D R A F T

Riverside Park Water Reclamation Facility
Habitat Management Plan Update

Prepared for

City of Spokane

4401 N. Aubrey L. White Parkway
Spokane, WA 99205

December 2016

CH2M HILL Engineers, Inc.
999 W. Riverside Ave., Ste. 500
Spokane, WA 99201

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Acronyms and Abbreviations

CAO	Critical Area Ordinance
CEPT	chemically enhanced primary treatment
City	City of Spokane
CSO	combined sewer overflow
dbh	diameter at breast height
DO	dissolved oxygen
FEMA	Federal Emergency Management Agency
HCA	Habitat Conservation Area
HMP	Habitat Management Plan
MFF	membrane filtration facility
RBA	Riparian Buffer Area
RPWRF	Riverside Park Water Reclamation Facility
SMP	Shoreline Management Plan
SMZ	Shoreline Management Zone
TMDL	Total Maximum Daily Load
UV	ultraviolet
WDFG	Washington State Department of Fish and Wildlife

SECTION 1

Introduction

The City of Spokane is expanding the Riverside Park Water Reclamation Facility (RPWRF) in order to comply with discharge regulations and to provide the capacity needed through the year 2030. Because the RPWRF falls partially within the zone specified in the Critical Area Ordinance, the City must comply with the Spokane Fish and Wildlife Habitat Conservation Areas Ordinance Number C-32698 ("Critical Areas Ordinance"). Section 11.19.2562 (D) of this Ordinance indicates that expansions of sanitary sewer treatment plants are exempt from the requirements of this Ordinance subject to an approved Habitat Management Plan (HMP). This HMP was prepared to conform to that requirement.

A HMP was developed for this site in 2002 to address upgrades to the RPWRF (Appendix A). Mitigation was discussed with the Washington Department of Fish and Wildlife (WDFW). The City proposed mitigation through establishment of a 1.03-acre wildlife habitat conservation area (HCA) to the west of the RPWRF. The mitigation was accepted by WDFW, and the City subsequently protected the area through formal adoption of the HMP and issuance of the Shoreline Conditional Use Permit, 20020624 for Shoreline Substantial Development (Conditional Use - Variance Permit). This *Habitat Management Plan Update* updates the 2002 HMP.

SECTION 2

Project Description

2.1 Previous Upgrade and Habitat Management Plan

The previous HMP was developed to address potential effects of expanding the RPWRF. A number of new facilities were proposed, but some facilities were deleted or deferred, including:

- Headworks odor control (deferred)
- New combined sewer overflow (CSO) headworks (deleted)
- New CSO clarifiers (deleted)
- Modifications to existing aeration basins (deferred)
- Secondary effluent pumping (deleted)
- Addition of ballasted sedimentation (deleted)
- Solids-handling building expansion (deferred)
- Aeration basins (one built; one deferred)
- Ultraviolet (UV) disinfection (deferred)
- Effluent filters (deferred and replaced by membrane filtration facility project)

Of the new facilities proposed to be constructed in 2002 within the 250-foot Critical Areas Ordinance (CAO) Riparian Buffer Area (RBA) (S waters; 100 feet buffer – F Waters)[1] and within the 200-foot Shoreline Management's Plan (SMP) shoreline management zone (SMZ; [aeration basins, UV disinfection, and effluent filters]), only the Aeration Basin No. 6, has been built so far. The membrane filtration facility (MFF) proposed as part of the current upgrade would be in the same location and smaller than the effluent [sand] filters that were not constructed.

2.2 Proposed Upgrade

Increasingly stringent discharge requirements and, to a lesser extent, population growth and treatment needs, will require many improvements to the existing RPWRF. This section briefly describes the project components. The detailed design and construction of these project components is currently in progress.

The liquid process facilities proposed for construction to serve through buildout (2030) are as follows:

- New Primary Clarifier No. 5 and associated primary solids pump station, improvements to the existing Venturi flow measurement and valve vault, a new Venturi flow measurement and valve vault, and improvements to the flow distribution box for the four existing primary clarifiers
- Vactor truck unloading station
- New filtrate pump station
- C-box gate replacements
- Aeration basin modifications
- Secondary alum system improvements (included in chemical storage building)
- Chemically enhanced primary treatment (CEPT) alum system improvements (included in chemical storage building)

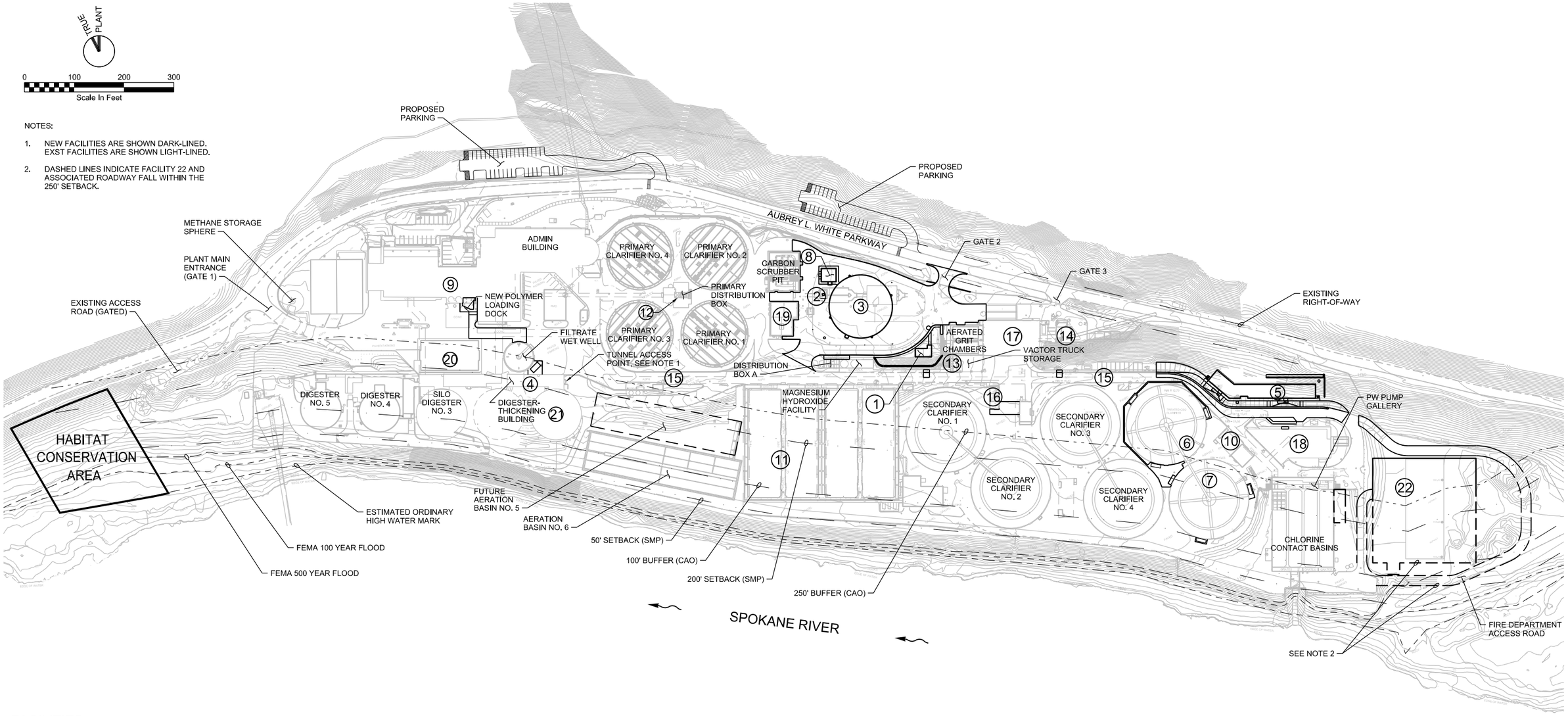
[1] S – Shorelines of the State
F – Fish

- Sodium hydroxide storage and feed (included in chemical storage building)
- Stormwater Clarifier No. 6 and Secondary Clarifier No. 5 improvements
- Polymer system improvements for both CEPT and solids-handling
- Tertiary membranes for phosphorus removal (the MFF)

The Buildout Site Plan (Figure 1) includes expansion of existing facilities and addition of new facilities as noted in the bulleted list above. Site planning was based on shoreline regulation requirements, land availability, the current liquids and solids process site plan scheme, and the ability to remove or relocate existing facilities. In addition, the City of Spokane's Fire Department requires a new access road be constructed on the east end of the site.

Figure 1 shows existing facilities, topographic features, and the new facilities to be constructed at the site to serve through 2030. Site planning requires that certain facilities be removed or relocated in the future. As such, the abandoned original headworks building will be demolished to make space for primary clarification, the primary influent pre-aeration system is not required in the future and has been removed to make space for primary clarifier odor control, electrical equipment will be relocated, and the Baxter was decommissioned. New facilities include a new primary clarifier, new chemical storage building, and new MFF. There will also be some realignment of roads and utilities.

Figure 1 also shows boundaries for the ordinary high water mark, SMP 200-foot setback, the Federal Emergency Management's Agency (FEMA) 100- and 500-year floodplains, the CAO RBA (250-foot buffer), and the "no-touch" zone (SMP 50-foot setback).



FACILITIES

1. METER VAULT (MV)
2. **VACTOR TRUCK UNLOADING STATION (VT)**
3. **PRIMARY CLARIFIER NO. 5 (PC)**
4. FILTRATE PUMP STATION (DT)
5. **CHEMICAL STORAGE BUILDING (CS)**
6. SECONDARY CLARIFIER NO. 5 (SC)
7. STORMWATER CLARIFIER NO. 6 (SC)
8. **PC5 PRIMARY SOLIDS PUMP STATION (PC)**
9. PROCESS BUILDING (PB)
10. AG-3 PUMP STATION (AG)
11. AERATION BASIN (AB)
12. PRIMARY SOLIDS TREATMENT (PT)
13. DISTRIBUTION BOX C (DB)
14. HEADWORKS DIVERSION BOX (DB)
15. TUNNELS (TU)
16. DISTRIBUTION BOX B (DB)
17. HEADWORKS (HW)
18. LIQUID DISINFECTION BUILDING (LD)
19. PRIMARY ODOR CONTROL FACILITY (PO)
20. BOILER - COGEN BUILDING (BC)
21. DIGESTER NO. 1 (DF)
22. MEMBRANE FILTRATION (MF)

FIGURE 1
RPWRF SITE PLAN - BUILDOUT
1"=100'

SECTION 3

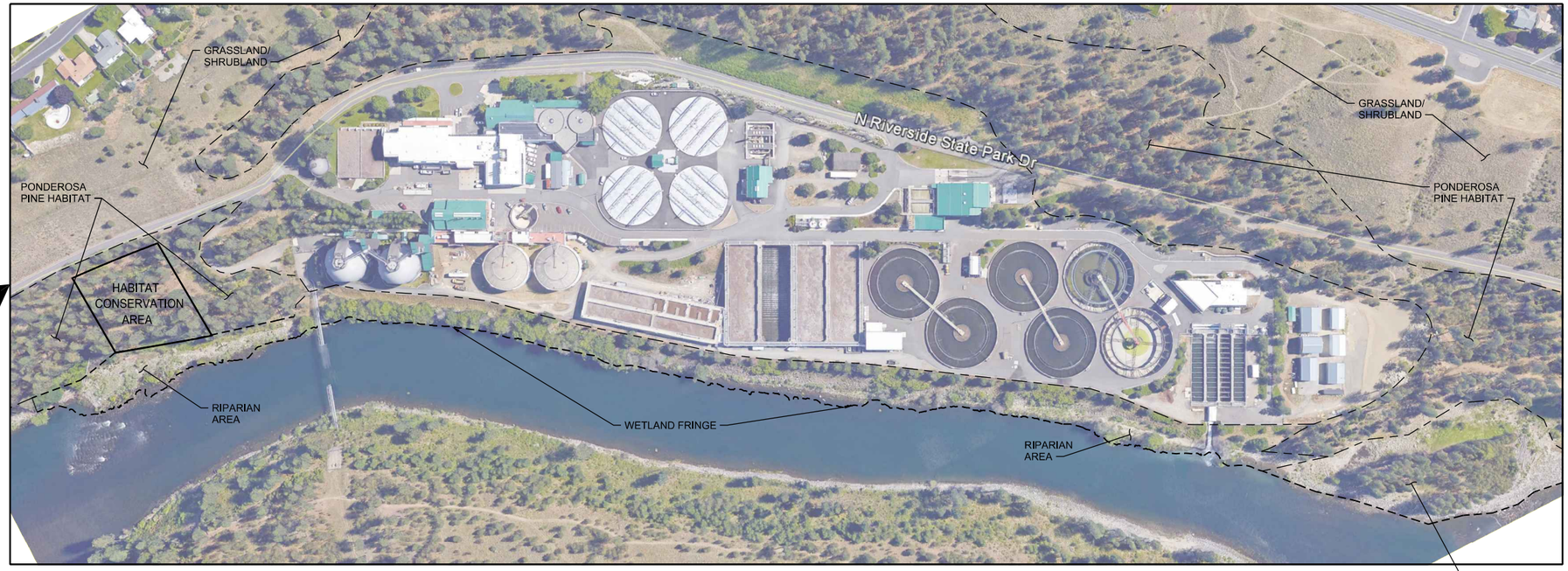
Affected Environment

The majority of area to be impacted by the proposed project is landscaped with native and exotic shrubs and trees. Patches of native habitat exist on the east end of the RPWRF site where the new effluent filters and access road will be located. The habitat, which is a fringe around the construction waste disposal area, consists of a light understory of grass and a mid- and upper canopy of ponderosa pine (*Pinus ponderosa*). Jeff Perry, City Arborist for the City of Spokane's Urban Forestry Program, surveyed the area to the east of the RPWRF to inventory trees, and the tree survey is included in Appendix B. Approximately 400 trees with diameter at breast height (dbh) greater that 4 inches were tallied. Another 400 to 600 trees smaller than 4 inches dbh are also present. Ponderosa pine was the dominant species. Some of the larger pines are transitioning into old-growth. Additional habitat is located adjacent to the Spokane River, between the RPWRF's fence and the river. No project-related activities will occur in this area. The other area of native habitat within the City's property boundary is the area protected as the HCA, preserved as mitigation at the west end of the RPWRF. This area is ponderosa pine forest with a mix of mature, sapling, and seedling sized trees. The understory is native grass and forb plants. A fringe of riparian vegetation, primarily willow (*Salix sp.*), is found between the forested habitat and the river. Figure 2 shows these habitats in relation to the project.

Figure 2 also shows known areas of priority habitat. Data on current and historical use of the project area by priority species were obtained for the 2002 HMP through literature searches and coordination with WDFW (Howard Ferguson and Jeffrey Azerrad, WDFW, personal communication, December 2001 and January 2002). Priority habitats include a band of wetland vegetation along the river to the south of the RPWRF property and riparian habitat along the river (Figure 2). The Spokane River bordering the site has in-stream habitat, and the undeveloped areas surrounding the site provide white-tailed deer (*Odocoileus virginianus*) winter range habitat. Waterfowl are known to congregate on the river around the RPWRF's location. Bald eagles (*Haliaeetus leucocephalus*) are known to use the river corridor year-round. There is a reported bald eagle perch site across the river from the RPWRF. Habitat exists for the following priority species in the HCA mitigation area: Vaux's swift (*Chaetura vauxi*), Lewis's woodpecker (*Melanerpes lewis*), white-headed woodpecker (*Picoides albolarvatus*), cavity-nesting ducks such as wood duck (*Aix sponsa*), and white-tailed deer. Of these, only white-tailed deer have been observed in the mitigation area, but Lewis's woodpeckers historically used the area. There is also habitat for priority species great blue heron (*Ardea herodias*), spotted frog (*Rana pretiosa*), and rainbow trout (*Oncorhynchus mykiss*) along the length of the project area in the river, all of which have been observed. Although not priority species, an osprey (*Pandion haliaetus*) has been nesting within the RPWRF site, black-backed woodpeckers (*Picoides arcticus*) use recently burned areas adjacent to the RPWRF, and white-throated swift (*Aeronautes saxatalis*) forage in the area.

Karin Divers, WDFW, was contacted to verify that existing conditions as described in 2002 are still valid. WDFW agreed that the priority species and habitats in 2002 are still valid in 2016 (Divers, 2016, WDFW, personal communication).

VICINITY MAP
NTS



WDFW REGION 1 PRIORITY HABITATS:

FRESHWATER WETLANDS HABITAT
INSTREAM HABITAT
RIPARIAN HABITAT
WHITE-TAILED DEER WINTER RANGE

FIGURE 2
RPWRF SITE PLAN - HABITATS
NOT TO SCALE

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SECTION 4

Project Effects

The RPWRF is confined by the Spokane River and steep slopes to the south and east and steep slopes and cliffs to the north and west, which severely constrain available construction locations. The City owns all of the land that is suitable for construction around the RPWRF.

The proximity of the RPWRF to the Spokane River creates shoreline permitting issues related to the ability to place structures within the CAO 100-foot and the 250-foot buffer from the ordinary high water mark of the Spokane River. Some existing and proposed structures are also within the CAO 250-foot RBA. As shown on Figure 1, some of the existing facilities, such as the Digesters Nos. 4&5, also encroach on the CAO 100-foot buffer area, and major portions of the existing facilities are already in the SMP 200-foot setback. Site planning efforts followed existing shoreline site conditions and no new structures extend into the SMP 50-feet "no-touch" setback line. All new structures are outside the FEMA 100-year floodplain.

The MFF and part of the access road required by the City's Fire Department would be constructed within the CAO 250-foot RBA and within the SMP 200-foot shoreline management zone. Construction of these facilities would remove landscaped features, existing structures, and infrastructure such as roads. The design will minimize impacts on the native habitat. The RPWRF is currently in operation, and therefore additional operational impacts on adjacent habitat would not occur.

Improved treatment of the RPWRF effluent, which is discharged to the Spokane River, will benefit the priority species and other species that use the riverine habitat. Although RPWRF effluent meets current regulatory limits, dissolved oxygen (DO) in the Spokane River and Lake Spokane do not meet current Water Quality Standards during the months of March through October. The Washington Department of Ecology has set Total Maximum Daily Load (TMDL) requirements for the river for nutrients affecting DO. Additional treatment processes are needed to reliably comply with the DO TMDL by limiting the following in the effluent:

- 5-day carbonaceous biochemical oxygen demand
- Ammonia
- Total phosphorus

As the additional primary treatment capacity and enhanced secondary and tertiary treatment components come online, the quality of effluent will improve and the possibility of out-of-compliance accidental releases will decrease.

SECTION 5

Mitigation Plan

The City and WDFW discussed possible mitigation scenarios in 2002. Opportunities for mitigation were limited at the site due to the developed nature of the site and full utilization of most of the City-owned property. It was recognized that impacts on native habitat, priority habitats, and priority species would be minimal, and there would be no loss of natural habitat. The resulting mitigation reflected the limited impacts.

The City established a wildlife habitat conservation area on undeveloped RPWRF property on the west side of the RPWRF fence. WDFW agreed that this HCA would satisfy WDFW requirements to protect habitat and mitigate for project disturbances (Jeff Azerrad, WDFW, personal communication, November 2001).

The 1.03-acre area is located between the access road into the RPWRF and Riverside State Park (Figure 3). Designation of this area as habitat in perpetuity has the added benefit of protecting a longer contiguous reach of river from future development because it is adjacent to protected park property. This habitat has potential for use by priority species as discussed in Section 4.

As stated in 2002, no development is allowed on this property. An existing, abandoned road into the undeveloped area west of the RPWRF was improved to provide a new access road for maintenance. Because it is adjacent to the HCA, no parking was provided along the road to maintain habitat values in the HCA. The road was also designed in a manner to prevent stormwater runoff into the river or erosion at the site. Cut and fill required for road construction were revegetated using appropriate native vegetation following construction.

As stated previously, the City formally adopted the HMP in order to provide immediate protection of the area. The City is in the process of preparing a declaration of covenants, conditions, and restrictions to satisfy the requirement of the HMP. The covenants will set aside the HCA to protect the wildlife habitat into the future. Elements of the covenants will include:

- A legal description of the 1.03 acres of real property to be protected for wildlife habitat.
- Specific language that keeps the HCA property in its natural state, including limitations on vegetation removal, as long as the RPWRF is in operation.
- Filing of the covenants, conditions, and restrictions on the 1.03 acres of real property with the Spokane County Auditor.

This area will not be developed and will remain as wildlife habitat and as a riparian protection corridor in perpetuity.

The City proposes that the HCA also offset impacts associated with the current upgrade. Several of the facilities mitigated for (aeration basins, UV disinfection, effluent filters, and surge basins) were not constructed and the impacts of those projects did not occur. The MFF project replaces the effluent sand filters that were not constructed, and will utilize a smaller footprint.

In addition to the Spokane River water quality improvement that benefits priority species and habitats, the City also proposes additional mitigation. Once a more complete RPWRF design is finished, the City's Urban Forestry program will minimize and avoid impacts in the RBA by:

- Conducting a comprehensive woody plant inventory of the area to be disturbed to determine:
  - Resource values
  - Tasks required to minimize and avoid impacts
  - Remediation requirements following construction

- Implementing pruning, root treatments, and protection measures as needed prior to construction to minimize loss of woody vegetation.
- Submitting a list of proposed avoidance and minimization measures to WDFW for consultation.

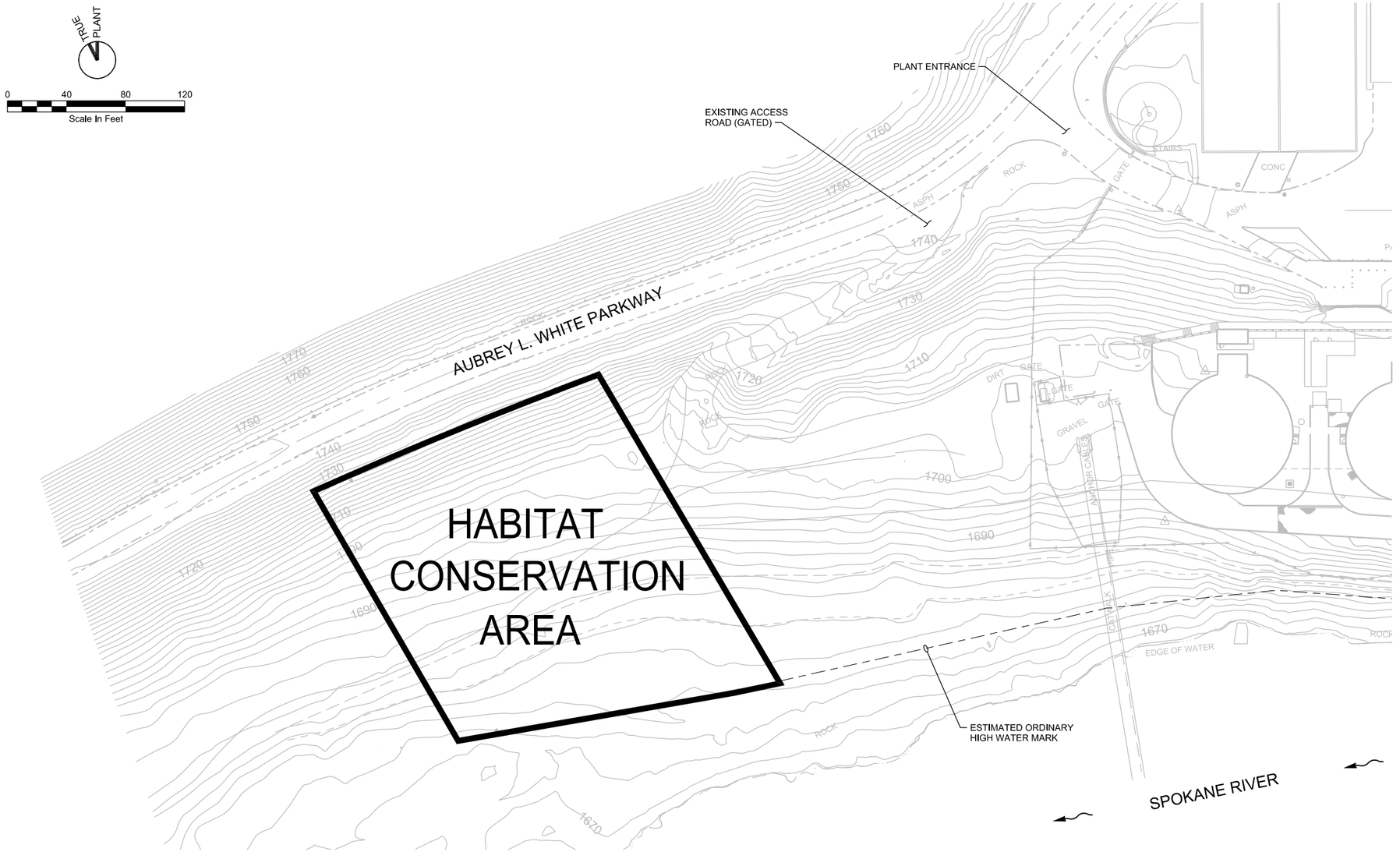


FIGURE 3
RPWRF HABITAT CONSERVATION AREA
1"=40'

SECTION 6

Literature Cited

Divers, K. A. 2016. Personal communications. Habitat Biologist, WDFW, Email received on December 1, 2016.

Appendix A
2002 Habitat Management Plan

Report

Habitat Management Plan

Prepared for

City of Spokane

Spokane Advanced Wastewater Treatment Plant

4401 N. Aubrey L. White Parkway
Spokane, WA 99205

January 2002

CH2MHILL
9 S. Washington Street, Ste. 400
Spokane, WA 99201

Habitat Management Plan
Spokane Advanced Wastewater Treatment Plant

Introduction

The City of Spokane is proposing to expand the Spokane Advanced Wastewater Treatment Plant (SAWTP) in order to comply with discharge regulations and to provide the capacity needed through the year 2045. Because the SAWTP falls partially within the zone specified in the Critical Area Ordinance, the City must comply with the Spokane Interim Fish and Wildlife Habitat Conservation Areas Ordinance No. C-32698 ("Critical Areas Ordinance"). Section 11.19.2562 (D) of this Ordinance indicates that expansions of sanitary sewer treatment plants are exempt from the requirements of this Ordinance subject to an approved Habitat Management Plan (HMP). This HMP is being prepared to conform with that requirement.

Project Description

Increasing population and treatment needs, as well as more stringent discharge requirements, will require many improvements to the existing SAWTP. This section briefly describes the project components. A detailed discussion of each project component is included in the SAWTP *Conceptual Design Report for the Phase I Liquids Process Improvements* (CH2M HILL 2001).

The liquid facilities proposed for construction to serve through Buildout are as follows:

- Improvements to Headworks
- Headworks Odor Control
- New CSO Headworks
- New CSO Clarifiers
- Chemical Addition
- Improvements to Existing Primary Clarifiers
- New Primary Clarifiers
- Primary Treatment Odor Control
- Modifications to Existing Aeration Basins
- New Aeration Basins
- Improvements to Existing Secondary Clarifiers
- RAS/WAS Pump Replacement
- Convert CSO Clarifiers to Secondary Clarifiers

- Secondary Effluent Pumping
- Addition of Ballasted Sedimentation
- Addition of Effluent Filtration
- Improvements to Disinfection Facility
- Baxter Well Decommissioning
- New Digester
- Solids Handling Building Expansion
- Laboratory Improvements
- SCADA Improvements
- General Electrical Improvements
- Miscellaneous Other Improvements not requiring new structures

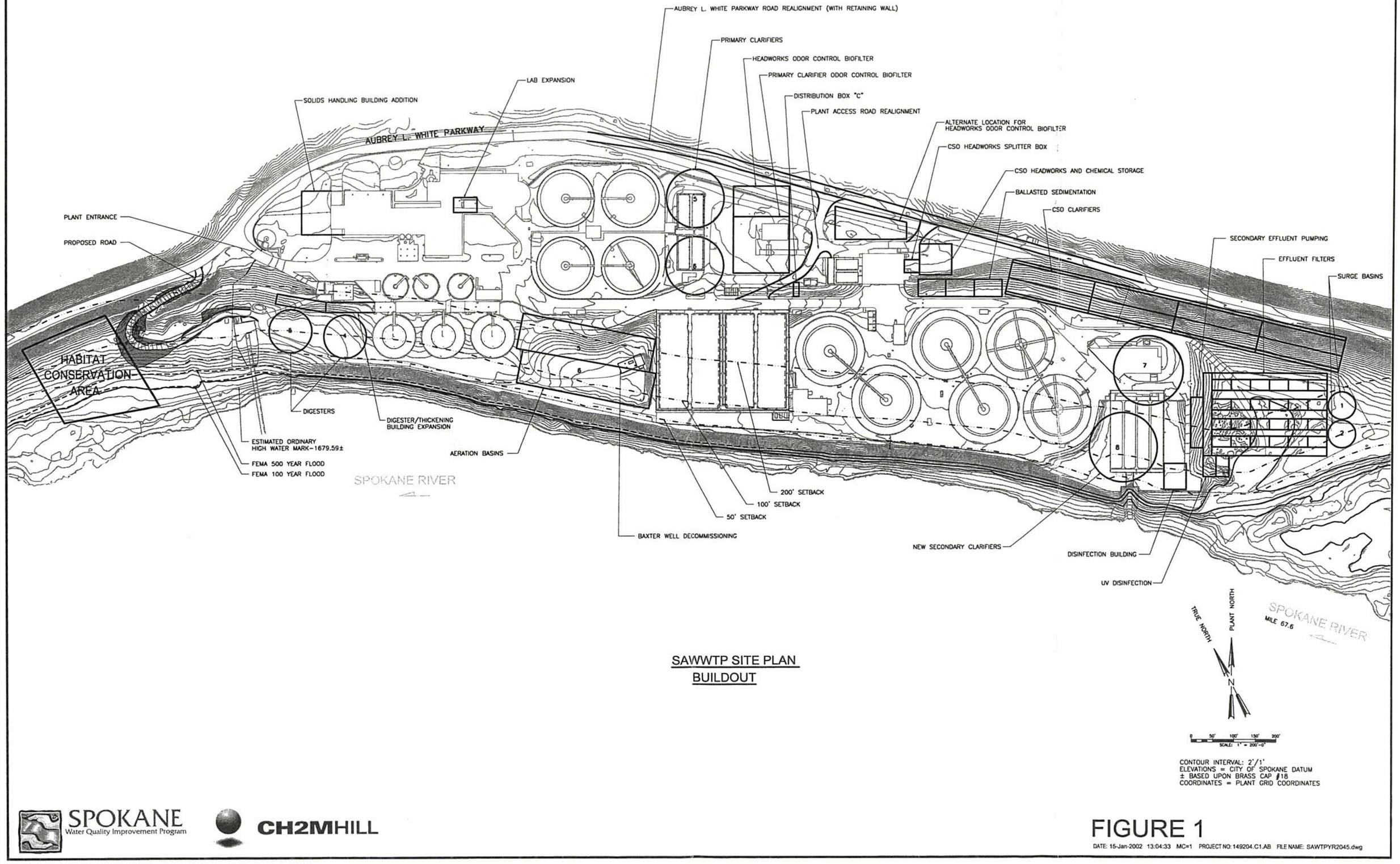
The Buildout Site Plan at the SAWTP includes expansion of existing facilities and addition of new facilities as noted in the bulleted list above and shown on Figure 1. The site planning effort mainly focused on the liquids treatment facilities, however, solids facilities were included on the site plan for completeness and to recognize any potential site planning conflicts for Buildout. Site planning was based on shoreline regulation requirements, land availability, the current liquids and solids site plan scheme and the ability to remove or relocate existing facilities.

Figure 1 shows existing facilities, topographic features, and the new facilities to be constructed at the site to serve through 2045. Site planning requires that certain facilities will be removed or relocated in the future. As such, the abandoned chlorine building will be demolished to make space for primary clarification, the primary influent pre-aeration is not required in the future and will be removed to make space for primary clarification, electrical equipment will be relocated, and the Baxter Well will be decommissioned. New facilities include a laboratory expansion, a new digester, new aeration basins, new primary clarifiers, odor control biofilters, distribution box "C", CSO clarifiers, CSO headworks and appurtenances, ballasted sedimentation and effluent pumping, effluent filters and surge basins, and disinfection improvements. There will also be some re-alignment of roads and utilities.

Figure 1 also shows boundaries for the high water mark, Shoreline Management Act (200-feet setback), 100- and 500-year floodplains, Critical Area Ordinance Riparian Habitat Area (RHA [250-feet setback]), and the "no-touch" zone (Shorelines Ordinance [50-feet setback]).

Affected Environment

The majority of area to be impacted by the proposed project is landscaped with lawn turf and native and exotic shrubs and trees. A few remnants of native habitat exist on the east end of the SAWTP site where the new effluent filters and surge basins will be located. The habitat, which is a fringe around the construction waste disposal area, consists of a light understory of grass and a mid- and upper-canopy of ponderosa pine (*Pinus ponderosa*). Additional habitat is located adjacent to the Spokane River, between the SAWTP's fence and the river. No project related activities will occur in this area. The other area of native habitat within the City's property boundary is the area proposed for mitigation at the west end of



SAWWTP SITE PLAN
BUILDOUT

CONTOUR INTERVAL: 2'/1'
ELEVATIONS = CITY OF SPOKANE DATUM
± BASED UPON BRASS CAP #18
COORDINATES = PLANT GRID COORDINATES

SPOKANE
Water Quality Improvement Program

CH2MHILL

FIGURE 1

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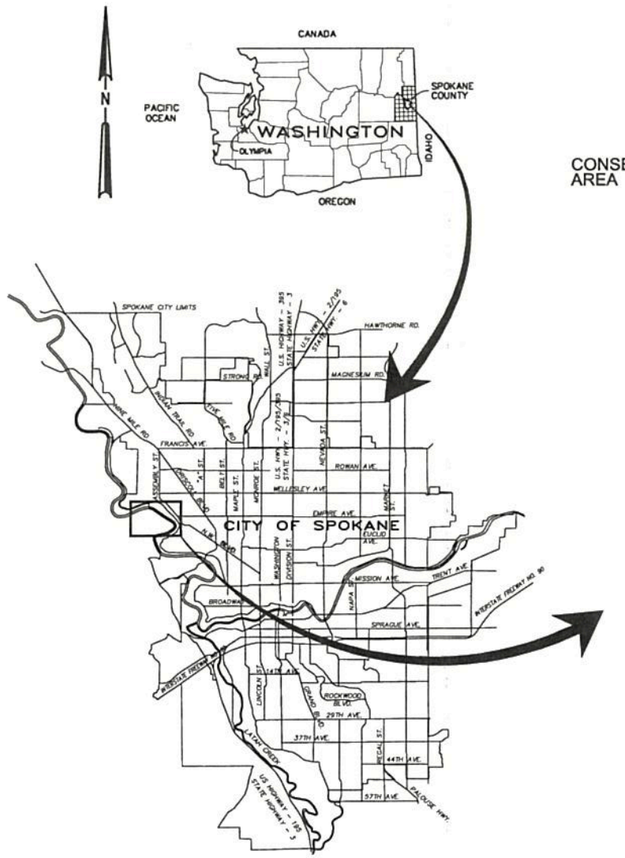

VICINITY MAP
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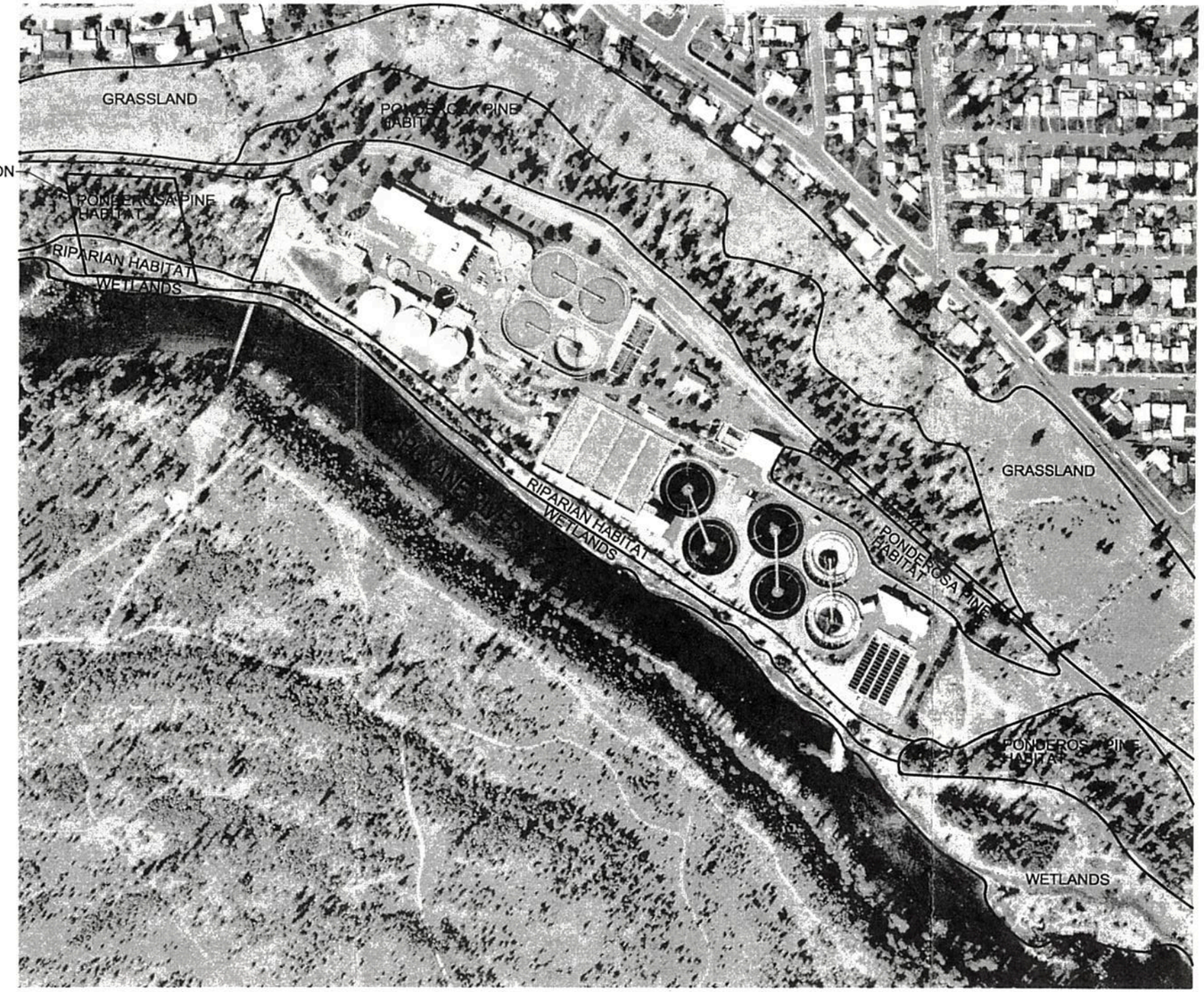

SAWWTP SITE PLAN - HABITATS
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SPOKANE
Water Quality Improvement Program

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FIGURE 2

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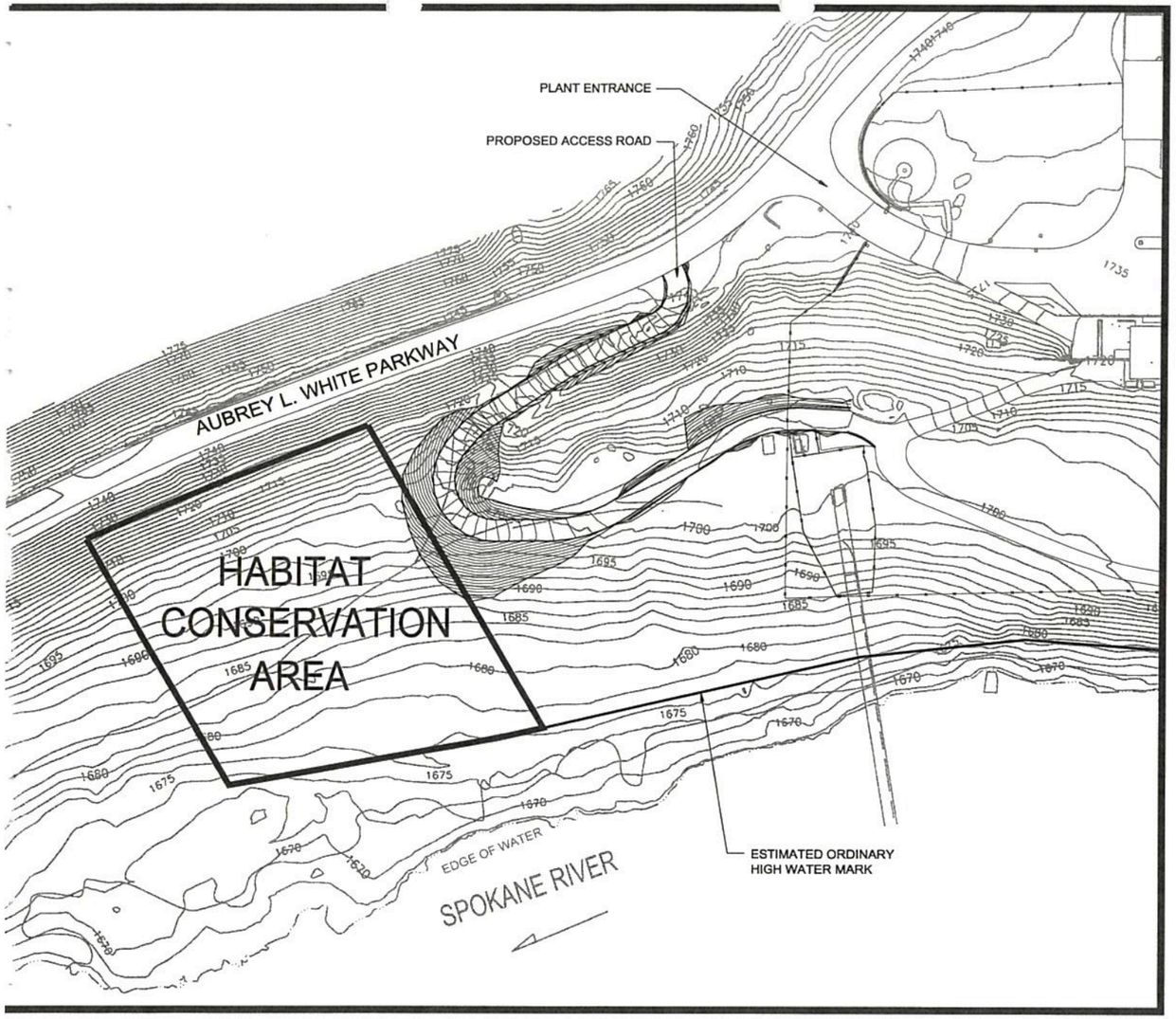
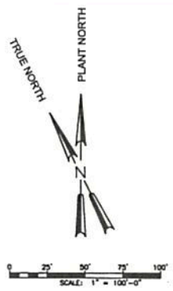


HABITAT CONSERVATION AREA



SPOKANE
Water Quality Improvement Program

CH2MHILL

FIGURE 3

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the SAWTP. This area is ponderosa pine forest with a mix of mature, sapling, and seedling sized trees. The understory is native grass and forb plants. A fringe of riparian vegetation (*Salix sp.*) is found between the forested habitat and the river. Figure 2 shows these habitats in relation to the project.

Figure 2 also shows known areas of priority habitat and priority species point locations. Data on current and historical use of the project area by priority species was obtained through literature searches and coordination with the Washington Department of Fish and Wildlife (WDFW) (Howard Ferguson and Jeffrey Azerrad, WDFW, Personal Communication, December 2001 and January 2002). Priority habitats include a band of wetland vegetation along the river to the south of the SAWTP property, riparian habitat along the river, in-stream habitat, and white-tailed deer (*Odocoileus virginianus)* winter range habitat. Waterfowl are known to congregate on the river around the SAWTP's location. Bald eagles (*Haliaeetus leucocephalus*) are known to use the river corridor year-round. There is a reported bald eagle perch site across the river from the SAWTP. Habitat exists for the following priority species in the mitigation area: Vaux's swift (*Chaetura vauxi*), Lewis' woodpecker (*Melanerpes lewis*), white-headed woodpecker (*Picoides albolarvatus*), cavity-nesting ducks such as wood duck (*Aix sponsa*), and white-tailed deer. Of these, only white-tailed deer have been observed in the mitigation area, but Lewis' woodpeckers historically used the area. There is also habitat for priority species great blue heron (*Ardea herodias*), spotted frog (*Rana pretiosa*), and rainbow trout (*Salmo gairdneri*) along the length of the project area in the river, all of which have been observed. Although not priority species, an osprey (*Pandion haliaetus*) has been nesting within the SAWTP site, black-backed woodpeckers (*Picoides arctius*) use recently burned areas adjacent to the SAWTP, and white-throated swift (*Aeronautes saxatalis*) forage in the area.

Project Effects

The SAWTP is confined by the Spokane River and steep slopes to the south and east and steep slopes and cliffs to the north and west, which severely constrains available construction locations. The city owns all of the land that is suitable for construction with the exception of a small parcel at the northeast end of the plant where the east half of the CSO Clarifiers are sited. This parcel of land is owned by the state of Washington. The city of Spokane and the state of Washington may discuss this parcel in the near future to avoid site planning concerns for Buildout. For site planning, it has been assumed that this parcel will be owned by the City at the time of construction for Buildout.

The proximity of the SAWTP with the Spokane River creates shoreline permitting issues related to the ability to place structures within the 100 ft and 200 ft setbacks from the ordinary high water mark of the Spokane River. There is also an issue that some existing and proposed structures are within the 250-feet RHA defined in the Critical Areas Ordinance. As shown on Figure 1, fractions of the existing digestion, aeration, secondary and disinfection facilities are already in the 100 ft setback. Major portions of the existing boiler, thickening, digestion, aeration, secondary and disinfection facilities are already in the 200 ft setback. Site planning efforts followed existing shoreline site conditions and no new structures go beyond the existing SAWTP fenceline. All new structures are outside the 100-year floodplain.

The new aeration basins, UV disinfection, effluent filters, and surge basins would be constructed within the Critical Areas Ordinance RHA (250-feet) and within the 200–feet shoreline management zone. Construction of these facilities would remove landscaped features, existing structures, and infrastructure such as roads. Native habitat would not be impacted by these activities. The plant is currently in operation, therefore additional operational impacts to adjacent habitat would not occur.

Beneficial impacts would accrue from improved treatment of wastewater prior to discharge to the Spokane River. SAWTP effluent is discharged to the river and meets current regulatory limits. As the additional treatment capacity and enhanced treatment components come on line, the quality of effluent will improve and the possibility of out-of-compliance accidental releases will decrease. Priority species utilize the riverine habitat and improved effluent quality would benefit these species.

Mitigation Plan

Possible mitigation scenarios were discussed with the City and WDFW during a site visit on November 29th, 2001. The purpose of the visit was to review project elements on the ground and discuss appropriate mitigation measures with WDFW.

Opportunities for mitigation are limited at the site, due to the developed nature of the site and full utilization of most of the City owned property. Impacts to native habitat, priority habitats, and priority species are minimal, with project implementation resulting in no loss of natural habitat. Mitigation, therefore, would reflect these limited impacts.

Two mitigation options were identified during the site visit with WDFW. These were enhancement of habitat adjacent to the river and SAWTP or establishment of a wildlife habitat conservation area on undeveloped SAWTP property on the west side of the SAWTP fence. WDFW suggested that establishment of a protected wildlife habitat conservation area would satisfy WDFW requirements to protect habitat and mitigate for project disturbances (Jeff Azerrad, WDFW, personal communication, November 2001).

The City is proposing to establish a wildlife habitat conservation area on SAWTP property on the west side of the SAWTP fence as mitigation for project implementation (Figure 3). This 1.03-acre area is located between the new access road into the SAWTP and Riverside State Park. Designation of this area as habitat in perpetuity would have the added benefit of protecting a longer contiguous reach of river from future development, because it is adjacent to protected Park property. This habitat has potential for use by priority species as discussed above under effected environment.

No development would be allowed on this property. However, existing access for maintenance into the west side of the SAWTP will be lost with plant improvements, and maintenance needs require limited future access. The existing, abandoned road into the undeveloped area west of the SAWTP fence is proposed to provide the new access road. Although it is not in the protected wildlife habitat conservation area, it is adjacent to the habitat conservation area. To maintain habitat values in the adjacent wildlife habitat conservation area, no parking would be provided and the road will be designed in a manner to prevent storm water runoff into the river or erosion at the site. Areas of cut and fill will be required for road construction, given the steepness of the slope. The cut and fill slopes will

be re-vegetated using appropriate native vegetation following construction. The river will be protected from erosion during construction using silt fence/hay bale combinations. Rapid re-vegetation (including erosion control matting or hydromulching) following construction will reduce erosion potential after construction is complete.

The vehicle to be used to establish the wildlife habitat conservation area will be a deed dedication placed on the portion of the property that will be set-aside for wildlife habitat. Elements of the deed dedication will include:

- A legal description of the 1.03 acres of real property to be protected for wildlife habitat.
- Specific language that keeps the above said property in its natural state, including limitations on vegetation removal, as long as the Spokane Advanced Wastewater Treatment Plant is in operation.
- Filing of the deed dedication on the 1.03 acres of real property with the Spokane County Auditor.

As stated under the deed dedication stipulations, this area will not be developed and will remain as wildlife habitat and as a riparian protection corridor for perpetuity.

References

Azerrad, Jeff, WDFW, personal communication, November 2001

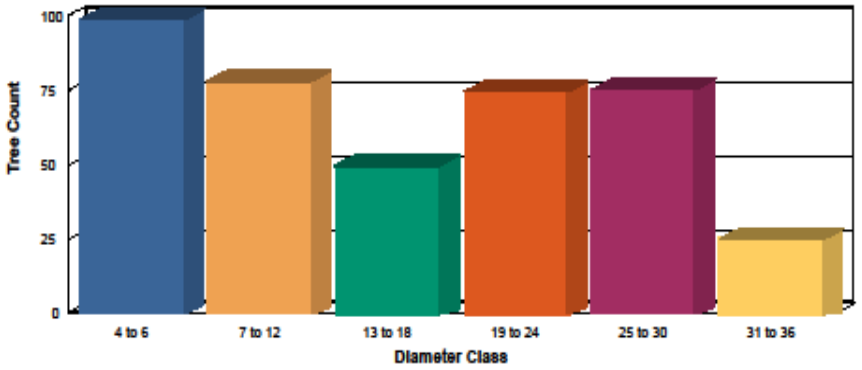
CH2M HILL, *SAWTP Conceptual Design Report for the Phase I Liquids Process Improvements* , Spokane, WA, 2001

Appendix B
City of Spokane Tree Survey

Approximate Diameter Distribution

4401 N. Aubrey L. Parkway, Sewer Treatment Plant

Report universe: All ☐ Subset ☒



Diameter Class	Percent	Count
4 to 6	25%	100
7 to 12	18.75%	75
13 to 18	12.5%	50
19 to 24	18.75%	75
25 to 30	18.75%	75
31 to 36	6.25%	25
Total		400

Approximately 3.5 acres (as shown on map) were evaluated for stand density as well as species distribution. The predominant species observed was Ponderosa pine, a few native understory shrubs and an occasional non-native woody species.

Numbers above are approximations based on a site visit and using various calculation methods to determine quantities. Once a comprehensive design is developed, an accurate inventory will be done to determine value, tasks, and remediation rquirements.

Area evaluated during the tree survey