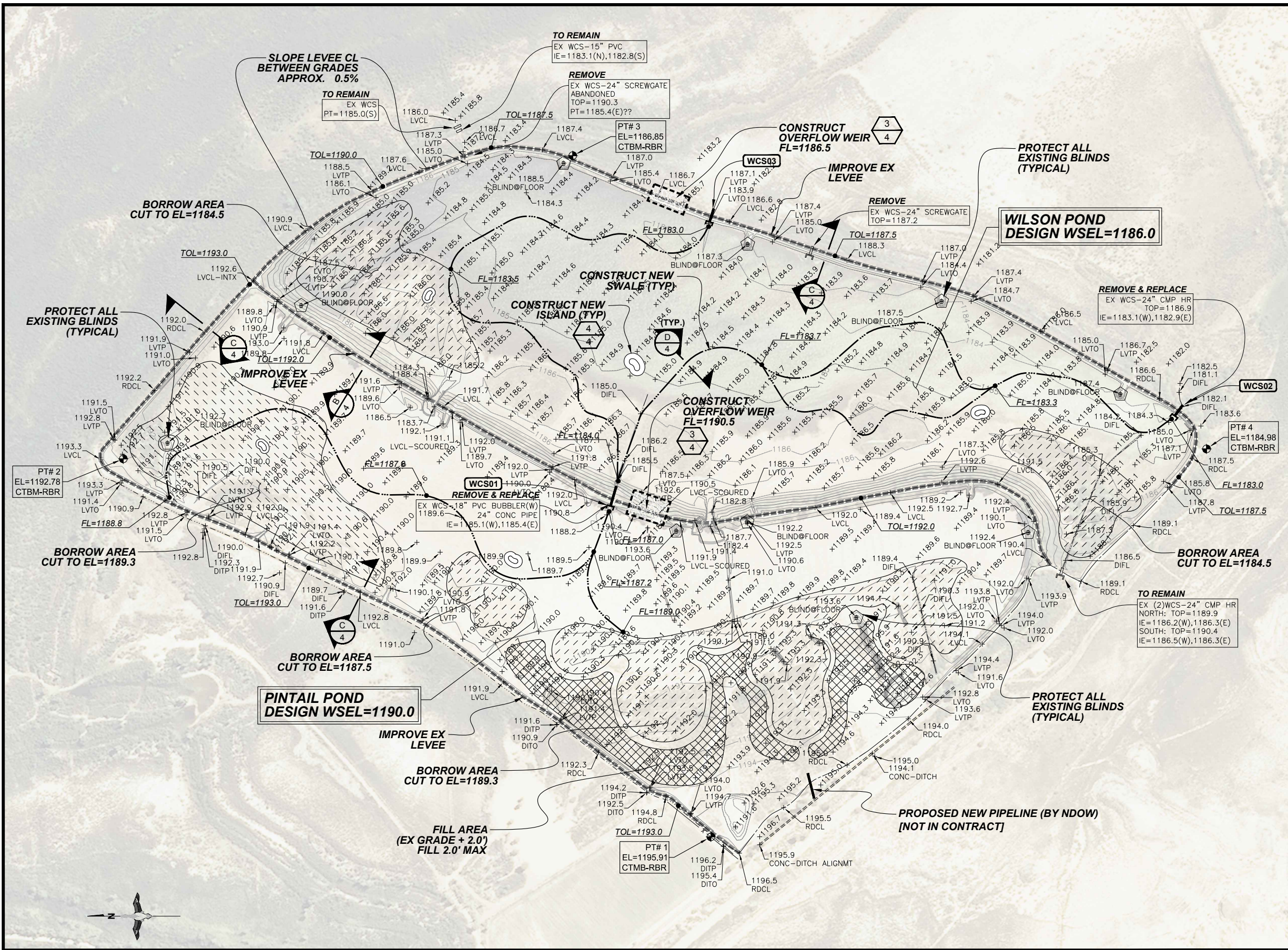
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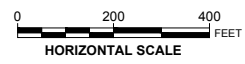
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| PROJECT NO. US-NV-36-1 | DATE: 11/22/2016 | DESIGNED BY: JR |
| OVERTON WMA WETLAND RESTORATION | | DRAWN BY: JS |
| DEFINITIONS & LEGEND | | SURVEYED BY: JM |
| | | CHECKED BY: |
| | | SHEET NO. |
| | | 2 of 4 |

Unauthorized Changes & Uses

The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes must be in writing and must be approved by the preparer of these plans.



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Unauthorized Changes & Uses
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| REVISIONS | | | | |
|-----------|-------------|------|----------|--|
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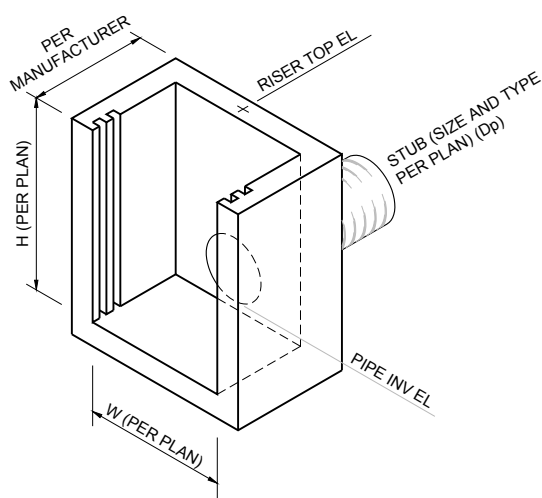


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| PROJECT NO. US-NV-36-1 | DATE: 11/22/2016 | DESIGNED BY: JR |
| OVERTON WMA WETLAND RESTORATION | | |
| DRAWN BY: JM | | SURVEYED BY: JM |
| CHECKED BY: JM | | SHEET NO. 3 of 4 |
| SITE PLAN | | |

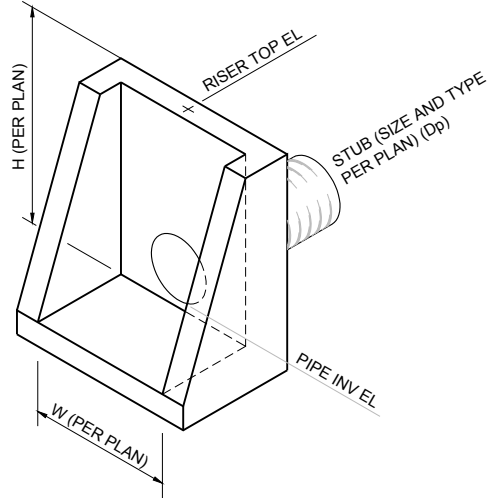
WATER CONTROL STRUCTURE TABLE

| WCS# | W | H | Dp | L | RISER TOP EL | LEEVE TOP EL | PIPE INVERT EL | NOTES |
|-------|---|---|----|----|--------------|--------------|----------------|----------------|
| WCS01 | 3 | 5 | 24 | 85 | 1191.0 | 1192.0 | 1186.0 | TAILWALL 3'x5' |
| WCS02 | 3 | 4 | 24 | 35 | 1187.0 | 1187.5 | 1183.0 | TAILWALL 3'x4' |
| WCS03 | 3 | 4 | 24 | 35 | 1187.0 | 1187.5 | 1183.0 | TAILWALL 3'x4' |

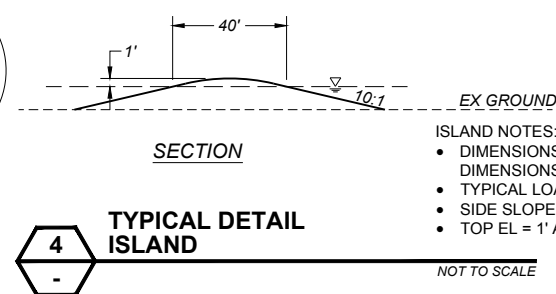
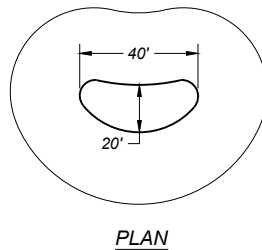
1. ALL PIPE IS DUAL WALL CORRUGATED HDPE, SIZE IS INSIDE DIAMETER
2. USE PLAIN END PIPE, ALL COUPLERS TO BE MAR-MAC POLYSEAL COUPLERS
3. PIPE BEDDING AND BACKFILL SHALL BE AGGREGATE BASE, PER SPECIFICATIONS



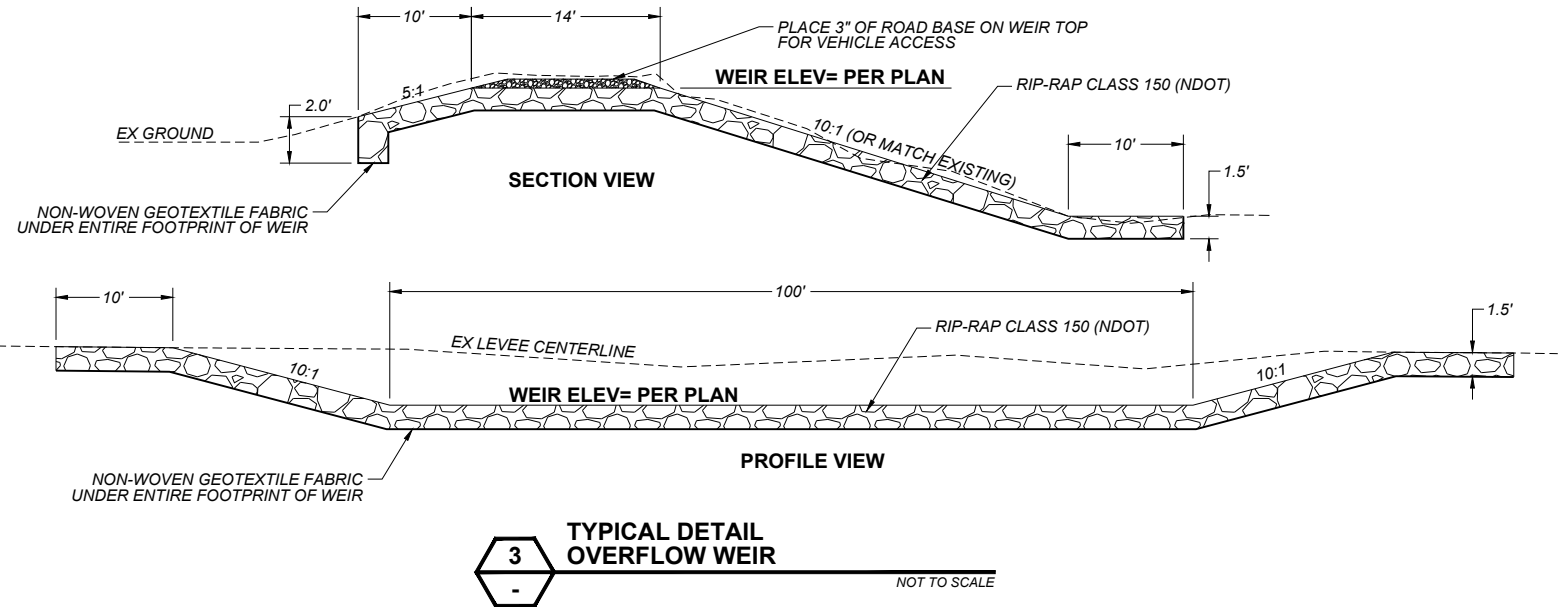
1 TYPICAL DETAIL PRECAST CONCRETE RISER
NOT TO SCALE



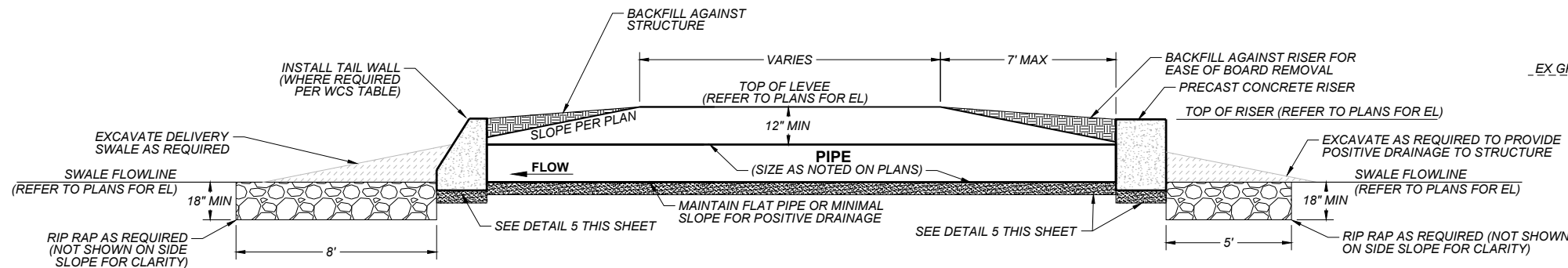
2 TYPICAL DETAIL PRECAST CONCRETE TAILWALL
NOT TO SCALE



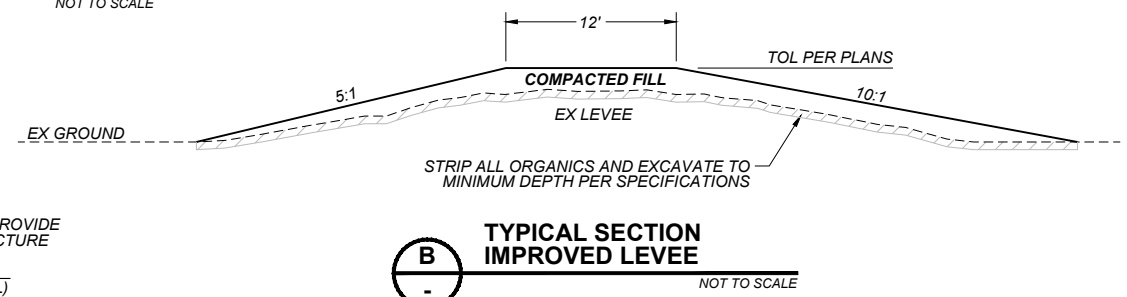
4 TYPICAL DETAIL ISLAND
NOT TO SCALE



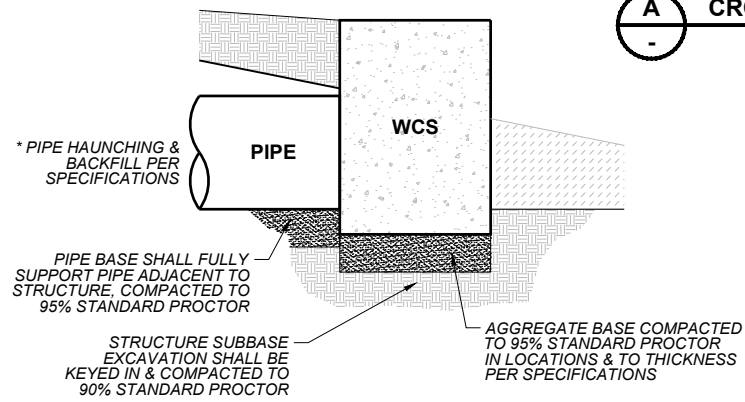
3 TYPICAL DETAIL OVERFLOW WEIR
NOT TO SCALE



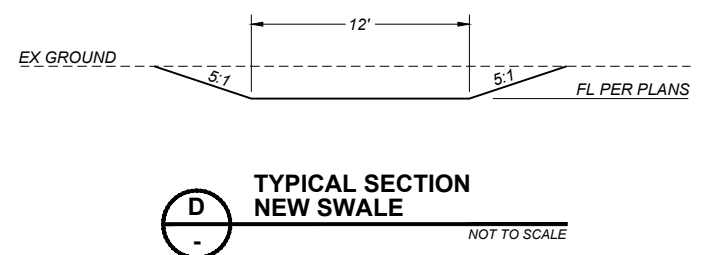
A TYPICAL SECTION CROSSING AT CONCRETE WCS
NOT TO SCALE



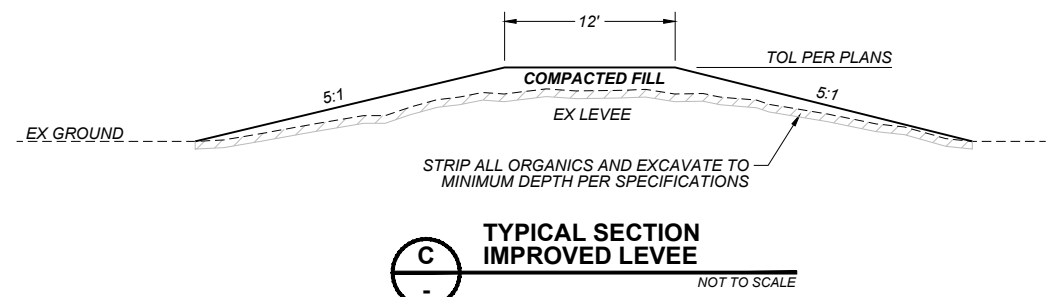
B TYPICAL SECTION IMPROVED LEEVE
NOT TO SCALE



5 TYPICAL DETAIL STRUCTURE BASE PREPARATION
NOT TO SCALE



D TYPICAL SECTION NEW SWALE
NOT TO SCALE



C TYPICAL SECTION IMPROVED LEEVE
NOT TO SCALE

Unauthorized Changes & Uses
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes must be in writing and must be approved by the preparer of these plans.



| REV. NO. | DESCRIPTION | DATE | APPROVED |
|----------|-------------|------|----------|
| | | | |
| | | | |
| | | | |
| | | | |



| | | |
|--|-------------------------|------------------|
| PROJECT NO. US-NV-36-1 | DATE: 11/22/2016 | DESIGNED BY: JR. |
| OVERTON WMA WETLAND RESTORATION | | DRAWN BY: JS |
| | | SURVEYED BY: JM |
| | | CHECKED BY: |
| | | SHEET NO. |
| DETAILS | | 4 of 4 |

100% DESIGN

Special Reserve Account Project Cost Estimate Table

Name of Proposed Project: Overton WMA Pintail and Wilson Pond Leveling - Phase 3
Name of Proposed Project Manager: Bennie Vann
Project ID: 351

Please provide a breakdown of your project's costs in the table below. Only include costs for the upcoming fiscal year for which you are applying. Only include in-kind services under item 7. NDOW personnel and travel expenses may not be covered by any of our Special Reserve Accounts - you must use alternative funding sources to cover these types of costs.

| <i>Project Components</i> | <i>Costs to be Paid by NDOW Special Reserve Account(s)</i> | <i>Costs to be Paid by Other Sources</i> |
|--|--|--|
| 1. Land Acquisitions | | |
| 2. Personnel Costs | | |
| A. NDOW Personnel | | |
| B. Other Personnel | | |
| C. Total Personnel Costs | \$ - | \$ - |
| 3. Travel Costs | | |
| A. Per Diem | | |
| B. Mileage | | |
| C. Total Travel Costs | \$ - | \$ - |
| 4. Equipment | | |
| A. | | |
| B. | | |
| C. Total Equipment Costs | \$ - | \$ - |
| 5. Materials | | |
| A. | | |
| B. | | |
| C. | | |
| D. Total Materials Costs | \$ - | \$ - |
| 6. Miscellaneous | | |
| A. Ducks Unlimited contract for project construction | \$ 120,000.00 | \$ 300,000.00 |
| B. | | |
| C. | | |
| D. | | |
| F. Total Miscellaneous Costs | \$ 120,000.00 | \$ 300,000.00 |
| 7. In-Kind Services | | |
| A. | | |
| B. | | |
| C. Total In-Kind Services | \$ - | \$ - |
| Subtotals | \$ 120,000.00 | \$ 300,000.00 |
| Total Project Costs | \$ | 420,000.00 |



Wildlife Reserve Account Project Proposal

Project Summary

Project Name: Mason Valley WMA Saltcedar Treatment
Project Manager: Isaac Metcalf Phone: 775-463-2741 Email imetcalf@ndow.org
Project Monitor: Mike Zahradka Start Date: 7/1/2018
Implementation Lead: Nevada Department of Wildlife End Date: 6/30/2019
Partners: Smith Valley Conservation District
Project Category: Habitat Restoration
Project Category: Riparian, Spring or Meadow Habitat Improvement
Project Actions: Vegetation removal
Priority Resource: General Habitat Improvement
Priority Species: Waterfowl
County Location: Lyon
General Location: All of the proposed work will take place at various points within the Mason Valley WMA near Yerington, NV.

Project Funding Request

| Funding Source | Amount Requested | Existing Budget Approval | In Kind Contribution |
|-----------------------|------------------|--------------------------|----------------------|
| NDOW Duck Stamp | \$15,000 | | |
| Project Totals | \$15,000 | | |

Project Proposal

1. Brief Purpose and Goal of the Project

Remove saltcedar and thus reduce water losses through transpiration by saltcedar. Reinvigorate native plant growth in riparian areas of the Mason Valley WMA.

2. Project Approach and Tasks

Approximately 5 acres of saltcedar will be removed from riparian areas on the WMA. Smith Valley Conservation District will use Garlon 4 herbicide to treat exposed stumps after cutting. The project will take place in the winter of 2018 into 2019. Retreatment will be needed to clean up any missed trees from previously treated areas.

All of the funds awarded to this contract will be used to pay a contractor to remove the saltcedar.

3. Anticipated Beneficial Effects of the Project

Reducing saltcedar will reduce water losses, improve soil conditions, and increase native vegetation within the Mason Valley WMA. Waterfowl, passerines and other non-avian wildlife found on the WMA will have more forage and cover to access once conditions improve.

4. Project Schedule

FY 2019 will be the last year of this two year project. The effectiveness of the treatments and area covered will be evaluated before any more work will be contracted out.

5. Required Clearance Activities and Schedule (NEPA, other permits, authorizations)

Not applicable

6. Relationship to NDOW Plans, Policies, and Programs

Annual vegetation control is identified in the Mason Valley WMA Conceptual Management Plan. Desired Outcome: Wildlife habitats that are in good ecological condition, capable of supporting a diverse array of wildlife species. Goal: Habitat is the key to the success of all wildlife populations. Effective habitat is an integral function of the Department of Wildlife. NDOW will preserve and protect quality habitat and enhance deficient habitats. Objective: Maintain, protect and enhance wildlife habitats on wildlife management areas (WMA's) by applying good science and best management practices through implementation of Comprehensive Management Plans on all WMA's through 2009. (Comprehensive Strategic Plan-2004-2009 page -1).