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MEMORANDUM

CAPITAL IMPROVEMENT PROGRAM

To: Mary Abrams
From: Wrandoll Brenes *WB*
cc: Document Control, Chee Choy
Subject: Storm water Outfall #55A (Your Memo of 4/15/97)
Date: April 29, 1997

This memo is in response to your memo dated April 15, 1997.

As you know Lloyd Stauning is working on the North Portland Sewer Separation Project which has as its primary intent to separate the storm water from the combined sewer system and direct it to the Ramsey Lake Constructed Wetland. The additional goal of picking up the storm water from the existing storm-only system in Columbia Blvd. was approved for this CSO project based on the recognition that something could be done with minimal additional resources which would have a positive impact on the environment.

According to my conversations with Lloyd Stauning (the Project Manager), it would require significant design and construction resources to pick up the additional storm water system which flows to outfall #55A. Therefore, this work is beyond the scope and budget of the North Portland Sewer Separation Project and cannot be done as part of that project. I suggest that you talk with Dave Singletary about identifying the removal of storm water outfall #55A in the Bureau's planning and development efforts so that it may be submitted for evaluation in the next CIP development process.

Although we cannot divert the storm-flow from outfall #55A with our current project, it does appear that you have identified an issue which deserves further research and planning efforts and I would like to know the outcome.

Let me know if I can be of further assistance.



CITY OF PORTLAND ENVIRONMENTAL SERVICES



1120 SW Fifth Avenue, Room 400, Portland, Oregon 97204-1972

(503) 823-7740, FAX (503) 823-6995

Dean Marriott, Director

June 24, 1997

Dear Members of the Wapato Wetlands Task Force:

Thank you for your letter expressing concern and interest in Wapato Wetlands and the North Portland Stormwater Separation Project. Wapato Wetlands is clearly a unique resource that is a valuable part of the Columbia Slough ecosystem, and we are happy that you have taken a focused interest in this area.

In response to your letter, I have assigned Lloyd Stauning and Russ Lawrence to evaluate options for addressing stormwater flows to the Wapato Wetlands area. Lloyd will evaluate the possibility of diverting flows from outfall #55A into Ramsey Lake. Lloyd will also confirm whether the flow along Columbia Boulevard can be directed to Ramsey Lake. Russ will be evaluating other options that may achieve the goal of protecting Wapato Wetland from stormwater discharges if diversion to the Ramsey Lake trunk line is not cost effective.

I encourage you to call Lloyd (823-7633) or Russ (823-7195) if you have any questions or concerns about these options. I have asked Lloyd and Russ to prepare a written report on the subject, and we will forward it to you upon completion. Thank you again for your interest in the project, and for your participation in the Wapato Wetlands Task Force.

Sincerely,

Dean C. Marriott

cc: Mary Abrams
Chee Choy
Lloyd Stauning
Russ Lawrence
Ron Smith
Dave Kliewer

BUREAU OF ENVIRONMENTAL SERVICES
MEMORANDUM

Engineering Services
823-7195 (106/400)

TO: Susan Barthell, Ron Smith, Mary Abrams

FROM: Russ Lawrence, P.E. *R*

DATE: June 24, 1997

SUBJECT: Wapato Wetlands Outfall Protection



As you are aware, we have had the subject outfall line video inspected to determine if there are any illicit connections. This inspection has shown that there are none and the pipe is in excellent condition.

This brings us to the conclusion that the pollution that we are needing to deal with at this outfall is that normally associated with street run-off and light industrial applications, i.e. no rail yard run-off into the storm pipe.

As a part of the discussion concerning this outfall, a suggestion of installing an oil/water separator was brought forward. While oil/water separators are effective in removing oils in many applications, street run-off generally does not fall into this category. Generally oil/water separators are only effective when oil concentrations are 20 ppm or greater. Street run-off seldom reaches these concentrations except in the event of a spill. Installing and maintaining a separator for such infrequent events is a very expensive proposition with little real pollution protection as a result.

After reading the report addressing the pollution impacts of concern at this site, it becomes apparent heavy metals are the primary target. The report appears to characterize these metals as being in particulate form. This is demonstrated by the fact that few, if any, of the pollutants of concern occur more than 20 feet from the outfall.

Perhaps we should consider placing an appropriately sized stormceptor device in the line. This is a relatively new product that is demonstrating a relatively high degree of effectiveness in removing particulate (suspended solids) in similar applications, about 80%+.

After reviewing the video inspection, we recommend the device be installed in the access road on the immediate south side of the rail storage yard. This will require acquiring

- appropriate construction and maintenance easements from the rail road, design, construction and ongoing maintenance of the facility.

The device, installed, should not exceed \$50,000. We do not have accurate numbers for annual maintenance of such an installation. Budgeting between \$5,000 and \$10,000 per year should be adequate. We must also determine that the capability and schedule of the City maintenance staff is sufficient to provide a high assurance of this maintenance. This device may require vactoring three, or more, times a year. Without this level of maintenance, the device may not perform as desired and this effort to reduce the targeted pollutants will result in a minimal result for the capital expended.



CITY OF PORTLAND ENVIRONMENTAL SERVICES



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Dean Marriott, Director

June 25, 1997

MEMORANDUM

TO: Chee Choy

FROM: Lloyd C. Stauning *lcs*

SUBJ: Issues Associated With Rerouting Storm Flows From The Wapato Wetland To The Ramsey Lake Wetland

I have put together a rough estimate of how much it would cost to reroute the stormwater flows that currently run down N. Upland Drive to the Wapato Wetland. Under this plan the storm flows would be rerouted to the new North Portland Sewer Separation Project, and the water would end up in the Ramsey Lake Constructed Wetland.

The first problem I encountered is the flow rate. By my estimate approximately 36 acres of land could drain into the Upland Drive system. I assumed that the area was mostly impervious. My calculations showed that the 36-acre area would generate a peak flow of approximately 45 cfs during a ten-year storm event. I doubt the new separation system and the existing outfalls could even handle that much additional flow. If, by good design or better luck we could add that much flow there would have to be an increase in downstream pipe sizes (in both the new and existing piping systems) to accommodate the extra flow, driving the project cost up.

As for the cost, I think it is reasonable to assume the cost would start in the range of a half-million dollars and go up from there. Approximately 2,000 feet of new storm pipe would have to be added in Upland Drive, ranging in size from 10" to 24" in diameter. The installed cost of the new piping would be roughly \$275,000; upgrades to the planned system and the existing system would make up the rest of the cost. The total cost would depend on how much the existing and planned systems would have to be retrofitted.

As a last issue, when I spoke to the Wapato Wetland Task Force, I pointed out that we are trying to design our new storm sewer to accommodate drainage from Columbia Boulevard. While this is still our goal, we are encountering some problems. In the area near Upland Drive, Columbia Blvd. is split into two sections: the main area of Columbia Blvd., where the heavy trucks and commercial traffic go, and a residential section just south of Columbia Blvd. main. The two areas are split by a tree-lined divider; also, the residential part of Columbia is at a higher elevation than Columbia Blvd. main. To decrease costs and improve constructability we are planning to install the new sewer in the residential (south) portion of the street. However, since it is higher than the commercial part of Columbia the water from the commercial portion can't get to the new sewer without the risk of surcharging (i.e. having water back up and spill out onto the main portion of Columbia.) We are exploring the difficulty and expense of alternatives which would allow us to drain Columbia Blvd., but there is some question about its feasibility at this time. If we cannot pick up the flow in Columbia, then the water will continue to discharge to the Wapato Wetland. I'll keep you informed.

cc: Abrams, Barthel, W. Brenes, Houle, Marriott

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Smith and Bybee Lakes Management Committee
Emily Roth, Metro
600 NE Grand
Portland, Oregon 97232

November 11, 1997

Dear Ms. Roth,

The Wapato Wetlands Task Force, formed by the City of Portland's Bureau of Environmental Services, has been working on water quality and sediment issues at Wapato Wetlands. This side channel of the Columbia Slough is located adjacent to the Smith and Bybee Lakes Wildlife Area.

The Task Force is interested in nominating the Wapato Wetlands area for inclusion as part of the Smith and Bybee Lakes Natural Area. At our June meeting you presented information from the Smith and Bybee Lakes Management plan indicating that addition of this area could be possible through a Type III land use review. We are aware that such a review would be costly. We would however, like to propose that Wapato Wetlands be added to the management area when the natural resources plan is updated.

If you have any questions about the Task Force or our proposal, please contact me at the 823-7268.

Sincerely,



Susan Barthel, BES

Wapato Wetlands Task Force Coordinator

Members:

Troy Clark, Columbia Slough Watershed Council, Friends of Smith and Bybee Lakes
Barry Groce, Counsel for Union Pacific Railroad
Mike Houck, Audubon Society of Portland
Laf Keaton, American Indian Association of Portland
Leora Mahoney, St. John's Neighborhood
Guy Marshall, Columbia Steel
Eric Olsen, Chief Joseph School
Paul Vandenberg, Metro

cc: Chee Choy, BES
Nancy Hendrickson, Chair, Smith and Bybee Lakes Management Committee



CITY OF PORTLAND ENVIRONMENTAL SERVICES



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(503) 823-7740, FAX (503) 823-6995

Dean Marriott, Director

November 24, 1997

From: Chee Choy

Re: Wapato Wetlands Task Force Meeting

The task force's next meeting is set for Wednesday, December 3 from 4:00-6:00 p.m.

The purpose of the meeting will be to review various activities related to the protection of the Wapato Wetlands since we last met. We will also discuss again the Task Force's final Recommendations. We will meet in the conference room at Columbia Steel company 10425 N. Bloss.

Enclosed are meeting notes from the June 25 meeting. Also enclosed is a "Calendar of Slough Events" / Ongoing Activities: You can Help!".

If you have any further questions, please feel free to phone Chee Choy (823-5310) or Susan Barthel (823-7268). Also, please let Choy or Susan know if you will not be able to attend the meeting.

encl: