

# Where in the Draft FR/EIS can I Find...?

Wildlife

June 2012 Draft FR/EIS and

## Preble's Meadow Jumping Mouse

### What do we have now?

- **Discussion of Species & Habitat:** pp. 3-63→3-64
- **Habitat in Chatfield Project Area:** Fig 3-12, p. 3-65
- **Habitat in Reallocation Study Area:** Fig 3-13, p. 3-67
- **Habitat Discussion in Chatfield Area:** App V, pp. 11→13; Fig 2-3, pg 41



### How will it change?



- **Impacts to Preble's Under Different Alternatives:**

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.
pp. 4-8→ 4-89	p. 4-90	pp. 4-93→ 4-95	p. 4-100→ 4-101

- **Tables Showing Total Acres of Preble's Habitat & Habitat Types Affected for Each Alternative:** p. 4-94
- **Description & Tables Showing Acres of Preble's Habitat Affected by Proposed Action:** App V, pp. 19→ 22
- **Cumulative Effects from All Projects that will Occur in the Area in the Future:** App V, pp. 22→ 25
- **Corps' Determination that Proposed Action "May Affect" Preble's & Recommendation for Formal Consultation:** App V, p. 27

### What will we do to protect it?

- **Mitigation of Potential Impacts:** pp. 4-103→ 4-105
- **Stakeholder & Agency Expectations/Ecological Priorities:** App K, pp. 15→17
- **Proposed Mitigation Activities (General):** App K, pp. 20→ 22
- **On-Site Mitigation for Preble's:** App K, pp. 22→ 23
- **Table Showing Acres, Ecological Gains, Costs of On-Site Mitigation:** App K, p. 29
- **Summary of On-Site Mitigation for Non-Critical Habitat:** App K, pp. 31→ 32
- **Off-site Mitigation (Permanent Protection of Habitat):** App K, pp. 33→ 35
- **Mitigation for Impacts to Preble's Critical Habitat:** App K, pp. 39→ 49
- **Critical Habitat Mitigation (on-site and off-site):** App K, pp. 39→ 49
- **Table Summarizing All Preble's Mitigation:** App K, p. 51
- **Schedule for Implementing Mitigation and Interim Milestones:** App K, pp. 62→ 63
- **Adaptive Management Objectives:** App K, p. 76

# Where in the Draft FR/EIS can I Find...?

Wildlife

June 2012 Draft FR/EIS and

## Wildlife - General (Including Birds)

### What do we have now?

- **Around Chatfield Reservoir:** pp. 3-47→3-53
- **Lists of Birds in Chatfield Area:** pp. 3-49, 3-52
- **Bird Habitat Map:** p. 3-55
- **Species of Mammals, Birds, Reptiles, & Amphibians Known to Occur in the Project Area:** App F



### How will it change?

- **Impacts to Wildlife Under Different Alternatives:**

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.	Cumulative Impacts
pp. 4-78→ 4-80	p. 4-80	pp. 4-80→ 4-84	pp. 4-84→ 4-86	p. 4-156

- **Tables Showing Estimates of Number of Acres of Wildlife Habitat Impacted, by Alternative:** p. 4-79
- **Flood Control Plan Potential Effects on Wildlife:** App B, pp. 7-23→ 7-13

### What will we do to protect it?

- **Reduction of Potential Impacts for all Alternatives:** p. 4-86→ 4-87
- **Bird Habitat: Number of Acres of Impacts & Mitigation:** App K, pp. 51→ 53
- **Bird Habitat: Table of Mitigation Activities & Habitats:** App K, p. C-11
- **Bird Habitat: Replace Lost Ecological Functions:** App K, pp. 12→ 13
- **Bird Habitat: On-site Mitigation:** App K, p. 28



# Where in the Draft FR/EIS can I Find...?

Wildlife

June 2012 Draft FR/EIS and

## Aquatic Life and Fisheries

### What do we have now?

- **Chatfield Reservoir:** pp. 3-21 → 3-22
- **South Platte River below Chatfield Reservoir:** p. 3-22
- **Tributaries to Chatfield Reservoir:** pp. 3-23 → 3-24

### How will it change?

- **Impacts to Aquatic Life and Fisheries Under Different Alternatives:**

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.	Cumulative Impacts
pp. 4-47 → 4-48	p. 4-48	pp. 4-48 → 4-53	pp. 4-53 → 4-55	pp. 4-154

- **Graph Showing Average Monthly Pool Fluctuations in Reservoir:** p. 4-50
- **Graph of Percent Change in Flows in South Platte River Below Reservoir:** p. 4-51
- **Downstream Flow Changes In South Platte River (Predicted by PACSM Model):**  
App D, pp. 8 → 9
- **Impacts of Flow Changes on Fish Habitat:** App D, pp. 9 → 14
- **Habitat versus Flow Relations:** App D, Attachment C
- **Habitat Suitability Data for Species of Interest:** App D, Attachment A

### What will we do to protect it?

- **Reduction of Potential Impacts for all Alternatives:**  
p. 4-55 → 4-56



USFWS



# Where in the Draft FR/EIS can I Find...?

Wildlife

June 2012 Draft FR/EIS and

## Endangered, Threatened, and Candidate Species, Species of Special Concern, and Sensitive Communities

### What do we have now?

- **Chatfield Reservoir Area:** p. 3-54
- **Special Status Plant Species:** pp. 3-60→3-61
- **Special Status Animal Species:** pp. 3-62→3-64
- **Special Status Bird Species:** pp. 3-69→3-72
- **Special Status Fish:** pp. 3-72→3-73
- **Downstream South Platte River (Plants, Animals, Birds, Fish):** pp. 3-74→3-75
- **Downstream Gravel Pit Areas:** pp. 3-74→3-75; **Maps:** pp. 3-85 & 3-87 & 3-89
- **Penley Reservoir Area:** pp. 3-75→3-76; **Maps:** pp. 3-77 & 3-81



### How will it change?

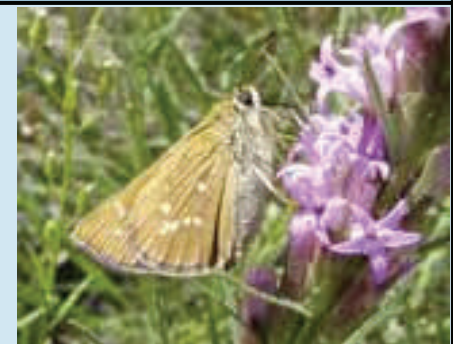
- **Impacts to Endangered, Threatened, and Candidate Species, Species of Special Concern, and Sensitive Communities and under Different Alternatives:**

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.	Cumulative Impacts
pp. 4-88 →4-89	p. 4-90	pp. 4-90→4-100	pp.4-100→4-103	pp. 4-156→4-157

- **Flood Control Plan Potential Effects on Endangered Species:** App B, pp. 7-13→7-14
- **Discussion of Potential Impacts due to Inundation of Wetland, Riparian, and Upland Areas:** App V, pp. 6-13 & 17→22
- **Corps' Effects Determinations for Each Species:** App V, pp. 25→27; **Summary Table:** App V, p. 26

### What will we do to protect it?

- **Reduction of Potential Impacts for all Alternatives:** pp. 4-103→4-105
- **Recommended Mitigation Measures:** App V, pp. 28→33



# Where in the Draft FR/EIS can I Find...?

Recreation

June 2012 Draft FR/EIS and

## Picnic Areas, Boat Ramp, Swim Beach, Trailheads, Gravel Ponds, etc

### What do we have now?

- **Recreational Areas & Facilities Within State Park:** pp. 3-111→ 3-115
- **Map of Recreational Facilities:** App M, p. 2-2
- **North Boat Ramp:** App M, p. 2-6
- **Swim Beach:** App M, p. 2-12
- **Massey Draw:** App M, p. 2-8
- **Eagle Cove/Deer Creek:** App M, p. 2-10
- **Jamison Group Use Area:** App M, p. 2-12→ 2-13
- **Catfish Flats/ Fox Run Existing Conditions:** App M, p.2-14
- **Kingfisher Area/Gravel Ponds/Platte River Existing Conditions:** App M, p.2-16
- **Plum Creek Existing Conditions:** App M, p. 2-20

### How will it change?

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.	Cumulative Impacts
p. 4-128	p. 4-128	pp. 4-128 → 4-131	pp. 4-131 → 4-132	p. 4-160

- **Impacts to Recreational Facilities Under Different Alternatives:**
- **North Boat Ramp Map Showing Maximum Water Levels:** App M, p. 2-7
- **Swim Beach Maps Showing Maximum Water Levels:** App M, p. 2-11 & 2-13
- **Massey Draw Map Showing Maximum Water Levels:** App M, 2-9
- **Eagle Cove/Deer Creek:** App M, p. 2-10
- **Jamison Group Use Area:** App M, p. 2-12→ 2-13
- **Catfish Flats/ Fox Run Map Showing Maximum Water Levels:** App M, 2-15
- **Kingfisher Area/Gravel Ponds/Platte River Map Showing Maximum Water Levels:** App M, p. 2-17
- **Plum Creek Map Showing Maximum Water Levels:** App M, p. 2-21



Colo. St. Parks

# Where in the Draft FR/EIS can I Find...?

Recreation

June 2012 Draft FR/EIS and

## Picnic Areas, Boat Ramp, etc. (continued...)

### What will we do to protect it at the 20,600' Alternative Level?

- **Reduction & Modification of Potential Recreation Impacts:** pp. 4-131→ 4-140
- **Recreation Facilities Modification Plan:** App M, pp. 3-1→ 3-19
- **North Boat Ramp:** App M, p. 3-2; **Map Showing Modifications:** App M, p. 3-3
- **Swim Beach:** App M, p. 3-6; **Maps Showing Modifications:** App M, p. 3-7, 3-8 & 3-9
- **Massey Draw:** App M, p. 3-4; **Map Showing Modifications:** App M, p. 3-5
- **Eagle Cove/Deer Creek:** App M, p. 3-2; **Map Showing Modifications:** App M, p. 3-3
- **Jamison Group Use Area:** App M, p. 3-2; **Map Showing Modifications:** App M, p. 3-3
- **Catfish Flats/ Fox Run :** App M, p. 3-2; **Map Showing Modifications:** App M, p. 3-3
- **Kingfisher Area/Gravel Ponds/Platte River :** App M, p. 3-12; **Map Showing Modifications:** App M, p. 3-13
- **Gravel Pond Protection:** App M, p. A3-1;
- **Plum Creek :** App M, p. 3-18; **Map Showing Modifications:** App M, p. 3-19
- **Transportation Facilities:** App M, p. A2-1; **Map With Modifications:** App M, p. 3-3
- **Balloon Launch Site:** p. 4-134
- **Minimize Appearance of "Bathtub Ring":** p. 4-139→ 4-140

### What will we do to protect it at the 7,700' Alternative Level?

- **Alternate Recreation Facilities Modification Plan:**  
App M, pp. A1→ A
- **North Boat Ramp/Massey Draw:** App M, pp. A3→ A6
- **Swim Beach:** App M, pp. A7→ A8
- **Eagle Cove/Deer Creek:** App M, p. A9
- **Jamison/Catfish Flats/Fox Run :** App M, p. A10→ A12
- **Kingfisher Area/Gravel Ponds/Platte River :** App M, p. A-13→ A14
- **Gravel Pond Protection:** App M, p. A3-1;
- **Plum Creek :** App M, p. A18→ A19





# Where in the Draft FR/EIS can I Find...?

Recreation

June 2012 Draft FR/EIS and

## Marina

### What do we have now?

- **Marina Area:** App M, p. 2-18, p. 3-112
- **Marina Existing Conditions for In-water Facilities:** App N, p. 6-9
- **Marina Existing Conditions for Dock Utilities (i.e. water, restrooms, fuel station, etc):** App N, pp. 10→ 13
- **Marina Existing Conditions for Related Facilities Located On-land:** App N, pp. 14→ 15
- **Maps and Graphics Showing Water Levels and Options Pre and Post-reallocation:** App N, pp. 31→ 41
- **Map Showing Existing Conditions for Marina Area:** App M, pp. 2-18→ 2-19

### How will it change?

- **Marina Report:** App N
- **Potential impacts to marina including docks, breakwater, and on-land facilities:** App N, pp. 22→ 23
- **7,700 AF Alternative:** App N, pp. A14→ A17, A27
- **Table Showing Inundation Areas at Elevation 5444':** App M, p. 2-18

### What will we do to protect it?

- **Marina Alternatives to Provide Same Level of Service as Currently Operating:** App N: pg 24–27, including alternatives maps
- **Coordination and Recommendations for Next Steps:** App N, pp. 29→ 30
- **Issues Related to Marina Operation, Preferred Concept Description, Recreation Modification Plan Map & Proposed Solutions:** App M, p. 3-14;  
**Maps:** App M, p. 3-15, 3-16 & 3-17
- **7,700 AF Alternative:**  
App M, pp. A26→ A27



# Where in the Draft FR/EIS can I Find...?

## Wetlands

### What do we have now?

- **Around Chatfield Reservoir:** pp. 3-28, 3-40; **Map:** p.3-41
- **Downstream of Chatfield Reservoir: Maps:** pp. 3-43, 3-45
- **At Downstream Gravel Pit Locations:** p. 3-40; **Maps:** pp. 3-33, 3-35, 3-37
- **National Wetlands Inventory Maps:** App E

### How will it change?

- **Impacts to Vegetation Under Different Alternatives:**

<b>No Action Alt.</b>	<b>NTGW Alt.</b>	<b>20,600 AF</b>	<b>7,700 AF</b>	<b>Cumulative Impacts</b>
pp. 4-71→ 4-72	pp. 4-72	pp. 4-73→ 4-77 App K, pp. 1→ 2	p 4-77	p. 4-156

- **Tables Showing Total Acres of Wetlands Impacted, by Alternative:** p. 4-73
- **Weekly Mean Pool Levels for Year, by Alternative:** p. 4-75
- **Predicted Pool Elevations over Period of Record, by Alternative:** p. 4-76

### What will we do to protect it?

- **Reduction of Potential Impacts for all Alternatives:** p. 4-78
- **Mitigation Plans, Priorities, and Objectives:** App K, pp 16→ 22;
- **Functional Wetlands Units Goals for Wetlands:** App K, pp. 51, 52 & 54
- **Compensatory Mitigation and On-Site Noncritical Habitat:** App K, p. 23, p. 31





# Where in the Draft FR/EIS can I Find...?

## Vegetation, Including Cottonwoods

### What do we have now?

- **Existing Vegetation Around Chatfield Reservoir:** p. 3-23→3-27
- **Map Showing Vegetation Types Around Reservoir:** p. 3-25
- **Existing Acres/Locations of Cottonwoods/Willows:** App Z, pp. 5,6 & 9
- **Existing Riparian Communities:** p. 3-24
- **At Penley Reservoir Area:** pp. 3-27; **Maps:** pp. 3-29, 3-31
- **At Downstream Gravel Pit Locations:** p. 3-28; **Maps:** pp. 3-33, 3-35, 3-37

### How will it change?

- **Impacts to Vegetation Under Different Alternatives:**

<b>No Action Alt.</b>	<b>NTGW Alt.</b>	<b>20,600 AF Alt.</b>	<b>7,700 AF Alt.</b>	<b>Cumulative Impacts</b>
p. 4-63	p. 4-63	pp. 4-64→ 4-66	p. 4-66	pp. 4-154→ 4-155

- **General Impacts of Flooding & Inundation on vegetation:** pp. 4-56→ 4-58
- **Table Showing Vegetation Losses Due to Inundation:** p. 4-59
- **Tables Showing Vegetative Changes for Alternatives:** pp. 4-61→ 4-62
- **Flood Control Plan Potential Effects on Shoreline Vegetation:** App B, pp.7→ 12
- **Number of Acres of Trees Affected:** App Z, pp. 4→5
- **Graphs of Reservoir Level Fluctuations During Growing Season for Alternatives:** pp.4-67→ 4-68

### What will we do to protect it?

- **Reduction of Potential Impacts for all Alternatives:** pp. 4-70→ 4-71
- **Tree Management Plan:** p. 4-58 & App Z
- **Cottonwood Regeneration Areas:** App K, p. 27



USFWS

# Where in the Draft FR/EIS can I Find...?

## Chatfield Reservoir Level Fluctuations

### What do we have now?

- **Current Water Levels in Chatfield Reservoir:** p. 2-63→ 2-64
- **Table With Current Monthly Pool Fluctuations (see No Action Column):** p. 2-64
- **Baseline Reservoir Pool Levels (Probability Graph):** App H, p. H-19
- **Chatfield Dam and Reservoir Baseline Operation Conditions and Hydraulic Constraints:** App B, pg.7-1

### How will it change?

- **Impacts to Reservoir Levels Under Different Alternatives:**

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.	Cumulative Impacts
pp. 4-26→ 4-31	pp. 4-31→ 4-35	p. 4-36	pp. 4-36→ 4-37	p. 4-153

- **Discussion of Pool Level Fluctuations by Alternative:** pp. 4-26→ 4-37
- **Table Showing Pool Elevation Statistics by Alternative:** p. 4-30
- **Graph Showing Average Monthly Pool Fluctuations in Reservoir:** p. 4-50
- **Discussion & Summary Table of Shoreline Ring Analysis:** pp. 4-114→ 4-116
- **Seasonal Max & Min. Water Surface Graph, With & Without Project:** App M, p. 2-5
- **Figure Showing Predicted Chatfield Reservoir Pool Elevations :** App H, pg. H-19
- **Summary of Observations for Reservoir Level Impacts:** App H, p. H-29
- **Table Showing Average Monthly Water Surface Elevations Comparing Proposed and Baseline conditions:** App J, p. 31
- **Graph of Probability of Various Pool Levels, With and Without Project:** App H, p. H-19; **Table:** App H, p. H-22
- **Graph Showing Chatfield Reservoir Daily Water Surface Elevations for Baseline and Proposed Project:** App J, p. 11
- **Discussion of Changes to Pool Elevations With Project:** p. H-27
- **Tables of Probability of Monthly Reservoir Levels by Alternative:** App H, pp. HC-1, HC-2, HC-3

### What will we do to protect it?

- **Reduction of Potential Impacts for all Alternatives:** p. 4-37
- (see also mitigation options for individual resource areas that are affected by varying reservoir levels and inundation in other sections of this guide)



# Where in the Draft FR/EIS can I Find...?

## Flows Downstream of Chatfield Dam

### What do we have now?

- **Current Surface Water Conditions in South Platte:** p. 3-10
- **HEC-RAS Model Results Tables Showing Elevations:** App I (See also App H)

### How will it change?

- **Impacts to Flows Downstream of Reservoir Under Different Alternatives:**

No Action Alt.	NTGW Alt.	20,600 AF Alt.	7,700 AF Alt.	Cumulative Impacts
pp. 4-26→ 4-31	pp. 4-31→ 4-35	p. 4-36	pp. 4-36→ 4-37	p. 4-153

- **Graph Showing Mean Annual Outflows from Reservoir by Alternative:** p. 4-28
- **Graph Comparing Outflows from Reservoir by Month:** p. 4-28
- **Graphs Showing Mean Monthly Flow at Downstream Gages on the South Platte River, by Alternative:** p. 4-29
- **Graph Showing Probabilities of Various Reservoir Outflows, With and Without Project:** App H, p. H-18
- **Graph Showing Changes in Peak Reservoir Discharge Probabilities, With and Without Project:** App H, p. H-20
- **Graphs and Table of South Platte River Flows Downstream of Reservoir:** App H, pp. H-24, H-25 & H-26
- **Discussion of Changes to Downstream Flows With Project:** p. H-27
- **Table Showing Average Monthly Releases from Reservoir:** App H, p. B-7
- **Tables of Probability of Monthly Reservoir Releases by Alternative:** App H, pp. HC-4→ HC-6
- **Probability of Various Flows in South Platte River at Denver and Henderson Gages:** App H, pp. HC-7→ HC-12

### What will we do to protect it?

- **Reduction of Potential Hydrological Impacts:** p. 4-37
- (see also mitigation options for individual resource areas that are affected by varying reservoir levels and inundation in other sections of this guide)





# Where in the Draft FR/EIS can I Find...?

Hydrology

June 2012 Draft FR/EIS and

## Climate Change

### What do we have now?

- **Previous Studies:** pp. 1-22→ 1-23
- **Discussion of Current Climate, Temperature, and Precipitation:** p. 3-9

### How will it change?

- **Previous Studies:** pp. 1-22→ 1-23
- **Climate Change Relating to Hydrologic Variability:** p. 4-37
- **Climate Change and Cumulative Impact Predictions:** pp. 4-142 & 4-153

## Flood Control

### What do we have now?

- **Existing Flood Damages:** p. 3-105
- **Antecedent Flood Study:** App R

### How will it change?

- **Impacts of Reallocation on Flood Control Benefits:** pp. 4-24→ 4-26

### What will we do to protect it?

- **Flood Emergency Action Plan:** App B: pg 7-16—7-17



# Where in the Draft FR/EIS can I Find...?

Water

June 2012 Draft FR/EIS and

## Water Quality in Chatfield Reservoir

### What do we have now?

- **Regulation of Water Quality:** p. 3-12
- **Ambient Reservoir Water Quality:** pp. 3-12→ 3-22
- **Chatfield Reservoir Water Quality Standards:** App J, pp. 4→ 5
- **Current Water Quality Conditions in Chatfield Reservoir:** App J, pp. 5→ 7
- **Baseline Water Quality (Using Regional Statistical Model):** App J, pp. 22→ 23
- **Baseline Water Quality (Using Localized Loading Model):** App J, pp. 29→ 39
- **Baseline Metals Concentrations:** App J, p. 51
- **Baseline E. coli Concentrations:** App J, p. 55

### How will it change?

<b>No Action Alt.</b>	<b>NTGW Alt.</b>	<b>20.600 AF Alt.</b>	<b>7,700 AF Alt.</b>	<b>Cumulative Impacts</b>
pp. 4-39→ 4-41	p. 4-42	pp. 4-42→ 4-45	pp. 4-45→ 4-46	pp. 4-153

- **Potential Impacts to Water Quality Under Different Alternatives:**
- **General Discussion of Water Quality Impacts:** p. 4-37→ 4-39
- **Predicted Total Phosphorus, Chlorophyll-a, Secchi Depth, and Trophic Status:** App J, pp. 24 → 26
- **Impacts of Hydraulic Residence Time & Limitations of Model:** App J, pp. 26→ 28
- **Estimated Metals Concentrations With Project Water Level Increases:** App J, p. 53
- **Discussion Regarding E. coli Concentrations :** App J: pg 55
- **Potential Water Quality Impacts of Proposed Project:** App J, p. 58→61
- **Estimated Metals Concentration due to Reservoir Pool Level Elevation Increase:** App J, p. 48
- **Summary of Analyses for Future Nutrient, Metals, and Bacteria Loads in Chatfield Reservoir:** App J, pp. 53→56

### What will we do to protect it?

- **Reduction of metals concentrations discussion:** App J: pg 53
- **Reduction of Potential Impacts for All Alternatives:** p. 4-46→ 4-47



# Where in the Draft FR/EIS can I Find...?

Water

June 2012 Draft FR/EIS and

## Water Conservation Plans

### What do we have now?

- **Conservation as Part of Scoping:** p. 1-16
- **Findings of Statewide Water Supply Initiative:** pp. 1-24→1-26
- **Conservation as an Alternative:** pp. 2-15→ 2-23
- **Summaries of Participants' Existing Water Conservation Programs:** App AA
- **City of Aurora:** App AA, p. 1→ 2
- **Arapahoe County Water and Wastewater Authority:** App AA, p. 2
- **Castle Pines and Castle Pines North Metropolitan District:** App AA, pp. 3→ 8
- **Town of Castle Rock:** App AA, pp. 8→ 9
- **Centennial Water and Sanitation District:** App AA, pp. 9→ 13
- **Center of Colorado Water Conservancy District:** App AA, pp. 13→ 15
- **Central Colorado Water Conservancy District:** App AA, pp. 15→ 16
- **Denver Botanical Gardens:** App AA, p. 16
- **Mount Carbon Metro District:** App AA, pp. 16→ 17

