



HISTORIC BEGINNINGS • 1847

Farmington City Planning Commission

September 3, 2015



# FARMINGTON CITY

**H. JAMES TALBOT**  
MAYOR  
**DOUG ANDERSON**  
**JOHN BILTON**  
**BRIGHAM N. MELLOR**  
**CORY R. RITZ**  
**JAMES YOUNG**  
CITY COUNCIL  
**DAVE MILLHEIM**  
CITY MANAGER

## **AGENDA** **PLANNING COMMISSION MEETING** **September 3, 2015**

Public Meeting at the Farmington City Hall, 160 S. Main Street, Farmington, Utah  
*Study Session: 6:00 p.m. – 2<sup>nd</sup> Floor Conference Room*  
**Regular Session: 7:00 p.m. – City Council Chambers (2<sup>nd</sup> Floor)**

*(Please note: In order to be considerate of everyone attending the meeting and to more closely follow the published agenda times, public comments will be limited to 3 minutes per person per item. A spokesperson who has been asked by a group to summarize their concerns will be allowed 5 minutes to speak. Comments which cannot be made within these limits should be submitted in writing to the Planning Department prior to noon the day before the meeting.)*

1. Minutes
2. City Council Report

### **SUBDIVISION APPLICATION**

3. Jared May (Public Hearing) – Applicant is requesting a recommendation for minor plat approval, and a waiver of certain standards thereto, for the May PUD Subdivision consisting of 3 lots on .72 acres located at 984 North 300 West in an LR-F (Large Residential-Foothill) zone. (S-19-15)
4. Ben Barrus (Public Hearing) – Applicant is requesting a recommendation for a Farmington Creek Estates Phase III Plat Amendment and a minor plat (one lot subdivision) related thereto on .73 acres located at approximately 769 South Country Lane in an AE - PUD (Agriculture Estates – Planned Unit Development) zone, and a number of boundary adjustments along the eastern boundary of the PUD. (S-31-15)

### **CONDITIONAL USE APPLICATION**

5. Brad Knowlton/Ascent Construction (Public Hearing) – Applicant is requesting approval for a conditional use related to a new office building located at the northwest corner of Park Lane and Main in a BP (Business Park) zone. (C-9-15)
6. Michael King/Azure Midstream (Public Hearing) – Applicant is requesting approval for a conditional use and site plan related to new office space and light industrial uses on property located at 1262 South 650 West in a LM&B (Light Manufacturing and Business) zone. (C-11-15)

### **OTHER BUSINESS**

7. Farmington City (Public Hearing) – Applicant is requesting a recommendation regarding an ordinance to designate the Farmington City Conservation, Recreation, Wildlife, and Waterfowl Refuge and Park, and to provide for the continued management thereof, and a management plan

related thereto. The park encompasses 400+ acres along the City west corporate limit line between 950 North and Glover's Lane. (M-3-15)

8. Miscellaneous, correspondence, etc.
  - a. Farmington Rock Discussion
  - b. Other

9. Motion to Adjourn

*Please Note: Planning Commission applications may be tabled by the Commission if: 1. Additional information is needed in order to take action on the item; OR 2. if the Planning Commission feels there are unresolved issues that may need additional attention before the Commission is ready to make a motion. No agenda item will begin after 10:00 p.m. without a unanimous vote of the Commissioners. The Commission may carry over Agenda items, scheduled late in the evening and not heard to the next regularly scheduled meeting.*

Posted August 28, 2015



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Eric Anderson  
Associate City Planner

**FARMINGTON CITY  
PLANNING COMMISSION MEETING  
August 20, 2015**

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**REGULAR SESSION**

*Present: Chair Rebecca Wayment, Commissioners Brett Anderson, Bret Gallacher, Kent Hinckley and Dan Rogers, Associate City Planner Eric Anderson, and Recording Secretary Lara Johnson. Commissioners Heather Barnum and Alex Leeman, and Community Development Director David Petersen were excused.*

**Item #1. Minutes**

Brett Anderson made a motion to approve the Minutes from the August 6, 2015 Planning Commission meeting. Brett Gallacher seconded the motion which was unanimously approved.

**Item #2. City Council Report**

Eric Anderson gave a report from the August 18, 2015 City Council meeting. He said the City Council agreed with the Planning Commission's recommendation for the approval of the Zone Text Amendment for open space in PUDs; it was approved by the City Council. The City Council also approved the final plats for Miller Meadows Conservation Subdivision Phase VI and the Farmington Park Conservation Subdivision Phase II.

**SUBDIVISION APPLICATION**

**Item #3. Bruce Bassett (Public Hearing) – Applicant is requesting a recommendation for schematic plan approval for the Eagle Cove Conservation Subdivision consisting of 17 lots on 6.02 acres located at approximately 1100 West and Glover Lane in an AA (Agriculture Very Low Density) zone. (S-28-15)**

Eric Anderson showed the aerial map of the property. He explained the property is located in the AA zone which is the lowest density zone in the City with a minimum of 10 acre lots. If an applicant were to apply for a conservation subdivision, the minimum lot size is still 5 acres on a yield plan; however, the proposed project consists of 3 buildable parcels which yields a total of 3 lots. The applicant is requesting an additional 14 lots by TDR. The proposed average lot size for the 17 lots is 13,000 sq. ft. The proposed development also includes 2 flag lots. Eric Anderson said staff is proposing 2 alternative motions: Motion A includes the 2 flag lots and 14 TDR lots to allow for 17 total lots in the development, while Motion B removes the 2 flag lots decreasing the development to 15 lots total, 12 of which would be acquired through a TDR transaction. Eric Anderson also said that the applicant is not seeking an open space waiver; however, the TDR would be transferring open space to the regional park so it would count toward the applicant's open space requirement.

Dan Rogers asked if the applicant pays in cash or in property for the TDR lots. Eric Anderson said the applicant and City Manager enter into negotiations to determine payment, but often a significant portion of the payment is cash.

Eric Anderson said it's also important to note that the applicant will also be improving the west side of 1100 West which will include curb, gutter and sidewalk; the City will be improving the east side

of 1100 West the length of the park and the School District will also be improving the street on the east side the full length of the elementary school property.

**Brett Anderson** asked if the existing home located on the property will be removed. **Eric Anderson** said he is unsure if the home will be removed. The Commissioners expressed some concern with the flag lots as shown on the schematic plan. **Eric Anderson** reminded the Commission that flag lots are discretionary and that, if the Commission chooses, the schematic plan could be denied based on the flag lots.

**Bruce Bassett**, 1132 W. Glovers Ln, said he currently lives in the existing home and that home does fit within the corner lot in the proposed development. He explained a little bit about his situation. He said he purchased his “country home” 7 years ago not knowing about the City easement on 1100 W; he was mistakenly told the 30’ easement was part of his property and was paying property taxes on it. Additionally, he was unaware 1100 W. was planned to be a major collector road which will turn his “country home” into a “city home.” **Bruce Bassett** said he is working with his title company, First American, to determine what the exact devaluation cost of his home. He hopes that the proposed development will help him recoup his losses. He also explained that his septic tank is mostly in the path of the City easement and would most likely have to be removed once the road is developed; the City would not cover the cost of the septic tank which would leave him trying to recover the costs of his utilities.

**Dan Rogers** asked if the applicant feels the flag lots would be sellable. **Bruce Bassett** said he is hoping the flag lots will sell; however, other designs have been reviewed. He presented the Commission with another development design that consisted of 5 lots with a cul-de-sac in lieu of the 6 southeastern lots on the proposed schematic plan.

**Brett Anderson** asked if the applicant owns the lower square parcel and if the co-applicant owns the larger rectangular parcel. He wondered who would be directly impacted if the flag lots were not approved. **Bruce Bassett** said yes, he owns the lower square parcel and the co-applicant owns the rectangle. Mr. Bassett said if the flag lots were not approved, he would personally be financially impacted.

**Eric Anderson** explained the 1100 W. ROW has been dedicated since approximately 1850. At some point, someone erroneously sold the sliver of property with the overlying 30’ ROW. It was not property that was to be sold, but it was. **Bruce Bassett** added that the 30’ was sold to the previous owner so he estimates it occurred 15-20 years ago, but that he and the previous property owner have been paying property taxes on this 30’ piece of property. **Eric Anderson** also said that 1100 W is planned to be an 80’ major collector on the Transportation Master Plan; however, it may be reduced to a 66’ minor collector if it is determined that is all that is needed. He said Mr. Bassett is not the only one dealing with this issue, but other property owners along 1100 W. are dealing with similar issues.

**Rebecca Wayment** asked for the exact location of the septic tank on the schematic plan. **Bruce Bassett** said to his knowledge the tank sits in the rose garden on the east side of his home with the drain-field extending beyond it. He said the drain-field most likely is located within the 30’ easement which would enter the 80’ major collector road, but that it may also enter the 66’ minor collector as well.

**Kent Hinckley** asked for verification of the number on lots the new design Mr. Bassett presented to the Commission that included the cul-de-sac. **Bruce Bassett** said the design is one of many, but that if the flag lots were not approved, he would submit the new design of 5 lots in a cul-de-sac, but leave the

rectangle parcel as 11 lots as shown on the proposed schematic plan. He also said a cul-de-sac is more challenging financially as there is more curb, gutter, sidewalk and asphalt to be put in.

**Bret Gallacher** confirmed with staff that what was presented by the applicant is correct. **Eric Anderson** said yes, the ROW was erroneously sold when it was not to be sold, and yes, the septic tank is located in the ROW.

**Rebecca Wayment opened the Public Hearing at 7:37 p.m.**

**Cacey Bowen**, 196 N. 800 E., Bountiful, said he owns the property that borders 2 sides of the proposed development. He asked the following questions. First, he asked if sewer and water would be extended to Glovers Lane as it has not previously been available. Second, he asked how the Commission could address concerns that may arise from the development's property owners regarding the sights, sounds and smells from his horse property that is adjacent to the subdivision. With regards to sewer and water, **Eric Anderson** said it depends, as the current proposed schematic plan would bring the utilities around 1100 W and onto Glovers Ln to service Lot 17; however, if the cul-de-sac is approved, the lines would be brought into the cul-de-sac to service every lot. With regards to the sights and smells associated with horse property, **Eric Anderson** said notes have been placed on plats at the time of recordation, but that's as much as the City is able to do. **Cacey Bowen** said he is in favor of the development in hopes it will lessen the financial impact of his neighbor's circumstance and lessen some of the wrongs that have taken place.

**Ralph Wilcox**, 677 N. 500 E., Bountiful, said he grew up in Farmington and owns the acreage across from the property as well as 2 lots up. He asked about the location of the annexation line into Farmington as well as if a decision has been made concerning the West Davis Corridor (WDC). **Eric Anderson** and a few residents discussed the annexation line, but was determined that Mr. Wilcox is still located in the County. **Eric Anderson** said a final decision on the WDC has not been made, but the City must still accept applications and move forward until a decision is made. **Ralph Wilcox** also stated he is not opposed to this development.

**Guy....**, said he owns a lot west of Mr. Bassett. He said he is sympathetic to Mr. Bassett's circumstance and is in favor of the proposal. He also added that he feels flag lots are very sellable and he would not have a problem living on either of the proposed flag lots.

**Michael Barnes**, 659 Shirley Rae Dr., said he is also in favor of the proposed development. He said he also owns a lot that borders 1100 W. and is experiencing the same pain as Mr. Bassett as a result of the proposed 1100 W. road.

**John Glenn**, 856 Shirley Rae Dr., said he came to see what the proposed development looked like. He expressed concern and asked for verification that he would not have to hook to the sewer line if the development brought it closer to his property. **Eric Anderson** said the County Health Department would be able to answer that question. The Health Department regulations state that if a resident lives within a specific distance to a sewer line, they must hook up to it; however, **Eric Anderson** said he does not know the exact distance. **John Glenn** said he is in favor of the proposed development if he does not have to attach to the sewer line as they already have drain-field in place.

**Todd Roland**, said he owns a parcel located on Shirley Rae Dr. and Glovers Lane. He is in favor of this development.

**Rebecca Wayment closed the Public Hearing at 7:55 p.m.**

**Rebecca Wayment** asked staff if the Commission is able to consider the cul-de-sac design as an alternate plan since it was not what was submitted. **Eric Anderson** said schematic plan is conceptual; the Commission could enter the cul-de-sac design in as an exhibit and make a recommended motion based on it.

The Commissioners discussed the flag lots versus the cul-de-sac option. **Brett Anderson** reviewed the criteria for flag lots as found in the Ordinance. **Kent Hinckley** feels that the fact the owner presented another reasonable option (the cul-de-sac), the land can otherwise be developable without the flag lots.

**Rebecca Wayment** expressed concern with the flag lots and would like to avoid them if possible. She also expressed concern with the location of the development with respect to the WDC. She feels there was a lot of discussion concerning the placement of other housing developments as well as the elementary school and City park; the WDC was taken into account in each of these projects' placements. She said she would like to assist the applicant; however, she feels by approving this project, the City could be creating another larger problem. She does not feel comfortable moving forward with this development's approval.

**Bret Gallacher** agreed, but also stated that the Commission and City cannot deal in hypotheticals. He said the City has advised that they act as the land will stay and then deal with the WDC if/when it comes. **Brett Anderson** agreed; he added that the Planning Commission is a recommending planning body, but that this property owner also has rights to develop. **Rebecca Wayment** said she feels for Mr. Bassett's plight as he is stuck in a situation that is not his fault; however, approving this project could also mean future displacement of 30 homeowners which would then put all of them in a situation that is not their fault. She also expressed concern that so many property owners are fighting for low-density housing; however, the residents are now for lots that are approximately ¼ an acre. She does not feel this fits with the Master Plan and what is zoned for the area.

**Bruce Bassett** said he appreciated the comments and is also frustrated with the many "what-ifs" he has had to live with for the last few years. After consulting with an attorney, the City and even UDOT, it was determined that he can move forward with the proposed project as no decision has been made regarding the WDC. He said the latest status of the WDC is the consideration of the "Shared Solution," which is an attempt to argue that there is not a need for the WDC with the widening of roads and an increase to mass transit. The "Shared Solution" is under study; if it has enough "legs" to make it to the next level by "September-ish", then the whole EIS draft process will be pushed out another year. If the "Shared Solution" does not make it, then UDOT is free to move forward with their decision.

**Bret Gallacher** said he would like to again discuss the option of the cul-de-sac as he feels this is the best solution for the development. **Brett Anderson**, **Kent Hinckley** and **Dan Rogers** agreed. **Rebecca Wayment** said she is more comfortable with the cul-de-sac, but is still not okay with the overall development and its proximity to the possible WDC.

**Eric Anderson** asked for clarification as to the number of lots on the development's revised design. **Bruce Bassett** stated the revised design would include 11 lots located on the large rectangular parcel with an additional 5 lot cul-de-sac located on the square parcel.

**Motion:**

**Kent Hinckley** made a motion that the Planning Commission recommend approval of the schematic plan for the Eagle Cove Subdivision, subject to all applicable Farmington City ordinances and development standards, and the following conditions:

1. The applicant shall revise the preliminary plat to show 16 total lots, 5 of those lots will be located on the south east parcel;
2. The applicant shall receive approval for 13 TDR lots by City Council concurrent with schematic plan approval;
3. The applicant shall address all outstanding DRC comments on preliminary plat;
4. The applicant shall provide a Sensitive Area Designation plan;
5. A note will be placed on the plat regarding the sights, smells and sounds associated with agricultural uses on adjacent properties.

**Bret Gallacher** seconded the motion which was unanimously approved.

Findings for Approval:

1. The proposed subdivision conforms to all of the development standards as set forth in the Farmington City Subdivision and Zoning Ordinances.
2. The proposed development will aid the City in improving Glover Lane and 1100 West.
3. If 1 lot is removed, the densities requested are more consistent with the surrounding neighborhoods.
4. The two proposed flag lots do not meet any of the criteria as outlined in Section 12-7-010 of the Subdivision Ordinance regulating flag lots, and must therefore be removed.

**CONDITIONAL USE APPLICATION**

**Item #4. Daniel Thurgood/Verizon Wireless (Public Hearing) – Applicant is requesting approval for a conditional use related to a new wireless tower (30' tall) on the Oakridge Country Club located at approximately at approximately 1492 Shepard Lane in an LS (Large Suburban) zone. (C-10-15)**

**Eric Anderson** said this item is for a wireless communications tower. It a new design that is being rolled out. The tower has a smaller foot print, is only 30' tall, does not have the typical antenna and has a smaller power box and transformer. The tower will be located on the Oakridge Country Club golf course so the tower will be buffered from view from the road and the country clubhouse. Staff is recommending the Commission approve this conditional use.

**Dakota Hawkes**, 5710 Green St., Murray, said this tower is a new design for the whole Utah market. The smaller cell towers are a way for carriers to now reach places where they have not been able to before. He said the golf course was first to be considered as there were concerns with lack of cell coverage at its facility.

**Dan Rogers** asked if there were other considerations, other than coverage, as to why Oakridge Country Club would be comfortable allowing the placement of the tower on its golf course. **Dakota Hawkes** said they will be paid monthly for the leased spaced.

**Brett Anderson** asked if the new tower only allows for 1 antenna. **Dakota Hawkes** said yes, there would only be one antenna on top.

**Rebecca Wayment** opened the Public Hearing at 8:28 p.m.

No comments were received.

**Rebecca Wayment closed the Public Hearing at 8:28 p.m.**

**Brett Anderson** asked if an institutional use is a broad concept so the tower would be allowed under this use. **Eric Anderson** said in the past the country club has been interpreted as an institutional use because it functions similar to a park. **Brett Anderson** suggested that staff revisit this use and proposed a possible zone text change; he feels if there will be more mini-towers in the future, the City can be proactive in defining the smaller towers. The Commissioners agreed. **Kent Hinckley** asked if this type of tower would also be allowed in a commercial area. **Eric Anderson** reviewed the permitted and conditional uses for each zone and explained where the towers may be located within that use table.

The Commissioners and the applicant also discussed the color of the pole, but a definitive decision on it has not yet been made.

***Motion:***

**Bret Gallacher** made a motion that the Planning Commission approve the conditional use permit for the placement of a 30' monopole wireless telecommunications tower on property located at approximately 1492 West Shepard Lane with the following conditions:

1. A coverage plan site specific to the applications shall be submitted by the applicant and approved by the Planning Commission prior to issuance of any building permit;
2. Any future poles shall be located in the area shall require a separate conditional use permit;
3. A building permit shall be submitted for the construction of the monopole, initial antenna array and each additional co-location antenna array, associate ground equipment, and any accessory buildings related thereto;
4. The monopole shall be limited to 30' as proposed in the plans;
5. The monopoles shall be fenced with a six (6) foot vinyl coated chain-link fence and other fencing as required or approved by the Planning Commission;
6. There shall be no climbing pegs located on the lower twenty (20) feet of the monopole;
7. All power lines leading to the accessory building and antenna structure shall be underground.

**Kent Hinckley** seconded the motion which was unanimously approved.

**Findings:**

1. The proposed antenna is a new design, and will have a very low impact due to the reduction of size (both horizontal and vertical) as compared to the standard wireless telecommunication facilities.
2. The location of the antenna in the center of a golf course removes it from being visually intrusive and will mitigate any potential adverse effects on neighboring properties.
3. The proposed use of the particular location is necessary to provide a service or facility which will contribute to the general well-being of the community.
4. The proposed use complies with the regulations and conditions in the Farmington City ordinance for such use.
5. The proposed use conforms to the goals, policies, and governing principles of the Comprehensive General Plan for Farmington City.
6. The proposed use is compatible with the character of the site, adjacent properties, surrounding neighborhoods, and other existing and proposed development.
7. Adequate utilities, transportation access, drainage, parking and loading space, lighting, screening, landscaping and open space, fire protection, and safe and convenient pedestrian and vehicular circulation are available.

8. Such use shall not, under the circumstances of the particular case, be detrimental to the health, safety, or general welfare of the persons residing or working in the vicinity, or injurious to the property or improvements in the vicinity.

## **ADJOURNMENT**

### ***Motion:***

At 8:36 p.m., **Dan Rogers** made a motion to adjourn the meeting which was unanimously approved.

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**Rebecca Wayment**  
**Chair, Farmington City Planning Commission**

**WORK SESSION:** A work session will be held at 6:00 p.m. in Conference Room #3, Second Floor, of the Farmington City Hall, 160 South Main Street. The work session will be to answer any questions the City Council may have on agenda items. The public is welcome to attend.

**FARMINGTON CITY COUNCIL MEETING  
NOTICE AND AGENDA**

Notice is hereby given that the City Council of Farmington City will hold a regular City Council meeting on **Tuesday, September 1, 2015, at 7:00 p.m.** The meeting will be held at the Farmington City Hall, 160 South Main Street, Farmington, Utah.

*Meetings of the City Council of Farmington City may be conducted via electronic means pursuant to Utah Code Ann. § 52-4-207, as amended. In such circumstances, contact will be established and maintained via electronic means and the meeting will be conducted pursuant to the Electronic Meetings Policy established by the City Council for electronic meetings.*

The agenda for the meeting shall be as follows:

**CALL TO ORDER:**

7:00 Roll Call (Opening Comments/Invocation) Pledge of Allegiance

**PUBLIC HEARINGS:**

7:05 Issuance and Sale of \$3,700,000 Aggregate Principal Amount of Sales Tax Revenue Bonds, Series 2015 and the Potential Economic Impact that the Improvement, Facility or Property for which the Bonds Pay All or Part of the Cost will have on the Private Sector.

7:15 Farmington Fields Plat Amendment

7:25 Eagle Cove Conservation Subdivision – Schematic Plan

**SUMMARY ACTION:**

7:40 Minute Motion Approving Summary Action List

1. Approval of Minutes from City Council held August 18, 2015
2. Meadow View Conservation Subdivision Phase II Final Plat
3. Street Cross Section Proposal for the Cul-de-sac in Pheasant Hollow Subdivision
4. Resolution in Support of School Bond for Davis County School District

**GOVERNING BODY REPORTS:**

7:45 City Manager Report

1. Executive Summary for Planning Commission held August 20, 2015

7:50 Mayor Talbot & City Council Reports

**ADJOURN**

**CLOSED SESSION**

Minute motion adjourning to closed session, if necessary, for reasons permitted by law.

DATED this 27th day of August, 2015.

**FARMINGTON CITY CORPORATION**

By:   
Holly Gadd, City Recorder

**\*PLEASE NOTE:** Times listed for each agenda item are estimates only and should not be construed to be binding on the City Council.

*In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting, should notify Holly Gadd, City Recorder, 451-2383 x 205, at least 24 hours prior to the meeting.*



## Planning Commission Staff Report September 3, 2015

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### Item 3: Minor Plat Approval for the May PUD Subdivision

Public Hearing:	Yes
Application No.:	S-19-15
Property Address:	984 North 300 West
General Plan Designation:	LDR (Low Density Residential)
Zoning Designation:	LR-F (Large Residential - Foothill)
Area:	.72 acres
Number of Lots:	3
Property Owner:	Jared May
Agent:	Jared May

*Applicant is requesting a recommendation for minor plat approval, and a waiver of certain standards thereto for the May PUD Subdivision.*

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#### **Background Information**

The applicant, Jared May, is requesting approval for a 3 lot subdivision located at 984 North 300 West. There is an existing historic home on the site, however, the home is in a state of disrepair, despite the applicant's best efforts at preservation (he currently resides in the home). Additionally, the home sits awkwardly on the property making the subdivision of the property difficult. The applicant is proposing that the existing home be torn down and that the property be subdivided into 3 lots, however, in order to get the requested density, the applicant will need to do a PUD because the requested lot size falls under the 10,000 s.f. alternative lot size requirement as found in the LR zone.

According to Chapter 27 of the Zoning Ordinance:

#### **11-27-120      *Standards and Requirements.***

*(a) The minimum area for a Planned Unit Development shall be five acres in AA, A, AE, LS and S zones, and two and one-half acres in LR, R and R-2 zones; and one and one half acres in R-4 and R-8 zones. Any proposal for a Planned Unit Development in areas smaller than those cited above, may be approved by the Planning Commission based upon the specific conditions related to the site upon which the development is proposed. Smaller Planned Unit Developments are encouraged in the older historical parts of the City in order to use lot interiors where unique conditions may exist.*

The total acreage of this property falls well below the LR zone threshold of 2.5 acres, however, the property is in an older and historical part of the City and there are unique conditions due to both the irregular shape of the parcel, and the placement of the historic home on the site.

In the LR zone, every PUD has a 10% open space requirement. However, 10% of .72 acres is .07 acres, or approximately 3,000 s.f. The PUD chapter does provide a provision whereby historic preservation may be used in lieu of the open space requirement. Section 11-27-120(g) states:

*“The City, at its sole discretion, may consider preservation of an on-site building or structure eligible, or that may be eligible, for the National Register of Historic Places in lieu of the 10 percent open space requirement or portion thereof.”*

An historic home is currently situated on the site. A yield plan for the property demonstrated the possibility of establishing three lots at this location. Nevertheless, a deviation from standards of the underlying zone is desirable in order to better orient the lots to the street, and this is only possible as a PUD. In lieu of the 10% open space requirement, the ordinance allows the City to consider the preservation of an on-site historic building. Mr. May appeared before the Planning Commission with a proposal to preserve an existing accessory building, but the Commission determined that the structure was not historic and recommended denial of his schematic plan. The City Council agreed with the Planning Commission regarding the historical nature of the structure, but approved the 3 lot schematic plan and directed staff to help the applicant find a way to meet the 10% requirement.

Staff wrote a zone text change to Chapter 27 of the Zoning Ordinance that allows for any single family detached PUD under one acre in size to seek for a waiver of *any* provisions within the PUD chapter through a vote of not less than four City Council members. The applicant will be seeking for a waiver of *all* applicable PUD requirements for his subdivision, including the open space requirement, design standards, landscaping plans, elevations, etc.

#### **Suggested Motion**

Move that the Planning Commission recommend that the City Council approve the proposed Minor Plat for the May PUD Subdivision subject to all applicable Farmington City ordinances and development standards and the following condition: the applicant shall receive a full waiver for any applicable PUD requirements as found in Chapter 27 of the Zoning Ordinance through a vote of not less than four (4) members of the City Council.

#### **Findings for Approval:**

1. The proposed subdivision would match the densities of the surrounding neighborhood.
2. The proposed Minor Plat submittal is consistent with all necessary requirements for a Minor Plat as found in Chapter 5 of the City’s Subdivision Ordinance.

#### **Supplemental Information**

1. Vicinity map
2. Minor Plat
3. Section 11-27-155 of the Zoning Ordinance

**Applicable Ordinances**

1. Title 11, Chapter 11 – Single Family Residential Zones
2. Title 11, Chapter 27 – Planned Unit Developments
3. Title 12, Chapter 5 – Minor Subdivisions
4. Title 12, Chapter 7 – General Requirements for all Subdivisions



**SURVEYOR'S CERTIFICATE**

I, THE UNDERSIGNED, BEING A LICENSED SURVEYOR IN THE STATE OF UTAH, HAVE BEEN EMPLOYED BY THE ABOVE NAMED PARTY TO SURVEY THE ABOVE DESCRIBED PROPERTY AND TO PREPARE THIS MAP. I HAVE BEEN TO THE SITE OF THE PROPERTY AND HAVE FOUND THAT THE PROPERTY IS AS SHOWN ON THIS MAP AND THAT THE SAME IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST. I HAVE ALSO FOUND THAT THE PROPERTY IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST. I HAVE ALSO FOUND THAT THE PROPERTY IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST.

**BOUNDARY DESCRIPTION**

BEING AND BEING A POINT ON A BOUNDARY LINE AS SHOWN ON THE ABOVE DESCRIBED MAP, I HAVE FOUND THAT THE PROPERTY IS AS SHOWN ON THIS MAP AND THAT THE SAME IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST. I HAVE ALSO FOUND THAT THE PROPERTY IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST.

**OWNER'S DECLARATION**

I, THE UNDERSIGNED, OWNER OF THE ABOVE DESCRIBED PROPERTY, HEREBY CERTIFY THAT THE PROPERTY IS AS SHOWN ON THIS MAP AND THAT THE SAME IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST. I HAVE ALSO FOUND THAT THE PROPERTY IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST.

**ACKNOWLEDGMENT**

STATE OF UTAH )  
 COUNTY OF )  
 I, THE UNDERSIGNED, BEING A LICENSED SURVEYOR IN THE STATE OF UTAH, HAVE BEEN EMPLOYED BY THE ABOVE NAMED PARTY TO SURVEY THE ABOVE DESCRIBED PROPERTY AND TO PREPARE THIS MAP. I HAVE BEEN TO THE SITE OF THE PROPERTY AND HAVE FOUND THAT THE PROPERTY IS AS SHOWN ON THIS MAP AND THAT THE SAME IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST. I HAVE ALSO FOUND THAT THE PROPERTY IS NOT SUBJECT TO ANY OTHER CLAIM OR INTEREST.

**MAY 21, 2011**

LOCATED IN THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 3 NORTH, RANGE 1 WEST, S.L.B. 11, PARISH OF ST. CHARLES, DAVIS COUNTY, UTAH

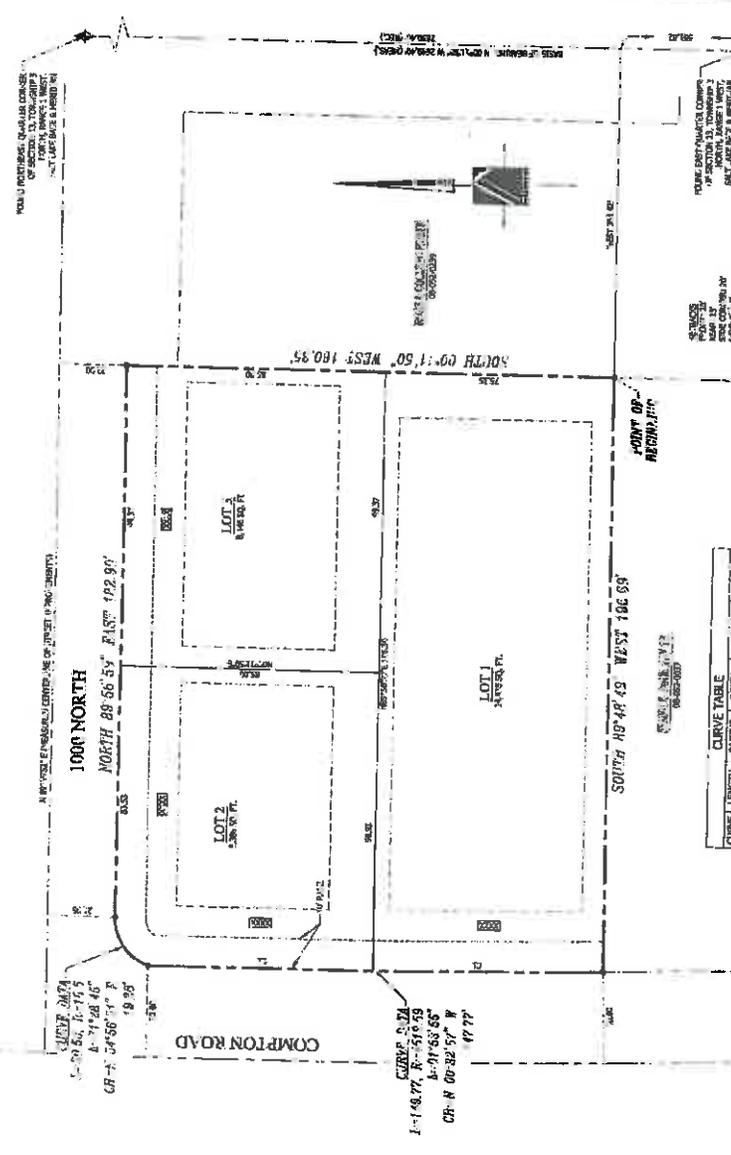
**PINNACLE**

DAVIS COUNTY RECORDER  
 ENTRY NO. 11-11-11-11  
 FILED 11-11-11  
 11-11-11

**CITY COUNCIL APPROVAL**

APPROVED BY THE CITY COUNCIL OF PARISH OF ST. CHARLES, DAVIS COUNTY, UTAH, ON THIS 11-11-11 AT 11:11 AM.

**MAY 21, 2011**  
 LOCATED IN THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 3 NORTH, RANGE 1 WEST, S.L.B. 11, PARISH OF ST. CHARLES, DAVIS COUNTY, UTAH



8/24/15



## Planning Commission Staff Report September 3, 2015

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### Item 4: Farmington Creek Estates Phase III Plat Amendment, Minor Plat Subdivision, and Boundary Adjustments

Public Hearing:	Yes
Application No.:	S-31-15
Property Address:	769 South Country Lane
General Plan Designation:	Rural Residential Density (RRD)
Zoning Designation:	AE – PUD (Agriculture Estates – Planned Unit Development)
Area:	.73 Acres
Number of Lots:	1
Property Owner:	Blakewood on Farmington Creek Homeowners Association
Agent:	Ben Barrus

*Request: Applicant is requesting a recommendation regarding a plat amendment for the Farmington Creek Estates Phase III PUD and Minor Plat approval for a one lot subdivision related thereto, and a number of boundary adjustments along the east boundary of the PUD.*

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#### Background Information

The Farmington Creek Estates Phase III PUD was recorded years ago. At that time the City obtained a 20' wide strip of land next to what was then the D.R.G. & W. Rail Road right-of-way in hopes of providing a trail connection from 500 South to Glovers Lane. Concurrently the developer set aside land for a small 0.75 acre neighborhood park on the east side of Country Lane next to the trail r.o.w. A short time later UTA acquired the rail road r.o.w. and announced plans for a rails to trails project, which meant that the City's 20 foot wide strip of property which is difficult to access and to maintain, was no longer needed. Subsequently, abutting property owners have asked that the City convey this land to them. Also; after the plat was recorded the City started assembling land some 2,000 feet to the north of the PUD via the UTA trail r.o.w. for a future regional park and no longer felt a need to establish a neighborhood park at this location. The developer held onto the property for a while and then deeded it to the HOA. Property owners within the PUD often wondered what could be done to rectify problems associated with the maintenance of the property. Now it is proposed to deed the 20 foot strip of land to the adjacent property owners by way of boundary adjustments, and to do another boundary adjustment and create an additional lot in place of the neighborhood park property.

**Suggested Motion:**

Move that the Planning Commission recommend approval to amend the plat for the Farmington Creek Estates Phase III PUD by implementing a boundary adjustment and establishing an additional lot in place of the park property located at 769 South Country Lane (.73 acres), and approve boundary adjustments along the entire east boundary of the PUD thereby eliminating a 20' wide strip of property now owned by the City, subject to all applicable Farmington City codes, ordinances, and development standards and the attached memorandum of understanding between the property owners and Farmington City.

**Findings:**

1. In May of this year, property owners within the PUD and Farmington City entered into a memorandum of understanding whereby the City agreed to deed a 20 foot strip of land to the owners, and the HOA agreed to deed a portion of the neighborhood park property to an adjacent owner and remaining portions of this parcel to the City for purposes of establishing a building lot.
2. Upon receiving a recommendation from the Planning Commission, the City Council approved amendments to the zoning Ordinance on August 18, 2018 enabling the additional lot within the PUD, and approval of the boundary adjustments, while at the same time reducing the total amount of open space for the development.
3. The 20' wide strip of "trail" property is no longer needed, because the UTA established a trail next to the PUD which connects 500 South to Glover's Lane.
4. The 20' wide property as presently situated is difficult to maintain, but now each abutting property owner will be able to maintain their respective strip of additional land.
5. A pocket park is no longer needed on Country Lane due to the close proximity of the new Elementary School in the vicinity, the City's new 10 acre park next to the school, and the regional park north of the PUD.

**Supplemental Information**

1. Vicinity Map
2. Subdivision Plan/Minor Plat, which also shows the proposed boundary adjustments.
3. Memorandum of Understanding.

**Applicable Ordinances**

1. Title 11, Chapter 27 – Planned Unit Development (PUD)
2. Title 11, Section 11-28-240 – Transfer of Development Rights/Lots (TDR)
3. Title 12, Chapter 5 – Minor Subdivisions

# Farmington City





MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE HOME OWNERS OF COUNTRY LANE, FARMINGTON, UTAH  
AND  
THE CITY OF FARMINGTON, UTAH

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between the home owners of Country Lane, hereinafter referred to as HOME OWNERS and The City of Farmington, Utah, hereinafter referred to as FARMINGTON CITY.

A. PURPOSE:

The purpose of this MOU is to continue to develop and expand a framework of cooperation between HOME OWNERS and FARMINGTON CITY to amend the neighborhood plat of Farmington Creek Estates Phase 3, establish a marketable building lot and sell or abate land currently recorded as open space along the eastern most property line of Farmington Creek Estates Phase 3.

B. FARMINGTON CITY:

Shall give approval to modify Farmington Creek Estates Plat to include a new building lot and drainage easement. The plat currently shows this land as Parcel 2.

Shall stub electric, sewer and gas into new building lot at its own cost.

Shall repair the existing curb, gutter and sidewalk that parallels the new building lot and drainage easement at its own cost.

Shall maintain the new stream drainage easement at its own cost, or include the stream and maintenance responsibility thereof in the newly created lot.

Shall sell or abate open space along east side of Farmington Creek estates to the home owners located along the eastern property line approximately 20 to 22 foot section of land also currently recorded as Parcel 1 on the plat.

Shall agree to market and sell the new building lot at their own cost.

C. HOME OWNERS:

Shall arrange for all surveying and new plat drawings at their own cost.

Shall obtain approval from at least 75% of all home owners residing on the east side of Country Lane stating they agree to the plat amendments in writing.

Shall obtain approval from at least 50% of all home owners residing on the west, north

and south sides of Country Lane stating they agree to the plat amendments in writing.

Shall agree to pay a land acquisition cost of between \$0.00 and \$1,000 per home owner if living on the east side of Country Lane with property that will incorporate new land.(lots 318 to 304).

IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

1. GENERAL UNDERSTANDING. In connection with this MOU the following items are understood between the parties.
  - a. Ben Barrus shall represent the sale of the new building lot on behalf of FARMINGTON CITY. For this he will be paid by FARMINGTON CITY 5% of the gross sale if the new building lot sells for any amount less than \$145,000 (One Hundred and Forty Five Thousand Dollars) and 6% if the new building lot sells for any amount greater than or equal to \$145,000 (One Hundred and Forty Five Thousand Dollars)
  - b. In the event the new building lot sells for any amount less than \$140,000 (One Hundred and Forty Thousand Dollars) then each HOME OWNER located on the east side of Country Lane will pay to FARMINGTON CITY an amount to be determined, not to exceed \$1,000 (One Thousand Dollars) to acquire land located on the east side of Farmington Creek Estates currently recorded on the plat as open space. The amount shall be determined but in no case will be less than \$500.00 (Five Hundred Dollars). In the event the new building lot sells for \$145,000 (One Hundred and Forty Five Thousand Dollars) or more, then there will not be a fee(s) assed to any of the HOME OWNERS to acquire land located on the east side of Farmington Creek Estates currently recorded on the plat as open space.
  - c. It is understood that once the plat has been amended FARMINGTON CITY will negotiate and sell a portion of the newly established drainage easement with Buzz Greenhalgh in good faith.
2. MODIFICATION. Modifications to this agreement shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by authorized officials, prior to any changes being performed.
3. PARTICIPATION IN SIMILAR ACTIVITIES. This agreement in no way restricts FARMINGTON CITY or HOME OWNERS from participating in similar activities with other public or private agencies, organizations, and individuals.
4. TERMINATION. Either party, upon thirty (30) days written notice, may terminate the agreement in whole, or in part, at any time before the date of expiration.

5. **PRINCIPAL CONTACTS.** The principal contacts for this instrument are:

**HOME OWNERS:**

Ben Barrus

Buzz *Greenhalgh*

Christian Larsen

**FARMINGTON CITY:**

Dave Millheim

6. **COMMENCEMENT/EXPIRATION DATE.** This agreement is executed as of the date of last signature and is effective through 8/1/2015 at which time it will expire unless extended.
7. **LIABILITIES.** It is understood that neither party to this Memorandum of Understanding is the agent of the other and neither is liable for the wrongful acts or negligence of the other. Each party shall be responsible for its negligent acts or omissions howsoever caused, to the extent allowed by their respective state laws.
8. **THE PARTIES ACKNOWLEDGE THAT NEITHER PARTY MAKES A WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below.

FOR FARMINGTON CITY:

Date: 5/08/15

*[Signature]*  
Name and Title:





## Planning Commission Staff Report September 3, 2015

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### Item 5: Ascent Construction Office Building CUP

Public Hearing:	Yes
Application No.:	C-9-15
Property Address:	NW Corner of Main and Park Lane
General Plan Designation:	O/BP (Office/Business Park)
Zoning Designation:	BP (Business Park)
Area:	1.422 Acres
Number of Lots:	1
Property Owner:	Ascent Construction
Agent:	Brad Knowlton

Request: *Applicant is requesting a conditional use approval for construction of a large professional office building.*

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#### **Background Information**

Ascent Construction is proposing to construct their new headquarters in a two story professional office building on property located on the northwest corner of Park Lane and Main Street. The existing site had a home on it that has been vacant for some time which has been torn down along with some trees on the property. The proposed building will add to this important city intersection by providing professional offices that will bring jobs to the City and accommodate the growing commercial office space needs in Farmington City and Davis County.

The new building and site placement will allow for all parking to be located to the side and rear of the building as well as provide the required 15% open space predominantly along the street front and surrounding the building. Landscaping and fencing will be added to the site and signage will remain at a minimum, consistent with the City's Sign Ordinance. All lighting will allow for a safe environment without adding additional glare to the nearby residential neighborhood to the north.

While the applicant has completed a full DRC review with a few issues, the majority of these issues deal with site plan as it relates to building permit, these issues can be addressed prior to a pre-construction meeting and the issuance of a building permit.

Section 11-7-107(7)(b) states:

*“A six (6) foot high masonry fence and/or thirty (30) foot buffer zone with sufficient plantings of trees and shrubs to provide adequate suppression of sound and light, shall be constructed between a residential property line or zone boundary and any parking area, road, or driveway of a proposed use determined to be of a commercial or industrial nature.”*

The plan as proposed shows a landscaped buffer of 5’ feet, and a six foot high composite panel fence (to match the existing fence on the Hampton Inn’s property line) along the north property line that abuts Patricia DeJong’s property and the parking lot. According to the Section of the Zoning Ordinance cited above, the Planning Commission can require either a 6’ high fence, a 30’ buffer zone, or both; if a 30’ buffer is required by the Planning Commission, the whole site may have to move south, closer to Park Lane, and this would change the whole site plan. Staff felt that because of the magnitude such a decision would have on this site plan, that it would be wise to receive a Planning Commission decision on Section 11-7-107(7)(b) before having the DRC review the plans any further. While such a move would not necessarily affect the site’s compliance with the ordinance, the move would affect the layout of improvements, parking, landscaping, etc. As such, staff is only submitting this application for conditional use approval tonight and requesting that the site plan component of this application be deferred to staff. The reason for this, beyond those cited above, is that the Planning Commission can review the site plan and give their blessing, and leave the final approval for site plan and improvements to staff and the DRC.

On May 26, 2015, the City Council passed a Zone Text Change allowing for more flexibility in front setback requirements in the BP zone, in order to help Ascent Construction bring their building to the street and give others in the future the same opportunity. The ordinance reads as follows:

**11-14-050      *Minimum Lot and Setback Standards.***

*(1)      Setback from Streets: The minimum setback from public or private streets shall be twenty (20) feet for buildings or structures twenty (20) feet or less in height. Buildings or structures over twenty (20) feet in height shall be setback an additional ten (10) feet (thirty (30) feet total). The minimum side and rear setback from streets may be reduced through Planning Commission review and approval in conjunction with a conditional use and site plan application. Parking lots shall not be permitted within the minimum required street setback(s).*

*(2)      Commercial side and rear setbacks: The minimum side and rear setbacks from property lines shall be twenty (20) feet for buildings and structures twenty (20) feet or less in height. Buildings or structures over twenty (20) feet in height shall be setback an additional ten (10) feet (thirty (30) feet total). If the area of the side or rear setback is used for parking or as a service area, a landscaped strip, not less than ten (10) feet in width shall be maintained along the property lines. The minimum side and rear setback for commercial buildings and structures may be reduced through Planning Commission review and approval in conjunction with a conditional use and site plan application.*

While Ascent Construction’s current proposal meets the standard *as it currently exists* without any further approval required by the Planning Commission, if the Planning Commission does determine that they want a 30’ buffer between the north side of the parking lot and the DeJong property, then the

building would need to move within that 30' front setback towards Park Lane. Such a shift would require Planning Commission approval.

**Suggested Motion:**

Move that the Planning Commission approve the proposed conditional use subject to all applicable City codes, development standards and ordinance and with the following conditions:

1. The Farmington City Sign Ordinance shall be followed for all signs throughout the site;
2. Outdoor lighting, if used, must be subdued. All lighting shall be designed, located and directed to minimize glare, reflection and light pollution into adjoining and nearby lots;
3. An element of "Farmington Rock" shall be included in part of the exterior façade of the building **OR** as architectural elements in the landscape and be approved by the City Planning Department;
4. The site plan related to this application shall be deferred to staff and the DRC for final approvals, including all improvement drawings.

**Findings for Approval:**

- a. The proposed use of the particular location is necessary and desirable and provides a service which contributes to the general well-being of the community. The Ascent Construction Building is a great asset to the community and provides more space for local businesses here in the county;
- b. The proposed use complies with all regulations and conditions in the Farmington City Zoning Ordinance for this particular use, as it is a professional office building;
- c. The proposed use conforms to the goals, policies, and principles of the Comprehensive General Plan;
- d. The proposed use is compatible with the character of the site, adjacent properties, surrounding neighborhoods and other existing development as it will be a much needed upgrade to the facilities that are currently existing in the area;
- e. The location provides or will provide adequate utilities, transportation access, drainage, parking and loading space, lighting, screening, landscaping and open space, fire protection, and safe and convenient pedestrian and vehicular circulation;
- f. The proposed use is not detrimental to the health, safety and general welfare of persons residing or working in the vicinity and does not cause:
  - a. Unreasonable risks to the safety of persons or property because of vehicular traffic or parking;
  - b. Unreasonable interference with the lawful use of surrounding property; and
  - c. A need for essential municipal services which cannot be reasonably met.

**Supplemental Information**

1. Vicinity Map
2. Ascent Construction Office Building Site Plan
3. Elevations
4. Landscape Plan

**Applicable Ordinances**

1. Title 11, Chapter 7 – Site Development Standards

2. Title 11, Chapter 8 – Conditional Uses
3. Title 11, Chapter 14 –Business Park Zone (BP)

# Farmington City











## Planning Commission Staff Report September 3, 2015

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### Item 6: Azure Midstream CUP

Public Hearing:	Yes
Application No.:	C-11-15
Property Address:	1262 South 650 West
General Plan Designation:	LM (Light Manufacturing)
Zoning Designation:	LM&B (Light Manufacturing & Business)
Area:	N/A
Number of Lots:	N/A
Property Owner:	Bradley Pack Trust
Agent:	Daniel Thurgood / Technology Associates

*Request: Applicant is requesting a conditional use permit to build an office in the existing Farmington Bay Business Park warehouse building.*

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#### **Background Information**

The applicant has proposed to build a business office within an existing building in the Farmington Bay Business Park Plat A subdivision. In addition to the office space, the applicant is proposing to also use the space for warehousing; there will also be a small component of light manufacturing and industrial uses. Although business and professional offices are listed as permitted in the LM&B zone, light manufacturing and "mini-warehousing" is listed as a conditional use. The applicant is coming before the Planning Commission tonight requesting conditional use approval for the proposed office space.

The attached narrative provided by the applicant explicates in more detail the proposal for this site; the proposal, as stated in the application, is very low impact and is a good fit for the LM&B zone.

#### **Suggested Motion:**

Move that the Planning Commission approve a conditional use permit for the Azure Midstream office to be located at 1262 South 650 West, subject to all applicable Farmington City codes, ordinances, and development standards and the following conditions:

1. Normal business hours shall be limited to 6 a.m. to 6 p.m. Monday through Friday;
2. No hazardous materials will be stored on site;

3. Equipment storage inside the building shall be maintained at ground-level and there will be no stacked storage racks.

**Findings:**

1. The proposed use is very low impact in comparison to most light industrial and manufacturing uses.
2. The proposed use of the particular location is necessary to provide a service or facility which will contribute to the general well-being of the community.
3. The proposed use complies with the regulations and conditions in the Farmington City ordinance for such use.
4. The proposed use conforms to the goals, policies, and governing principles of the Comprehensive General Plan for Farmington City.
5. The proposed use is compatible with the character of the site, adjacent properties, surrounding neighborhoods, and other existing and proposed development.
6. Adequate utilities, transportation access, drainage, parking and loading space, lighting, screening, landscaping and open space, fire protection, and safe and convenient pedestrian and vehicular circulation are available.
7. Such use shall not, under the circumstances of this particular application, be detrimental to the health, safety, or general welfare of the persons residing or working in the vicinity, or injurious to the property or improvements in the vicinity.

**Supplemental Information**

1. Vicinity Map
2. Narrative describing proposed use
3. Site Plans
4. Sections 11-26-030 and 11-26-040

**Applicable Ordinances**

1. Title 11, Chapter 8 – Conditional Uses
2. Title 11, Chapter 26 – Light Manufacturing and Business

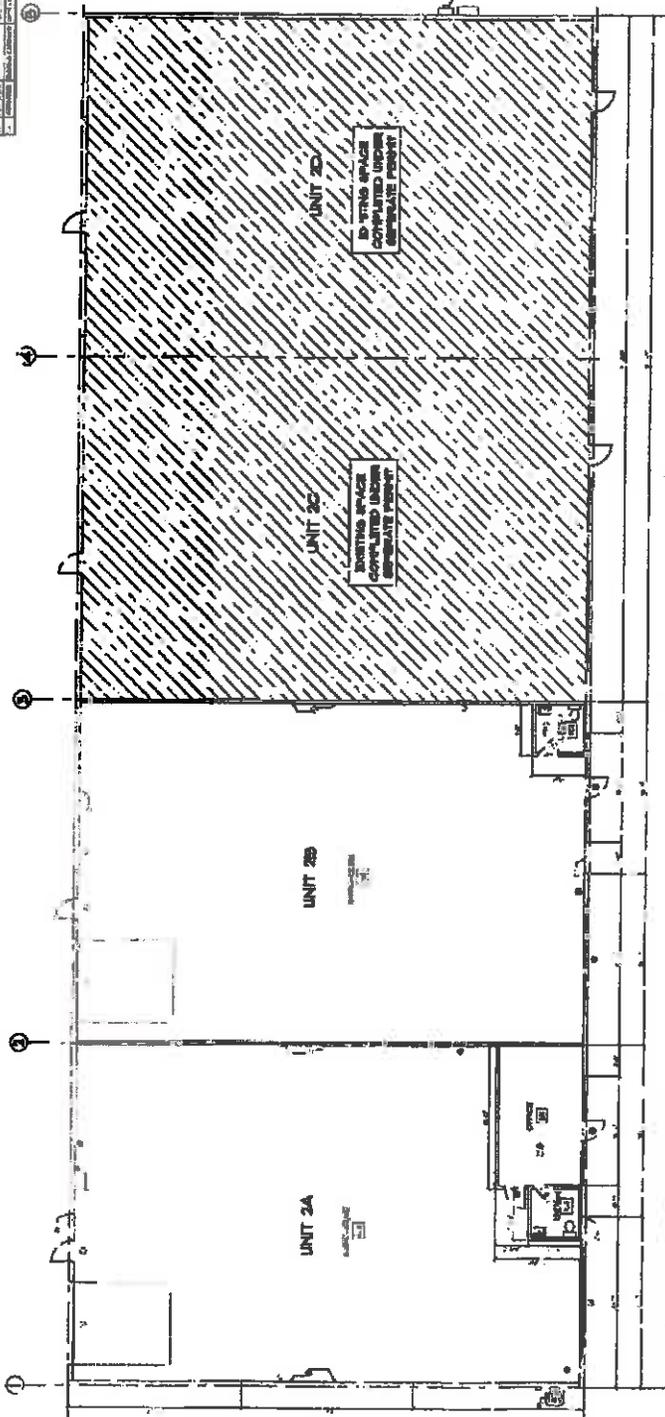
# Farmington City



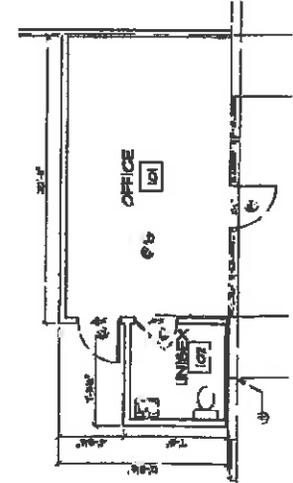
UNIT 2A

NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR PERMITS	08/14/13	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...

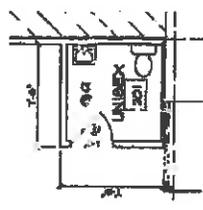
NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR PERMITS	08/14/13	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...



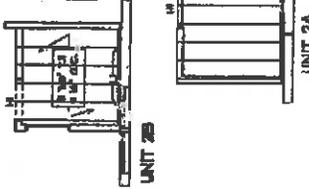
1 FLOOR PLAN  
SCALE 1/4" = 1'-0"



2 UNIT 2A ENLARGED  
SCALE 1/4" = 1'-0"



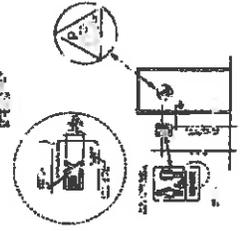
3 UNIT 2B ENLARGED  
SCALE 1/4" = 1'-0"



4 FRAMING PLAN  
SCALE 1/4" = 1'-0"



5 ADA DETAILS  
SCALE 1/4" = 1'-0"



6 MECHANICAL DETAILS  
SCALE 1/4" = 1'-0"

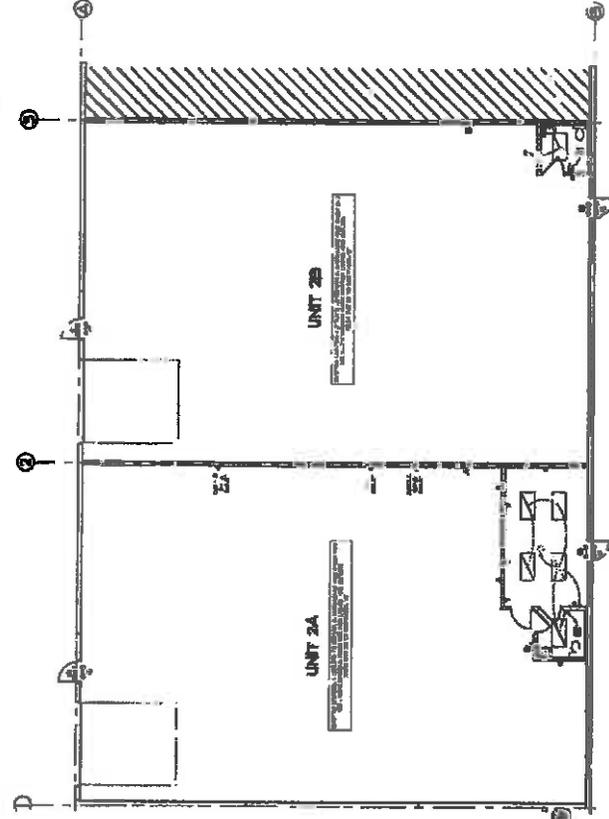
Unit 2A



FARMINGTON BAY WAREHOUSE IMPROVEMENT  
 1000 G. 600 ST.  
 FARMINGTON, UT 84403

FARMINGTON BAY WAREHOUSE  
 UNITS 2A & 2B TENANT IMPROVEMENT

MEP 1.0  
 MECHANICAL  
 PLUMBING  
 ELECTRICAL



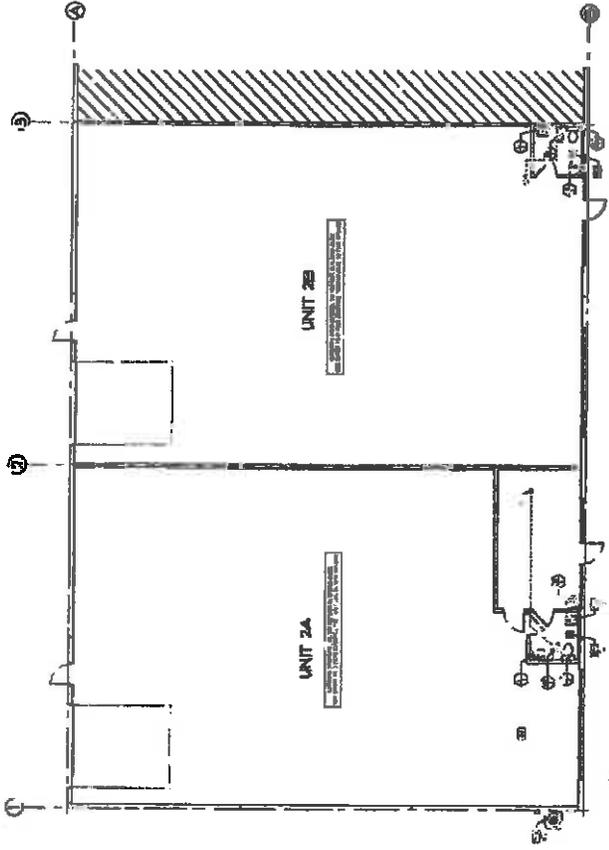
2) LIGHTING & POWER PLAN  
 SCALE 1/8" = 1'-0"

MECHANICAL SYMBOLS

1	FAN
2	COIL
3	DUCT
4	VALVE
5	PIPE
6	TECHNICAL SYMBOLS

MECHANICAL SYMBOLS

1	FAN
2	COIL
3	DUCT
4	VALVE
5	PIPE
6	TECHNICAL SYMBOLS



1) MECHANICAL & PLUMBING PLAN  
 SCALE 1/8" = 1'-0"

MECHANICAL SYMBOLS

1	FAN
2	COIL
3	DUCT
4	VALVE
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6	TECHNICAL SYMBOLS

MECHANICAL SYMBOLS

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MECHANICAL SYMBOLS

1	FAN
2	COIL
3	DUCT
4	VALVE
5	PIPE
6	TECHNICAL SYMBOLS

**Azure Midstream is a fee based, growth oriented midstream company offering natural gas gathering, compression and processing in Texas and Louisiana. Also crude oil logistics in Utah, New Mexico and Wyoming.**

**Azure's business purpose and intended use for this commercial space located at 1262 South 650 West Suite 2A Farmington, Utah will be foremost a single office space. Additionally the space will be used as a storage warehouse for logistics equipment, light metal repair work (welding and grinding) and fabrication of company owned assets. Actual fabrication will be no more than a few hours per week.**

**Normal business hours will be from 6am to 6pm Monday through Friday.**

**Equipment storage inside the building will be maintained at ground level having no stacked storage racks.**

**No more than 3 people will be working at these premises.**

**No hazardous materials will be stored.**

**Azure will have occasional visitors for brief office meetings.**

## CHAPTER 26

### LIGHT MANUFACTURING AND BUSINESS (LM&B)

- 11-26-010 Description.**
- 11-26-020 Purpose.**
- 11-26-030 Permitted Uses.**
- 11-26-040 Conditional Uses.**
- 11-26-050 Prohibited Uses.**
- 11-26-060 Accessory Uses.**
- 11-26-070 Yard and Lot Regulations.**
- 11-26-080 Other Regulations.**

#### **11-26-010 Description.**

The LM&B Zone is established to provide for the siting of light industrial, light manufacturing, fabricating, commercial, business park, professional offices, research and development businesses, and related uses within the City of Farmington. The regulations contained herein are intended to encourage a productive operating environment for light industry, manufacturing and business parks, to protect such businesses and development within the Zone from the adverse effects of incompatible uses, to reduce the impact of light industries, manufacturing and business parks on surrounding non-industrial, manufacturing and business land uses, to lessen traffic congestion, and to protect the health and safety of the residents and workers in the area and within the City in general.

#### **11-26-020 Purpose.**

The purpose of the standards and requirements of this Chapter are to control light industrial, manufacturing and business park uses and development in Farmington City so as to:

- (1) Encourage and provide an environment and location for light industrial, manufacturing and business park uses and development consistent with City goals and standards for attractive, well planned development;
- (2) Discourage uses from locating within the Zone that will tend to impede the use of the land for light industrial, manufacturing and business park purposes; and
- (3) To ensure that all light industrial, manufacturing and business park uses and development within the City will provide methods to protect the community from hazards and nuisances.

#### **11-26-030 Permitted Uses.**

The following are permitted uses in the LM&B Zone. No other permitted uses are allowed, except as provided by Section 11-4-105(6):

- (1) Business and professional offices;
- (2) Research and development activities;
- (3) Veterinary Clinic or Animal Hospital; and

- (4) Warehousing.

**11-26-040 Conditional Uses.**

The following are conditional uses in the LM&B Zone. No other conditional uses are allowed, except as provided by Section 11-4-105(6):

(1) Any development which includes multiple buildings or is proposed on a site which is over one (1) acre in size;

(2) Accessory Living Quarters;

(3) Automotive Equipment and Accessories Sales;

(4) Automotive Service and Maintenance Centers;

(5) Automotive and Vehicle Sales;

(6) Contractor Yards;

(7) Dry Cleaning and Laundry Facilities;

(8) Golf courses and/or related recreation uses;

(9) Handicraft Manufacturing;

(10) Light Manufacturing, Compounding and Processing, Assembling or Packaging of the following products:

(a) Beverages,

(b) Electric appliances and electronic instruments,

(c) Pharmaceutical or biological products,

(d) Food, except yeast, vinegar or rendering of fat,

(e) Scientific instruments,

(f) Signs, including electric and open,

(g) Wearing apparel,

(h) Automotive parts and accessories,

(i) Lumber and wood products,

(j) Rubber and plastic products, and

(k) Roof tile products;

(11) Lumber and Building Material, Sales;

- (12) Mini-Warehousing/Self-Storage;
- (13) Outcall Services as defined and conducted in accordance with the City Business Regulations and Zoning Ordinances regarding sexually-oriented businesses are permitted in this zone;
- (14) Planned Commercial Development;
- (15) Printing/Publishing;
- (16) Public Utilities;
- (17) Retail uses compatible with area; and
- (18) Sexually-Oriented Businesses as defined and conducted in accordance with the City Business Regulations and Zoning Ordinances regarding sexually-oriented businesses.

**11-26-050 Prohibited Uses.**

Uses expressly prohibited in the LM&B Zone include, but shall not be limited to: auto wrecking, salvage, junkyards, redi-mix asphalt and concrete plants, dwellings (single family or multiple family), refineries, large or regional warehouse and distribution only facilities, refuse transfer station, and other heavy industrial or heavy manufacturing uses.

**11-26-060 Accessory Uses.**

Accessory uses and buildings customarily incidental to the permitted uses and conditional uses provided herein may be permitted within the LM&B Zone as a conditional use.

**11-26-070 Yard and Lot Regulations.**

- (1) Lot Size: No minimum.
- (2) Lot Width: No minimum, except each lot shall have a minimum frontage of thirty-five (35) feet on a public street.
- (3) Front Yard: 10 feet.
- (4) Side Yards: No minimum, except that thirty (30) feet shall be provided where the lot line is co-terminus with any residential zone boundary.
- (5) Side Yard Corner: Minimum side yard on corner lot shall be ten (10) feet on the side adjacent to the street.
- (6) Rear Yard: No minimum, except that thirty (30) feet shall be provided where the lot line is co-terminus with any residential zone boundary.
- (7) Accessory Buildings: Accessory buildings shall be subject to the yard requirements cited above. Accessory buildings shall not be located in front of the main building.
- (8) Building Height: Maximum building height shall be forty (40) feet (except for towers, chimneys and other structures with no human habitation).



## Planning Commission Staff Report September 3, 2015

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### Item 4: Conservation, Recreation, Wildlife, and Waterfowl Refuge and Park; and Management Plan

Public Hearing:	Yes
Application No.:	M-3-15
Property Address:	West City Limit Line
General Plan Designation:	DR (Development Restrictions, Very Low Density and/or Agriculture, Open Space); and RRD (Rural Residential Density)
Zoning Designation:	AE (Agriculture Estates) and AA (Agriculture Very Low Density)
Area:	400 + Acres
Number of Lots:	n/a
Property Owner:	Various
Applicant:	Farmington City

*Request: Applicant is requesting a recommendation to adopt the enclosed ordinance and management plan regarding a Conservation, Recreation, Wildlife, and Waterfowl Refuge and Park.*

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#### **Background Information**

(To be presented at the Planning Commission meeting).

#### **Suggested Alternative Motions:**

Move that the Planning Commission recommend that the City Council adopt the enclosed ordinance designating 400 + acres along the City's west corporate limit line, between 950 North and Glover's Lane, as a Conservation, Recreation, Wildlife, and Waterfowl Refuge and Park; and approve the enclosed management plan to enable the continued management thereof.

*Findings:* (See ordinance recitals and management plan chapter related to purpose).

**-OR-**

Move that the Planning Commission table consideration of the proposed ordinance and management plan, and continue the public hearing to September 17, 2015, to allow time to better assimilate and understand both documents and obtain additional public comment.

#### **Supplemental Information**

1. Enabling Ordinance; and 2) Management Plan.

**DRAFT (07/08/15)**

**FARMINGTON, UTAH**

**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE TO DESIGNATE THE FARMINGTON CITY CONSERVATION, RECREATION, WILDLIFE AND WATERFOWL REFUGE AND PARK AND TO PROVIDE FOR THE CONTINUED MANAGEMENT THEREOF.**

WHEREAS, in 1991 Farmington City began a major re-write of its General Plan and Future Land Use map. This effort involved the entire community culminating in the City Council adopting Ordinance 93-23 on June 16, 1993 amending these documents, to show and provide, among other things, a concerted emphasis to protect the Great Salt Lake Shore line area from development. The City established a development restriction boundary whereby all land lower than 4218 feet above sea level in elevation is identified as "Development Restrictions, Very Low Density, &/OR Agriculture Open Space; and

WHEREAS, in 1997 Farmington City realized it needed to conserve and avoid development on the land located adjacent to the Great Salt Lake within its municipal boundaries to protect the open space, wildlife and waterfowl habitat, natural and unique resource values and scenic values of that land, together with the ability to allow the citizens to utilize this area for passive recreation and park enjoyment purposes, and to provide complementary resource protection and support for the Farmington Bay Waterfowl Management Area located to the South; and

WHEREAS, Farmington City engaged the services of renowned conservation development planner Randall Arendt in 1997 to undertake a Study and to prepare a Master Plan to

allow preservation of the conservation values of this area; and

WHEREAS, on April 2, 1998 Farmington City passed Resolution Number 98-12 declaring Farmington City's desire and intent to implement conservation development guidelines and standards for residential development within Farmington City and providing notice of pending amendments to the City General Plan, Zoning Ordinance and Subdivision Ordinance regarding the same; and

WHEREAS, based upon that Study, on October 21, 1998 Farmington City passed a Temporary Building Restriction to ensure no development occurred within this area for six months; and

WHEREAS, on April 21, 1999 Farmington City passed Ordinance Number 99-17 amending Chapter 10 to include a AA Zone and conservation options for subdivision development, Ordinance 99-18 amending the General Plan Chapter 10, Ordinance 99-19 renumbering Chapters 12-15 of the Farmington City Zoning Ordinance to Chapters 13-16, Ordinance 99-20 adopting Chapter 11 Conservation Development and Single Family Residential Zones and Ordinance 99-21 editing and re-codifying Chapter 12 of the Zoning Ordinance implementing conservation standards of development of residential subdivisions and amending Chapter 2 definitions; and

WHEREAS, Chapter 12 of the Zoning Ordinance governing Conservation Subdivision Development Standards provides for the acquisition of Conservation Easements in the course of development of property within the City, the preservation and permanent protection of these

conservation lands and the maintenance, operation and use thereof; and

WHEREAS, Chapter 12 of the Zoning Ordinance, at 11-12-060, prohibits development activities on Conservation Easement lands in order to ensure the preservation and enhancement of the existing natural conditions of certain property within Farmington City, including but not limited to natural and cultural resources, wildlife habitat and other unique and sensitive lands; and

WHEREAS, on July 2, 2003 (recorded 7/29/2003) pursuant to Chapter 12, Farmington City acquired the Buffalo Ranches Conservation Easement on 286.8 acres of land adjacent to the shoreline of the Great Salt Lake. This property possesses Conservation Values, including unique and sensitive natural, scenic, open space, wildlife, farmland, floodplain and/or wetland value and was acquired to provide for appropriate ecological, agricultural, open space, recreational and educational uses of the property, which will now be protected and preserved in perpetuity; and

WHEREAS, on December 22, 2005 (recorded 1/10/2006) pursuant to Chapter 12, Farmington City acquired the Farmington Ranches Phase 6 Conservation Easement containing 23.92 acres of land adjacent to the shoreline of the Great Salt Lake. This property possesses Conservation Values, including unique and sensitive natural, scenic, open space, wildlife, farmland, floodplain and/or wetland value and was acquired to provide for appropriate ecological, agricultural, open space, recreational and educational uses of the property, which will now be protected and preserved in perpetuity; and

WHEREAS, on October 12, 2007 (recorded 11/1/2007) pursuant to Chapter 12, Farmington City acquired the Farmington Meadows Phase 1 Conservation Easement containing

47.96 acres of land adjacent to the shoreline of the Great Salt Lake. This property possesses Conservation Values, including unique and sensitive natural, scenic, open space, wildlife, farmland, floodplain and/or wetland value and was acquired to provide for appropriate ecological, agricultural, open space, recreational and educational uses of the property, which will now be protected and preserved in perpetuity, and

WHEREAS, on November 19, 2013 (recorded 11/20/2013) pursuant to Chapter 12, Farmington City acquired the Hunter's Creek Conservation Easement containing 62.96 acres of land adjacent to the shoreline of the Great Salt Lake. This property possesses Conservation Values, including unique and sensitive natural, scenic, open space, wildlife, farmland, floodplain and/or wetland value and was acquired to provide for appropriate ecological, agricultural, open space, recreational and educational uses of the property, which will now be protected and preserved in perpetuity; and

WHEREAS, since the date of acquisition of each of these four Conservation Easements, Farmington City has been responsible for the protection of the Conservation Values these Easements present, which specifically include wildlife, wetland, open space and sensitive natural values; and

WHEREAS, the adoption of wildlife and waterfowl refuge as the primary purpose of the Park by this Ordinance not only recognizes the most important functional aspect of the Conservation Values these properties provide, but also recognizes these Conservation Easements are located adjacent to the Farmington Bay Wildlife Management Area to the South and are part of a network of similar refuge areas all along the Eastern shore of the Great Salt Lake.

WHEREAS, since the acquisition of these Conservation Easements, Farmington City has planned for and constructed trails to allow for passive recreational and park uses by the public around and within these Conservation Easements, in a manner that protects, the wildlife and waterfowl habitats and the wildlife and waterfowl refuge characteristics that exist thereon; and

WHEREAS, the trails have been and will continue to be constructed in such a way that the wildlife and waterfowl habitat and the wildlife and waterfowl refuge characteristics of each Conservation Easement have been and will be preserved, yet the public will have the opportunity to view and enjoy each Conservation Easement and the Park in a passive park and recreation setting; and

WHEREAS, these Conservation Easements have been and will continue to be actively managed by Farmington City individually and as a single resource, so as to facilitate the preservation and enhancement of the wildlife and waterfowl habitat and the wildlife and waterfowl refuge characteristics of the Conservation Easements; and

WHEREAS, Farmington City desires and intends to continue the stewardship, maintenance and enhancement efforts for each of these Conservation Easements through the creation of a new Management Plan this year and in future years as needed, so as to provide for the protection and further enhancement of the Conservation Values thereof, with the wildlife and waterfowl refuge as the primary purpose of each Conservation Easement; and

WHEREAS, it is recognized by the City that, since acquisition, these properties have been incidentally used for passive recreational and park purposes, with the primary purpose being

wildlife and waterfowl habitat and wildlife and waterfowl refuge.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF FARMINGTON CITY, STATE OF UTAH, AS FOLLOWS:**

**Section 1.** That the Buffalo Ranches, Farmington Ranches, Farmington Meadows and Hunter's Creek Conservation Easements ("the Conservation Easements") shall be designated, named and hereafter referred to as the Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park ("the Park").

**Section 2.** That the past and future existence of the Conservation Values conserved by these Conservation Easements ("the Conservation Values") contribute to and support the purposes of the Park, which are recreation, park and wildlife and waterfowl refuge, with the wildlife and waterfowl refuge as the primary purpose and that Farmington City is required to preserve these purposes in perpetuity pursuant to the terms of the Conservation Easements.

**Section 3.** That since their acquisition, the Conservation Easements have been used by the public and managed for the park and recreational purposes, as such purposes are consistent with the wildlife and waterfowl refuge purposes.

**Section 4.** That the park and recreational purposes shall be passive in nature and use and shall be managed in a manner consistent with the wildlife and waterfowl refuge purposes.

**Section 5.** That Management Plans were in place and in effect at the time the Conservation Easements were acquired as consideration for increased density on the property of

the Grantors, which Management Plans were followed, enforced and amended as necessary to facilitate the Conservation Values and the primary and incidental purposes of the Park. A new Management Plan has been created in response to Farmington Ordinance No. 2014-23, adopted on June 17, 2014 and this Ordinance. This Plan may include the placement of signage to direct and inform the Public about the Park purposes and the Conservation Values protected by the Park and the Conservation Easements.

**Section 6.** That facilities for park and recreational purposes may be constructed consistent with the terms and conditions of the Conservation Easements, but only to the extent necessary to allow those purposes to be enjoyed by the Public in a manner consistent with the primary purposes of the Park as a wildlife and waterfowl refuge.

**Section 7.** That to the extent uses inconsistent with the terms and conditions of the Conservation Easements and the Conservation Values protected thereby are available under the existing and future Zoning and General Plans of Farmington City, such uses shall not be approved.

**Section 8.** That to the extent permitted and/or inconsistent uses may be allowed under the Conservation Easements that conflict with the Conservation Values and the primary purpose of the Park as a wildlife and waterfowl refuge, such uses shall not be approved. Agricultural and other uses that are potentially inconsistent with the wildlife and waterfowl refuge purpose shall only be undertaken or allowed to continue in accordance with Best Management Practices that render such uses consistent with the wildlife and waterfowl refuge purposes.

**Section 9.** That to the extent the other Conservation Values or other aspects of the Conservation Easements are inconsistent with the primary purpose of the Park as a wildlife and waterfowl refuge, the wildlife and waterfowl refuge purposes shall be deemed primary and shall take precedence. Any agricultural and other Conservation Values that are potentially inconsistent with the wildlife and waterfowl refuge purposes shall only be undertaken or allowed to continue in accordance with Best Management Practices and in a manner that renders such Values consistent with the wildlife and waterfowl refuge purposes.

**Section 10.** That the existence of Endangered, Threatened and Listed species has been documented on the land protected by the Conservation Easements and the continued use by these species of the Park shall be respected and, where deemed prudent by Farmington City and other agencies, facilitated and enhanced. The Management Plans shall be amended as necessary to facilitate and foster wildlife and waterfowl habitat, as well as the other purposes and Conservation Values of the Park, so long as those efforts are consistent with the primary wildlife and waterfowl refuge purposes of the Park.

**Section 11.** A Management Plan has been prepared by a consultant to Farmington City and that Plan scientifically supports the existence of a wildlife and waterfowl refuge across the entirety of the Park. These resources and the viability thereof have been fully documented and are both sustainable and consistent with the other existing Conservation Values and the existing and future potential uses associated with the Conservation Easements.

**Section 12. Severability.** If any section, part or provision of this Ordinance is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Ordinance, and all sections, parts and provisions of this Ordinance shall be severable.

**Section 13. Effective Date.** This Ordinance shall become effective twenty (20) days after publication or posting, or thirty (30) days after passage, whichever occurs first.

**PASSED AND ADOPTED BY THE CITY COUNCIL OF FARMINGTON CITY,  
STATE OF UTAH, THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2015.**

**FARMINGTON CITY**

ATTEST:

\_\_\_\_\_  
[ ]  
City Recorder

By: \_\_\_\_\_  
[ ]  
Mayor



# City of Farmington

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## Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park

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### Management Plan

July 2015

Submitted by:



WP Natural Resource Consulting, Inc.

Ph. 801.699.5459

Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park Management Plan

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## **Executive Summary**

### **Project Description and Goals**

The goals and objectives of this management plan for the Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park (heretofore "Park") is to provide and pursue a better understanding of the nature, extent, and condition of the natural resources within, and adjacent to the Park. The understanding of the Park's role in the regional ecosystem will then be combined with effective stewardship practices and actions to help sustain those resources into the future to assure the conservation values as prioritized in the ordinances governing the Park and set forth in each Conservation Easement are maintained. The Park is an amalgamation of 4 separate conservation easements that were combined for management purposes through a City Ordinance to allow the natural resources to be managed more consistently in order to serve the primary purpose of this park as a wildlife and waterfowl refuge. This Management Plan is a comprehensive document of findings provided to the City of Farmington as a resource to help identify appropriate goals, guidelines and potential threats to the park resources, as well as to provide prioritized recommended measures to help protect and sustain the wildlife and waterfowl refuge areas of the Park. The work accomplished to date demonstrates that the entire Park functions as a sustainable wildlife and waterfowl refuge, which will be protected as such by Farmington City. Through the Management Plan process, it will be possible to continue to provide the incidental, yet high quality passive recreation and park opportunities to visitors in a natural setting.

### **Significant Wildlife and Waterfowl Related Natural Resources**

After natural resource surveys and assessments were conducted by WP NRC Inc, it became clear the Park has many important and significant wildlife and waterfowl related natural resources. These resources and their respective locations are shown in Figures 1 through 5. The Park's resources vary in their condition, as some impacts can be seen from past land use activities of livestock grazing and water management activities, and from current issues such as noxious weed invasion and potential easement violation issues.

The **wildlife** resources at the park that are of particular interest include (Figures 1 thru 5):

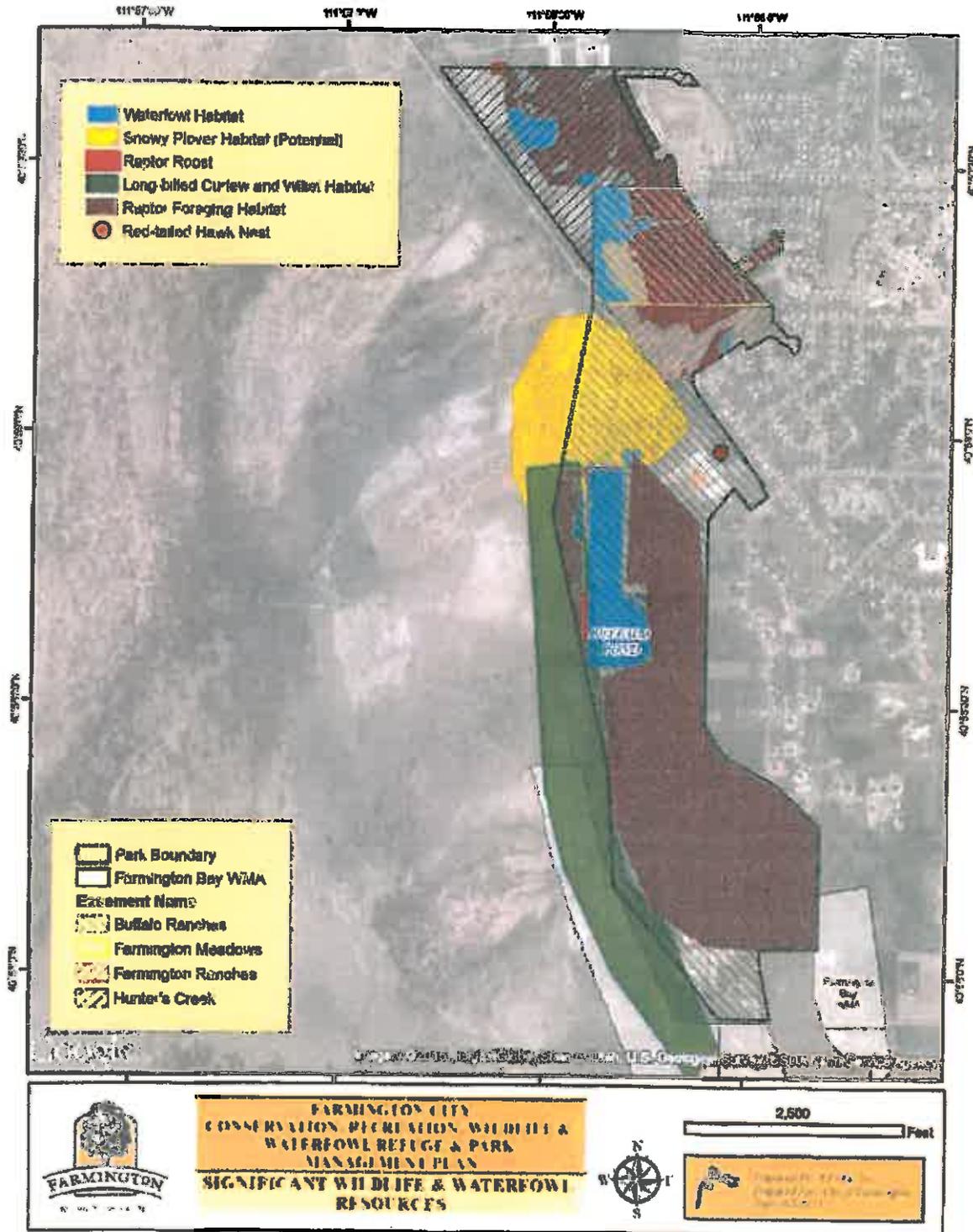
- ☐ **Abundant waterfowl activity** at Buffalo Pond and other open water as well as on the native emergent marsh areas of the Park.
- ☐ **Abundant shorebird use** – Two state sensitive species, the American white pelican and the long billed curlews use the park. Numerous pelicans use Buffalo Pond for loafing and long billed curlews use the grass meadows directly adjacent to the lake.
- ☐ **Snowy plover habitat** – this federally threatened shorebird can use the saline playas just north of Buffalo Pond as foraging and possibly nesting habitat
- ☐ **Raptor use** - Bald eagles have been seen loafing in the cottonwoods adjacent to Buffalo Pond and kestrels and other raptors hunt in the upland meadows.
- ☐ **Small mammal habitat**- Throughout the Park, numerous small mammal burrows (chiefly mice - *Microtis* spp) provide food for many of the raptors in the area.
- ☐ **Egrets, common yellow throat and Soras** were all noted using the emergent marshes on the Park

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- **Successful red tail hawk nest** - there is an occupied nest currently located on a central power pole within the Park.

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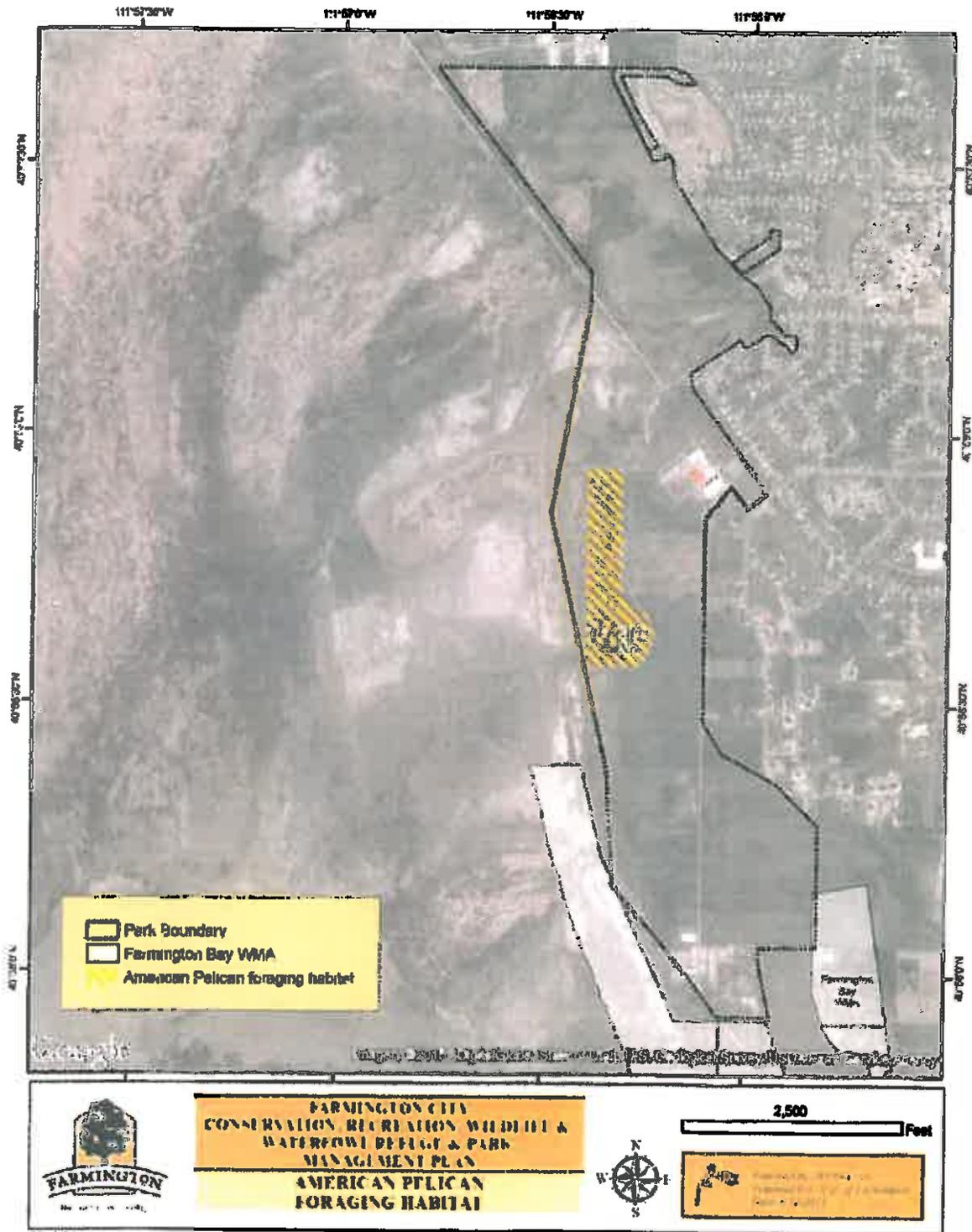
Figure 1. Significant Wildlife and Waterfowl locales at the Park (1 of 5)



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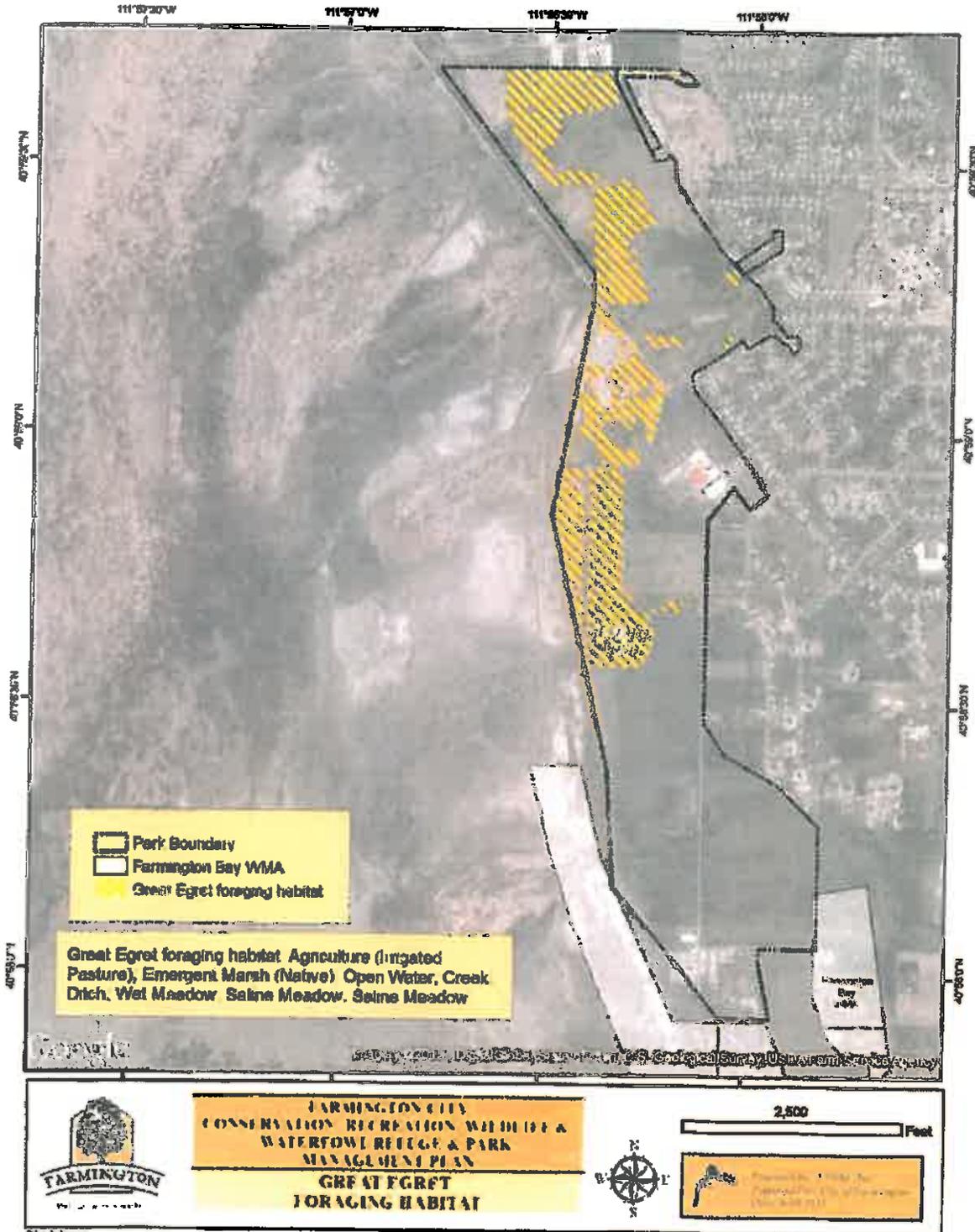
Figure 2. American Pelican Foraging Habitat at the Park



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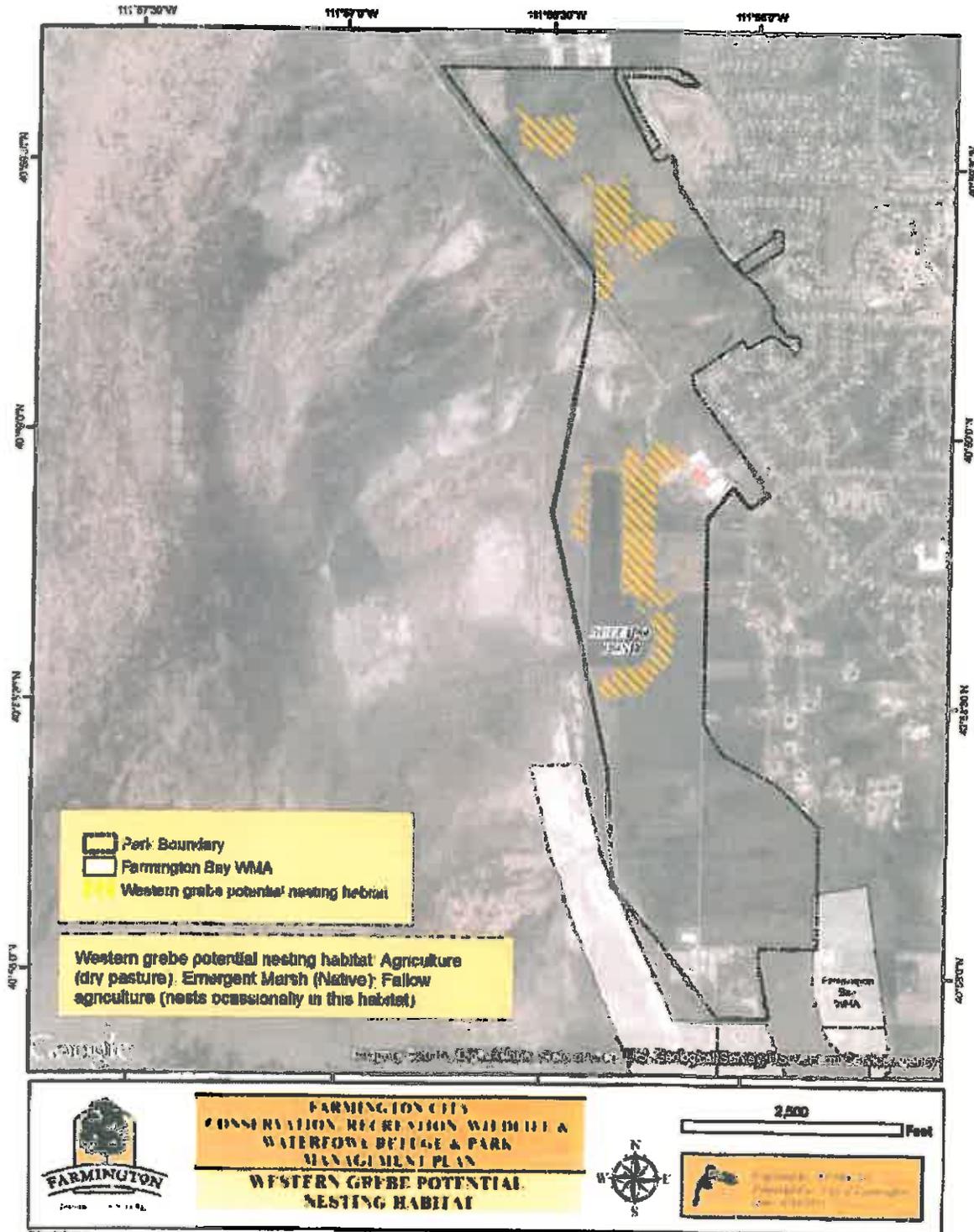
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Figure 3. Great Egret Foraging Habitat at the Park



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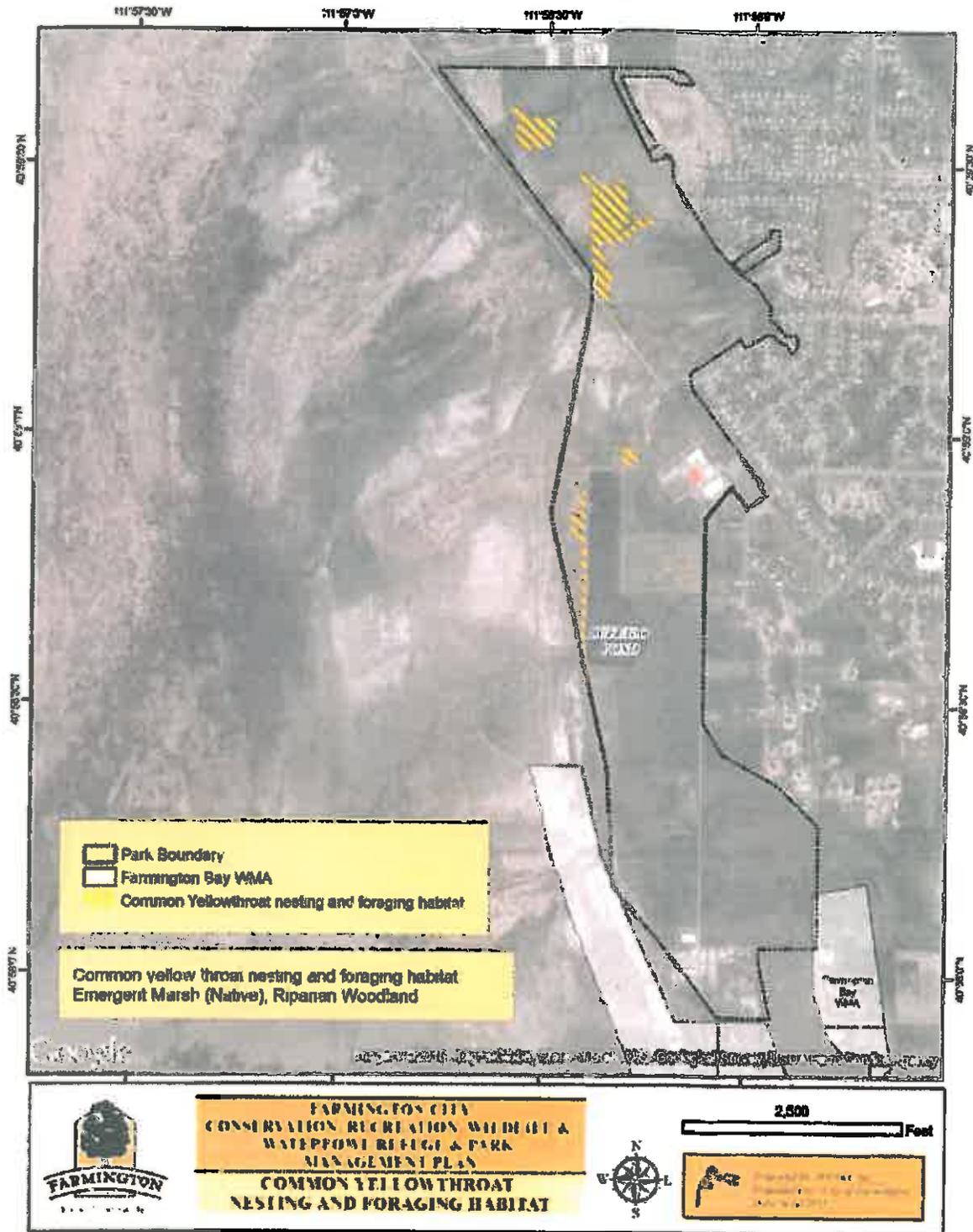
Figure 4. Western Grebe Potential Nesting Habitat at the Park



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Figure 5. Common Yellow Throat Potential Foraging and Nesting Habitat at the Park



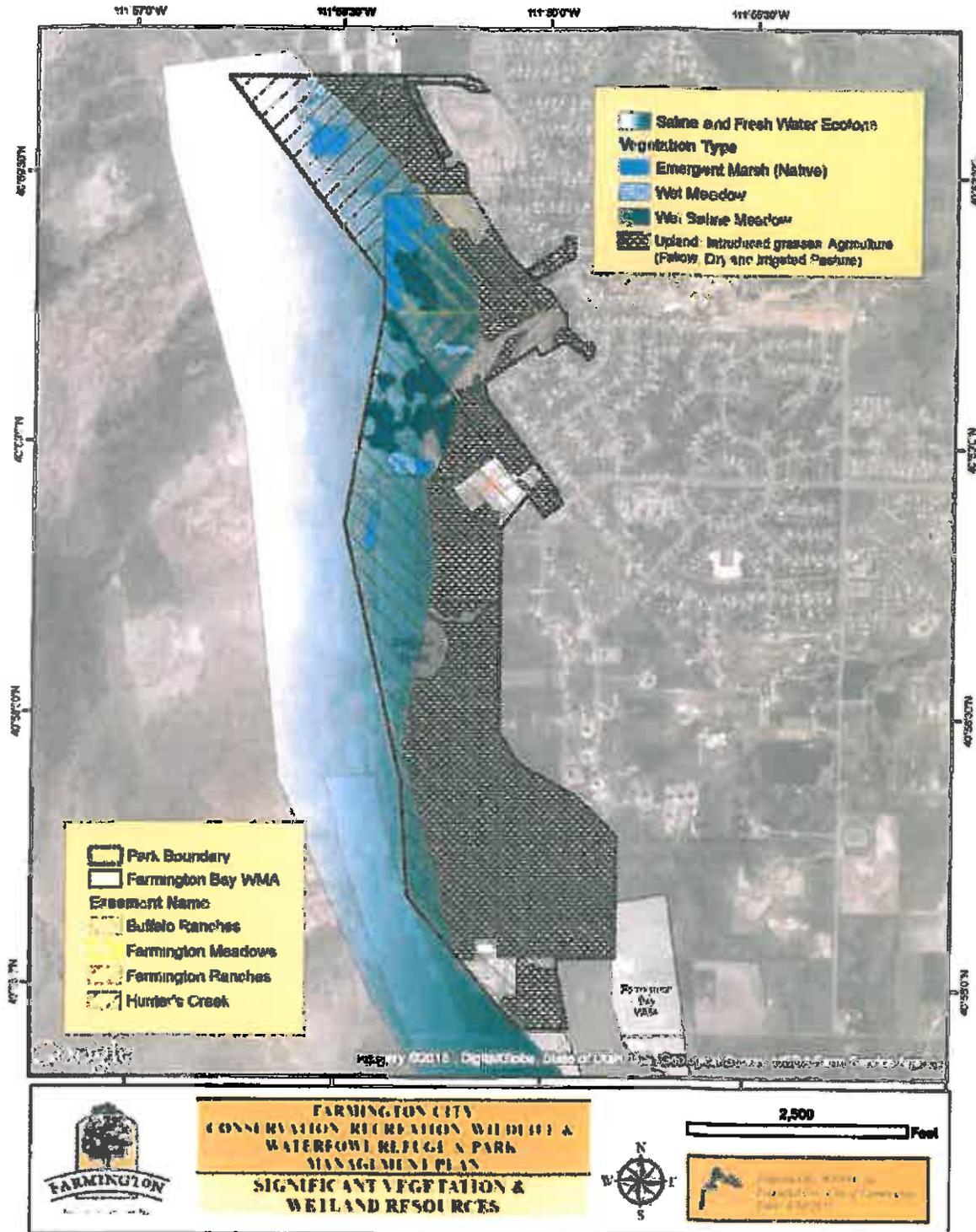
The **vegetation and wetland** communities at the Park provide a mosaic of habitats for wildlife and waterfowl as well as for improved water quality and water retention. See **Figure 6**

- ☞ **Ecotone between fresh and saline environments** - The intersection of the saline environment of the Great Salt Lake and the fresh water flowing west through the property provides an overlap of habitats for vegetation and wildlife species dependent upon each of these environments, making the diversity of the area exceptionally high.
- ☞ **Wet Fresh meadows** – This wetland type is unique and thus very important in the surrounding arid environment. These meadows provide important functions such as flood abatement, water retention, improved water quality and wildlife and waterfowl habitat.
- ☞ **Wet Saline Meadows** – this is a unique vegetation community found around the Great Salt Lake that includes specialized plant species that can tolerate extremely saline conditions and provides habitat for many shorebirds. It is also important for flood attenuation, water retention, improved water quality and wildlife and waterfowl habitat.
- ☞ **Emergent Marsh** This vegetation type provides habitat for numerous waterfowl and other birds as well as serving ecological functions such as water retention, flood attenuation and water quality improvement.

The combination of 1) numerous different habitat types, 2) limited permitted uses that are not inconsistent with the primary purpose of the Park, and 3) the location of the Park along the shores of the Great Salt Lake and directly adjacent to Farmington Bay Wildlife Management Area provides for abundant opportunity for waterfowl and wildlife to utilize the riches of the area without persistent disturbance from humans. Disturbance from humans could jeopardize their health and/or survival. Further, proper management of the agricultural uses (livestock grazing) in certain areas of the Park allows continued use of the area by wildlife and waterfowl and is thus consistent with the primary function of the Park as a wildlife and waterfowl refuge. Properly controlled livestock grazing is one of the most powerful and effective land management tools to modify habitats as needed to improve habitat quality and/or quantity for wildlife and waterfowl.

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Figure 6. Significant Vegetation and Wetland Resources



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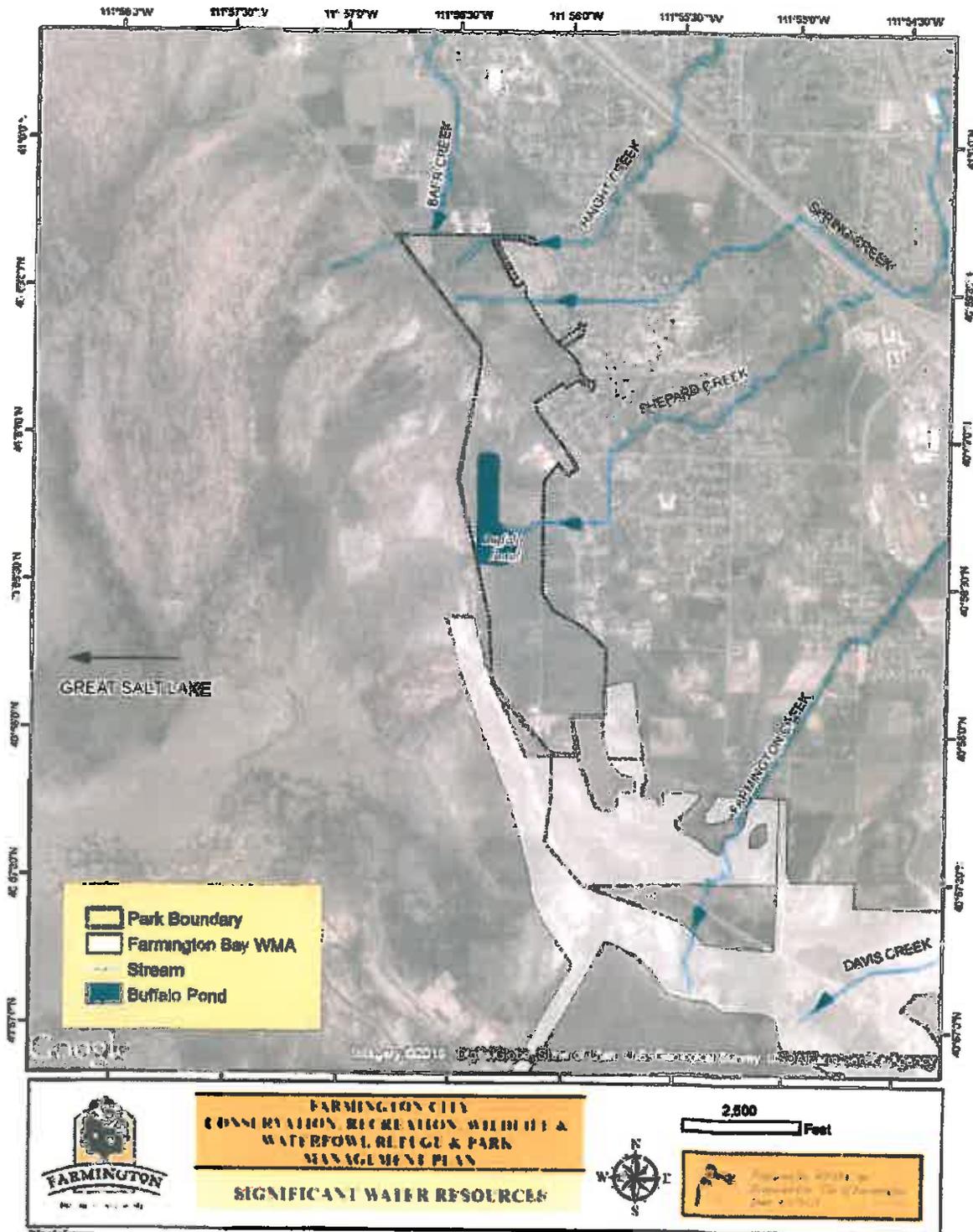
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The numerous freshwater resources at the Park are of great importance to the function of the Park as a wildlife and waterfowl refuge. Four creeks flow through the property in this otherwise arid area (Figure 7). These four creeks are:

- ☐ **Haight Creek-** Flows into the property along the northern border after the creek flows through Farmington. The Creek is heavily used by the Haight Creek irrigation company for the Kaysville area. The creek can be totally dry at some times of the year, but can flow up to 2 cubic feet per second (cfs).
- ☐ **Baer Creek-** Flows into the property from the north. The Creek flows by the Central Davis Sewer District, but they do not discharge into Baer Creek. Baer Creek is an ephemeral creek and varies in flow volumes from 1-2 cfs (cubic feet per second) to around 24 cfs.
- ☐ **Shepard Creek –** Flows into the property from the mountains east of Farmington. Shepard Creek is also used for irrigation water. Shepard Creek fills Buffalo Pond before it is discharged into the Great Salt Lake.
- ☐ **Spring Creek –** Flows into the central portion of the property and is also an ephemeral flow. Spring Creek originates at a spring just east of Highway 89.

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Figure 7. Significant Water Resources



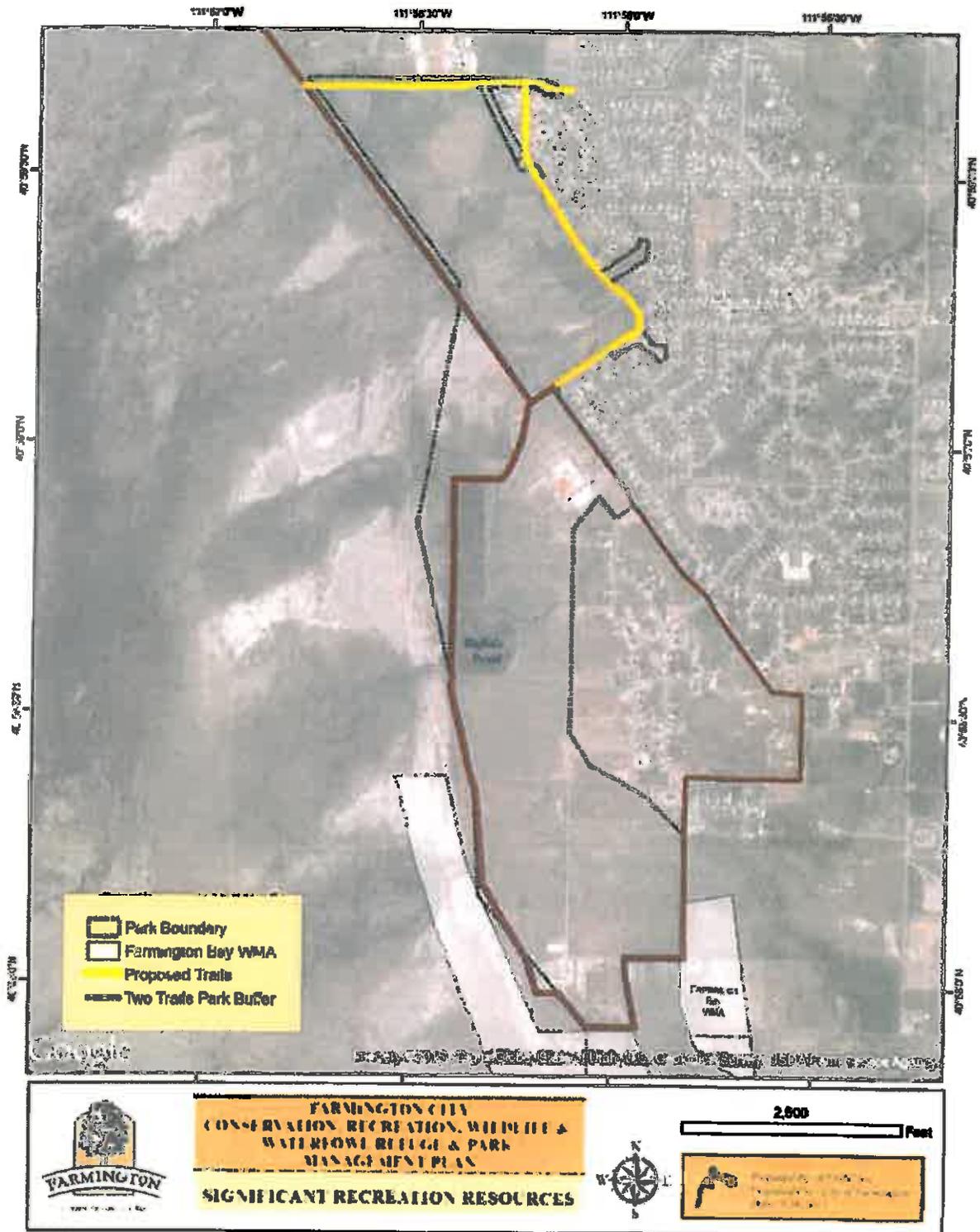
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The **recreational opportunities** of the Park are unique in the area and include (Figure 8):

- ☞ **A Trail network** - though chiefly around the edges of the property, it allows residents to enjoy the Park on foot, on a bicycle or on horseback for exercise and a nature experience, while allowing wildlife and waterfowl to remain relatively undisturbed. Proposed trails are planned for passive use to remain on the edges of the Park for this reason.
- ☞ **Passive recreation** – Residents often use the trails to watch birds. Exciting bird presence can often be seen on Buffalo Pond, in playas, saline meadows, upland meadows and emergent marshes throughout the Park as well as any area toward the Great Salt Lake.

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Figure 8. Significant Recreation Resources



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There are also conditions at the Park that threaten some of these wildlife and waterfowl resources. These conditions include:

- **Weed Infestations** and introductions of exotic species. In particular, the purple loosestrife (*Lythrum salicaria*) found on the property can be an aggressive invader of wetlands that can negatively alter the health of the wetland communities. Other species in need of control include common reed (*Phragmites australis*), tall white top (*Lepidium latifolium*) and Scotch thistle (*Onopordum acanthium*). The invasion and spread of purple loosestrife can negatively modify the function of the ecosystem by modifying the structure and composition of the wetland vegetation. This in turn can reduce food and cover availability for wildlife and waterfowl.
- **Conservation Easement Violations** – Regular enforcement of the values to be preserved under the conservation easements helps to maintain the lands in good condition while preserving the conservation values for future generations. Easement violations can include such things as illegal trash dumping, illegal soil dumping or illegal storage of trailers or other debris on the Park. These violations can remove and/or degrade valuable habitat for wildlife and waterfowl.
- **Feral Cat population**- Feral cats can have a strong negative influence on wildlife and waterfowl populations in the Park. Cats have been known to decimate birds and small mammal populations. The unchecked loss of small mammals and birds at the park upsets the balance of the food chain as raptors will need to burn more calories to hunt for food elsewhere and birds are unable to sustain their populations.

## **Management Goals and Objectives**

The following section lists the significant features at the park and then below each one is a specific resource-based **objective** designed to protect the resource. Then there are **actions**, plans or best management practices to reach these objectives and a **monitoring** plan to determine if the objectives are being met.

### **Waterfowl and Wildlife**

The Park is heavily used by waterfowl and wildlife and is an important loafing area for them as well as a bird watching delight for the local community. Its location adjacent to the Great Salt Lake nestled between other wildlife refuges along the shore creates a relatively continuous expanse of a variety of habitats for an equally diverse number of birds dependent upon the Great Salt Lake during migration stopovers for their primary life sustaining needs during spring and fall flights. The Great Salt Lake ecosystem depends upon both the mineral rich saltwater and the freshwater delivered to the lake from this Park and other inputs to support and sustain the ecosystem and thus the multitude of waterfowl and wildlife dependent upon it.

**Objective:** Maintain and improve conditions for waterfowl, shorebirds, raptors, herptofauna, and small mammals throughout the Park.

**Actions/Plans/BMPs:** Consider raptor perches in the upland meadows to encourage more raptor use. Consider planting vegetation around Buffalo Pond and other areas to improve wildlife habitat. Work with the local chapter of the Audubon Society to do regularly scheduled bird and breeding bird surveys. Work with Davis County on increasing the trapping of feral cats at the Park.

**Monitoring:** Coordinate with local chapter of the Audubon Society to conduct regular surveys of the Park to better understand the extent and seasonal uses of the Park by the different guilds of birds. Monitor the

abundance and distribution of small mammals, particularly before and after a feral cat trapping program has been implemented

### **Vegetation and Wetlands**

The vegetation and wetlands in the Park are directly connected to the Great Salt Lake – a globally important ecosystem, particularly for migrating birds. The mosaic of wet fresh meadows, saline meadow, emergent marshes, saline playas, fallow agricultural fields, and irrigated pastures provides life sustaining needs for many wildlife and waterfowl species in a relatively small area.

**Objective:** Improve the condition of uplands, wetlands and riparian areas to a better and more functional condition. Improve levels of diversity, structure, and increase the dominance of native species. Prevent the spread of noxious weeds.

**Actions/Plans/BMPs (Best Management Practices):** Control phragmites weeds through integrated management (chemical and mechanical means) to open up wetland areas. Replace non-native phragmites with native bulrushes. Remove Russian olives and plant with native cottonwoods and/or willow. Strategically control other noxious weeds in the upland areas to allow for desirable vegetation to take hold. Complete and implement a grazing management plan to better understand the past and current stocking rates, pasture rest periods and overall grazing intensity and possible effects on wildlife habitat effectiveness.

**Monitoring:** Establish permanent vegetation transects in areas to be improved to be able to quantify changes. Understand and monitor livestock use to assure the Conservation Values are being upheld.

### **Recreation Opportunities**

Trails within the park are an important community benefit that will likely be expanded in the future as Farmington grows. A trail along the edge of the Hunter Creek Conservation Easement is proposed to allow visitors to experience more of the park while leaving the central area of the Park free of human intrusion to allow the wildlife to remain undisturbed

**Objective:** Maintain a variety of recreational opportunities such as hiking, biking, horseback riding, bird watching and educational opportunities for the local and regional community, while assuring most wildlife and waterfowl are left undisturbed

**Actions/Plans/BMPs:** Continue to maintain trails, provide additional trail connections where possible while ensuring conservation values are maintained. Ensure city staff understands the sensitive resources on the property and what constitutes an easement violation. Cultural surveys should be conducted as further Park development occurs to determine the potential location and extent of historic structures or articles.

**Monitoring:** Conduct monitoring of trail use and type of use at strategic locations to understand the use numbers and trends on the properties

### **Water Quantity and Quality**

Continued development of Farmington likely translates to more paved surfaces. The resulting storm drains that discharge onto the Conservation Easements will likely carry more water in the future.

**Objective:** To maintain and/or improve surface water quality reaching the Park.

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**Actions/Plans/BMPs:** Work with the City of Farmington and Davis County Environmental Health Department to install trash racks and/or drain guards to remove debris and contaminants from the water prior to it reaching the Park. Place interpretive signs regarding storm water management to inform visitors and the community.

**Monitoring:** Monitor water quality above and below storm water discharge points if possible. Keep a photo log of debris cleaned from trash racks.

## **Chapter 1 – Purpose**

### **Purpose of this Plan**

The purpose of this plan is to encourage the best possible management of natural resources at the Park to ensure the primary purpose of the Park as a wildlife and waterfowl refuge area is maintained and, over time, improved. This will require ensuring the continued maintenance of the stated conservation values in the Conservation Easements related to the refuge purposes while providing public access, but only where it is congruent with these objectives. This requires identifying the nature and extent of the natural resources of the Park, developing guidelines to facilitate a better understanding of these resources, and provide suggestions for both short-term and long term management. The process includes an examination of each natural resource through field work and research and collecting GIS data. From this work, a list of resource objectives is generated, a list of actions to try to meet objectives is created, and monitoring suggestions are given to observe trends over time and to be able to halt or reverse any negative trends in the natural resources (e.g. reduced water quality, increased erosion, increased noxious weed presence).

This integration of specific resource objectives into this and successive Management Plans for the Park is key to ensuring the sustainability of the resources and thus honoring the conservation values and the primary purpose of a wildlife and waterfowl refuge. This plan should be updated every five years.

The actions, plans or studies will require money and time to implement. As a result, they are prioritized to assure the most important activities take place first. The City staff should then turn these lists into a long term budget and a set of work priorities for each year. Additionally, the City staff may be able to involve some academics, volunteers or agency people to accomplish some of the studies or plans for a low cost. It may also be possible to get grants to address some of the issues.

### **Guiding Documents**

Beginning in 1998, the City took action to support the acquisition of conservation easements and then successfully placed four conservation easements on the Park properties. These actions were taken to assure little to no development occurred in areas with high flooding risk adjacent to the Great Salt Lake, and to serve as open space for the community. Each parcel within the Park has a written Conservation Easement in which conservation values, permitted uses, conditional uses and prohibited uses are stated. The Conservation Easements are in the process of being amended to further bolster these conservation values, with the wildlife and waterfowl refuge as the primary purpose.

#### **Buffalo Ranch CE** (Owned by Viking Real Estate, LLC)

**Stated Conservation values** - "The property possesses unique and sensitive natural, scenic, open space, wildlife, farmland, floodplain and/or wetland values." The purpose of the easement is "...to assure that the property will be retained forever in its natural scenic agricultural and/or open space condition."

#### **Permitted Uses (as defined in easement) include:**

- Livestock grazing (provided good range stewardship shall not exceed a degree of use described as good to excellent by the USDA NRCS and shall not materially degrade or deteriorate the range resource, wildlife habitat or conservation values)
- Equestrian facilities (riding arena would entail a conditional use permit)

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-Underground utility facilities and easements for drainage, sewer (subject to restoration within 90 days)

-Public streets approved by the City (delineated in Exhibit B)

-New fencing only as needed

-Existing agricultural and residential structures and improvements within reason

**Conditional uses:**

-Community open spaces, gardens, shooting ranges other commercial uses in areas delineated in Exhibit B

-Accessory buildings used solely for agricultural purposes in areas delineated in Exhibit B.

-Educational structures and improvements only in designated area in Exhibit B

-Water structures, improvements, marshlands, wetlands and riparian communities may be established, constructed and maintained provided they are consistent with the conservation easement purposes.

**Prohibited uses:** There are 16 specific prohibited uses outlined in the conservation easement, but essentially they pertain to 'the change, disturbance alteration or impairment of the significant natural ecological features and values of the property or the destruction of other significant conservation interests on the property.'

**Existing Management (Maintenance) Plan:** Viking Real Estate will do the following tasks: irrigation, weed abatement, lawn care and landscaping, mowing of pasture lands, fence upkeep, road upkeep, building upkeep, and other tasks needed to maintain operations thereon.

**Hunter's Creek CE** (owned by Woodside Hunters Creek, LLC)

**Stated Conservation Values:** "The property possesses unique, sensitive, natural, scenic, aesthetic, open space, wildlife, agricultural, pasture land, ecological, floodplain, upland and wetland values."

**Permitted Uses (as defined in easement) include:**

-Livestock grazing (provided good range stewardship shall not exceed a degree of use described as good to excellent by the USDA NRCS and shall not materially degrade or deteriorate the range resource, wildlife habitat or conservation values) (areas delineated in Exhibit B)

- -Underground utility facilities and easements for drainage, sewer (subject to restoration within 90 days)

-New fencing only as needed

-Existing agricultural and residential structures and improvements within reason

**Conditional uses:**

-Non-commercial and non-motorized recreational use

-Community open spaces, gardens, village greens (Excludes shooting ranges other commercial uses in areas delineated in Exhibit B)

-Accessory buildings used solely for agricultural purposes in areas delineated in Exhibit B.

-Water structures, improvements, marshlands, wetlands and riparian communities may be established, constructed and maintained provided they are consistent with the conservation easement purposes.

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**Prohibited uses:** There are 16 specific prohibited uses outlined in the conservation easement, but essentially they pertain to ‘the change, disturbance alteration or impairment of the significant natural ecological features and values of the property or the destruction of other significant conservation interests on the property.’”

**Management (Maintenance) plan highlights**

- All management responsibilities are up to Woodside Hunters Creek LLC
- Flow path of streams shall be maintained by Davis County, stream banks are responsibility of Woodside
- Wetlands maintained in accordance with and subject to rules and regulations of US Army Corps of Engineers (USACE)
- Any revegetation plan should be submitted to the city

**Farmington Meadows CE** (Owned by Christensen Land Company, LLC)

**Stated Conservation Values:** The property possesses unique and sensitive, natural, scenic, aesthetic, open space, wildlife, ecological, floodplain, riparian communities and/or wetland values

**Permitted Uses:**

- Livestock grazing (provided good range stewardship shall not exceed a degree of use described as good to excellent by the USDA NRCS and shall not materially degrade or deteriorate the range resource, wildlife habitat or conservation values) (areas delineated in Exhibit B)
- Underground utility facilities and easements for drainage, sewer (subject to restoration within 90 days)
- New fencing only as needed

**Conditional uses:**

- Non-commercial and non-motorized recreational use
- Community open spaces, gardens, village greens (Excludes shooting ranges other commercial uses in areas delineated in Exhibit B)
- Accessory buildings used solely for agricultural purposes in areas delineated in Exhibit B.
- Existing agricultural and residential structures and improvements within reason
- Water structures, improvements, marshlands, wetlands, riparian communities and ponds maybe established, constructed and maintained, provided they are consistent with the purpose of the easement

**Prohibited uses:** There are 17 specific prohibited uses outlined in the conservation easement, but essentially they prohibit the change, disturbance alteration or impairment of the significant natural ecological features and values of the property or the destruction of other significant conservation interests on the property.

**Management (Maintenance) Plan** – 3 stated maintenance areas

1. Cross project and shoreline trails (maintained by the City)
2. Wetland and upland open space within Parcel D will be maintained by the developer Boyer Farmington Meadows, L.C.

3. Wetland and upland areas outside of Parcel D will be maintained by the Farmington Meadows Homeowners Association or their authorized assign in accordance with the landscape plan submitted as part of each phase of the project and subject to others and conditions of the Development Agreement

**Farmington Ranches CE** (owned by Spencer J and Elizabeth R Moffat.)

**Stated Conservation Values:** The property possesses unique and sensitive, natural, scenic, open space, wildlife, farmland, floodplain, and/or wetland values.

**Permitted Uses:**

- Livestock grazing (includes raising crops) provided good range stewardship shall not exceed a degree of use described as good to excellent by the USDA NRCS and shall not materially degrade or deteriorate the range resource, wildlife habitat or conservation values (areas delineated in Exhibit B)
- Equestrian facilities for class "B" animals ( a riding arena would require a conditional use permit)
- Underground utility facilities and easements for drainage, sewer (subject to restoration within 90 days)
- Public streets approved by the City of Farmington in designated areas
- New fencing only as needed
- Improvements and maintenance to existing agricultural structures. Although not encouraged, new buildings and other structures or improvements to be used primarily for agricultural purposes including residential structures used solely to house farm owners, tenants and employees (as designated on Exhibit B)

**Conditional uses:**

- Non-commercial and non-motorized recreational use
- Community open spaces, gardens, village greens (Excludes shooting ranges other commercial uses in areas delineated in Exhibit B)
- Accessory buildings used solely for agricultural purposes in areas delineated in Exhibit B.
- Existing agricultural and residential structures and improvements within reason
- Educational structures as delineated in Exhibit B
- Water structures, improvements, marshlands, wetlands, riparian communities and ponds maybe established, constructed and maintained, provided they are consistent with the purpose of the easement

**Prohibited Uses:** There are 16 specific prohibited uses outlined in the conservation easement, but essentially they pertain to the disallowance of "the change, disturbance alteration or impairment of the significant natural ecological features and values of the property or the destruction of other significant conservation interests on the property."

**Management:**

There are 5 areas with different ownership and thus management responsibilities:  
1)Neighborhood Open Space, 2)Cross Project and Shoreline Trails 3)Project Setbacks

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**4) Upland and wetland Open Space and 5) Upland and Wetland Open Space within Conservancy Lots**

**Neighborhood Open Space – Landscaping and irrigation systems shall be installed and maintained by the property owner. These spaces shall be maintained, groomed and manicured by the property owner**

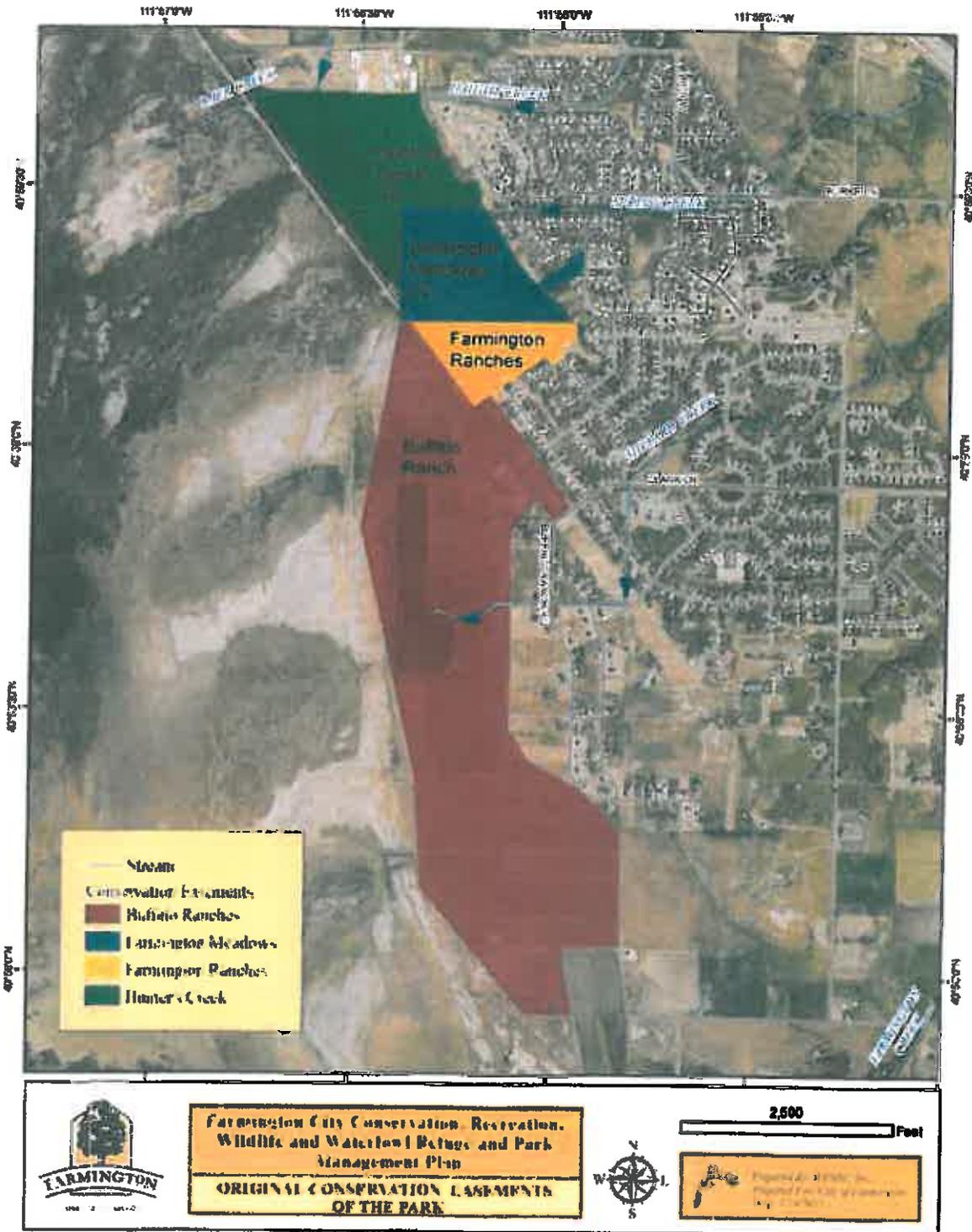
**Cross Project and Shoreline Trails – shall be developed in accordance with the Development Agreement and shall be maintained by the property owner.**

On June 17, 2014, the City of Farmington adopted an Ordinance to combine these four Conservation Easements into one unitary resource. The idea was to combine financial and ecological resources for the most efficient and effective management of the Park for its primary purpose as a wildlife and waterfowl refuge area. All permitted uses are or can be congruent with this primary purpose with the implementation of a management plan. Livestock do not pose a threat to birds and can be managed so as to assure they are not in pastures when birds may be nesting. Further, it is fortunate that the Conservation Easements allow livestock grazing, as grazing can be a much needed, powerful and effective land management tool to improve land health. Livestock can be used to reduce noxious weed populations, enrich local soils and potentially reduce wildfire danger. Further, the use of livestock grazing alone or in conjunction with changing irrigation practices can be used in many ways to instigate desired changes in the vegetation communities to improve wildlife and waterfowl habitat.

Figure 9 shows the original Conservation Easements and their adjacency and thus the intelligence of combining these properties under one Management Plan.

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**FIGURE 9- Original Conservation Easements of the Park**



## **Elements of Stewardship and Management**

Three components of the Management Plan process are a Baseline Resource Assessment, a Stewardship Plan, and GIS. All of these elements will be designed to support the primary purpose of the Park as a wildlife and waterfowl refuge.

### **Baseline Resource Assessment**

To effectively manage the natural systems, the City must be aware of the significant resources present. WP NRC staff has conducted baseline resource assessments to document the resources and their respective condition. These assessments are the basis for determining the significant resources, conditions, impacts, and threats relevant to the Park. The names of these assessments are located in a table in Chapter 2.

### **Management Plan**

The Management plan is an effort to synthesize existing information about the Park's resources and incorporate new data collected during the Baseline Resource Assessment. Resource element descriptions provide current and desired future conditions of the Park's natural resources. The plan also provides prioritized management recommendations to protect these resources, while continuing to provide public access for recreational opportunities where appropriate. An update to the Management Plan will be necessary to update goals and objectives to address current and/or ongoing issues.

### **Management Recommendations**

Recommendations can be prioritized and are provided in several forms:

- **Actions** – These are measures that the City should complete as soon as possible with the landowners. For example, “Build a fence to exclude cattle from the south parcel.” Implementation should follow “Best Management Practices,” which are state-of-the-art techniques that limit impacts to natural resources.
- **Resource Management Plans** – These recommendations address more complex issues and require more time, money, and expertise than is currently available. However, the stewardship plan does evaluate the plan's priority in relation to other needs, suggests parameters, and recommends appropriate agencies or contractors to complete the process.
- **Management Prescriptions** – Where time and budget allow, more detailed management strategies can be provided. Prescriptions can be 3-20 page documents detailing specific management actions to address a situation that may be an issue elsewhere. For instance, “How to control Canada thistle.”
- **Monitoring** – An important focus of a management process is to create monitoring processes that evaluate the health and condition of resources over time. This is a critical component of decision making for maintenance procedures and new development projects. This plan suggests areas to be monitored, explains the protocol, and suggests appropriate personnel for the task. The use of GIS for organization, storage, and analysis, monitoring data is highly recommended.

## **Using GIS for Resource Management**

The use of GIS by City staff is a vital component of good land management. Large amounts of information can be displayed on a map and linked to tables of descriptive information, such as maintenance and monitoring data or detailed graphic imagery. For example, using GIS to track noxious weeds within the park allows one to see patterns of weed distribution over time. Projecting future scenarios, planning of a new trail to the cost of a new fence, and observing trends in resource condition are all easier to realize with the help of GIS.

## Chapter 2 - Park Description

### Description

The Park lies inside the City limits of Farmington, the City is between the Front of the Wasatch Mountains and the Great Salt Lake. Beginning in 1998, Farmington City began to strategically preserve the region between the Great Salt Lake and suburban development to assure protection from the shores of the Great Salt Lake directly to the West through the use of Conservation Easements. Not only would it prevent future development and serve as more of an assurance against flooding and/or ponding characteristic of the Great Salt Lake, it would provide habitat for the plethora of migrating birds that require the Great Salt Lake Ecosystem as a stopover in their journeys - all while providing passive recreation opportunities for the community. The location and habitat contained within the majority of the Park's 415 acres provide adequate space for the Park to function primarily as a wildlife and waterfowl refuge.

The site is a mixture of upland meadows, agricultural meadows, wet fresh meadows, wet saline meadows, saline playa and emergent marshes of various conditions. The Farmington Bay Wildlife Management Area (WMA) – an 18,000-acre wildlife refuge that is managed specifically for the benefit of waterfowl and shorebirds- is located directly south of the investigation area. As a result of the proximity of the conservation easements to Farmington Bay WMA and other preserves along the shores of the Great Salt Lake, various waterfowl, shorebirds and raptors can often be seen using these City of Farmington properties. Additional preservation properties along the shore of the Great Salt Lake to the south include the Inland Sea Shorebird Reserve and an Audubon bird refuge. To the north of the Park along the shore of the Great Salt Lake, wetland preservation areas include the Great Salt Lake Shorelands and the Layton Wetland Preserve (TNC), the Howard Slough WMA (state), the Ogden Bay WMA (state) and the Bear River Migratory Bird Refuge (USFWS). Figure 27 in Chapter 3 shows the locations of these preserves in relation to the Park.

At the Park, Buffalo Pond, a 24.7 acre man-made water body developed for irrigation purposes, is centrally located within the conservation easements. The Pond now serves as a loafing and foraging area for waterfowl while cottonwoods and other trees in the area serve as roosting and loafing areas for many other birds. In the northern region of the Park a sizable power line parallels the shore of the Great Salt Lake. A berm was built below the line in order to access the power line for maintenance. This berm captures excess surface water before it passes through culverts in the berm to the Great Salt Lake. This altered hydrology provides conditions conducive to the introduced specie - common reed (*Phragmites australis*). Substantial area adjacent to the utility line is thus emergent marsh dominated by common reed. Ideally, through active management, these emergent marshes can be eventually converted to areas dominated by native bulrushes, as the habitat provided by the powerline berm is suitable for native bulrushes. Bulrush (*Schoenoplectus* spp) provides more effective habitat than common reed for wildlife and waterfowl. Until then, wildlife and waterfowl will still use these areas, albeit on a somewhat more limited basis. Further, the powerline poles currently provide and will continue to provide potential nesting areas for raptors.

There are several irrigation ditches as well as natural creeks that traverse the property to bring water to agricultural fields and eventually to the Great Salt Lake. Baer Creek, Spring Creek, Shepard Creek and Haight Creek all pass through the property as well as many existing and potentially abandoned irrigation ditches capture and direct surface and groundwater to the Great Salt Lake. As a result, wetlands of different types are interspersed throughout the property such as wet fresh meadows, saline meadows and emergent marshes. A more detailed description of vegetation types and overall condition will be discussed in the vegetation section of Chapter 3.

## **Current Resource Goals and Objectives**

The goal of the Park is to simultaneously manage for both resource protection, as stated in the Conservation Values, with recreation being an added benefit. This plan suggests revisions and additions to the current Park management practices to achieve goals and objectives by providing specific stewardship objectives in Chapter 5, *Stewardship Recommendations*. Stewardship objectives are based on the significant resources listed in Chapter 3, *Resource Element Descriptions*. All resource goals and objectives are meant to assure the primary function of the Park, which is to serve as a waterfowl and wildlife refuge.

## **Baseline Inventories and Assessment**

Below is the current list of inventories and assessments upon which this stewardship plan is based. Many of these were performed as part of this management plan process.

Type of Inventory/assessment	Date	Entity Responsible
Vegetation Mapping Assessment	2014	WP NRC
Wetland Delineation Assessment	2014	WP NRC
Conservation Easement Inventory and Violation Assessment	2014	WP NRC

Below are resource categories for which inventories or assessments are needed:

Type of Inventory/assessment	Comments
Bird surveys	A systematic bird and breeding bird survey would determine the level of use of the property by each bird species present
Small Mammals	A quantitative assessment of the species and their respective abundance
Herptofauna	A presence/ absence survey would be informational to determine whether habitat conditions support these species
Visitor estimate and survey	In order to establish a management schedule, it is best to get an accurate estimate of the intensity of use in the Park, as well as the levels of use from the various recreational pursuits
Grazing assessment and plan	A baseline on past and recent grazing practices and plans would help to understand the current condition and structure of the vegetation communities at the Park. A grazing plan that includes regular monitoring would follow to assure that conservation values are being preserved.

## **Chapter 3 - Resource Element Descriptions**

This section describes the significance of the natural resources found in the park and assesses their current and projected conditions. The Significant Features, Threats and Description of each resource element are discussed, and the Past and Current Conditions of the resource are summarized in terms of excellent, good, fair, or poor condition statements. The Resource Trajectory identifies the outcome of the status quo and negative trends that are not altered by active management, while the Desired Future Condition section describes the ideal condition of the resource in the future given the parks resource goals. Prioritized Stewardship Recommendations to protect these significant resources while allowing public access where appropriate are found near the end of the plan. The resource element descriptions in this chapter include:

- ❖ **Vegetation and Wetlands**
- ❖ **Waterfowl and Wildlife**
- ❖ **Water Resources**
- ❖ **Soils and Geology**

## Resource: Vegetation and Wetlands

### Resource Summary

The vegetation and wetland resources are currently highly productive communities and are the foundation for the habitat for the relatively high concentrations of waterfowl and wildlife that use the Park as a refuge. The productivity of the vegetation communities also provides suitable conditions for livestock grazing as a secondary use of the Park, a use consistent with the primary purpose of a wildlife and waterfowl refuge.

### Significant Features

- **Diverse Wetland Plant Communities** In this otherwise arid region, the interface of fresh and salt water in this area provides for diverse vegetation community types that can withstand both saline and fresh water environments. These communities are exceptionally productive in that different nutrients and ecological drivers are present at the Park from both the saline environment of the Great Salt Lake and the fresh water from the Wasatch Mountains to the East.
- **Mosaic of vegetation communities**- The mosaic of different wetland and upland communities in the Park provides opportunities for a wide diversity of wildlife distribution and use. The diversity of habitats provides for the different life history needs of several species of wildlife. For example, the short distance between potential nesting areas (such as agricultural meadows, saline meadows or saline playas) and the open and shallow waters for foraging within the Park offers a relatively safe and low energy demand for wildlife at a vulnerable time.

### Potential Threats

- The presence of **noxious weeds** in certain areas of the Park is of concern due to their known ability to displace the native vegetation, reduce biodiversity and degrade wildlife habitat.
- Potential **improper grazing practices** from either not enough rest between grazing rotations and/or too many livestock could compromise the Conservation Values of the Park. However, with proper management, livestock grazing can be compatible and even complementary to land stewardship for wildlife and waterfowl habitat improvements.
- **Potential mismanagement of vegetation** The agricultural fields left fallow are easily invaded by overly aggressive weeds and are not fully functional for either horse pasture nor wildlife habitat. With proper seeding and management practices, these fields could be improved for both livestock and wildlife.

### Description

The site is a mixture of vegetation types including agricultural meadows, wet fresh meadows, wet saline meadows, playa and emergent marshes of various conditions. The Farmington Bay Wildlife Management Area (WMA) – an 18,000-acre wildlife refuge that is managed specifically for the benefit of waterfowl and shorebirds - is located to the south of the investigation area. Buffalo Pond, a 24.7 acre man-made water body developed for irrigation and stock water purposes, is centrally located within the conservation easements. The pond now serves as a resting and loafing area for waterfowl and shorebirds while cottonwoods and other trees in the area serve as roosting and loafing areas for many other birds.

The power line berm captures excess surface water before this water passes through culverts in the berm to the Great Salt Lake. The altered hydrology provides conditions conducive to the introduced species common reed (*Phragmites australis*). Substantial area adjacent to the utility line is thus an emergent marsh dominated by common reed. Further, there are several irrigation ditches and natural creeks that traverse the property to bring water to agricultural fields and eventually to the Great Salt Lake. As a result, an interspersed of vegetation community types exist throughout the property. A detailed description of each vegetation type and associated overall condition is discussed below.

The vegetation communities on the Park were traversed on foot then digitized into a Geographic Information System (GIS) that classifies vegetation communities both by a common name as well as by a standardized vegetation community designated by the National Vegetation Classification Standard (NVSC 2008).

## **CURRENT CONDITIONS**

A description and current condition of the vegetation communities are discussed below. Refer to Figure 21 as to where each of the vegetation communities is located within the Park.

Current vegetation condition determinations are generally based on 4 factors:

- 1) Diversity- Is the diversity of species suitable for the community?
- 2) Structure- Is the structure (age class distribution of species, presence of appropriate stratification – trees, shrubs, herbaceous layers-) appropriate for the vegetation community)?
- 3) Presence/absence of non-native species- Do noxious weeds threaten the persistence of the native plant community?
- 4) Plant health/ vigor- Are the plants free of disease or other afflictions that threaten the ongoing existence of the plant community?

**Agriculture (Irrigated Pasture)** – This vegetation type occupies a total of 25.2 acres and is typically dominated by seeded pasture grasses such as meadow fescue (*Festuca pratensis*) and introduced wheatgrasses (*Elymus* spp) but also some native graminoids such as Inland Saltgrass (*Distichlis spicata*), and spikerushes (*Eleocharis* spp). These areas receive water from both the natural creeks and constructed ditches that cross the Park. Irrigated pastures are generally not permanently inundated but some have jurisdictional wetlands or elements of wetlands depending upon the hydrology of the area.

**Current Condition:** These areas are generally in good condition, but some have hummocks within them as a result of heavy use by livestock in wet conditions. These hummocks can be exacerbated by continued livestock use in wet conditions as cattle will walk around the hummocks and thus the vegetation on the hummocks get thrust higher. Hydrology and vegetation composition of an area can change with the formation of the hummocks as water finds a different path around the hummocks and the vegetation at the top of the hummocks can become desiccated.



Figure 10. Irrigated pasture



Figure 11. Formation of hummocks in irrigated pasture

**Agriculture (Crops) –**

**Current Condition:**

This vegetation community type occupies approximately 4.9 acres. These areas are currently being used for growing livestock forage (alfalfa) and a common garden. Vegetables such as squash, tomatoes, and onions were observed during surveys. These crops were likely grown during the 2014 growing season.



Figure 12. Alfalfa field on the Farmington Meadows easement

It is important to maintain a buffer area between the field and the reach of Spring Creek that flows just south of the field. A buffer of thick vegetation (ideally 10' wide) is preferable to capture any eroded soil from the fields from entering the ditch. This keeps excess sediment and any potential chemicals used on the crops from entering the stream to maintain water quality.

**Agriculture (Dry Pasture)** – This vegetation community type occupies approximately 59.0 acres and is chiefly comprised of the introduced grass intermediate wheatgrass (*Thinopyrum intermedium*) intermixed with the native salt grass (*Distichlis spicata*). Many of the dry pastures are currently being used for livestock grazing, as well as for hunting grounds for raptors and loafing areas for birds such as killdeer, horned lark and meadowlark.

**Current Condition:** Most of these fields are in good condition and provide good forage for livestock.



Figure 13. Dry pasture with mostly saltgrass



Figure 14. Dry pasture with saltgrass, alkaligrass (*Puccinellia nuttalliana*) and Intermediate wheatgrass

**Fallow Agriculture** – Fallow agriculture denotes areas that were actively farmed in the past, but is currently being used to board horses. These fallow fields occupy about 170.0 acres. Most of these fields have very little forage for horses, but instead is dominated by weedy species such as garden orach (*Atriplex hortensis*), cheatgrass (*Bromus tectorum*) and summer cypress (*Kochia scoparia*). Some pastures also have high



Figure 15. Fallow agricultural field

presence of state listed noxious weeds such as scotch thistle (*Onopordum acanthium*), broadleaf pepperweed (*Lepidium latifolium*) and whitetop (*Cardaria draba*). These weedy species may have increased in extent and density due to inattention to pasture health and/or overgrazing. The seeding of pasture grasses could be helpful in these situations. In a few of the pastures, some grasses are present such as wheatgrasses and meadow fescue. Occasionally native meadow grasses like salt grass can be found. Nevertheless, these pastures harbor many small rodents that provide a prey base for raptors in the area as well providing a loafing and potential nesting area for other birds, and can be managed into the future to assure the persistence of effective habitat for wildlife.

**Current Condition:** Pastures in this area vary from poor to good condition depending upon the level of upkeep of each.

**Ditch** - Ditches occupy about 0.5 acres on the Park. Many of the ditches were constructed to carry water from one of the 4 creeks flowing through the property to irrigate pasture. Some of the ditches intercept ground water as well. There are also several ditches on the property that are designed to receive both storm water and drainage from adjacent subdivisions on to the property. These discharge either into the creeks or sometimes directly into wetlands. Many of the outlets of these storm drains need to be cleared of both debris and common reed that impede water flow into the area. Ditches can sometimes support cattail (*Typha spp.*), bulrush (*Scirpus spp.*) and common reed (*Phragmites australis*), but often only have aquatic vegetation such as duckweed (*Lemna spp*) and watercress (*Naturtium officinale*). As such, these ditches can provide foraging areas for waterfowl.



Figure 16. Ditch along Spring Creek

**Emergent Marsh (Native)** – This native vegetation community occupies about 15.1 acres and is mostly dominated by cattail (*Typha latifolia*) and bulrush (*Scirpus americanus*).



Figure 17. Cattail and bulrush in a native emergent marsh

These communities establish and persist in permanently wet soils and slow moving water. This community is frequently interspersed with wet meadows that can be dominated by saltgrass and spikerush (*Eleocharis palustris* and *Eleocharis parishii*). The boundary between native emergent marshes, non-native emergent marshes and wet meadows originates from slight differences in land use as well as hydrology. Where cattle have grazed, the common reed appears to have been kept to a minimum.

**Current Condition:** The native emergent marshes are in good condition, but have the possibility of being degraded to a lower condition due to the presence of noxious weeds and common reed in close proximity. Native emergent marshes provide good cover and forage for waterfowl and other wildlife.

**Emergent Marsh (Non-native)** – This community type occupies approximately 43.4 acres and is defined by



dense, contiguous patches of common reed (*Phragmites australis*). Common reed originates from Europe, but when it was accidentally introduced to North America, no native herbivores or insects were brought with it to keep the populations in ecological balance. Thus it has the ability to outcompete native vegetation and has allowed this plant to expand to its current density and extent. Common reed greatly reduces diversity of wetlands both in terms of species present and habitats for wildlife. Common reed thrives in a multitude of conditions including standing water up to 2 feet deep, inundated soil as well as seasonally wet areas. Common reed often expands into new areas either after alterations in the hydrology occurs or when a change in land use happens. The standing water that is collected on the east side

of the utility line

Figure 18. Common reed infestation just beyond livestock fence

berm is ideal common reed habitat. The emergent marshes are in poor to fair condition due to the overabundance of common reed and associated lack of habitat. Over the easement properties, common reed is most dense in areas that do not experience any livestock grazing. Young shoots of common reed can be good livestock forage early in the season and it has been cut for hay for winter forage. Several properties around the Great Salt Lake have been using cattle to reduce their common reed stands through carefully managed grazing.

**Current Condition:** The condition of these non-native emergent marshes are generally in poor condition because when the phragmites becomes this thick, it is unusable for wildlife and can sometimes create a fire hazard in dry years or during the dry season.

**Wet Meadow** - This community type occupies 3.8 acres and is defined by seasonally flooded meadows and depressions that become drier throughout the growing season. The most common species in this area is



Inland saltgrass, but also has spikerushes (*Eleocharis* spp), Nebraska sedge (*Carex nebrascensis*) and some pasture grasses. These meadows are currently used for livestock grazing. Like the irrigated pastures, the combination of the continuously wet soils and grazing can form hummocks that can become magnified over time as the cattle will step around the higher hummocks only to push them up further with every year. This community can provide good nesting habitat for ground nesting birds and the seasonally flooded areas provide valuable forage.

**Current Condition:** The wet meadows are generally in good condition with dominance of native species and plentiful water to keep the plants healthy.

Figure 19. Wet meadow

**Wet Saline Meadow** – This wetland community type occupies 18.4 acres and is defined by salt tolerant and salt loving plants such as salt grass (*Distichlis spicata*), seep weed (*Suaeda calceoliformis*) and pickleweed (*Salicornia rubra*). Saline meadows are often seasonally inundated for a period during the growing season but later dry up. This seasonal flooding and evaporation allows salt and other minerals to build up in the soil creating a saline substrate that restricts the type of plants that can grow. This community type can provide good forage for waterfowl.



**Current Condition:** The saline meadows are generally in good condition as the native salt tolerant species are so well adapted to these conditions.

Figure 20. Saline meadow dominated by Inland saltgrass

**Roads/Trails** - A number of roads and trails are found throughout the property and includes such features as the utility line road, walking paths and property access roads. Roads and trails occupy 3 acres. Noxious and other invasive weeds often colonize the sides of the roads and trails since the ground disturbance is often where weeds establish. Roadside weeds include scotch thistle (*Onopordum aacanthium*), summer cypress (*Kochia scoparia*), and white top (*Cardaria draba*).



Figure 21. Road under powerline

**Disturbed** - The disturbed lands refers to areas of the property that have been altered for human land use for reasons other than agriculture such as berms, soil dumps, and weed heaps. Disturbed areas occupy 0.8 acres and are often covered by weeds and other less desirable vegetation.



Figure 22. Soil stockpile north of Buffalo Pond

**Riparian Woodland** - Riparian woodlands occupy only 2.1 acres. Although they occupy a very small area, they are disproportionately important for wildlife habitat. These areas are generally associated with creeks, ditches, and areas with sufficient sub-irrigation to support trees. The riparian woodlands on the conservation easement have some native trees such as Fremont Cottonwood (*Populus fremonti*) and peach leaf willow (*Salix amygdaloides*) as well as non-native trees like Russian olive (*Eleagnus angustifolia*).



There is a true riparian woodland on the west side of Buffalo Pond with native cottonwoods that provide loafing habitat for bald eagles. There are also a few cottonwoods located just outside the northern boundary of the Hunter Creek property. The other riparian woodland is along the east side of Haight Creek, but this woodland is dominated by the invasive tree Russian olive (*Eleagnus angustifolia*). Riparian woodlands in general provide good shelter and nesting habitat for neo-tropical migratory birds.

**Current Condition:** As small as the riparian woodlands are, they are important and are in fair to good condition. The area surrounding the east side of Haight Creek as it comes into the Park, the cottonwoods are beginning to lose ground to Russian olives.

Figure 23. Cottonwoods on the northern end of the Hunter Creek property

**Saline Playa** - The saline playa community type occupies approximately 9.6 acres, and is generally characterized by sparse vegetation and saline mudflats and hardpans. The combination of dense clay soils, ponding water and heavy salts in the soil are the foundation of this community type. Dominant plants include pickleweed (*Salicornia rubra*), salt grass (*Distichlis spicata*), and seep weed (*Suaeda calceoliformis*). Only alkaline and saline tolerant species can survive these conditions. Playas are usually seasonally flooded, which

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provide exceptional foraging areas for shorebirds. Surrounding grass covered uplands can be utilized as bird nesting habitat and cover. These playas can provide habitat for the federally threatened snowy plover.



Figure 24. Playas on the western edge of the Park

**Current Condition:** The vegetation community and structure on these playas are generally in good condition.

Figure 25. Vegetation Community Types and their Location in the Park

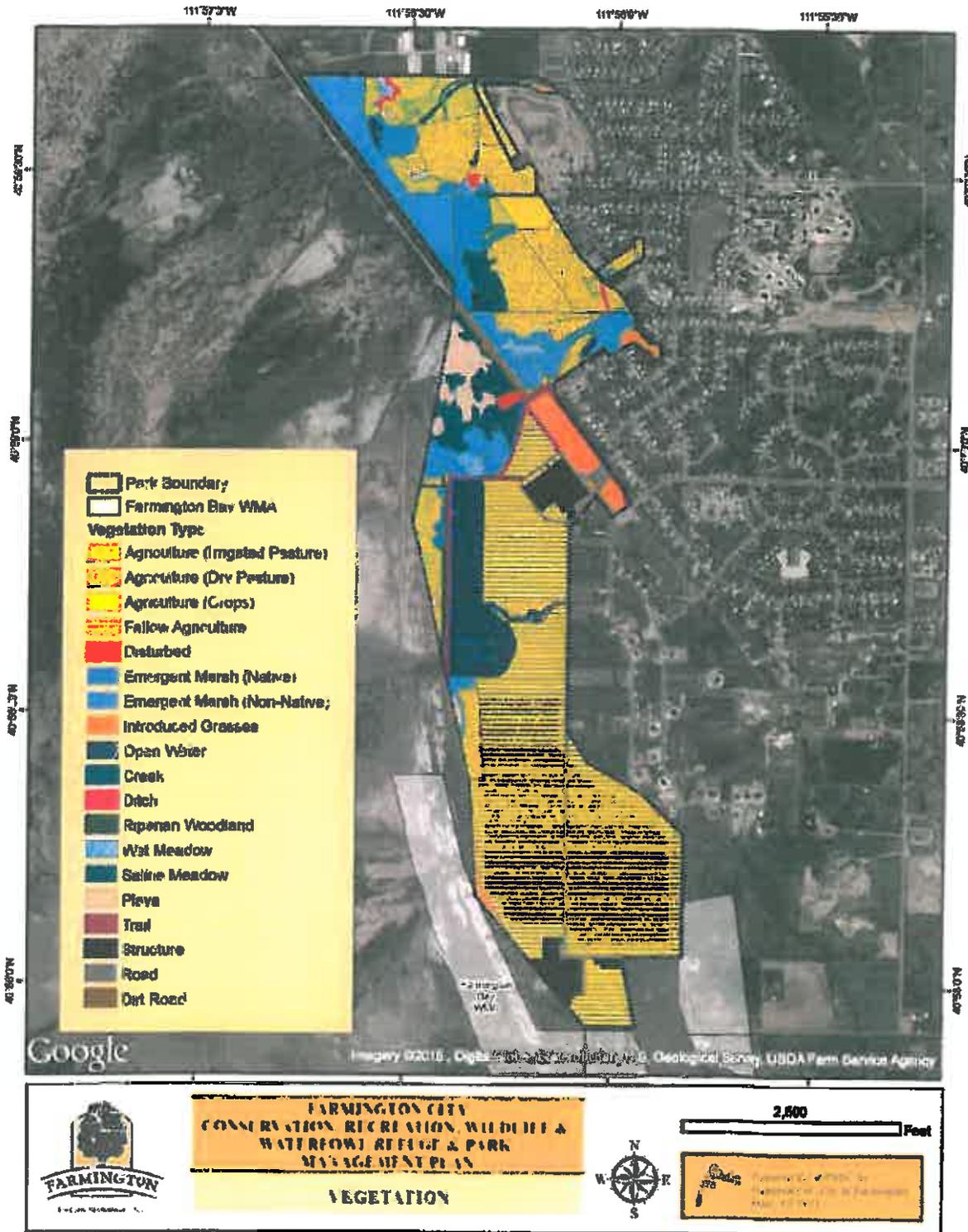


Table 1. Vegetation Types and Extents in the Park

Vegetation Community Type	Acres
Agriculture (irrigated pasture)	25.2
Agriculture (crops)	4.9
Agriculture (Dry Pasture)	59.0
Agriculture (Fallow)	170.0
Ditches	0.4
Native Emergent Marsh	15.1
Non-native Emergent Marsh	43.4
Wet Meadow	3.8
Open Water	27.8
Roads/ Trails	9.7
Structures	12.9
Wet Saline Meadow	18.3
Creek	1.6
Disturbed	0.8
Introduced Grasses	13.7
Riparian Woodlands	2.1
Saline Playa	9.6
<b>Total</b>	<b>420.5</b>

#### Past Conditions of the area

Prior to pioneer settlement, the ecology of this area was likely driven by both the rise and fall of the Great Salt Lake as well as by the seasonal stream flows coming from the mountains directly East. Past mass wasting in the form of land slides and mudslides also had an effect on this area – likely when Lake Bonneville was full undercutting the steep slopes to the east as well as an earthquake that hit the area approximately 2,000 years ago. As a result of this earthquake, most of west Farmington and large portions of east Farmington are in a large liquefaction area. The landscape of the area has "hummocky" undulating terrain as can be seen on both sides of Burke Lane east of 1525 West Street. Some areas in Farmington were flattened when Wheeler Machinery was testing their equipment around WW II. Thus, what we see today is not necessarily natural topography and was likely not what the pioneers saw when Hector Haight came to Farmington in 1847.

As the hydrology and ecology was allowed to naturally adjust over time (without roads, artificial water management, etc), a natural integration of saline and freshwater habitats developed and a wide diversity of plant species from each took hold. The fresh water wet meadows likely had high biodiversity with several grasses and forbs such as Nuttalls' sunflower (*Helianthus nuttallii*) and swamp milkweed (*Asclepias incarnata*). The wet saline meadows closest to the Great Salt Lake were likely an interspersed of dense salt grass (*Distichlis spicata*) meadows with upland areas that had salt tolerant shrubs such as greasewood (*Sarcobatus vermiculatus*) and saltbush (*Atriplex* spp). No dense phragmites stands existed prior to pioneer settlement.

#### NOXIOUS WEEDS

The weed mapping that occurred on these conservation easements was completed in the winter of 2014-2015. This will provide a broad overview of where some of the noxious weeds are, however, a survey during the

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growing season would deliver a much more accurate representation of the noxious weed issue on these properties. It is advisable to do this prior to assembling a noxious weed control plan.

It is a well-documented fact that noxious and invasive weeds pose a significant threat to native ecosystems. It has been documented that the United States is losing 4600 acres (10 square miles) per day *on federal lands alone* as noxious weeds make large tracts of land inhospitable for any beneficial use (Bureau of Land Management, 2015).

As these non-native populations grow, the amount of effort, time and money required also increases exponentially to restore these areas to a functioning native ecosystem. As such, it is imperative to understand the type and extent of infestations on the easement properties to utilize all methods available to control current weed infestations, prevent new infestations as well as to protect non-infested lands.

In addition to serious economic concerns, the ecological problems associated with noxious weeds are numerous. Noxious weeds are exotic, non-native species that can spread quickly. The following issues can ensue:

- Loss of biodiversity
- Loss of wildlife habitat
- Decrease in forage value for livestock and wildlife
- Decrease in land value
- Loss/ reduction of recreational opportunities such as hiking, biking, and wildlife and wildflower viewing.
- Disruption of soil and vegetation communities from changes in soil nutrient cycling.

Therefore, it is in the best interest of the City of Farmington to implement weed management as well as to inform and educate neighbors about the noxious weeds of the area to work together toward a common goal of reducing noxious weeds.

The State of Utah currently lists 27 species as designated noxious, however, within a few months, the number of species will likely increase to about 54. The state has also classified each species with a letter A, B or C. list. Class A weeds are considered to have a small statewide population and are targeted for eradication. Class B weeds have a wider range throughout the state are targeted for systematic control. Class C weeds are common throughout the state and the main goal for Class C weeds is containment.

**Table 2. Noxious weeds located at the Park**

<b>Noxious Weeds of Farmington City Conservation Easement</b>		
<b>Class A</b>	<b>Class B</b>	<b>Class C</b>
<b>Purple Loosestrife</b>	<b>White Top</b>	<b>Salt Cedar</b>
	<b>Scotch Thistle</b>	
	<b>Musk Thistle</b>	
	<b>Poison Hemlock</b>	
	<b>Perennial Pepperweed</b>	

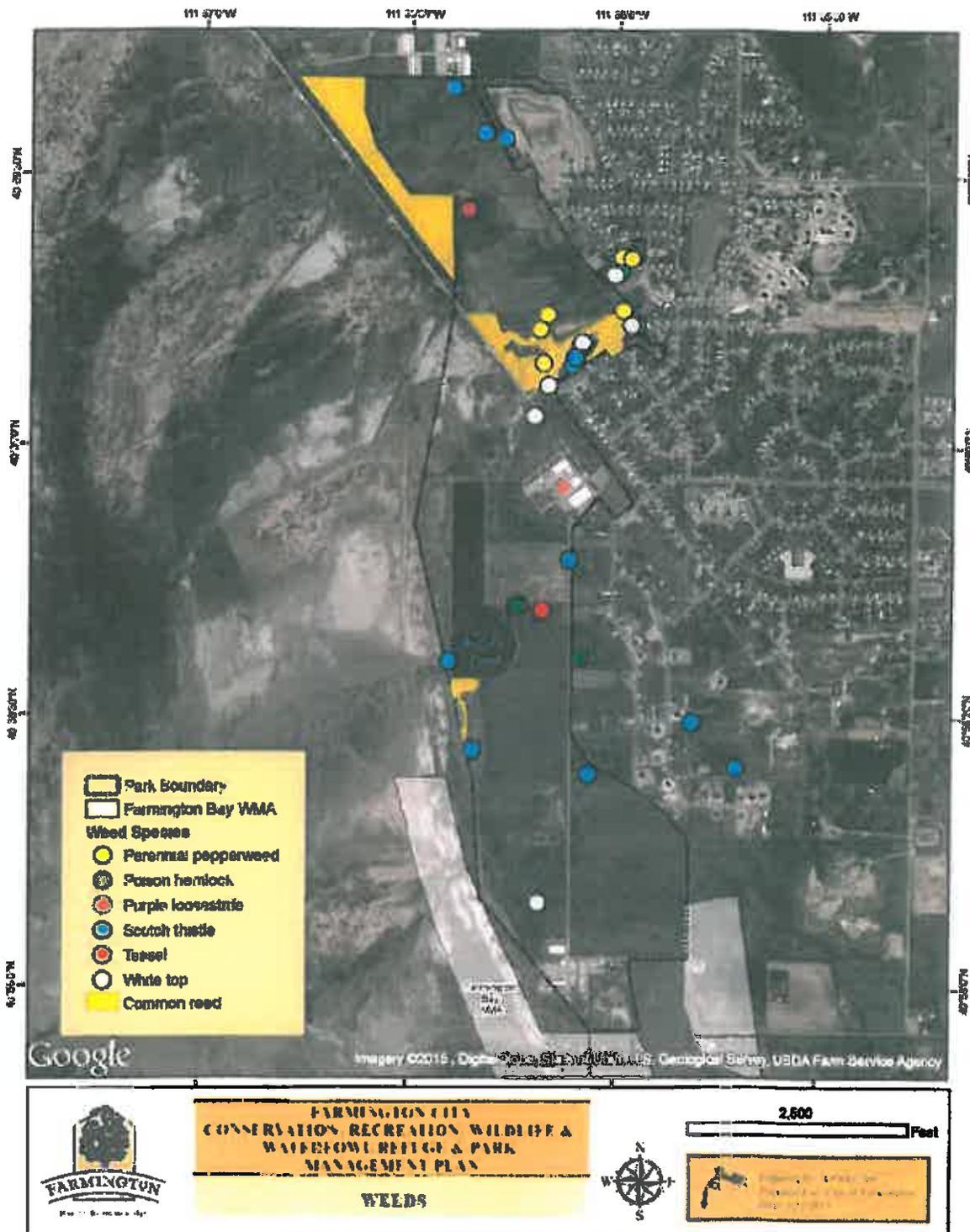
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Neither common reed (*Phragmites australis*) nor teasel (*Dipsacus sylvestris*) is currently on the State list, but should also be considered here due to their known invasive properties. Noxious weed species and locations are shown on Figure 23.

The vegetation assessment report completed in February of 2015 gives specific guidelines for noxious weed control on the Park. For further information and assistance with control, contact Brandon Hunt, the current Davis County Weed Supervisor.

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**Figure 26. Overview of Noxious Weeds on the Park**



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## **RESOURCE TRAJECTORY**

Until weed management continue becomes an annual activity, noxious weeds may continue to increase to perhaps degrade the ecological health and condition of the Park. Livestock grazing can be both a benefit and a hindrance to ecological restoration. If not managed properly, livestock grazing can increase noxious weed presence, however, livestock grazing can also be used to reduce weeds and otherwise modify vegetation communities as desired for the purpose of the stated objective of a wildlife and waterfowl refuge. For example, grazing can be used to reduce phragmites and other noxious weed populations as well as to reduce fire danger.

## **DESIRED FUTURE CONDITIONS**

It is recommended a more complete noxious weed survey occur on the property to assure a fuller understanding of the extent of the problem. It is important that a survey for noxious weeds be completed prior to a full weed management plan being written and executed.

An equally important need for a thorough condition assessment and improvement of the vegetation communities at the Park is a better understanding of the past and current livestock use. This would entail frequent communication between the owners of the livestock using the Park and City staff. Information that should be submitted should include proposed dates of grazing in each pasture, number of animals, type of animals, and any brand information. As an outcome, monitoring of pastures can occur with the knowledge of the true grazing pressure and will better inform future livestock grazing at the Park to assure Conservation Values are being upheld.

Further, to improve the condition of some of the upland pastures, it would be helpful to mow the weeds prior to them producing seed, then drill seeding those pastures with desirable forage.

**Table 3. Priorities (1- highest, 3- lowest) for maintaining desired future for vegetation communities**

<b>Vegetation Type</b>	<b>Issue</b>	<b>Action</b>	<b>Priority</b>
All	Noxious Weeds	Complete full survey for weeds in growing season and contact Brandon Hunt with results and help with control (Davis Co Weed Supervisor)	1
All Livestock Pastures	Measurement of grazing intensity	Installation of exclusion cages to measure forage use	1
Fallow Agriculture fields	Aggressive weeds	Mow and reseed	2
Wet Meadows and Irrigated Agriculture	Hummocks	Rest the area from livestock grazing for at least a year	3

## **Resource: Wildlife and Waterfowl**

### **Resource Summary**

#### **Significant Landscape Features**

- **Buffalo Pond** – This pond encompasses nearly 23 acres and is a significant freshwater body within the greater Farmington area. 26 species were counted at this site which appeared to be a foraging stop for many waterfowl and water bird species. High numbers (>100) of American White Pelicans, and numerous duck species were observed. The cottonwood stand on the west side of the pond adds additional vegetation height complexity to the landscape providing for different suites of species. Recreational use (walking, wildlife viewing) around this area is also popular.
- **Upland Meadows** – The upland meadows within the Park (particularly on Buffalo Ranch) currently provide much of the insect base for the small mammal and raptor community. Numerous burrows and runs were observed within the meadows. This landscape is flat with very limited topographic relief – also most of this area is fenced – most all of which were wildlife friendly.
- **Mosaic of wetland types** – This site has a variety of wetland habitats (open water, wet meadow, varying water depths and velocities, saline playas, etc.) that provide habitat for a variety of species. The interspersed of these habitats provides for various life history stage needs (nesting, foraging, loafing, cover from predators) within a compact area for highly effective habitat for many species.
- **Location of Park within Great Salt Lake Ecosystem** The Park lies in the middle of a conservation corridor that runs along the eastern edge of the Great Salt Lake (Farmington Bay WMA, Bear River NWR, Inland Sea Shorebird Reserve, etc.). The presence of the Park between this much larger conservation corridor creates relatively continuous habitat for wildlife and waterfowl to utilize with minimal human contact, and leverages the importance of the Park as a wildlife and waterfowl refuge.

#### **Potential Threats**

- **Noxious weeds** – Most noxious weeds (phragmites, Scotch thistle, purple loosestrife etc.) have little wildlife value, and as monocultures, greatly reduce the quality of wildlife habitat. This can have negative impacts on the diversity and quantity of native wildlife species.
- **Feral cats** – Feral cats are prevalent throughout the Park. They are significant predators to small mammal and bird populations – both ground-nesting and roosting species. With assistance from an accredited organization, a program to trap and remove these cats should be implemented.

## **Description of Habitats present at the Park**

The following is a list of the habitats found at the Park and a description of what each may offer to wildlife and waterfowl and how each is congruent with the livestock and other permitted uses at the Park. Table 4 shows which habitat the birds witnessed at the park were using at the time of the survey.

1. **Open Deep Water:** The open deep water offers valuable feeding and resting habitat for pelicans, dabbling ducks, diving ducks and grebes. These birds were all observed on deep water, likely using the area for loafing, but also for feeding on aquatic vegetation, algae, insects, and fish.

These are the most highly used areas for waterfowl, but, neither livestock nor people will use these areas in a way that would disturb or harm general wildlife and waterfowl use of deep water habitats.

2. **Open Shallow Water:** Open shallow water often found on saline playas offers quality feeding habitat for shorebirds as the soft mud harbors invertebrate prey such as worms, insect larva, amphipods, crustaceans, and mollusks. The open shallow water also provides safety from most predators while feeding.

These areas are highly used by shorebirds, but the ground is generally too muddy and does not offer enough forage for livestock to be in the area on a regular basis. Watering of livestock may have some localized impacts, but in general this habitat would remain highly effective for waterfowl and shorebird use.

3. **Wet Meadows:** A variety of species use wet meadows given the availability of water and abundant insects. Since wet meadows generally do not provide much cover, few species of birds actually nest in wet meadows; most species only forage in wet meadows. Many species will bring their young to forage in wet meadows, utilizing the edges where escape cover is more available. Additionally, wet meadows can also support insect, vole and other rodent prey bases, which in turn attracts birds, raptors (chiefly marsh hawk) and owls.

Since most wildlife species only forage in wet meadows, the co-mingling of livestock and wildlife and waterfowl does not generally pose a problem as wildlife are moving so regularly when they are foraging. Grazing can also reduce litter accumulation, which can help keep wet meadows in a mid-seral stage and more open to use by foraging bird species

4. **Wet Saline Meadow:** Wet saline meadows can also provide prolific insect prey bases, thus shorebirds and other species particularly tolerant to salts are more common in these areas. In highly saline areas, mammalian use decreases. Saline meadows that have with intermittent shrubs also allows nesting to occur.

Wet saline meadows are generally not favored by cattle (especially if they have another choice) as the forage is generally not as palatable, and the soft muddy ground is not conducive to cattle loafing.

5. **Upland Meadows:** Raptors, meadowlark, horned lark, numerous sparrows, and small mammals utilize the upland meadows of the Park. The abundance of small mammals as well as insects makes these upland meadows fertile hunting grounds for birds, raptors and carnivores. The upland meadows may also provide potential nesting habitat for sparrows, some ducks, and long billed curlew.

The livestock do use the upland meadows regularly in area that could hinder habitat for ground nesting species. With proper management of livestock and land managers' awareness and observation of bird courting and nesting behavior, it is possible keep livestock out of more heavily used nesting areas in some years with exclusion fences.

6. **Emergent Marsh:** The emergent marshes (both native and non-native) on the property provide habitat for a number of species. Nesting may be limited to more aquatic species, including ducks, shorebirds,

*Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park Management Plan* and yellow-headed blackbirds. Other more secretive species, such as rail or night heron, also utilize these marshes. Snakes and other mammals may also utilize these marshes for hunting.

Unless forced or learned, cattle prefer not to have much more than their feet in standing water, and thus are not likely to graze in the emergent marsh areas for long periods of time. Managers can also fence off more sensitive areas while still providing appropriate cattle watering areas.

7. **Cottonwood Woodland:** A bald eagle was observed roosting in the cottonwood trees on the property. Numerous neotropical migrants also utilize the cottonwoods, as these trees provide additional canopy height (vertical structure), cavities, roost sites, and cover to the otherwise flat landscape.

The location of the cottonwood woodlands on the Park are not conducive to cattle loafing underneath them as is often the case in other areas.

## **Conditions**

### **Past Conditions**

Very little undisturbed habitat representing conditions prior to European settlement remains along the Great Salt Lake. Prior to agricultural development, the property would likely have provided a mosaic of upland meadow, wet meadow, emergent marsh and riparian habitat. Overall, wildlife and vegetation diversity would have been higher although there would have been less open deep water habitat and therefore potentially fewer waterfowl species.

### **Current Conditions**

Two targeted surveys were conducted for birds in April and May of 2015. A total of 53 bird species were noted in these short visits. Further, the bird species and numbers of each noted were indicative of the high value habitats that are available at the Park. The American pelicans and black crowned night herons were noted eating fish from Buffalo Pond. The bald eagle was feeding on an unknown carcass. Cinnamon teals, western grebes and Forester's Terns were exhibiting both mating and nesting behavior. Regular bird surveys, particularly in the spring will likely expand the species list currently found at the Park and shed more light on the levels and distribution of use by the waterfowl and wildlife.

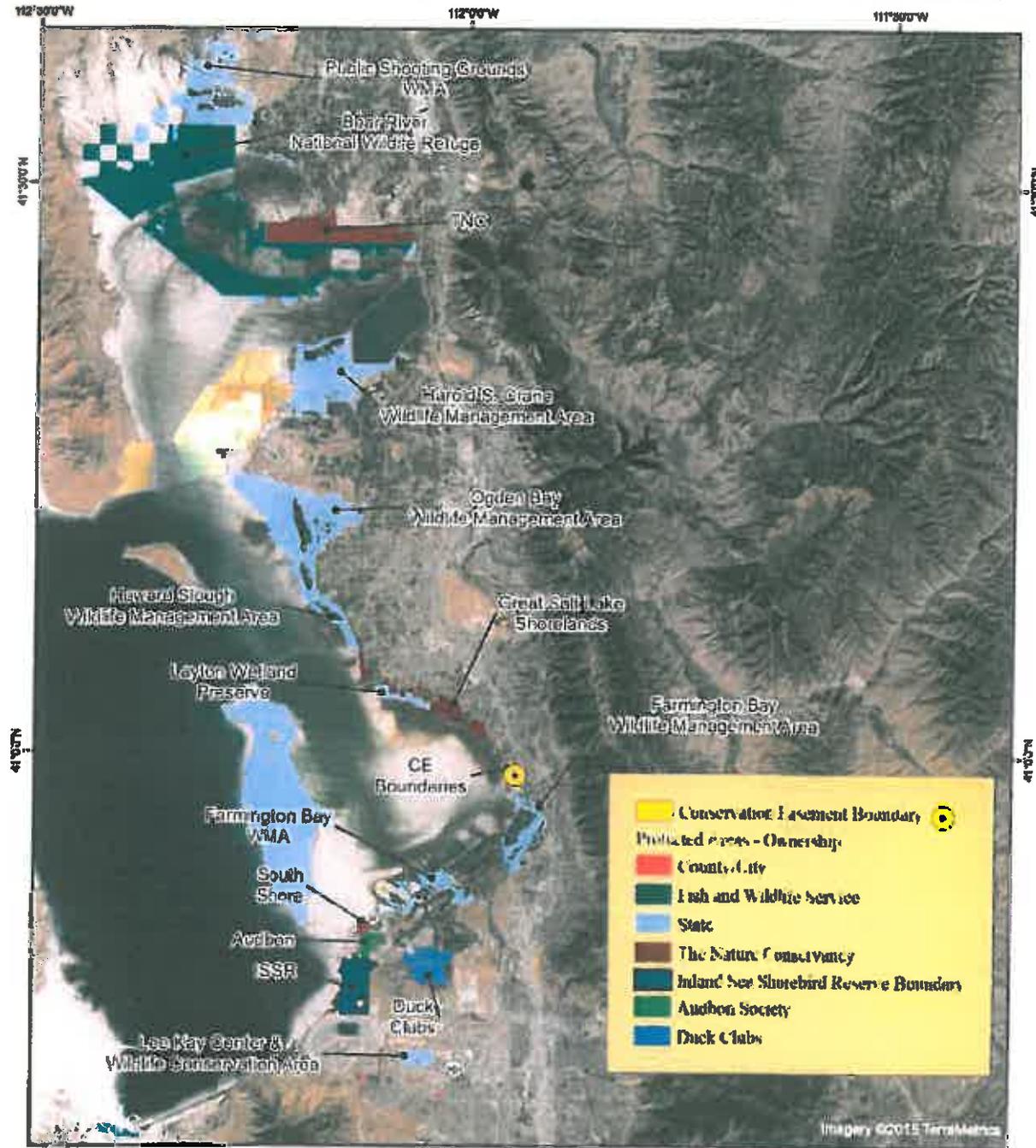
Conditions in the uplands are typical of fallow agricultural land in that it is relatively weedy and somewhat unkempt, but the property is nevertheless valuable as open space and wildlife habitat at the urban interface, particularly for small mammals. These small mammals in turn support hunting raptors as well as coyotes and foxes.

The presence of the large power line in the northern region of the Park impedes water flow to the lake and creates suitable habitat for common reed. Although this vegetation community can be problematic due to its height and density for many birds and other wildlife, common yellow throats, soras, yellow headed blackbirds and red winged blackbirds actively use this habitat type.

As witnessed by the number of species of birds, their abundance and mating and nesting behaviors observed, the current condition of the park supports the primary function of the park being a wildlife and waterfowl refuge. Further, the adjacency of the Park to other preserved areas around the shores of the Great Salt Lake allows migratory birds and other wildlife to have consistent and unimpeded use of the effective and important habitat considered to be part of the Great Salt Lake ecosystem. Figure 23 shows the Park's location relative to other preserved areas in the region.

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**Figure 27. Location of Park within setting of other Conservation areas around the Great Salt Lake**





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**REGIONAL WILDLIFE AND WATERFOWL REFUGE AREAS**

10 Miles




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Top: Typical conditions within the Park – Phragmites monoculture (left), pastureland (middle) and irrigation canal (right). photos: Kathie Taylor

**Avian Species**

During field visits in April and May, 53 bird species and 5 small mammal species were observed and identified. The highest diversity for avian species was located at the observation points located on Buffalo Pond. Below is a list of bird species observed during field visits.

**Table 4. Avian Species Observed 04/10/2015 and 5/31/2015**

Common Name	Scientific Name	Habitat Type Observed in
<b>Waterfowl and Water Birds</b>		
American Coot	<i>Fulca americana</i>	Open Water
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Open Water
Blue-winged Teal	<i>Anas discors</i>	Open Water
Bufflehead	<i>Bucephala albeola</i>	Open Water
Canada Goose	<i>Branta canadensis</i>	Open Water
California Gull	<i>Larus californicus</i>	Open Water
Canvasback	<i>Aythya valisineria</i>	Open Water
Cinnamon Teal	<i>Anas cyanoptera</i>	Open Water
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Open Water
Green-winged teal	<i>Anas carolinensis</i>	Open Water
Lesser Scaup	<i>Aythya affinis</i>	Open Water
Mallard	<i>Numenius americanus</i>	Open Water
Northern Shoveler	<i>Anas clypeata</i>	Open Water
Red Breasted Merganser	<i>Mergus serrator</i>	Open Water
Western Grebe	<i>Aechmophorus occidentalis</i>	Open Water
Pied-billed Grebe	<i>Podilymbus podiceps</i>	Open Water
Northern Pintail	<i>Anas acuta</i>	Open Water
Gadwall	<i>Anas strepera</i>	Open Water
Ruddy Duck	<i>Oxyura jamaicensis</i>	Open Water
Redhead	<i>Aythya americana</i>	Open Water
Forester's Tern	<i>Sterna forsteri</i>	Open Water

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<b>Wading Birds</b>		
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	Open Water
Great Blue Heron	<i>Ardea herodias</i>	Open Water
Long-billed Curlew	<i>Numenius americanus</i>	Wet Saline Meadow
Snowy Egret	<i>Egretta thula</i>	Saline plays
<b>Raptors</b>		
American Kestrel	<i>Falco sparverius</i>	Fallow Agriculture, Agriculture
Northern Harrier	<i>Circus cyaneus</i>	Fallow Agriculture - overhead
Bald eagle	<i>Haliaeetus leucocephalus</i>	Riparian Woodland
Red tailed hawk	<i>Buteo jamaicensis</i>	Nesting just north of Buffalo Ranch parking lot
<b>Neotropical Migrants</b>		
American Robin	<i>Turdus migratorius</i>	Fallow Agriculture, Agriculture
Barn Swallow	<i>Hirundo rustica</i>	Fallow Agriculture, Agriculture
Bullock's Oriole	<i>Icterus galbula</i>	Riparian woodland
House Finch	<i>Carpodacus mexicanus</i>	Fallow Agriculture, Agriculture
House Sparrow	<i>Passer domesticus</i>	Fallow Agriculture, Agriculture
Mourning Dove	<i>Zenaida macroura</i>	Fallow Agriculture, Agriculture
Says Phoebe	<i>Sayornis saya</i>	Agriculture
Western Meadowlark	<i>Sturnella neglecta</i>	Fallow Agriculture, Agriculture
Western Kingbird	<i>Tyrannus verticalis</i>	Fallow Agriculture, Agriculture
<b>Marsh Birds</b>		
Killdeer	<i>Charadrius vociferus</i>	Introduced Grasses, Fallow Ag.
Marsh Wren	<i>Cistothorus palustris</i>	Emergent Marsh (non-native)
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Emergent Marsh (non-native)
Sandhill Crane	<i>Grus canadensis</i>	Wet Saline Meadow
Savannah Sparrow	<i>Passerculus sandwichensis</i>	Emergent Marsh (non-native), Cottonwoods
Song Sparrow	<i>Melospiza melodia</i>	Emergent Marsh (non-native)
Common Yellow Throat	<i>Geothlypis trichas</i>	Emergent Marsh (non-native)
White-faced Ibis	<i>Plegadis chihii</i>	Emergent Marsh (native and non-native)
Sora	<i>Porzana carolina</i>	Emergent Marsh (non-native)
Yellow Headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	Emergent Marsh (non-native)
<b>Other</b>		
Black-billed Magpie	<i>Pica pica</i>	Fallow Agriculture, Agriculture
Common Raven	<i>Corvus corax</i>	Various
European Starling	<i>Sturnus vulgaris</i>	Fallow Agriculture, Agriculture
Ring-necked Pheasant	<i>Phasianus colchicus</i>	Agriculture – Irrigated Pasture
Turkey Vulture	<i>Cathartes aura</i>	Fallow Agriculture - overhead

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Left: Buffalo Pond on April 10, 2015 (note congregation of American White Pelicans) photo: Kathie Taylor



Left: Great Blue Heron (*Ardea herodias*) and Right: White-faced Ibis (*Plegadis chih*) photo: Martin Meyers

According to the Farmington Bay Waterfowl Management Area (WMA) bird list, a total of 203 species may be seasonally present at the WMA which is directly south of the study site.

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Additional raptors that may potentially be observed in the area include those listed in the table below. A steady prey-base (i.e. small mammals), and roosting site availability will benefit this suite of species and provide for a stellar wildlife viewing experience.

<b>Osprey</b>	<b><i>Pandion haliaetus</i></b>
<b>Bald Eagle</b>	<b><i>Haliaeetus leucocephalus</i></b>
<b>Coopers Hawk</b>	<b><i>Accipiter cooperii</i></b>
<b>Ferruginous Hawk</b>	<b><i>Buteo regalis</i></b>
<b>Merlin</b>	<b><i>Falco columbarius</i></b>
<b>Peregrine Falcon</b>	<b><i>Falco peregrinus</i></b>
<b>Prairie Falcon</b>	<b><i>Falco mexicanus</i></b>
<b>Red-tailed Hawk</b>	<b><i>Buteo jamaicensis</i></b>
<b>Rough-legged Hawk</b>	<b><i>Buteo lagopus</i></b>
<b>Sharp-shinned Hawk</b>	<b><i>Accipiter striatus</i></b>
<b>Swainson's Hawk</b>	<b><i>Buteo swainsoni</i></b>



Left: Northern Harrier (*Circus cyaneus*) – courtesy of Martin Meyers.

Top: Red-tailed Hawk (*Buteo jamaicensis*)



Figure 28. Perching bald eagle on the Park (February 2014) Photo: M. Wheeler

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**Small Mammal Species**

Small mammal presence was evident in many places within the Park in the form of runs and burrows. Vole runs were located within and on the edges of pasture lands and also along some of the large rock rip rap sections in the southern part of the Park. Both Meadow and Montane voles live in runways typically burrowed under thick grasses. Near the Great Salt Lake, these small mammals eat mostly salt grass (*Distichlis stricta*) and insects found in and around their tunnel systems. Many predators depend on voles and other small rodents as a primary food source, including badgers, coyotes and a variety of raptors. Small mammal populations can persist with livestock grazing, particularly if the stubble height of the forage is high and dense enough for these species to take cover.



Figure 29. Montane (*Microtus montanus*) or Meadow (*Microtus pennsylvanicus*) vole burrow and run approximately 2 inches wide.

Rock squirrels (*Otospermophilus variegatus*) were observed off of the power line road in the rip-rapped material on road edges.

**Table 5. Mammal Species Observed 04/10/2015 and 5/31/2015**

Coyote (Sign – Scat)	<i>Canas latrans</i>
Meadow Vole (or Montane Vole) Sign	<i>Microtus pennsylvanicus</i> or <i>Microtus montanus</i> .
Muskrat (Sign – Den Opening)	<i>Ondatra zibethicus</i>
Rock Squirrel	<i>Otospermophilus variegatus</i>
Striped Skunk (Sign – Smell)	<i>Mephitis mephitis</i>
Red fox	<i>Vulpes vulpes</i>

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**Table 6. Other small mammal species that have habitat within the Park include:**

American Badger	<i>Taxidea taxus</i>
Antelope Ground Squirrel	<i>Citellus leucurus leucurus</i>
Chisel Toothed Kangaroo Rat	<i>Dipodmys microps bonnevilliei</i>
Deer Mouse	<i>Peromyscus maniculatus sonoriensis</i>
Grasshopper Mouse	<i>Oryzomys leucogaster utahensis</i>
Harvest Mouse	<i>Reithrodromys megalotis megalotis</i>
Kangaroo Mouse	<i>Microdipodops megacephalus leucotis</i>
Least Chipmunk	<i>Eutamias minimus pictus</i>
Little Pocket Mouse	<i>Perognathus longimembris gulosus</i>
Ord's Kangaroo Rat	<i>Dipodmys ordii pallidus</i>
Red fox	<i>Vulpes vulpes</i>
Short-tailed Weasel	<i>Mustela erminea</i>
Vagrant Shrew	<i>Sorex vagrans</i>
<b>Bats</b>	
Little Brown Myotis	<i>Myotis lucifugus</i>
Silver-haired bat	<i>Lasiorycteris noctivagans</i>



Photo: Ord's Kangaroo rat (*Dipodmys microps bonnevilliei*) – courtesy of Rick Manning.



Photo: Meadow vole (*Microtus pennsylvanicus*) – courtesy of John White

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**Amphibians and Reptile Species (Herps)**

The Western chorus frog (*Pseudacris triseriata*) was the only herp species observed during field visits. In all cases it was heard only – but present throughout most parts of the Park with standing water. Western chorus frog prefer marshy meadows, and slow moving streams and permanent moving water. If these areas dry out, they may be found in fallow fields.



*Right: Western chorus frog (Pseudacris triseriata) – Photo: UDWR*

Northern leopard frog could also potentially be present at this site. Habitat requirements for this species include a variety of aquatic habitats, slow or still-moving water along streams and wetlands. Sub-adult Northern Leopard frogs will migrate to feeding sites along the borders of larger permanent bodies of water like Buffalo Pond. Adult diets consist mainly of small invertebrates and they will forage in grassy areas, along streams and drainages and permanent bodies of water.

Snakes were also observed at the Park along the edges of trails and the rocky rip-rapped slopes along the power line road appear to be suitable brumation (hibernation-like state) sites for common garter snakes, and perhaps for the Great Basin gopher snake.

The presence of herps at the Park is and can continue to be compatible with livestock grazing as there are areas that are so wet and dense with vegetation so as to discourage continuous presence of cattle. Improvements to herp habitat can also be made by excluding cattle to certain areas.



Figure 30. Common garter snake (*Thamnophis sirtalis*) at the Park- photo: Valerie Frokjer

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**Table 7. Herp species that may be present within the Park include the following. Note that not all species were observed.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Observed</b>
<b>Amphibian</b>		
Western Chorus Frog	<i>Pseudacris triseriata</i>	Yes
Great Basin Spadefoot	<i>Spea intermontana</i>	No
Woodhouse's Toad	<i>Anaxyrus woodhousii</i>	No
Bull Frog (Not Native)	<i>Lithobates catesbeianus</i>	No
Northern Leopard Frog	<i>Lithobates pipiens</i>	No
Western Spotted Frog	<i>Rana pretiosa pretiosa</i>	No
<b>Lizards</b>		
Western Collared Lizard	<i>Crotaphytus collaris bicinctores</i>	No
Great Basin Fence Lizard	<i>Sceloporus occidentalis longipes</i>	No
Sagebrush Lizard	<i>Sceloporus graciosus</i>	No
Northern Side-blotched	<i>Uta stansburiana</i>	No
Salt Lake Horned Toad	<i>Phrynosoma douglassii (spp)</i>	No
Great Basin Horned Toad	<i>Phrynosoma douglassii (spp)</i>	No
Western Skink	<i>Plestiodon skiltonianus</i>	No
Western Whiptail	<i>Cnemidophorus tigris</i>	No
<b>Snake</b>		
Wandering Garter Snake	<i>Thamnophis elegans vagrans</i>	Yes
Common Garter Snake	<i>Thamnophis sirtalis</i>	No
Western Yellow-bellied Racer	<i>Coluber constrictor mormon</i>	No
Desert Striped Whipsnake	<i>Coluber taeniatus taeni</i>	No
Great Basin Gopher Snake	<i>Pituophis catenifer deserticola</i>	No
Desert Night Snake	<i>Hypsiglena torquata deserticola</i>	No

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**Wildlife Species of Concern**

One federally threatened and at least seven species that have been designated by the State of Utah as wildlife species of concern could either potentially use the Park as is and/or benefit from improved habitat conditions. Species designated as threatened by the US Fish and Wildlife Service (USFWS) are those that are vulnerable to endangerment in the near future. Wildlife species of concern are those species for which there is credible scientific evidence to substantiate a threat to continued population viability. UDWR rationale for wildlife species of concern designations - November 9, 2010.

<http://dwr.cdc.nr.utah.gov/ucdc/viewreports/SSLAppendices20110329.pdf>

The presence of these species of concern can be compatible with livestock grazing as either habitat use for these birds does not overlap much or very little with cattle use and/or management of other habitats can be adapted so as to allow overlap of these species by modifying the timing and intensity of grazing.

**Table 8.** The following list includes the federally threatened and state species of concern that either currently use the Park or have suitable habitat within the Park.

<b>Name (approximate number observed)</b>	<b>Scientific Name</b>	<b>Presence Noted?</b>	<b>Status</b>	<b>Habitat</b>
Snowy Plover	<i>Charadrius nivosus</i>	No	USFWS Threatened	Saline Playas
Long billed curlew ( $\approx$ 15)	<i>Numenius americanus</i>	Yes	State - UDWR Wildlife Species of Concern	Open Shallow Water, Upland Meadows
American White Pelican ( $\approx$ 150+)	<i>Pelecanus erythrorhynchos</i>	Yes	State - UDWR Wildlife Species of Concern	Open Deep Water
Bald Eagle (1)	<i>Haliaeetus leucocephalus</i>	Yes	State - UDWR Wildlife Species of Concern	Cottonwood Trees
Short-eared owl	<i>Asio flammeus</i>	No	State - UDWR Wildlife Species of Concern	Upland Meadows
Northern goshawk	<i>Accipiter gentiles</i>	No	Conservation Agreement Species	Upland Meadows
Ferruginous Hawk	<i>Buteo regalis</i>	No	State - UDWR Wildlife Species of Concern	Upland Meadows
Burrowing Owl (Secondary breeding habitat)	<i>Athene cunicularia</i>	No	State - UDWR Wildlife Species of Concern	Upland Meadows

## **Resource Trajectory**

A variety of wetland and upland habitats in good condition will continue to provide a refuge for a diversity of wildlife and waterfowl. A concerted effort is needed to maintain and improve habitat quality in order to continue to yield effective habitat for all wildlife and waterfowl that depend on this area. Suggestions for habitat maintenance and improvement are given in Chapter 5 – Stewardship Recommendations. The numbers of feral cats observed on the property likely have significant predatory impacts that can not only negatively affect the small mammals and ground-nesting and migratory songbirds that they hunt, but also the raptors and other carnivores that eat them. Trespass and/or mismanaged livestock can result in a decrease of habitat quality for ground-nesting birds and small mammals and could result in a loss of vegetation diversity.

## **DESIRED FUTURE CONDITIONS**

It is of utmost importance to continue to provide effective habitat for the abundant wildlife and waterfowl to assure they will use the Park as a refuge. Habitat improvements can take many forms, but all improvements need to consider how each action may affect other aspects of the ecosystem. For instance, if raptor perches are installed in the southern pastures, the effects of additional raptor presence and hunting on other species must be monitored to assure management objectives are being met. Further, it may be desirable to 'stack' uses of the Park by constructing a stormwater retention pond or ponds on the property, but in such a way as to also improve wetland vegetation and habitat conditions. This could serve a primary ecological goal of increased residence time of water flowing through or over the property for improved water quality as well as increased wetland and riparian extents, all while providing an area for storm water retention prior to the water reaching the Great Salt Lake.

### ***Upland Meadows***

The lack of cover and structure in the upland meadows is not beneficial to grassland ground-nesting birds, raptors and small mammals. To improve fallow agricultural lands, it is recommended that non-native noxious weeds be controlled and minimized and native grasses such as Inland salt grass (*Distichlis spicata*), alkali sacaton (*Sporobolus airoides*), and alkali grass (*Puccinellia nuttalliana*) be planted to diversify ground cover for a host of species. As possible, a slight variation of topography could be incorporated by the creation of small mounds and hills to be revegetated with saltbush (*Atriplex spp*) and greasewood (*Sarcobatus vermiculatus*). This action would create topographic, vegetation, and habitat complexity to improve cover for nesting ground birds (short-eared owls, killdeer, pheasant) and habitat for small rodents.

The increase in vegetation composition, structure and diversity could then increase insect diversity and productivity that would in turn improve foraging and nesting conditions for many avian species. The vegetation modification could also benefit small mammals such as the Meadow and Montane vole, Little Pocket mouse, Grasshopper Mouse, Vagrant shrew and Ord's kangaroo rat population to then also provide a prey base for a variety of raptors, mammals and snakes.

### ***Open Water - Buffalo Pond***

Buffalo Pond is a hot spot for waterfowl and other aquatic birds. Enhancement of the habitat complexity around the pond would be beneficial to multiple species of resident and neotropical migrants. This enhancement would entail planting vegetation with structure variability including peach leaf willow (*Salix amygdaloides*) and coyote willow (*Salix exigua*), as well as additional cottonwoods that would provide habitat structure for a multitude of species.

Improved habitat structure around that pond would also increase the insect diversity in the area. Additional species that could be drawn to the area due to an increase in insects include bats (Little brown myotis and Silver-haired bat) and the violet-green swallow and common nighthawk. Stands of willow and a dense shrub understory near open water are preferred habitats for several species including the rare Northern waterthrush and Wilson's warbler. Additional cottonwoods would benefit sparrows, warblers, and raptors.

### **Issue Identification**

- **Feral cats** are prevalent throughout the Park. These cats are significant predators to small mammal and bird populations – especially ground-nesting and roosting species. A program to remove these individuals is recommended.



Figure 31. One of the many feral cats on the Park

- **Phragmites and other noxious weeds**  
Noxious weeds have little wildlife value and reduce habitat quality. The presence, extent and density of these species can have a negative effect on the diversity, quantity and distribution of wildlife populations. However, careful consideration must be given to the methods utilized to reduce or remove the phragmites, the rate at which the habitat is modified, and species to take its place to assure the birds do not leave the area entirely.
- **Conservation Easement Violations**  
There were several violations of the Conservation Easements documented and described in the winter of 2014. These included illegal soil dumping, unsightly trash and debris, hunting, and storage of personal property among others.
- **Storm Water Discharge onto the Park**  
The discharge of stormwater directly onto the property is noticeable throughout the park as no trash grates or screens nor drain filters appear to be present on storm drains. As a result contaminants easily reach the Park and it is relatively unknown what types and in what concentrations these contaminants reach the Park.

## Resource: Water Resources

### Resource Summary

#### Significant Features

- **Baer, Haight, Spring and Shepard Creek traverse the Park** –In this otherwise arid area, four creeks traverse the property on their way to the Great Salt Lake to sustain a mosaic of wetland habitats.
- **Jurisdictional Wetlands** – There are approximately 148 acres of US Army Corps of Engineers jurisdictional wetlands on the Park. This assures that a wetland permit would mostly likely be required for most activities on the property.
- **Wetland Habitat Interspersion** –The Park provides open deep water, open shallow water, saline playas, wet meadows and emergent marshes. Each of these wetland habitats satisfies different needs of wildlife as well as function to maintain or improve water quality.

#### Threats

- **Noxious Weeds** – Noxious weeds are scattered throughout the Park, and will be a constant management task to maintain suitable wildlife habitat.
- **Water Quality** As a number of storm water culverts discharge directly onto the Park. All pollutants and debris on roads will end up on the property and decrease water quality.
- **Availability of Fresh Water** – The threat of more frequent and severe droughts as well as increased water use by residents may translate to less available water for the wetlands of the Park to reduce the function of the wetlands of the area.

#### Description

Baer and Shepard Creek originate from the mountains just East and Northwest of Farmington. Haight Creek and Spring Creek originate from springs also on the east and northwest side of the City. Shepard and Spring Creek diverge just east of Interstate 15, then the two waterways flow parallel to one another in a south and west direction ½ mile apart toward the Park. The fresh water that flows downslope from both the snowmelt and the spring support the rich ecosystem on the shore of the Great Salt Lake. The fresh water dilutes the highly saline waters of the Great Salt Lake to create brackish waters within the wetlands closer to the Great Salt Lake.

Shallow water and the consistent fluctuation of the Great Salt Lake are basic ingredients in the creation of highly productive habitats for wading birds as these areas are highly suitable for aquatic invertebrates upon which shorebirds feed. Plant communities at the saltwater/freshwater interface are dynamic as a result of ongoing fluctuations with seasonal variation and periods of climatic change. This sustains habitats in a fresh and vigorous condition.

Habitat edges that are associated with wetlands such as dikes, riverbanks and shorelines are sites of freshwater invertebrate abundance. These areas are especially productive sites for midges, which are feed for many birds, fish, bats and dragonflies.

#### Adjudicated Water Rights

There are many adjudicated water rights in and around the Park. There are many (at least 13) groundwater

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wells around the park with owners ranging from Wheeler Machinery to the LDS Church to individual owners.

Surface water rights are also in and around the park also with various owners from individuals to the LDS Church to the Utah Division of Wildlife Resources. Of particular interest is ownership of 8cfs from Baer Creek that is owned by the Utah Division of Wildlife Resources (Right # 31-2715). Further 1 cfs from surface drains are owned by Christensen Land Company near where Spring Creek enters the Park (Right # 31-5164).

At this time, it is unknown as to the seniority of these water rights – thus the regularity in which the water is actually delivered.

A possible discussion with the owners of the surface water rights in the area would help to understand the amount and schedule of water delivery. This information would serve useful in any future potential management actions that may require water for habitat restoration or creation in various areas of the park.

### **Groundwater**

Groundwater is present at relatively shallow depths throughout the Park – anywhere between at the surface or up to 3 feet deep. The depth varies depending on soil and subsoil characteristics, and the amount of area upstream and gradient available to supply water for infiltration into the aquifers. The quality of the groundwater is generally good in the east shore aquifer system (UDWR 2009), but increasing pumping of ground water may pose a threat to the wetlands on the Park.

## **Conditions**

### **Past Conditions**

Prior to settlement, it is likely that the area now West of Interstate 15 was a mosaic of wetlands with upland islands. Water would flow freely from wetland to wetland in the flat to gently sloping areas prior to it reaching its final destination of the Great Salt Lake.

### **Current Conditions**

The development of the area has resulted in various degrees of channelization of the creeks in the region. Creeks have been straightened, piped and/or re-routed so as to manage flooding susceptibility within the developed areas. Additionally, since the groundwater is so shallow in the area, the City has installed several land drains and storm drain pipes to direct water toward the lake. There are several storm drains that discharge directly onto the Park or into a ditch or creek that directs the water toward the Park (See figures 28 and 29 below). The creeks and at the Park are in fair condition since they have been so modified and are recipients of storm water pollutants. Contaminants to the Park through these systems would include:

- Sedimentation and debris from storm drains.
- Pollutants from livestock waste.
- Herbicides from noxious weed control measures.
- Sedimentation from loosened soil from livestock grazing

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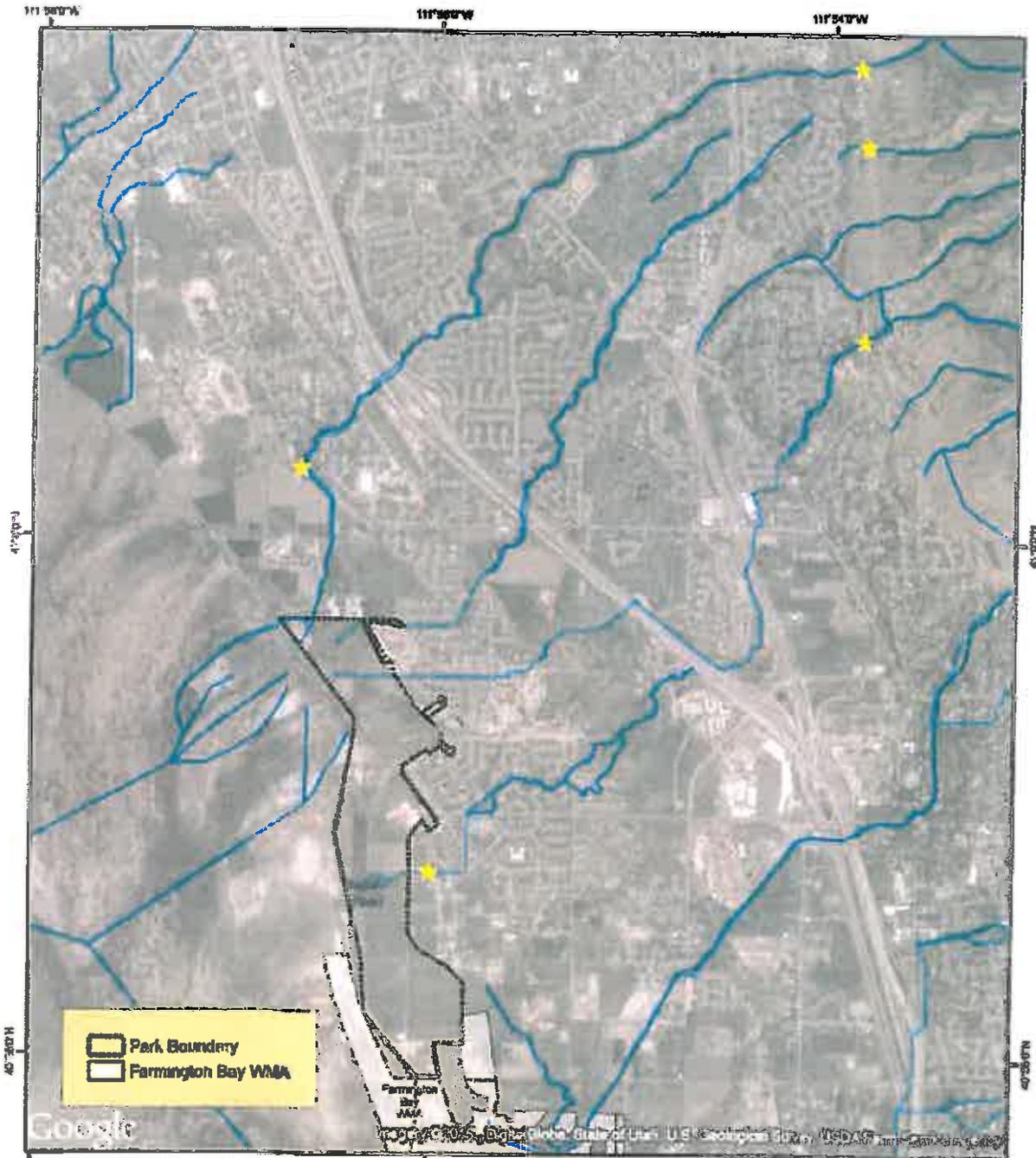
**Figure 32. Storm drain from Hollybrook Way**



**Figure 33. Plentiful trash debris that rests in the emergent marsh of Shepard Creek prior to it reaching Buffalo Pond**

The Davis County Department of Health samples water quality on upper and lower Baer Creek, Upper and lower Haight Creek, and upper and a lower Shepard Creek. (See Figure 30) For the most part, water quality is at standards, but sometimes, E.coli numbers are high, particularly in lower Baer Creek. The county does not test water quality during storm events.

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**Figure 34. Davis County Water Quality testing Points**



**FARMINGTON CITY**  
**CONSERVATION RECREATION WILDLIFE & WATERFOWL REFUGE & PARK**  
**MANAGEMENT PLAN**

**DAVIS COUNTY WATER**  
**QUALITY TESTING POINTS**

2,500 Feet

**FARMINGTON**  
 UTAH

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**Resource Trajectory**

Should there continue to be further development in this area of Farmington, the increase in paved streets will increase the amount of storm water likely to be discharged onto the Park. Storm water often carries pollutants, debris and sediment. If these pollutants are discharged onto the Park, the degradation of water quality could have negative effects on the wildlife (particularly herptofauna). With intense summer storms potentially on the rise in the future, it will be important to upgrade storm water management techniques where possible.

It should be noted that control regulations for off –site and upstream watershed background sources for nutrient loading from Non-Point Sources is beyond the scope of this plan.

**DESIRED FUTURE CONDITIONS**

The installation of trash racks, trash grates and/or drain guards on the storm drains that discharge onto the Park can reduce the debris and pollutants being released into the Park with every storm. It should be noted that these installations will likely require more maintenance to assure they remain clear of debris that would appear unsightly or cause blockage to the storm drains.

## **Resource: Geology and Soils**

### **Resource Summary**

#### **Significant Features**

- **Unique Great Salt Lake Landscape and Geology** - As the Great Salt Lake is a terminal basin, the millennia of sediments that have been deposited in the area can be up to 10,000 feet thick.
- **Unique salt affected ecosystem** – The terminus of the watershed being the Great Salt Lake has created a highly saline environment. The suite of vegetation and wildlife species that have adapted to this environment are a unique feature of the arid West, the Great Basin and thus the Park.

#### **Significant Threats**

- **Salty Soils**- Although saline soils are a natural feature of the Park, it often provides challenges for vegetation management. All seed mixes to be used at the Park should include saline tolerant species.

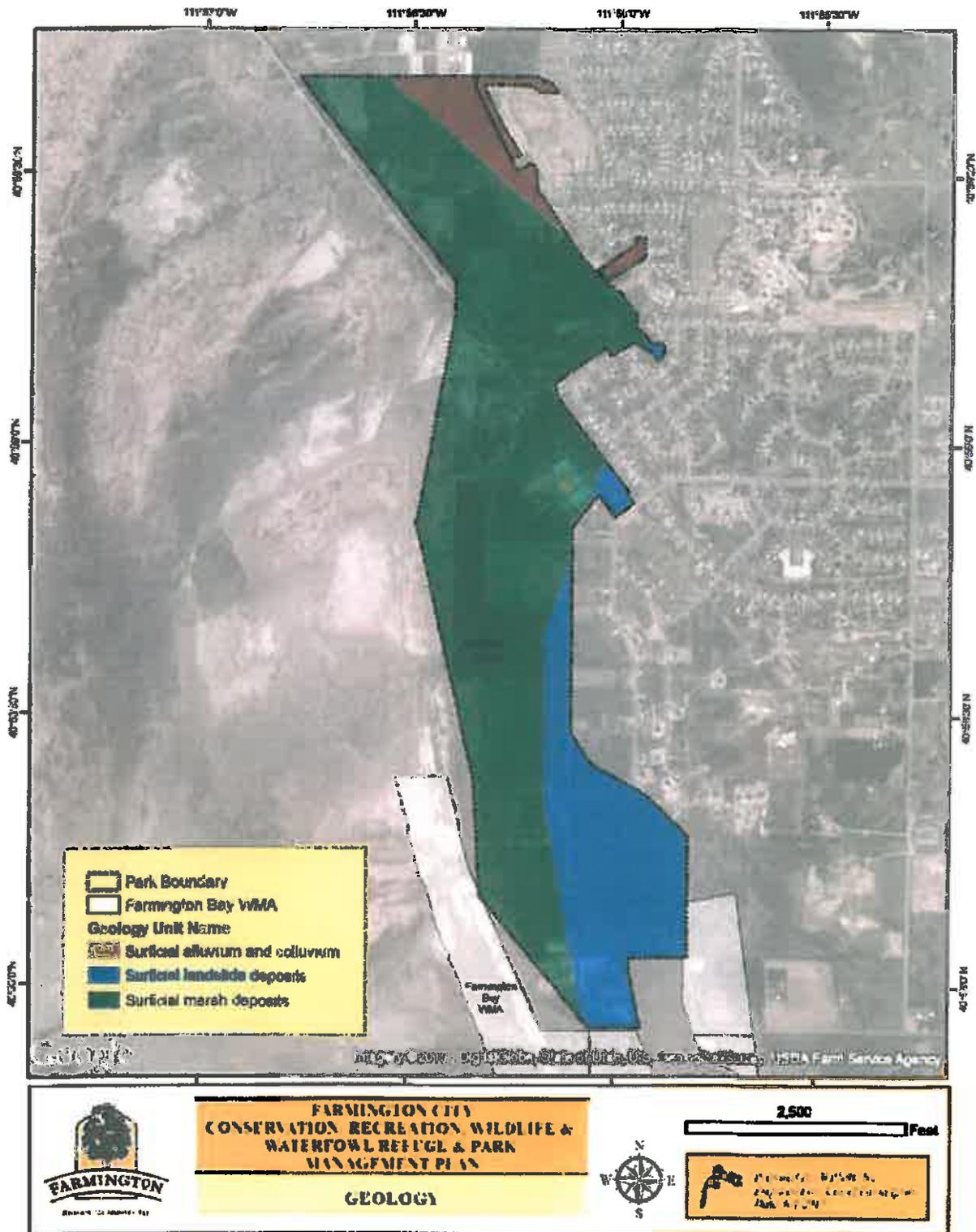
### **Description**

#### **Geology**

The geology of the area is a mixture of lacustrine deposits coming from the West from the millennia of rise and fall of the Great Salt Lake and landslides from the Wasatch Front. Davis County has a map of areas that are geologic hazards due to areas that are subject to debris flow. The active Wasatch Fault is at the base of the Wasatch Range is at the eastern margin of the depositional basin of the Great Salt Lake. The GSL Basin is overlain by Quaternary fill and surficial deposits that are mostly fluvial, lacustrine and deltaic origin. These Quaternary deposits hold the important ground water aquifers that underly the area (Bishop et al 2009).

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**Figure 35: Geology of the Park in Farmington**



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**Soils**

It is important to associate the underlying soils with the vegetation types as soil chemical and physical properties strongly influence the vegetation community that develops upon it. The following soils are found on the Park (see Figure 25). It is important to note that the soils in the area were mapped at a scale that may not capture the inherent variability of soil at a finer scale. However, the soil map provides good context for both the current and past vegetation types, as well as the vegetation the soils may be able to support with some management actions. The soil types on the properties are summarized below.

**WgA – Warm Springs Fine sandy loam**

This soil is found on lake terraces, is highly alkaline (with a pH up to 10 at 8" depth) and formed from lacustrine deposits. On average, the water table is approximately 33" from the soil surface. Since the soil is so saline (with many different salts) as well as sodic (high in sodium), the soils support a select suite of plants that are tolerant to these conditions. The Natural Resource Conservation Service (NRCS) describes the soils as an 'alkali bottom' rangeland site. The Warm Springs fine sandy loam is not a listed hydric soil.

**WhA – Warm Springs fine sandy loam – channeled.**

Same as WgA above, channeled.

**AS – Arave-Saltair Complex 0-1% slopes**

These soils are found on lake plains and also formed from lacustrine deposits. On average, the water table is approximately 24" from the soil surface. The soil texture is a silt loam at the surface and generally becomes more fine textured with depth. This soil is also relatively alkaline with a pH of up to 8.5 to 9. This soil is not a listed hydric soil and is also described as an 'alkali bottom' rangeland by the NRCS classification.

**Sa- Saltair silty clay loam**

Saltair silty clay loam is a poorly drained soil formed in lacustrine deposits with occasional flooding hazards. The Saltair soil experiences continuous or periodic saturation and reduction. The Saltair soil is included on the National Hydric Soils list.

**SPL - Saltair-Playas-Lasil Complex**

The SPL soils are a complex that consists of 40% of the Saltair soil unit, 35% of the Playa soil unit and 20% of the Lasil soil unit. The complex is found on historic lake plains (playas) that formed from lacustrine deposits from mixed lake sediments. The Saltair soil is described above and is on the National Hydric Soils list and is listed as a 'Desert Salty Silt' rangeland site by the NRCS.

The Playa series is typed as an Entisol, which is a soil that does not show any profile development other than an A horizon. These can occur as a result of erosion, continuous repeated deposition or flooding or saturation. The Playa soil type is also found on the Hydric Soils list and is also listed as a 'Desert Salty Silt' rangeland site.

The Lasil series is a saline-alkali affected soil that is somewhat poorly drained. They are generally located on lake plains and they formed from calcareous mixed lake sediments from sedimentary and igneous rocks. The Lasil series is not included on the National Hydric Soils list and is described by the NRCS as an 'alkali bottom' rangeland site.

**Lb – Lakeshore fine sandy loam – 0-1% slopes**

These soils are found on lake terraces and formed in lacustrine deposits. On average, the water table is only 10" below the soil surface. Lakeshore is on the national hydric soil list. Since the soil tends to be alkaline, the NRCS described the vegetation community on these soils as a 'wet saline meadow'.

**SKA – Sunset Loam – Drained 0-1% slopes**

These soils are found on flood plains and stream terraces and were formed from alluvium. Since these soils have been drained, the water table is on average 51" below the soil surface. Sunset loam is not a listed hydric

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soil and is described by the NRCS as a semi-wet fresh meadow. The soil has low salinity, with a relatively neutral to alkaline pH and is thus designated as prime farmland if it is irrigated. The soil exhibits a very consistent texture of loam to a depth of 68”.

Ac – airport silt loam – 0-2% slopes

These soils are found on lake terraces and were formed in lacustrine deposits. These soils are both saline and sodic and are listed as an ‘alkali bottom’ vegetation community by the NRCS. On average, the water table is about 33” below the soil surface and these soils are thus not a listed hydric soil. The soil texture becomes slightly more fine with depth trending from a silty clay loam to a clay loam.

PEP - Pintailake-Eimarsh-Playa Complexes

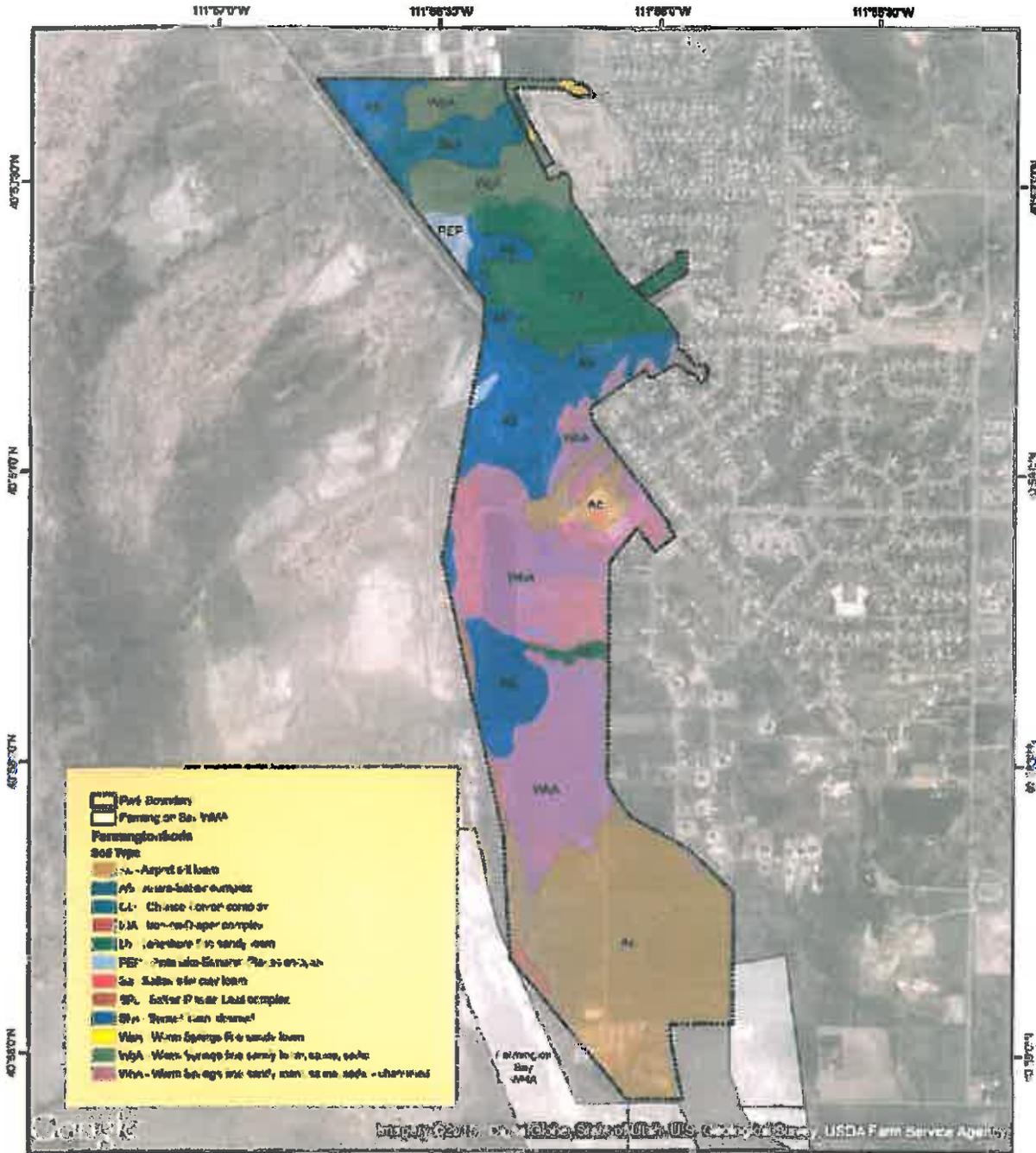
The Pintailake series consists of very deep, very poorly drained soils that formed in alluvium over lacustrine deposits derived from limestone, shale, and quartzite and is found on lake plains with gentle slopes of 0 to 1%. The Pintailake series comprises approximately 45% of the map unit. The parent material is alluvium over lacustrine deposits derived from limestone, shale, and quartzite. The Pintailake is a hydric soil and classified as ‘Lakeshore Marsh’ by the NRCS.

The Eimarsh series also consists of very deep, poorly drained soils that formed in lacustrine deposits derived from limestone, shale, and quartzite. Eimarsh soils are also on lake plains with gentle slopes of 0 to 1% and are classified as a ‘Wet saline meadow’ by the NRCS. The Eimarsh soil is a hydric soil and comprises approximately 30% of the map unit.

The Playa series is typed as an Entisol, which is a soil that does not show any profile development other than an A horizon. These can occur as a result of erosion, continuous repeated deposition or flooding or saturation. Playas comprise about 10% of the map unit and are classified as a ‘Desert Salty silt’ rangeland site by the NRCS.

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**Figure 36. Soil Types at the Park**





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MANAGEMENT PLAN**

**SOIL**

2,500 Feet




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### **Past and Current Conditions**

The past and current conditions are essentially the same for geology, however, the soils have likely been altered as they have been drained and otherwise worked for agriculture over the years. This may mean that the soil profile may not be the same as described in the NRCS Soil Survey.

### **Resource Trajectory**

There is little threat to the soils and geology of the area as erosive forces are minor in such a gently sloping area

### **DESIRED FUTURE CONDITIONS**

Be sure to characterize the soil in more detail if any activity or building is permitted on the Park, as the soil drainage, tendency to pond or flood and soil chemical characteristics can affect structures and/or level of success of proposed habitat enhancements.

**Table 9: Dominant soils found at the Park and adjacent areas**

<u>Name</u>	<u>Erosion Potential</u>	<u>Location in Park</u>	<u>Ponding Hazard</u>	<u>Soil origination</u>	<u>Potential Management Issues</u>
<u>WgA/Wha - Warm Springs Fine sandy loam (Wha is drained)</u>	Low runoff class	Under most of Hunter's Creek CE	None	Lacustrine deposits	~ 33 inches to water table, poorly drained, very high salinity and sodicity (difficult revegetation)
<u>AS - Arave-Saltair Complex</u>	Medium runoff class	Under southern 1/2 of Buffalo pond north Buffalo Ranches and some of Farmington Ranches CE and north western region of Hunter's Creek CE	None	Lacustrine deposits	~24 inches to water table, poorly drained very high salinity and sodicity (difficult revegetation)
<u>Sa- Saltair silty clay loam</u>	Very high runoff class	Under eastern region of Kern Gardner property	Occasional	Lacustrine deposits	Hydric soil, depth to water table only 6 inches
<u>CIA - Chance - Ironton complex</u>	Very high runoff class	Under Kern Gardner property	None	Alluvium	Hydric soil, poorly drained depth to water table 9 inches
<u>SPL - Saltair-Playas-Lasil Complex</u>	Negligible runoff	Far western side of property	Occasional	Lacustrine deposits	Hydric soil, poorly drained, depth to water table varies between 15 and 50 inches, high salinity and sodicity
<u>lb - Lakeshore fine sandy loam</u>	Negligible runoff	Under Shepard Ck and under most of Farmington Meadows	Frequent	Lacustrine deposits	Hydric soil, poorly drained, very high salinity and sodicity
<u>SkA - Sunset Loam - Drained</u>	Low runoff class	Under central portion of Hunter's Creek CE	None	Alluvium	Well drained, prime farmland if irrigated
<u>Ac - airport silt loam</u>	Medium runoff class	Under southern 1/2 of Buffalo Ranch and under facilities at Buffalo Ranch	None	Lacustrine deposits	~ 33 inches to water table, poorly drained, high salinity and sodicity (difficult revegetation)
<u>PEP - Pintailake-Eimash-Playa Complexes</u>	High runoff class	Under northwestern section of Farmington Meadows CE	Frequent	Lacustrine deposits	Depth to water table between 5 and 15 inches, very poorly drained, high salinity and sodicity

Source: NRCS Soil Survey of Davis-Weber Area, Utah, 2003 (USDA 2003).

## Chapter 4 - Resource Influences

The previous chapter, Resource Element Descriptions, discussed natural resources in detail. This chapter highlights the influences that can affect the condition of natural resources at the Park. Impacts and influences interacting with natural resources may be regional or localized, originate inside or outside the park boundary, and occur naturally or from human activities. These influences may have beneficial effects, detrimental effects, or both. The following information outlines sources of the most significant or likely influences, and the subsequent impacts that may result, as well as recommendations to help stem negative impacts. The City of Farmington is intending to initiate discussions with the Farmington Bay WMA to consider the possibility and interest of a cooperative management agreement. A cooperative management agreement would benefit both the Park and the WMA to assure habitat conditions and objectives are consistent across boundaries to serve the primary purpose as wildlife and waterfowl refuge area.

### Regional Influences

#### Climate

Climatic patterns influence the nature of geophysical resources with differences in moisture availability, length of growing seasons, and overall ecosystem development. Most precipitation comes as snow in the winter or rains in the early spring (April and May). A summary of average annual temperature and precipitation is given for Farmington Utah, from records taken between 1893 to 1965. The combination of latitude, landscape position and timing and amount of precipitation dictates the vegetation communities that establish in any given area.

Farmington 1893-1965

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
<b>Temperature</b>													
Average daily maximum	37.8	43.2	52.3	62.7	72.8	82.4	91.5	89.1	79.1	66.2	50.8	40.1	
Average daily minimum	19.1	23.8	29.9	37.0	44.0	50.8	58.3	56.5	47.1	37.9	28.4	22.1	
Precipitation (Monthly average)	2.2	2.1	2.24	2.34	2.17	1.1	0.5	1.05	0.96	1.56	1.84	1.94	19.99

WRCC Accessed 2015\_04\_16 <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?uffarg>

**Population Growth and Development**

The Wasatch Front has seen extraordinary population growth in the last 10 years as many find this suburb of Salt Lake as a desirable place to live and still able to work in a large metropolitan area. Population trends and predictions are provided in Table 10 for Davis County, Utah, which is the most likely population center to supply visitors to the Park. The growth of this area of Davis County may slow as a result of being 'built out'. As this area becomes an integral part of the regional recreation and trail system, park visitation is expected to increase.

**Table 10: Population figures for Davis County Utah**

	Davis County	Average % Increase
<b>1990</b>	<b>188,471</b>	<b>NA</b>
<b>1995</b>	<b>216,054</b>	<b>14%</b>
<b>2000</b>	<b>240,204</b>	<b>11%</b>
<b>2005</b>	<b>278,278</b>	<b>16%</b>
<b>2010</b>	<b>307,550</b>	<b>11%</b>
<b>2015</b>	<b>323,992</b>	<b>5%</b>
<b>2020 (est)</b>	<b>347,412</b>	<b>7%</b>
<b>2030 (est)</b>	<b>386,672</b>	<b>11%</b>

Source: Davis County Demographer (Site accessed April 17, 2015)

**Adjacent Land Uses**

The Park is surrounded on the East and North sides by various levels of development, consisting of residential neighborhoods to the East and agricultural activities on the north. The Farmington Bay Wildlife Management Area (WMA) is directly adjacent on the south side of the Park. The Great Salt Lake lies immediately to the West. The combination of these different surrounding land uses creates a gentle boundary between the Great Salt Lake Ecosystem and urbanization. The placement of conservation easements over these properties was an insightful action accomplished by the City of Farmington, not only to provide the City relief from flooding potential from the inevitable rise of the Great Salt Lake in wet years, but also to provide open space and wildlife and waterfowl habitat along the shore of the Great Salt Lake with minimal human interaction.

Land uses adjacent to the Park can create increased pressure on the natural resources of the Park as different land management practices or activities creates inconsistencies of overall land management goals, and thus land management activities. The following is a brief description of adjacent landowners and/or activities:

- **Privately owned parcels-** As more people move onto the Wasatch Front, these subdivisions are considered "suburbs" of the greater Salt Lake area. A number of impacts due to infilling of these suburbs adjacent to the Park can have daily impacts on the Parks natural resources, including:
  1. **Domestic and feral pets-** Homeowners dogs and cats will intermittently escape and venture onto the Park, where they can be a nuisance to park visitors and park wildlife. In particular, feral cats can have a devastating effect on bird and small mammal populations, thus affecting the rest of the ecosystem.

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2. Increased roads, driveways and rooftops in adjacent subdivisions, thus impermeable area- The increased storm water coming off these roads and other non-permeable surfaces onto the Park will likely bring more pollutants from the surface water runoff.
  3. Increased refuse and debris. - Increased use of the Park will likely mean more refuse from pets (horses, dogs) as well as picnic refuse and other debris onto Park property
- Livestock use  
The continuing permitted use of livestock grazing provides valuable feed and space for the lessees of the Park. A central management concern for these lessees is the maintenance of sufficient forage and water for the livestock. If livestock grazing is executed consistent with the easements, this activity is consistent with the primary purpose of the Park as a wildlife and waterfowl refuge. Further, the allowance of livestock grazing in the easements provides a very powerful land management tool for potential habitat improvements or changes.
  - Farmington Bay Waterfowl Management Area  
Directly south of the Park, the 18,000-acre Farmington Bay WMA was established in 1935 and has been managed ever since to provide habitat for hundreds of thousands of waterbirds, songbirds and raptors. In fact, by 1991, the Farmington Bay WMA was part of a dedication of the Great Salt Lake into the Western Hemispheric Shorebird Reserve Network. Further, to the North, many other preserves lie along the shores of the Great Salt Lake including the Great Salt Lake Shorelands (managed by The Nature Conservancy), the Howard Slough, Ogden Bay and Harold Crane Wildlife Management Areas (managed by the State of Utah), and the Bear River Migratory Refuge (managed by the US Fish and Wildlife Service). (See Figure 27) All of these refuges and designations reflect the significance of this ecosystem to millions of shorebirds and waterfowl. The City of Farmington intends to pursue a cooperative management agreement with Farmington WMA to ensure consistent land management in the area for the wildlife and waterfowl

The following recommendations are provided to assist in managing the impacts associated with the influences of adjacent properties.

- A. Work with landowners and City Planners to minimize or limit the impacts of the adjacent development and land uses.
- B. Continue to enlist the help of residential neighbors and adjacent landowners. Use mailings, workshops, volunteer contacts, and handouts, to assist in the dissemination of information such as:
  1. Assistance in monitoring park vegetation and wildlife.
  2. Weed control and techniques
  4. Landscaping with native plant species
  5. Proper trash management
  6. Controlling the effects of dogs and cats on wildlife
- C. Implement the use of Ecological Sensitivity Zones (see Chapter 5)

### **Wildlife Corridors**

Wildlife corridors are widely known to be important to species conservation. What is important to keep in mind are issues of scale- that is, what is the home range of the animal utilizing the corridor, and how far do they travel? For instance, a corridor for a mouse may be the riparian area next to a small stream, while for a migrating shorebird, the Rocky Mountain flyway from South America up to the arctic may be its movement corridor. Since the Park lies on the shores of the Great Salt Lake – a major migrating bird Flyway, several species of birds use the Park for loafing and foraging, and a few species may use the Park for nesting.

### **Habitat Fragmentation**

Effects of further fragmentation of habitat in this area would be somewhat subtle and the effects difficult to predict. Habitat fragmentation could take the form of different visitor use patterns and trail use. As such, any future trails will remain on the outskirts of the Park to assure as little disturbance to the wildlife and waterfowl as possible. If nesting birds are found near trails, then City staff should consider creating a buffer area around that nest and implement trail closures if necessary to allow successful nesting and rearing.

### **Noxious Weeds**

A constant threat to the preservation of biological resources is the invasion of exotic plant species, particularly noxious weeds. These can move into disturbed areas, multiply, and persist over time. Weed control is essential because exotics have few natural enemies. When weeds spread into native ecosystems, they reduce the diversity, destroy habitat by shading native plants, or eliminate natives with **allelopathic** chemicals. The creeks that run through the Park serve as a course for new and different noxious weed species to become established on the Park. An integrated weed management plan for the Park should include:

- A. Prioritized goals for weed management.**
- B. Clearly identified and understood prevention techniques.**
- C. Plans for management and control of exotic species.**

Plants that are not part of Utah's native vegetation are considered **exotic species**, and those that are listed on a list generated by the State are considered **Noxious weeds**

## **Park Facilities and Continued Park Development**

### **Visitation**

Visitor numbers have not been estimated for the Park at this time. City staff should pay close attention to not only the number of visitors, but the type of recreation in which each visitor partakes, as well as the seasonal trends in visitor numbers and activities. Each recreation activity will have a different impact on the various resources at the park. The combination of the knowledge of visitor interests and activities and the natural resources at the park will help direct the management of the Park as to prioritization and allocation of resources to sustain a refuge for the wildlife and waterfowl. All existing and proposed trails are consistent with this purpose as they will remain on the outer edges of the refuge.

### **Carrying Capacity and Natural Resources**

Carrying capacity is a term defined as the reasonable maximum load or population that an area will support without undergoing deterioration. In theory, the carrying capacity for a Park such as this one would be the maximum number of visitors that would not compromise the natural resources. In reality, because of the many factors involved (i.e. visitor behavior, types of activities, park maintenance, surrounding land use, etc.) it is difficult to develop an exact number of visitors for the carrying capacity based on any equations or statistical relationship to the resources. At many parks, carrying capacity can be based on the number of parking spaces. But these methods do not address the effects on the natural resources.

For the Park, the best approach is to use quantitative as well as qualitative resource monitoring that can be done either annually by City staff or volunteers every 5 years as part of the management process. Through this type of monitoring, the following can be discerned:

- **Vegetation trends such as increased exotics, loss of species, or compositional changes.**
- **Wildlife changes such as loss of species, a decrease or increase in utilization by certain species.**
- **Erosion from social trail formation or stream bank trampling.**
- **Water quality monitoring data**

The results from this type of monitoring will provide important information on resource trends and provide insight into the possible effects of visitor numbers. These trends would inform City staff as to whether the activities in the Park are causing impacts beyond the sustainable carrying capacity. At that point it will be up to the City to decide the best course of actions to sustain the natural resource objectives.

If the level of use appears to be exceeding the carrying capacity, the City staff should consider a range of options including: redistributing visitors, curtailing some visitor activities, capping visitor numbers, increasing park buffer areas, initiating fee rates, increasing the maintenance budget for weed control, revegetation or other mitigation activities.

*The level and types of recreation offered at the Park should be synchronized with the management objectives and the long-term protection of the Park's natural resources.*

## **Recreation**

### **Trail Use**

Trail use by visitors provides the best means of experiencing the quality of the Park first hand. It is also important to recognize how trails and trail use from different user groups may have implications on wildlife populations and productivity, vegetation health and distribution, and the possibility of soil erosion. Different user groups will also have an effect on mitigation requirements and maintenance costs.

### **Impacts of Trails on Wildlife**

Many studies have been conducted on the effects of trail construction and subsequent human use of these trails has on wildlife populations. Recreational trails can affect larger ecosystem processes by provoking changes in the distribution of wildlife across the landscape. The effects of trails such as altered vegetation structure, modified bird and mammal assemblages, and different tolerance levels of wildlife species to human recreationists can all potentially alter wildlife community structure in the vicinity and the distribution of wildlife across the landscape.

Trail corridors can also facilitate predator invasions by providing predators with a travel corridor and creating smaller fragments, which are often easier for predators to penetrate. This appears to be the case with the many feral cats on the Park property

Further, increased human disturbance is often an instigator for shifting wildlife use patterns on the landscape. Many wildlife species will become adapted to predictable, benign disturbances, such as cars driving down a road. Unpredictable but infrequent disturbances (people infrequently walking down a trail) allowed birds to return to their nests after the disturbance had passed; but with unpredictable, high level disturbances (many humans walking down a trail throughout the day), most birds were displaced all of the time, and only very few tolerant species remained in the area (Hockin et al. 1992). Gutzwiller et al. (1998) reported that the presence of people can cause behavioral changes that can negatively influence avian fitness. Increased stress, prevention of access to important resources, and a reduction of fecundity and survival were all noted in this study. Knight and Cole (1991) reported that recreationists primarily affect wildlife through unintentional disturbance.

**In order to mitigate the negative effects trails can have in wildlife, suggestions include:**

- A. Place trails in less sensitive habitats- away from riparian corridors, deciduous- bushy vegetation, aspen stands, and old growth forests. Trails should be 30' from creeks and riparian brushy vegetation, where many neotropical migrants nest.
- B. Restrict or modify trail use during seasons of the year when wildlife is especially vulnerable or sensitive to disturbance (nesting and fledging season).
- C. Establish secure areas that trails do not penetrate to ensure that wildlife have a refuge from human visitors.
- D. Concentrate recreational activities in "sacrifice areas" in order to maintain a high level of intact habitat- especially in sensitive areas
- E. Consolidate trails so there is less fragmentation and more interior core habitat, and less anthropogenic edge effects.

### **Picnic Areas**

Picnic areas can modify areas of natural habitat and may create an unnatural source of food for area wildlife, an increase in noxious weeds, the accumulation of trash and litter that attract wildlife, and are potential sources of wildfires. Careful use and disposal of food is important to prevent potential

problems between visitors and wildlife. Wildlife proof trash facilities greatly help in preventing such problems.

#### Picnic Mitigations

- 1) Explicitly instruct visitors to not feed the wildlife they encounter and act responsibly with food storage, preparation and disposal
- 2) Always use wildlife proof trash cans.

#### **Dogs In the Park**

The presence of dogs accompanying their owners while at the park creates special concerns. Most domestic dogs still retain instincts to hunt and/or chase other animals. Even if dogs are controlled and not allowed to chase wildlife, their very presence has been shown to be disruptive to many wildlife species. Especially during winter, harassment by dogs results in excessive energy expenditures by wildlife.

Domestic dogs can potentially introduce diseases (distemper, parvovirus, and rabies) and transport parasites into wildlife habitats. Cumulative impacts of domestic dogs may have important implications for wildlife populations. Because of these factors, careful consideration of dog policies for the park will be critical in controlling the profound effects possible. Dog feces and marking areas with urination may impact sensitive wildlife species and create clean-up issues for park staff.

#### Dog Mitigations

- 1) Dogs should be on-leash at all times
- 2) Have seasonal "No Dog" signs on trails during the spring when wildlife is most sensitive to dogs due to fledging
- 3) Install dog feces collection bags on trails that allow dogs, and have trashcans at trailhead to facilitate dog walkers cooperation
- 4) Install information board to inform dog owners of the issues with dogs off-leash, and dog feces.

#### **Feral Cats**

Although this is a controversial topic, it is a clear management issue for the Park, particularly since the main objective is to promote wildlife and waterfowl habitat and refuge. A new study shows that cats (feral cats in particular) kill far more birds and small mammals than scientists previously thought. Through a systematic review and quantitative estimate, it has been estimated that cats kill 1.3 to 4.0 billion birds each year in the United States (Dauphine and Cooper 2009). Additionally, it is estimated that 6.3 to 22.3 billion small mammals succumb to feral cats. The loss of these small mammals can indirectly kill native predators by removing their food base.

It should be noted that the trap, neuter and re-release programs that have been encouraged as a more humane way to reduce feral cat populations have not shown success.

## **Chapter 5 - Stewardship Recommendations**

The goals and objectives below have been written to help sustain this unique part of the Wasatch Front of Utah. Each recommendation bolsters the primary function of the Park as a wildlife and waterfowl refuge as recreationists will be limited to trails and any future trails will be sited on the outskirts of the Park to assure as little disturbance to the wildlife as possible.

### **Stewardship Goals and Objectives**

The Baseline Resource Assessment and review of all available studies suggest the stewardship goals and objectives for the next five years should be:

#### **To preserve and protect the valuable natural resources of the Park**

- ◆ Protect the wetland areas of the Park to assure habitat for wildlife and waterfowl is preserved as well as to provide a unique, natural experience for Park visitors.
- ◆ Protect any potential nesting areas by accurately identifying nest sites each year and protecting them from disturbance during nesting and fledging periods.
- ◆ Maintain and improve water quality in the creeks to protect valuable wildlife at the park.
- ◆ Implement a feral cat control program in the Park to reduce wildlife loss to feral cat hunting.
- ◆ Implement an aggressive noxious weed control program to improve conditions for native vegetation communities and thus wildlife habitat.

#### **To maintain the outstanding scenic and natural qualities of the Park**

- ◆ Continue sustainable trail construction and maintenance procedures on all new and existing trails to minimize erosion and assure proper routing. Be sure to maintain unobstructed views to the Great Salt Lake
- ◆ Concentrate recreational use and foot traffic as much as possible to conserve sensitive areas for natural resources.

#### **Implement a comprehensive natural resource monitoring program to ensure that the above goals and objectives are met**

- ◆ Monitor bird populations and all vegetation types as recommended in Chapter 6- Monitoring.
- ◆ Use GIS as a natural resource planning and monitoring tool.

### **Prioritized Stewardship Actions**

These are actions the park staff can conduct now to protect this resource:

<b>Action Items</b>	<b>Area</b>	<b>Priority</b>	<b>Suggested Contact</b>
Control the spread of noxious and invasive weeds	Vegetation, Wildlife	High	Brandon Hunt, Davis County
Implement a program for control of the feral cat population	Wildlife	High	Davis County Animal Control
GPS boundaries of fenced pastures, especially in the northern region of the Park	All	High	City Staff
Instigate at least bi-annual communication with livestock lessees to have them submit to the City their livestock types, numbers and length of time in the pastures	Wildlife, Vegetation	High	City Staff
Regularly scheduled quantitative bird surveys	Wildlife	High	Audubon Society
Install a few raptor perches in the south upland meadows for hunting and possibly nesting	Wildlife	Moderate	Audubon Society
Keep a detailed register of visitor numbers and activities to assure the best care for the natural resources in the future.	Vegetation Wildlife, soils	High	City staff
Survey for small mammals	Wildlife	Moderate	UDWR
Plant willows and other native plants within riprap around Buffalo Pond to improve wildlife habitat	Wildlife	High	WP NRC
Full survey for herps	Wildlife	Moderate	UDWR
Plant milkweed species within wet meadows to create habitat for the Monarch butterfly	Wildlife	Low	WP NRC
Post interpretive signage around the park	Vegetation, Wildlife	High	City staff

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Action Items	Area	Priority	Suggested Contact
Instigate an annual vegetation monitoring program to quantitatively assess livestock grazing intensity to assure Conservation Values are being preserved	Vegetation, Wildlife	Low	WP NRC
Instigate a program to provide habitat and larval hosts for the Monarch butterfly by planting native species of milkweed ( <i>Asclepias incarnata</i> ) in the wet fresh meadows	Vegetation, Wildlife	Medium	WP NRC

Additional details for recommended Action Items listed above:

- ❑ The local **Audubon Society** chapters often have high quality birders that are willing and able to do regular surveys and monitoring for birds. Audubon is often able to recognize courting and nesting behavior for the different species of birds found at the Park. This information would be most useful in effectively managing the property for the birds that are using it or would use it.
- ❑ Control of the **feral cat population** is imperative to allow birds and small mammals a higher chance of survival, and thus use and reproduction at the Park
- ❑ A **survey for small mammals** would yield information regarding the types and numbers of this class of wildlife using the Park, and thus the potential to support raptors. This action in tandem with a feral cat control program would most likely show a sharp increase of wildlife use over time.
- ❑ A **survey for herptofauna** would inform whether there is potential habitat for the sensitive northern leopard frog and/or what other species may be present at the Park
- ❑ **Keeping a log of visitor number and Intention** will aid the City in caring for the resources at the park as they will know where to focus on resource maintenance and possible future development.
- ❑ **Interpretive signs around the Park** can educate visitors about the natural history of the Park to protect the environment and provide a fuller visitor experience.
- ❑ **Maintaining numbers and types of livestock** will not only aid in assuring Conservation Easement and Zoning regulations are being met, but when paired with a vegetation and utilization monitoring program will also inform maintenance and management of the pastures into the future
- ❑ Installing **raptor perches** in the southern pastures will encourage more raptor use and hunting of those upland meadows. This also may help keep the feral cat population down.
- ❑ Recent studies have shown that the **Monarch butterfly** is losing habitat at an alarming rate. Many populations of milkweed plants have been removed by farms throughout the United States. It would be possible to re-introduce swamp milkweed to some areas in the park to provide beautiful wildflowers and provide valuable reproductive habitat for the Monarch butterfly.

## **Prioritized Plans and Inventories**

<b>Resource Management Plans and Inventories (to be completed within 5 years)</b>	<b>Area</b>	<b>Priority</b>	<b>Suggested Contact</b>
<b><u>Devise a comprehensive Weed Management Plan</u></b> that includes a computerized weed control database. Set up a simple way to assure all weed control efforts are recorded with all the necessary information such as target species, date, applicator's name, herbicide name and rate.	Vegetation, Wildlife	High	Brandon Hunt, Davis County
<b><u>Develop a written protocol for communication with Livestock lessees</u></b> to know the number, type and length of time in each pasture of livestock on the Park	Vegetation, Wildlife	High	City Staff
<b><u>Develop a written protocol for regular Conservation Easement monitoring</u></b> to assure potential violators are notified	All	High	City Staff, trail volunteers
<b><u>Develop a revegetation plan.</u></b> Revegetation helps to encourage higher proportion of the Park to be dominated by native species, thus better habitat for wildlife.	Vegetation, Wildlife, Soils, Water	Medium	WP NRC
<b><u>Develop a plan for cooperative management</u></b> Seek to identify and preserve important habitat and movement corridors associated with the Park in cooperation with neighboring land owners/managers.	Wildlife, Vegetation	High	Farmington Bay WMA, Community leaders

### **Additional details for recommended Plans and Inventories listed above:**

- ❑ A detailed noxious weed management plan would assist in improving wildlife habitat, while understanding which weeds should be the highest priorities as well as keeping track of methods used will inform more efficient weed control going forward.
- ❑ Relevant private landowners, the Farmington Bay WMA and other interested organizations and citizens could all be potential partners in the development of a comprehensive plan to preserve wildlife habitat and movement corridors within and adjacent to the Park.
- ❑ Revegetation plan should include tips on re-using good topsoil, seeding techniques, mulching techniques to assure successful revegetation before weeds move in.

## **Ecological Sensitivity Zones**

More specific delineation of wildlife and waterfowl refuge areas at the Park can help define the vulnerability of each area to changes in land use, Park use and/or management. The demarcation of these zones can provide useful information for planning processes for the park. The procedure of delineating sensitivity zones requires consideration of both biotic and abiotic characteristics of the landscape. These characteristics help determine the susceptibility of an area to possible changes to individual attributes of an ecosystem. The following list outlines attributes that were considered in the delineation of these zones, and the necessary scrutiny associated with each attribute:

- ✓ **Wildlife- presence, patterns of use, corridors and possible breeding areas**
  - Are there rare or sensitive species present?
  - Are there areas within or adjacent to the park mapped by UDWR or Farmington Bay WMA as important habitat?
  - Does the park have areas that provide essential or critical habitats?
  
- ✓ **Acreage and surrounding areas**
  - Is there large, high quality contiguous wildlife and vegetation habitat within and around the park?
  - What is the condition and land use surrounding the park?
  
- ✓ **Vegetation community type and condition**
  - Are there sensitive species present?
  - What vegetation community types are there?
  - How much of the vegetation is native?
  - What is the condition of the vegetation?
  
- ✓ **Park setting and how it relates to recreational function and potential use**
  - Are there areas of the park that would be more suitable to different permitted uses, or areas that would add cost and long-term management issues?

For example, the **High Sensitivity Zones** may include habitat for rare or sensitive bird species, incorporate an area known to be used for wildlife reproduction activities, and/or encompass intact areas of important wildlife habitat (nesting habitat or migratory routes). It could also have native vegetation that could be easily impacted or soils or geology that make it susceptible to increased flooding or limited drainage. These areas are likely to be highly sensitive to disturbance to wildlife.

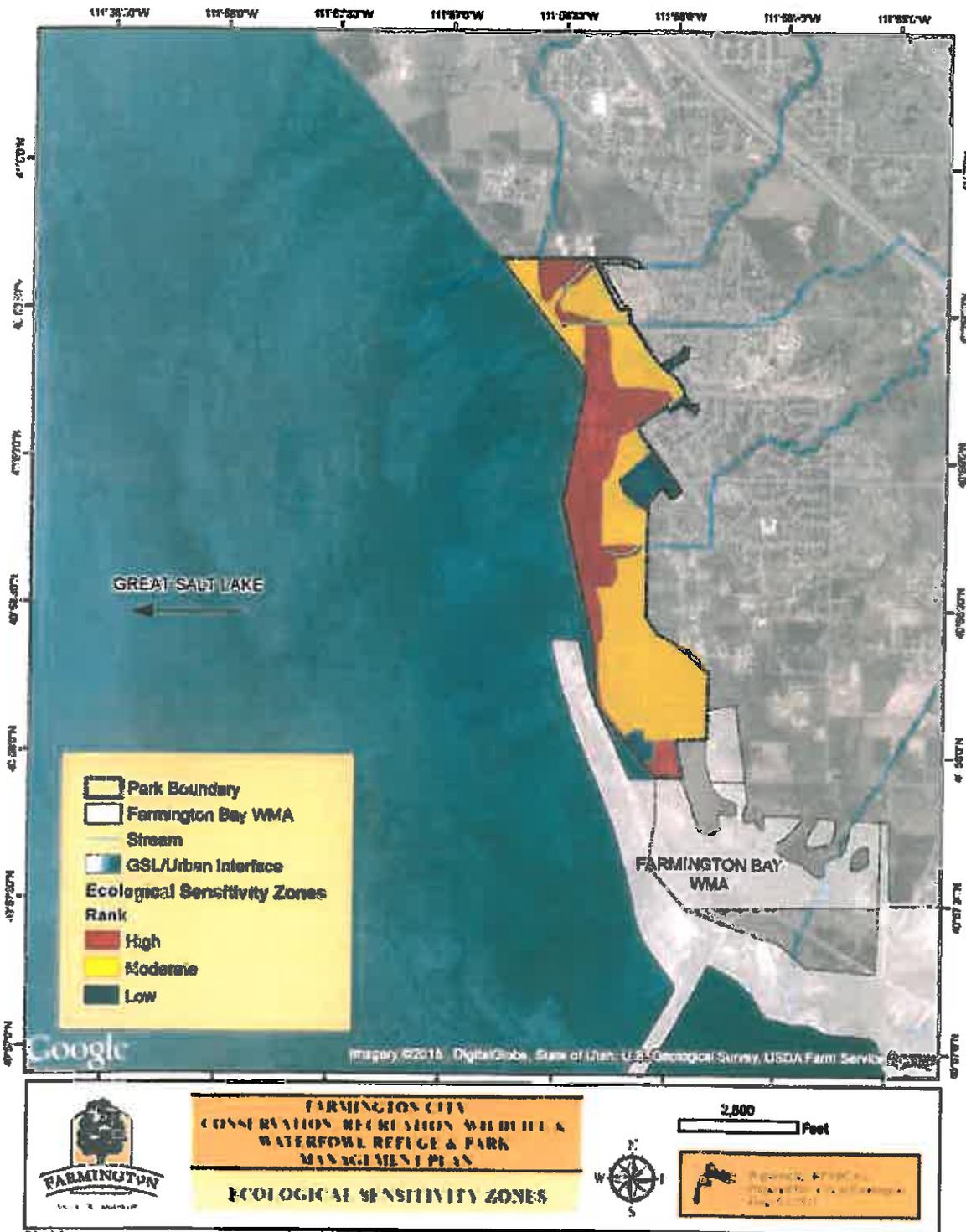
The **Moderate Sensitivity Zones** would generally encompass areas that are less ecologically vulnerable, but still have high scenic and ecological values. These may have intact vegetation in good condition, but not as large and contiguous habitat for wildlife. It may provide corridors for wildlife, but not critical migratory or other critical habitat.

The **Low Sensitivity Zones** are generally areas that are not habitat for sensitive species, have vegetation in fair to poor condition and/or is primarily non-native vegetation (weeds or non-native turf grass), and/or has hydro-physical conditions that make it less sensitive (such as soils that are not subject to excessive ponding or flooding, no threats to water quality, etc.).

Figure 37 shows proposed sensitivity zones to allow the highest use of the Park as a wildlife and waterfowl refuge

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Figure 37. Ecological Sensitivity Zones



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- The **high sensitivity** zones are generally those areas closest to the Great Salt Lake and adjacent to the Farmington Bay WMA. Some of the high ecological sensitivity zone surrounds Haight and Shepard Creeks as these waterways have high potential for successful habitat restoration and/or enhancement. Much of these areas also have a variety of good condition wetland habitats (e.g. emergent marsh, wet meadow, playa, etc)
- The **moderate sensitivity** zones are chiefly the upland meadows as well as the non-native emergent marsh on the west side of the park. The non-native emergent marsh is a great candidate for targeted grazing to reduce the density of the common reed to create more effective habitat for the wildlife and waterfowl of the area (as is currently being done at the Farmington Bay WMA). The upland meadows can be strategically managed so as to allow rotational grazing to allow some pastures to rest while providing more effective hunting grounds for raptors. Raptor perches could also be installed in the south central pastures to encourage more raptor use.
- The **low sensitivity** zones are the structures within the Park. As these areas are already developed, future Park needs could be accommodated in these areas. Small low sensitivity areas are located directly adjacent to housing developments as the human activity in these areas would exclude much wildlife or waterfowl use.

#### **Best Management Practices**

Best management practices (BMPs) are proactive management techniques that limit impacts to resources. Park staff, contractors, and volunteers should utilize these techniques to limit or prevent negative impacts to resources. Included in the appendix is a comprehensive list of general BMPs from numerous agencies that are suggested guidelines for future park operations.

The ecological sensitivity zones discussed in the previous section outline the biological/ecological rationales for designating certain areas of the park in high, medium or low sensitivity zones. The demarcation of these zones should occur when more information is known regarding Park visitorship, wildlife use in terms of timing and extent, and consensus on Park development and objectives. The Park's-specific ecological sensitivity zones may be modified as the conditions around or within the park change, but these recommendations are intended to protect habitat for the long-term. Future land use changes that may involve the modification of sensitive areas should be considered based on their potential impact on the resources.

## **Chapter 6 - Resource Monitoring**

Resource monitoring will be the most efficient and useful method for evaluating the potential changes occurring to the natural resources present. Effective monitoring applications provide a qualitative and quantifiable approach to the improvement or degradation in wildlife and waterfowl density and distribution, plant community health, as well as trail sustainability and soil protection. The suggested approach for creating a monitoring protocol would be:

1. **To establish baseline monitoring points and an initial round of comprehensive data (performed by the City Staff or other qualified organization)**
2. **Conduct routine monitoring with the coordination of City staff throughout the year and/or annually**
3. **Follow up with a full monitoring effort in 5 years or sooner as needed or as Park use changes**

The following tables are provided to assist in identifying particular issues to monitor within each specific resource.

### **Vegetation Monitoring**

Monitoring Actions	Priority	Suggested contact
<b><u>Vegetation community monitoring</u></b> – Vegetation plot locations should be established to track changes in health and diversity of plant communities in the park, particularly in or around areas that will be treated for noxious weeds. Subsequent monitoring could fall to the City staff or possibly volunteers.	High	WP NRC
<b><u>Monitor weed populations-</u></b> Track weed patch size and distribution with photo monitoring and incorporate into GIS. Volunteers may be utilized to assist City staff in this effort. Put all information regarding control efforts into a database including date sprayed, name and rate of herbicide used and target species	High	Brandon Hunt – Davis County Weed Supervisor

## **Wildlife Monitoring**

<b>Monitoring Actions</b>	<b>Best time to conduct</b>	<b>Priority</b>	<b>Suggested contact</b>
<b><u>Monitor bird use</u></b> – Each month of the year, Audubon volunteers (or Great Salt Lake Birders) could likely be available to walk the trails and do point counts for birds	Feb 1 – May 15	High	Local Audubon Society Chapter
<b><u>Monitor amphibian populations</u></b> - This can easily be done by conducting evening surveys when frogs are calling. Presence, absence and trends in populations should be recorded.	Early May	Med	Park Staff, UDWR
<b><u>Breeding Bird Surveys</u></b> - The local Audubon Society Chapter can assist with conducting breeding bird surveys.	Spring	High	Audubon Society

## **Geophysical Monitoring**

<b>Monitoring Actions</b>	<b>Priority</b>	<b>Suggested contact</b>
<b><u>Monitor surface water drainage</u></b> -Try to determine a general relationship between storm intensity and flooding as well as sedimentation and debris collection.	Med	Davis County

## **Chapter 7 - Conclusion**

The emphasis of this plan is to provide information and data in balancing the needs of the natural resources present with the current and future needs of Farmington's residents and local visitors.

The Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park is a unique area with ability to continue to harbor valuable habitat for both plants, wildlife and waterfowl, while affording a true nature experience to visitors. Any future development and/or use of the Park should pay close attention to proposed ecological sensitivity zones, as these zones will take into account the Conservation Values as outlined in the conservation easements with consideration given to present and future visitorship and use of the Park.

High quality habitat along the Great Salt Lake is worth both protecting and improving as witnessed by the numerous wildlife and waterfowl conservation areas around the shores of the Great Salt Lake. Protecting and enhancing these areas to a high quality condition can provide for a financial, ecological, and recreational experience for the residents and visitors of the City of Farmington. A thriving city exists less than 2 miles from an amazing recreational and wildlife viewing opportunity. As the urban interface expands, wildlife viewing and outdoor recreational opportunities will only become more valuable.

Successful stewardship requires an ongoing commitment to resource management. Investments in staff resources and funding for management planning are necessary if the stewardship and management recommendations are to be executed. Proper stewardship of the Park's natural resources will require a cooperative effort between City staff, The Utah DWR, scientists, Park visitors and volunteers, and surrounding landowners.

This Management Plan is expected to remain current for five years. After five years have elapsed, the plan should be updated to reflect changes that have taken place in the condition of the resources. A major monitoring effort should already be in effect as part of the update process. The *Resource Element Descriptions* should be revisited and the condition statements updated. *Resource Trajectories* should be analyzed to determine if the park resources are declining or responding favorably to management activities. This five-year plan update is critical to the effectiveness of resource stewardship.

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