

FINDINGS AND RECOMMENDATION  
OF THE HEARING EXAMINER FOR THE CITY OF SEATTLE

In the Matter of the Application of

THE MUNICIPALITY OF METROPOLITAN  
SEATTLE (METRO)

DCLU PROJECT NOS.  
8606481 AND 8607443

for Council Conditional Use  
Approval to expand the West  
Point and Alki Sewage Treatment  
Plants

Introduction

METRO has applied to the City of Seattle for permits to add to its West Point sewage treatment plant (Application No. 8606481) and to convert its Alki plant to a stormweather facility (Application No. 8607443). DCLU recommended that the application be denied.

Prehearing conference sessions on this matter were held on July 22, 1987 and August 11, 1987.

This matter came on for public hearing before the Hearing Examiner on August 24, 25, 26, 27, 31, September 1, 28, 29, and October 1, 2, 5, 6, 7, 21, 22, 23, 27, 28, 29 and 30, 1987.

Parties present and represented at the hearings were: METRO by Robert B. Mitchell and William H. Chapman, Law Offices of Preston, Thorgrimson, Ellis & Holman; and DCLU Director Holly Miller by John E. Keegan and Roslyn Solomon, Law Offices of Davis Wright & Jones. The Puget Sound Water Quality Defense Fund, (The "Defense Fund") served as umbrella organization for the Friends of Discovery Park, Washington Environmental Council, Brook Barnes, Cheryl Bleakney, Benella Caminiti, Jacquie Fenning, Jeanne Hansen, Robert Lucerall, Gerald Lonn, Arthur Noble, Bonnie Orme, W.P. Pickering, Horthy Slate, Robert Slate, James T. Smith, Scott Smith and Gerald Turman. The Defense Fund, approved for Intervenor Status, appeared by David A. Bricklin, Law Office of Bricklin & Gendler, and by Scott Smith, pro se.

Testimony from members of the public, non-parties, was received on August 28, August 31, and October 23, 1987. The record remained open for public comment letters to November 9, 1987; and for parties' final submittals to November 16, 1987, extended to November 17, 1987.

The Citizens to Save Interbay (CSI) group presentation was coordinated by association president Daniel S. Grausz, attorney at law. Other groups testifying included Citizens to Save Georgetown by Estelle Shirey. (See minutes of proceedings for further identifications.)

The Hearing Examiner and party representatives visited the Alki and West Point sites and environs, including the West Point north and south beaches, on September 15, 1987. The trip included a visit to and around the Interbay and Duwamish nodal areas, and a visit to and through parts of the Georgetown, Magnolia, and Queen Anne residential areas.

For purposes of this recommendation, all code references are to Titles 23 or 24, as amended, unless otherwise specified.

After due consideration of the evidence of record, including the parties respective presentations; the DCLU reports; and all testimony and submittals, the Hearing Examiner enters the following findings, conclusions and recommendation on the present application.

Findings of Fact

1. Metro operates five wastewater treatment plants in the metropolitan Seattle area: Renton, Alki, West Point, Carkeek, and Richmond Beach. Only the Renton plant currently provides secondary sewage treatment.
2. The Federal Water Pollution Control Act requires that secondary treatment be provided at all municipal wastewater treatment plants. Metro applied for a waiver of this requirement in 1978. The Environmental Protection Agency ("EPA") tentatively approved a West Point waiver in September 1981. In August 1984, however, the EPA reversed its position and issued a tentative denial of Metro's waiver application. On September 6, 1984, the Metro Council decided not to appeal the decision, to withdraw its application, and to proceed with planning and implementation of secondary treatment for all wastewater discharged into Puget Sound.
3. On September 24, 1984, the Washington Department of Ecology (DOE) issued a compliance order requiring Metro to amend its comprehensive plan for water pollution abatement to provide for secondary treatment and control of combined sewer overflows (CSO) by February 1, 1986; to complete plans for secondary treatment for the West Point service area by February 1, 1988; and to complete construction of secondary treatment facilities by February 1, 1991.
4. Metro subsequently conducted a scoping process to identify alternative configurations of sewage treatment plants to handle sewage flows generated within its service area, including an initial array of more than 200 different alternatives. These alternatives were investigated and screened considering site visits, sketches, likely environmental impacts and technical and economic analysis.
5. Architects and environmental experts participated in the alternative screening process. Team members examined the aesthetics of massing and scale of treatment facilities in each potential community location. Environmental information was incorporated as an integral part of Metro's facilities planning process.
6. The facilities planning and the predesign consultant teams have both included national and international experts who have participated actively in the planning and predesign process.
7. The process of evaluating alternative configurations of treatment plants included extensive public participation. Comments on each stage of draft and supplemental environmental review were voluminous. The more than 100 meetings and public hearings over the past three years saw vigorous public participation, particularly from the Queen Anne and Magnolia communities and South Seattle communities such as Georgetown, Fauntleroy and South Park.
8. City of Seattle staff and consultants actively participated in the development and evaluation of alternatives and in the detailed EIS and SEIS review of those alternatives.
9. Major modifications to the alternatives were made in response to environmental concerns and as a result of participation by the public and the City of Seattle. These modifications included elimination of fill on the North Beach at West Point and use of the D-9 representative site across East Marginal Way rather than a site on the Duwamish River.
10. Further environmental refinements have been achieved during the predesign process. It has been determined that construction of treatment facilities will not require closure of North Beach, and that traffic impacts could be reduced by busing construction workers to and from the site.
11. A Final Facilities Plan ("Final Plan") and EIS ("FEIS")

were published and released for public review on November 7, 1985. Included in the Plan was the recommendation by the Metro Executive Director that the existing West Point Treatment facility (Core 4) be expanded.

12. The City of Seattle found the FEIS prepared in support of the plan to be inadequate because it did not present a sufficient range of alternative locations which avoided park, shoreline and residential sitings, or alternative configurations based on conservation and reduced flow; and because it lacked sufficient detail.

13. The City of Seattle appealed the adequacy of Metro's FEIS. The appeal was settled and the terms of the settlement agreement were set forth in a Memorandum of Agreement (MOA) executed on January 31, 1986, which was approved by the Seattle City Council and the Metro Council.

14. Pursuant to the MOA, Metro agreed to prepare a Supplemental EIS ("SEIS") evaluating three nonshoreline alternatives: Core 5-D (Large Duwamish), 5-I (Large Interbay), and 5-S (Split Duwamish and Interbay); to prepare a technical memorandum to augment the FEIS; to participate in an effort to identify mitigation measures for all alternatives; and to prepare supplemental final plans for Cores 5-D, 5-I and 5-S.

15. After completion of the supplemental documentation, the Metro Executive Director again recommended the Core 4 (West Point) alternative. On July 10, 1986, the Metro Water Quality Committee voted in favor of adopting Core 5-D as the Metro plan. On July 17, 1986, the Metro Council voted to substitute Core 4 for Core 5-D.

16. Metro submitted an application ("Metro App.") to the Department of Construction and Land Use (DCLU) for a Plan Shoreline Permit for West Point and Alki on December 31, 1986. Metro amended the application on April 28, 1987, to include a request for a council conditional use permit for construction in single-family zones because both the existing and proposed West Point and Alki plants are located in single-family zones. The West Point proposal ("Core 4") is for construction of secondary wastewater treatment facilities to treat up to 159 million gallons per day (mgd) of sewage flow. The Alki proposal is for conversion of the existing facility to a stormweather facility.

17. DCLU reviewed the application and recommended denial of Metro's request for a plan shoreline permit and a single-family conditional use permit because DCLU concluded that feasible alternatives to the proposed West Point and Alki plants existed in nonshoreline and nonsingle-family zones. The recommendations of denial were contained in the DCLU Report and Appendices published in July 1987.

18. Hearings on Metro's permit application commenced before the Hearing Examiner on August 24, 1987, and concluded on October 30, 1987. (See Introduction above for further information on the Hearing Examiner process.)

19. The City has a two-phase permit process for construction of sewage treatment plants in shoreline areas. The process requires both a "plan shoreline permit" and a "project-level permit" to construct the plant at the chosen location. DCLU noted in its report as follows:

The fact that this is a plan-level decision does not avoid the need to look at specific details known to be associated with the proposal and the potentially feasible alternatives. Project-level details must be examined to the extent foreseeable and to the extent such features affect the applicable criteria, i.e., compatibility with the shoreline and single-family zone policies and the environmental, social and economic impacts on

the community...

DCLU Report, p. 1-6.

A project-level proposal will require a site specific environmental impact statement. Metro has committed to prepare this EIS regardless of which location(s) is chosen for the secondary sewage treatment plants.

20. Metro's secondary facilities planning team estimated costs of facilities for the five core alternatives by including a sales tax of 8%, allied costs of 21%, and a 30% contingency to cover administrative, engineering, and legal expenses, as well as cost factors that are presently unknown. The cost estimating methodology used by Metro for secondary facilities planning is similar to that used by Metro on other projects and by other public agencies constructing public works. The contingency used in Metro's planning-level estimates is realistic.

21. A more refined approach to contingencies would be to assign a lower contingency to construction activities at known sites and a higher contingency to activities in areas where less is known, such as new plant and outfall sites and conveyance tunnels. Such an approach would widen the cost difference between the Proposal and the alternatives.

22. Metro's rate projections assume that \$300 million in government (construction) grants will be received. If these grants are not received, sewer rates will probably increase significantly under both Metro's proposal and all of the alternatives.

23. Perceived differences in cost estimates between Metro's proposal and the alternatives arise from two primary sources: the cost of constructing secondary treatment facilities and the cost of constructing major conveyance lines to and from such facilities. In terms of 1988 present worth, Metro's 1986 Supplemental Facilities Plan reflects that the cost of constructing secondary treatment facilities for the West Point service area is \$590 million for Metro's proposal; \$780 million for alternative 5-I; \$670 million for alternative 5-D; and \$870 million for alternative 5-S. (Duwamish, Interbay split).

24. The cost of new influent/effluent systems and improvements associated with these facilities was given as \$30 million for Metro's proposal, \$120 million for alternative 5-I, \$300 million for alternative 5-D, and \$150 million for alternative 5-S. The total cost of all secondary treatment facilities and conveyance elements (excluding CSO control measures) is given as \$1.09 billion for Metro's proposal, \$1.37 billion for alternative 5-I, \$1.44 billion for alternative 5-D, and \$1.51 billion for alternative 5-S.

25. Metro's predesign consultants have found that the existing primary clarifiers and influent pumping station at West Point will not have to be replaced, as had been assumed by the secondary facilities planning team. This finding reduces the cost of secondary facilities under Metro's proposal by some \$90 million (inflated capital cost). Because such savings reflect the continued use of existing treatment facilities, they are unique to the West Point site and to Metro's proposal. The \$90 million "savings," however, could be easily absorbed by contemplated mitigation and other measures for the West Point site.

26. An advisory committee on King County 2000 estimates that by the year 2000 the region will require \$10 billion in expenditures for sewage, garbage and other capital facilities, with only half of that amount (\$5 billion) available to pay for such facilities. The precision of these numbers was challenged. The committee is reasonably concerned that the region may be unable or unwilling to pay for necessary capital improvement projects. In determining whether a more expensive alternative is feasible, one can consider the capital improvement needs of the region and the resources that exist to meet those needs.

27. The added costs of a more expensive secondary treatment alternative may well fall disproportionately on ratepayers who are less affluent.

28. Metro's West Point plant, both existing and proposed, is not on a Shoreline of Statewide Significance, but it is partly in the City Shoreline District and near a Shoreline of Statewide significance, namely, the area of Puget Sound waterward of extreme low tide. Approximately 40 of the 48 West Point acreage site consists of land adjacent to but outside of the shoreline district. The shoreline in which a portion of Metro's facility is to be located is designated Conservancy Management.

29. The present West Point shoreline results from 1936 and 1943 Army fill of the salt marsh that originally occupied much of the spit. When Metro acquired the site, a riprap seawall backed with dredged sand was constructed all along the North Beach to protect the influent pipe that connected the North Trunk Sewer with the treatment plant headworks. Construction of Metro's present West Point facility began in 1962. Also in 1962, the adjacent land was used as the Fort Lawton military base. In 1972 the adjacent land was transferred to the City of Seattle and has undergone (and is undergoing) various stages of development as Discovery Park.

30. The Discovery Park Development Plan directs that former military structures be removed, open space created and the natural environment restored. The plan further states that the basic philosophy of Discovery Park is to provide an open space of quiet and tranquility. Discovery Park Development Plan, Ex. 178; City Council Resolution 27399.

31. Discovery park is unique in that it offers a variety of marine, wooded, and meadowed areas for exploration and enjoyment within a single park location. The park offers beaches, bluffs, meadows, thickets and forests. There are also support buildings, roadways and parking lots. The park is the only one of its size and environmental diversity located within the Seattle metropolitan area. The park receives approximately 250,000 visitors each year from throughout the United States and the world. The number of beach users is estimated at 70,000 annually. The park is one of two Seattle park system sites used for youth and adult environmental education.

32. The proposal includes a major expansion of the existing facility at West Point. It would utilize more acreage than the current facility and consequently could have a greater impact on sensitive shoreline areas (the bluff and possibly intertidal area). Because of its location between the shoreline and the bluff, the flexibility of further expansion is limited.

33. Some of the other permanent environmental impacts resulting from the operation of a plant at West Point include the fact of minimized future recreational use. There would also be increased sludge truck traffic on the Discovery Park access road (sludge traffic trips would increase from 18 to approximately 50 per day). DCLU Apps., 5-13.

34. DCLU projects that permanent impacts associated with the proposal include an estimated total, including capital cost, operation and maintenance, and CSO costs, of \$1.093 billion (present worth). DCLU Report, p. 5D-21; Ex. 56L.

35. Before the West Point plant was constructed and operational, Seattle's North Trunk Sewer discharged raw sewage onto the beach and into the water a short distance off West Point. These discharges fouled the beach and created public health hazards along Seattle's shoreline. Secondary treatment of Seattle's sewage will provide a long-term benefit to Puget Sound water quality and to all Puget Sound shorelines.

36. Much of Metro's property is presently available for use by the public, particularly the shoreline holdings. For example, West Point's South Beach is available for public access and re-

West Point's South Beach is available for public access and recreation, and is proposed to remain available under Metro's proposal. The shoreline currently available on the North Beach would generally continue to be available during construction and plant operation, per Metro's most recent deliberations. Further, Metro estimates that the area available for public access and recreation at West Point can be expanded up to 50% under the Metro proposal.

37. It is noted that some beach users have observed odors and have been otherwise distracted from the beach experience by the plant operation. If Metro's existing facilities are expanded, the character of the experience of the West Point beach user will in large measure depend on the particular layout of the treatment facilities, the noise, odor control, berming and other mitigation measures associated with those facilities, and upon the care and the sensitivity taken in the development of such mitigation. Recreational users may be less sensitive to noise and other impacts than residential dwellers because among other reasons, the recreational use is elective.

38. DCLU determined that odor and noise impacts from plant operation could be, by mitigative measures, controlled to acceptable levels at all treatment plant locations considered. The impact of construction noise on the government (Capehart) housing situated in Discovery Park would be attenuated by the barrier of the Discovery Park bluff and hillside and by the intervening distance. Also, West Point is significantly removed from the actual Discovery Park residential uses.

39. The West Point site is open to the wind from Puget Sound both on the north and south as well as on the west. This facilitates dispersion of odors whenever they occur. DCLU expects no significant impacts on air quality from the proposal or any of the alternatives.

40. The team of experts convened by DCLU to review potential outfalls expressed a preference that outfalls in Puget Sound be located north of Alki Point. West Point's outfall is north of Alki Point and has the capacity to accommodate the expected need of 400 million gallons per day (mgd).

41. Sewage treatment plants and conveyance facilities are considered utility uses under Seattle's Shoreline Master Program. Metro's "utility" proposal will not displace water-dependent industrial or commercial uses at West Point.

42. Core 4 construction impacts on recreational use of West Point and Discovery Park could be lessened significantly by avoiding weekend and evening construction. The number of construction worker auto trips could be reduced by using shuttle buses timed to avoid conflicts with park usage.

43. Metro has projected that its West Point proposal would generate approximately 184,000 truck trips during a four-year construction period. DCLU Appendix 5C-2. On the other hand, restoration would require approximately 150 truck loads of fill material and would yield a long term decrease in vehicular traffic impacts on Discovery Park and the Magnolia area. The average daily traffic during the peak construction period would include approximately 380 truck trips, 20 bus trips for shuttling workers from an off-site parking facility, and approximately 100 automobile trips per day. These 500 trips per day would not change the level of service anywhere along the route from Interbay to West Point, including the park entrance, or substantially affect the ability of the people in the area to access the park or the neighborhoods.

44. All of the roads used by Metro to go from Interbay to West Point are designated as arterials by the City of Seattle. West Emerson Place is designated as a major arterial. West Dravus Street is a minor arterial. Twentieth Avenue West and West Government Way are designated as minor arterials-residential. The Seattle Engineering Department has approved a route to

involves West Government Way, 20th Avenue West, and West Dravus Street. The automobile traffic has the option of using either West Dravus Street or West Emerson Place. West Point presently causes no off-site parking impacts in residential areas.

45. Residential areas from which a West Point plant can be seen, identified on Exhibit 147, are sufficiently removed that view impacts are minor. Exhibit 148 shows the general locations in Discovery Park from which the West Point plant can be viewed. These include the edge of the old helicopter pad near the access road and lookouts in a few spots along the trail behind the treatment plant during the winter when the deciduous trees have shed. One can also see the plant currently from the beaches, from the small section of the Park that is out near the lighthouse, and from the water. These views could be substantially screened by sensitive design, berms and landscaping options.

46. In general, the phenomenon of social impacts includes but is not limited to residential displacement, job losses, and neighborhood impacts. Metro's proposal would displace no businesses or residences and would result in no loss of assessed valuation and property tax revenue. Neither of Metro's proposals would demolish housing or displace any residents at treatment plant locations. Neither the West Point nor Alki treatment plant facilities are suitable for conversion to single-family use.

47. The West Point site is in a single-family zone; however, the area is separated from actual residential uses in the single family zone by Discovery Park. DCLU Report, p. 58-2. Single family neighborhoods are closer to the Duwamish and Interbay representative sites. DCLU's present administration would not grant a permit for single-family residential development of the West Point area. Metro's proposed activities at West Point are removed from single-family residential areas except for the impacts of truck traffic along the stretch of arterial. Depending on plant configuration, volume, technology, accident potential and other items, the traffic impacts could nevertheless be disruptive.

48. A "representative site" is a part of a larger, identified geographic area. The "representative" or "nodal" sites evaluated are considered representative in that their technical suitability, costs and environmental impacts are expected to be typical of sites in their respective nodal areas. DCLU Report, p. 1-6. The Interbay nodal and representative site areas are displayed on Exhibits 59 and 66. The Interbay nodal area is not in a City shoreline or in a Shoreline of Statewide Significance, but the northwest extremity of the nodal area, which extends to 23rd Avenue West, is directly south of and close to the shoreline district. Many Queen Anne and Magnolia residents are critically concerned with the possibility of locating a sewage treatment plant in this "low air dispersion valley between two well-populated areas." Areas of concern include construction noise, odor/accident potential, recreational, traffic and socioeconomic impacts.

49. There are 19.4 acres of industrially zoned (IG) property within the Interbay representative site. In Metro's opinion this acreage is insufficient for locating a large or split Interbay treatment plant. With respect to the trickling filter/suspended growth (TF/SG) technology considered, and for the volume and general configuration considered, the Hearing Examiner agrees. A great percentage of the nodal area is commercially zoned. DCLU acknowledges that construction of a large Interbay plant entirely on IG-zoned land would require a rezone for a portion of the site, acquisition of IG-zoned land from Burlington Northern or reduction of plant footprint. Direct testimony of H. Miller.

50. Northwest of the Interbay representative site, within the Interbay nodal area, lies a triangular piece of industrially zoned property owned by Burlington Northern Railroad (the "roundhouse site"). This property is separated from the Interbay

"roundhouse site"). This property is separated from the Interbay representative site by railroad tracks that curve around under the Ballard Bridge and continue eastward along the ship canal.

51. Burlington Northern considers all of the roundhouse site as operating property essential to the railroad's operations. Service facilities on the site, near the Balmer classification yard at Interbay, meet the needs of the 45-50 trains per day that terminate or originate at the site.

52. Next to the Balmer yard facility is the Burlington Northern roundhouse. It provides heavy maintenance to 250 locomotives per month, and many more locomotives are fueled and serviced there. Burlington Northern considers the roundhouse, a regional facility that serves all of Washington and parts of Oregon, Idaho and Montana as essential to its operation. It is important that the roundhouse facility be near the railway yard because of the correlation between removing and resetting locomotives inbound and outbound.

53. West of the roundhouse is a car shop for the repair of rail cars. Wheels, rails or other materials for the roundhouse and the car shop are stored in the area northeast of the roundhouse.

54. Burlington Northern is in the process of constructing a new wheel trueing facility southeast of the roundhouse. This will lathe wheels to keep them useable. Also, a new regional communications shop is planned for the extreme northwest corner of the site where communications technicians will perform maintenance services.

55. As a result of these developments, the amount of property within the roundhouse site that could likely be made available for other facilities (such as a sewage treatment plant) consistent with the current and expected needs of the railroad is approximately three-five acres. The maximum potential area is 10.57 acres. Part of that 10.57 acreage is presently used for material storage by Burlington Northern.

56. As presently considered, the "most probable and available" roundhouse site property, combined with the 19.4 acres of IG zoned land in the representative site, is insufficient land on which a large or split Interbay sewage treatment plant could be built, i.e. if the plant is to be confined to the industrially zoned portions of the Interbay representative site plus that noncontiguous 3-5 acre parcel of Burlington Northern property.

57. Permanent impacts on recreation from construction of the Interbay treatment plant include impacts similar to those at West Point: the potential for noise and odor and the awareness of a nearby treatment plant. Although no significant adverse air quality impacts are expected at any of the proposed locations, light variable winds from no specific direction are quite frequent at Interbay and can often accompany the stable atmosphere conditions that produce poor air quality. Interbay's location in a small valley between two hills reduces the potential for dispersion or avoidance of odors and could prolong the discomfort of residents at times of plant upset.

58. Noise impacts on residents, employees and other people at Interbay would be objectionable during the four-year construction period and would result in a significant number of residents and others being very annoyed, particularly if the residents are outside without the buffering impact of dwelling or other structures. Recreational impacts associated with construction of an Interbay alternative include the effect on uses of the nearby golf course of construction dust and the potential removal of the Interbay playfields, sometimes heavily used.

59. Construction of a large Interbay plant would involve approximately 370,000 truck trips during the 4-year construction period, with a daily average of approximately 410 truck trips and 780 automobile trips during peak construction periods. These 1200



vehicles per day would likely increase afternoon traffic congestion at the 15th Avenue West/Dravus Street intersection and increase the length of time during which congestion occurs. The estimated number of truck trips for Interbay was partially derived from the need to excavate and/or remove some 1,746,000 cubic yards of ground material. Operationally, approximately 52 sludge truck trips per day would occur (36 for the smaller, "split" Interbay proposal).

60. Closure and removal of the Dravus Street bridge for a period of six months to one year in order to build the plant on the representative site underneath the bridge would decrease congestion at the intersection of Dravus Street and 15th Avenue West, but significantly increase congestion on Emerson Place or other routes to Magnolia.

61. Traffic impacts at Dravus could be mitigated at substantial additional expense. Mitigation options include maintenance of two, rather than four lanes of the Dravus Street Bridge during construction; and building a new detour facility connecting 15th Avenue West with Magnolia. A two-lane Dravus Street bridge would suffer significantly increased congestion relative to the current rush-hour congestion at Dravus Street. Even construction of a new detour facility is unlikely to make traffic flow smoothly because of the difficulty of making connections with 15th Avenue West.

62. Areas from which an Interbay treatment plant could be visible are identified on Exhibit 146. However, extensive lidding, landscaping and other measures could substantially decrease the aesthetic impact. The record reflects, for example, the possibility of erecting a different kind of facility atop the sewage treatment plant, or the construction of a recreational area thereon.

63. A sewage treatment plant occupying the Interbay representative site would displace approximately 59 businesses and from 625-780 employees and would substantially eliminate the commercial and community center for the Interbay residents. Also, locating a sewage treatment plant at the Interbay representative site would require demolition of approximately 24 residential units, although approximately 2-3 of these may be uninhabited. (DCLU projects an income loss of approximately \$2,100,000 associated with temporary job displacement.)

64. Metro projects that locating a large sewage treatment plant at the Interbay representative site would result in a net loss of \$15.036 million in assessed valuation. The present value of the property tax revenues lost through 2030, assuming no increase in either valuation or millage rate, is estimated by Metro as \$4.637 million. DCLU estimates the total cost, including capital construction, operation and maintenance, and CSO costs as \$1.249 billion (present worth). DCLU Report, 5D-25.

65. DCLU's further estimate is that if the large Interbay is built originally to accommodate base flows, and those are realized, the cost is \$1.270 billion (present worth); if reduced flows are realized, \$1.229 billion (present worth).

66. A smaller plant (109 mgd, 38 acres) in the Interbay nodal area would have correspondingly less impact. DCLU estimates that approximately 191,000 truck trips to the Interbay site would occur over a 3-year construction period. Sludge truck traffic would be reduced to 36 trips per day and visual impacts would be diminished. There is presently insufficient industrially-zoned land at Interbay to accommodate the Interbay portion of this alternative. Ex. 199, p. 26.

67. Metro also projects that locating a split sewage treatment plant at the Interbay and Duwamish representative sites would result in a net loss of \$22.768 million in assessed valuation and that the present value of the property tax revenues lost through 2030, assuming no increase in either valuation or millage

68. The Duwamish representative site, Exhibit 40, is not in the shoreline district or on a Shoreline of Statewide Significance, but it is near (across the street from) a Shoreline of Statewide Significance, namely, i.e. the Duwamish River and associated wetlands. The Duwamish nodal area is bordered on the south by South Dawson Street and on the north by South Holgate. It extends generally from East Marginal Way on the west to Airport Way - 8th Avenue South on the east. The Duwamish nodal area, industrially zoned, is adjacent to the largest center of maritime industry in Seattle. It is in heavy industrial use as reflected in the traffic and development pattern extant. There are few contiguous parcels of vacant or underutilized land in the Duwamish Valley and industrially zoned land in Seattle is becoming increasingly scarce.

69. The Port of Seattle has expressed concerns that a sewage treatment plant at the Duwamish representative site would damage the Port's ability to handle marine cargo, service shippers and expand its warehouse facilities that are adjacent to the Duwamish Shoreline District.

70. a Duwamish plant would require construction of conveyance systems in two shorelines of Statewide Significance, the Duwamish River and Puget Sound. exhibit 40. Outfalls associated with a Duwamish plant would require construction in a intertidal area of the Alki Beach shoreline.

71. An additional 16 miles of large-diameter, pipeline construction (conveyance system), would be required for a large Duwamish alternative. Potential impacts from construction of this extensive conveyance system associated with the Duwamish alternative include noise; installation of dewatering wells and treatment of groundwater; trenching and shoring; utility relocation; tunnel staging, and traffic disruption. Those would be considered significant environmental impacts.

72. Potentially serious adverse environmental consequences from construction of a large Duwamish effluent transfer system include disruption of Duwamish River sediments near Kellogg Island, disturbance and resuspension of contaminated sediments and soils, disturbance of the east bluff of West Seattle, disruption and temporary closure of recreational facilities and parks such as Me Kwa Mooks and Emma Schmitz Overlook Parks and parts of Alki beach, and impacts on the biologically intertidal area of Alki Beach. Also to be considered are potential kills of resident fish, potential impacts on migrating fish, and potential adverse impacts on birds near Kellogg Island from increased contaminated sediments in their food chain. These construction impacts may be mitigated but cannot be completely avoided.

73. There is a greater probability of southbound pollutant transport associated with outfalls constructed south of or near Alki Point. The outfall alignments for the Duwamish alternative presented by DCLU and Metro are south of of near Alki Point. However, no evidence shows the relative degree of harm to receiving elements that may be south of Alki Point.

74. Adverse environmental impacts on recreation from construction of a Duwamish plant include noise in the Emma Schmitz Overlook Park and the immediate area of Alki Beach, traffic disruption in the area, and temporary loss of use. These areas get heavy recreational use in warm weather, and they are also used in the winter. Recreational impacts from construction of a Duwamish plant and associated outfall also include disruption of some parts of the West Seattle Golf Course and noise and vibration impacts upon bird-watchers and canoers near Kellogg Island.

75. Significant noise impacts, including the potential for annoyance and speech interference, could be experienced by the approximately 1,000 employees who work in the office building directly across East Marginal Way from the Duwamish representative site during the four-year period of construction. No particular noise impacts are expected on residential areas.

particular noise impacts are expected on residential areas.

76. General areas from which a Duwamish treatment plant could be visible are identified in Exhibit 145. The areas include no substantial portion of the Georgetown residential area. Traffic impacts during construction of a large Duwamish treatment plant would include during phase I approximately 356,000 truck trips over 4-year period, with a daily average of 345 truck trips and 660 automobile trips during peak construction periods. These 1,000 daily trips should not result in a change to the level of service on East Marginal Way, a major arterial.

77. The Duwamish representative site is near but not adjacent to the Georgetown community (approximately 10 blocks to the southeast). In terms of economics, income levels and education Georgetown is a relatively poor community. Because of their lower incomes, Georgetown residents are economically less able than the average Seattle resident to flee the area. Many Georgetown and other south end residents feel that Seattle's south end as a whole, including the Duwamish area, already bears a disproportionate number of high-impact public and private facilities. This perception would be intensified by siting a sewage facility in the Duwamish area.

78. A sewage treatment plant occupying the Duwamish representative site would displace from 15-18 businesses and 517-910 employees. Because of the large scale of their operations, many of the displaced firms are likely to relocate outside of Seattle. As with all sites, programs would exist to facilitate relocation of businesses and minimization of economic impacts.

79. Metro projects that locating a sewage treatment plant at the Duwamish representative site would result in a net loss of \$18.322 million in assessed valuation and that the present value of the property tax revenues lost through 2030, assuming no increase in either valuation or millage rate, would be \$5.65 million. DCLU's estimated costs, including capital cost operation and maintenance and CSO costs is \$1,266 billion (present worth). DCLU also projects that the temporary annual income loss associated with job displacement approximates \$3,050,00.

80. A smaller plant (56 mgd, 20 acres) in the Duwamish nodal area would have correspondingly less impact. Approximately 104,000 truck trips to the Duwamish site would occur over a 3 year construction period. DCLU Rep., 5C-18. Sludge truck traffic would be reduced to 16 trips per day and associated noise and odor impacts would be correspondingly reduced. SEIS, 7-2 to 7-3.

81. A reduced flow configuration would have environmental, social and economic impacts similar to but less than those associated with the "base flow" alternative. As illustration, DCLU's estimate of the costs for R-5S, if initial construction is predicated on reduced flow and base flows are realized, is approximately \$1.310 billion (present worth); if reduced flows are realized, this alternative will cost \$1.239 billion (present worth). DCLU Rep., 5D-21. If a Split Interbay/Duwamish configuration is built originally to accommodate base flows and base flows occur, it will cost \$1.349 billion (present worth); if reduced flows occur, it will cost \$1.308 billion (present worth).

82. Metro's Alki sewage treatment plant is located at 3350 Beach Drive S.W. in the single family zone. The plant serves the western half of West Seattle, and currently provides primary sewage treatment.

83. The Alki plant is located on Alki Point, about 300 yards south of the Alki Point lighthouse. The 3.3 acre site is bordered on the northeast by the Bar-S playground. North and southeast are single-family zoned residential uses. Across Benton Place S.W., to the site's west, are multi-family zoned residences. The Alki plant fronts on Beach Drive S.W. This street separates the plant from the Alki Beach waterfront. The shoreline is designated Conservancy Management (CM).

84. The sewer system in the Alki service area is partially

separated, i.e., roof and yard drains are connected to the sanitary sewer system. As a result, large rainfalls tend to produce very high peak wastewater flows. Until recently, flows of wastewater to the Alki sewage treatment plant were restricted by limitations in the capacity of upstream pumping stations, and storms resulted in numerous combined sewer overflows at those locations.

85. Since 1984, the Alki pumping stations have been upgraded to convey more wastewater to the Alki treatment plant. The treatment plant and its outfall have also been extensively upgraded since 1985 and all facilities on the site are now lidded and faced with red brick. The plant conforms to the height and bulk requirements of Seattle's single family and shoreline regulations.

86. The Department of Ecology requires that CSO's within the Alki service area be controlled to the level of one CSO event per site per year. The Hearing Examiner finds that validated computer models indicate that this requirement is equivalent to providing 90 million gallons per day (mgd) of treatment capacity for the Alki service area.

87. The Alki component of Metro's proposal (like the Alki component of the nonshoreline alternative examined by Metro) calls for transfer of base sanitary flows from Alki to the Elliott Bay Interceptor or to a Duwamish or other plant for secondary treatment; and conversion of the Alki plant to stormweather operation. The Department of Ecology requires that the Alki base flow transfer system have a capacity of 16.2 mgd.

88. Conversion of the Alki plant to a stormwater treatment facility will have little or no effect on opportunities for shoreline access and recreation. The conversion will eliminate sludge traffic to and from that plant and will not alter the physical character of the Alki residential area. Close to the plant are some multi-family developments that are taller.

89. Relocation of the facility would remove an existing nonconforming use and make the site potentially available for single family or park use. Single family use would not enhance public opportunity to access or enjoy the shoreline; public park use would.

90. Metro's proposal to convert the Alki treatment plant to a stormwater facility will require acquisition of no property, will entail no excavation in the street or on the beach, will displace no water-dependent uses of the Alki shoreline, and will not alter the profile of the plant or its appearance from the shoreline. Substantially more demolition would be required to remove the Alki Plant than to convert it to a stormwater facility. Establishing or expanding a Duwamish facility to accommodate Alki stormwater flows could require more land, displace more businesses and otherwise exacerbate the Duwamish treatment plant impacts described above.

91. Construction impacts associated with conversion of the Alki treatment plant to a 74 mgd stormweather facility include demolition of the existing sludge digesters and administration building, extension of the primary clarifiers into the area previously occupied by those structures, and construction of a chlorine contact basin at or below grade. A larger pump station would probably be required to transfer the stormwater and base flows. Metro estimates that approximately 21,000 cubic yards of earth and rock will have to be excavated under Metro's Alki conversion proposal.

92. Operational impacts of an automated Alki stormwater facility will be minimal and less than those that currently exist. It is unlikely that people will be using the nearby ballfields during rainy weather, which is the only time the plant will be in operation (about 60 times per year, during heavy rains).

93. Metro expects its proposal to convert the Alki treatment plant to a stormweather facility to cost \$8.1 million (1988 capital cost; present worth equals \$11 million). These figures do not include nonstormwater flow transfer costs of an estimated \$28.1 million, per DCLU estimate. The cost to the City of completing the yard/roof - sewer separation of the Alki area, one alternative to any Alki treatment facility, ranges to \$35 million. Lot-by-lot construction would be required at an estimated \$2000 cost per house. DCLU App., 3-15. DCLU made no projection of the impact on rates.

94. A second alternative to the Alki stormweather plant was developed by DCLU and described in Part 8 of the DCLU Report. This alternative would convey the storm flows from Alki to a Duwamish plant (secondary treatment or stormweather) with additional treatment capacity being added to the Duwamish plant. See DCLU Rep., 8-2; Ex. 34; DCLU Apps., 3D. Using Metro's current Alki Sewage flow projections (90 or 92 mgd), the increase in capital cost to accomplish this alternative would be approximately \$6 to 27 million more than the cost of converting the Alki plant to a stormweather plant. DCLU Apps., 3-31; Ex. 199; DCLU Rep., 8-5.

95. A variation of the DCLU alternative consists of a combination conveyance and storage system. Ex. 199, pp. 9 to 20. This alternative includes a conveyance system from Alki to the Duwamish constructed to handle peak flows of 50 mgd. Flows over 50 mgd would be temporarily stored in an underground storage facility built outside of the shoreline district and conveyed to a Duwamish plant for treatment following the storm. All base and stormflows would be treated. DCLU estimates that the cost of this combination conveyance/storage system would be \$12 million to \$25 million more than Metro's estimated cost of \$38.9 million for construction of an Alki stormweather plant and conveyance of base flows to West Point.

96. Both of the Alki alternatives would eliminate virtually all above ground facilities within the shoreline district and from the single-family zone. A pump station would remain at Alki for the purpose of conveying flows to the Duwamish under the alternative and variation presented by DCLU.

97. The transfer and storage alternatives to stormwater conversion of the Alki plant are not practical given their cost, environmental impacts and relative absence of public benefit. If, for example, a new Duwamish CSO plant would have to be constructed to treat transferred Alki stormwater, e.g. for the large Interbay, the representative site for a Duwamish CSO plant indicates a location in a Shoreline of Statewide Significance, namely, the wetlands of the Duwamish River. Metro projects that conveyance facilities required to transfer Alki stormwater to either a Duwamish secondary or a Duwamish CSO plant for treatment would be constructed under the West Waterway and within the East Waterway of the Duwamish River. Construction of additional conveyance facilities in and near the Duwamish River presents risks of encountering hazardous materials and resuspending contaminated sediments.

98. In Resolution 4780, the Metro Council adopted a 20-year CSO control plan that represented a reduction of approximately 62% in existing CSO's. The Department of Ecology advised Metro that it would not accept this level of reduction. The Department of Ecology requires that Metro achieve a 75% volume reduction in CSO's over the next 20 years and that Metro's 20-year plan include measures to control the Denny Way CSO and construction of a parallel Ft. Lawton tunnel.

99. Metro is developing a revised CSO plan to achieve 75% overall reduction in CSO's over the next 20 years. Metro's revised 75% CSO control plan will control Denny Way CSO's with partial separation projects. Metro's revised CSO control plan will not require construction of any new CSO treatment plants. Whether Metro will be required to reduce CSO's further at the conclusion of its 20-year revised plan is speculative.

100. In its supplemental planning for secondary facilities, Metro considered three levels of projected wastewater flows. Base flow, the highest of the three flow levels, assumes that per capita generation of wastewater will remain constant. Reduced flow level two, the lowest of the three flow levels, assumes that per capita wastewater flows will be significantly reduced in response to conservation measures, price increases and other factors. Reduced flow level two is about 13% lower than base flow from 2005 onward. This R-2 level corresponds to water use projections contained in the Seattle Water Department's 1985 Comprehensive Plan. Under the reduced flow scenario, no reduction is anticipated in the amount of waste per se going to the treatment plants. DCLU developed no reduced flow configuration for the large Duwamish configuration.

101. Seattle indoor residential water consumption is currently about 82 gallons per capita per day. Studies suggest that, with aggressive conservation measures, this figure can be reduced to 60 gallons per capita per day. Metro's base flow projection for residential flows is 60 gallons per capita per day.

102. Some residential water conservation can be achieved by implementing water conservation programs, by changing energy codes to require installation of more efficient water fixtures and by consumer response to rate increases. However, it is not established how much each of these components would contribute to the reduction of residential water consumption, or how the responses could be offset by countervailing phenomena. Metro estimates that infiltration and inflows account for a significant amount of current wastewater flows. Metro indicates that the Department of Ecology has recommended that Metro base the first phase of its capital construction program on base flows.

103. Factors tending to increase residential wastewater flows include rising incomes, installation of water-using devices such as dishwashers and garbage disposals, and declining household size. Also offsetting the reduced flow concept is that of infiltration into the system through water table leaks etc.

104. "Reduced-flow alternatives" constitute separate plan alternatives with variant plant elements, phasing and present worth costs. For example, DCLU indicates that "each reduced flow alternative also includes a contingency design plan, showing how it could be modified in the future...." DCLU Report, p. 3-12. The reduced-flow configurations include R-1 (West Point, Point Wells and Duwamish plants; Renton expansion); R-2 (West Point and Duwamish plants; Renton expansion); R-4 (West Point plant; Renton expansion); R-5I (Interbay plant; Renton expansion); and R-5S (Interbay, Duwamish and Richmond Beach plants; Renton expansion). DCLU Rep., 3-12 to 3-14. DCLU's witness testified that plant configurations designed to meet reduced flow levels can also accommodate base flows if necessary. Mayo, Tr. Tr. XIX-75; DCLU Rep., 3-12.

105. DCLU's Estimated Costs for 90% CSO Control 1986 - 2030 (Millions of 1988 Dollars), derived from the 1986 Metro CSO Plan, are as follows:

<u>Proposal</u>	<u>Capital Costs</u>	<u>1988 \$</u>	<u>Sum of Costs</u>	<u>1988 Present Worth</u>
<u>Proposal</u>	\$315.2			\$246.9
A-5D Large Duwamish	\$205.2			\$163.2
A-5I Large Interbay	\$236.2			\$191.7
A-5S Split Interbay/Duwamish	\$246.2			\$199.8

DCLU Report, p. 5D-8, adjusted.

106. DCLU's determination of feasibility was not dependent on the achievement of reduced flow for any of the alternatives. It found both base flow and reduced flow alternatives to be feasible under either base flow or reduced flow conditions. DCLU Rep., 6-16.

107. DCLU used Metro environmental documents as the basis for its analysis of the environmental impacts of the Proposal and the alternatives. DCLU Rep., 5C-1. For purposes of comparability, DCLU generally analyzed the technology and layout provided in these documents for the proposal and each alternative. DCLU Rep., 3-1.

108. DCLU's analysis of the proposal and the alternatives and Metro's analysis differed in several respects. First, DCLU compared the alternatives using 90% volume reduction level as the closest approximation for one CSO overflow per site per year. Second, DCLU analyzed both base flow and reduced-flow alternatives to assess the effects of planning for different levels of sewage flow. Third, DCLU included various considerations in its analysis, not used by Metro, "for the purpose of enhancing the comparability of the Proposal and the alternatives." DCLU Rep., 3-1; Ex. 15.

109. Both Metro and DCLU used capital cost estimates developed by Metro as the basis for evaluating the facilities in the Proposal and each of the alternatives. According to the American Association of Cost Engineers, a budget level estimate could be expected to give way to an ultimate cost range of +30 to - 15%. DCLU's view is that use of present worth is the appropriate economic measure for comparing utility alternatives at the plan level because this methodology allows the decision-maker to consider the differences between the alternatives without the effects of inflation and with consideration of the real world cost of capital. The present worth method of analysis is the method used by Seattle City Light, Bonneville Power Administration (BPA), Northwest Power Planning Council, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation and other agencies.

110. There were several differences in the method of economic analysis used by Metro and DCLU to compare the proposal and the alternatives. DCLU attempted a comparable on-line date (i.e., 1995) for the treatment plants in the proposal and each of the alternatives. Metro generally used a 1995 date for the West Point plant, 1993 for the Split Duwamish/Interbay plants and 1994 for the large Duwamish and large Interbay plants.

111. DCLU also differed with Metro in the consideration of an outfall for the large Duwamish. DCLU modified the proposed outfall depth of 600 feet, with three 76-inch lines (including CSO), to 300 feet with two 78-inch lines (including CSO) more in tandem with the West Point and Renton outfalls. The 300-foot outfall would be a greater depth than the West Point outfall (215 feet), but have flow velocities comparable to both the West Point and Renton outfalls. This modified outfall is technically feasible. DCLU estimates that the cost of the 300 foot depth outfall is \$15 million (\$10.8 million present worth) less than the 600 foot depth outfall proposed by Metro.

112. DCLU also added lidding, landscaping and other mitigation for West Point, Duwamish, Interbay and Alki.

113. No official standard exists for judging when sewer rates are high enough to cause economic hardship. However, the Environmental Protection Agency preliminary guidelines indicated that sewer rates equal to 1.75% of the City's median income could cause "economic hardship." DCLU Rep., 5D-27. Rates associated with the Proposal and the alternatives, assuming high-end costs, are all approximately 1/3 of the 1.75% amount. For example, in the aggregate the proposal would yield rates of roughly .48% of the 1.75%; 5I, .54%; A-5D, .56%; and A-59, .57%. DCLU Report, 5D-28. Several municipalities and other units have special rate

increased sewer rates.

114. As noted above Metro introduced information describing some predesign findings related to the proposal. Such preliminary findings showed, for example, that high purity oxygen is a preferable technology to the trickling filter/suspended growth technology used by Metro and DCLU for purposes of the environmental analysis; that the footprint of the West Point plant can be reduced from approximately 44 acres to 32 acres; that the existing primary clarifiers can be retained at a potential saving of as much as \$90 million; that beach access can be retained west of the project during construction; and that construction traffic can be reduced by the use of shuttle buses for workers. Metro indicated it is also considering the relocation of sludge processing to the Interbay or Duwamish area, and it is considering the use of a near-site hypochlorite manufacturing process which could eliminate the transfer of chlorine by truck onto the West Point site. Metro described other mitigation measures which would beautify and substantially obscure the West Point Site. These features would add to the overall cost of the Proposal. It is noted that none of these design changes and alternatives have been committed to by the Metro Council, and Metro has not amended its application to request a permit for construction of a plant with a footprint of a reduced size.

115. Metro has performed no predesign studies of the Interbay or Duwamish nodal areas which would identify opportunities to optimize the alternatives at those locations through reductions in cost and reductions in environmental impacts.

116. Interbay and Duwamish present opportunities to optimize those alternatives in some ways similar to West Point and in ways which are unique to the Interbay and Duwamish locations. The size of the footprints for the alternatives could be reduced substantially, e.g., the Large Interbay from 51 to 32 acres; and the Large Duwamish from 44 to 30 acres, depending in large measure on the technology selected. Ex. 199, p. 26. DCLU has not studied the opportunities for refining and optimizing the design of the alternatives at Interbay and Duwamish. DCLU has made no engineering review of the proposed West Point predesign changes. In the absence of a similar project level analysis for all alternatives sites, it is not known how the alternatives would compare with each other and with the proposal on the basis of environmental impacts and cost.

117. DCLU and applicant agree that Alternatives Cores one and three are inconsistent with the shoreline and single-family goals and policies. The Core 3 configuration includes a plant at West Point (112 mgd). The existing Alki and Richmond Beach plants would be converted to secondary use. Core 1 alternatives include New secondary plants at Point Wells (37 mgd) and in the Duwamish industrial area (56 mgd). The existing Renton plant would be expanded for 141 mgd.

### Conclusions

1. Section 24.60.610(A) of the Seattle Municipal Code prohibits expansion of existing sewage treatment plants in the Shoreline District

unless no feasible alternative(s) to expansion or installation at such locations exists. The determination as to feasibility shall be based upon the goals and policies of Resolution 25173 as amended, and a full consideration of environmental, social and economic impacts on the community.

2. Section 23.44.036(B) of the Seattle Municipal Code permits the expansion or reconfiguration of existing sewage treatment plants in single-family zones

if there is no feasible alternative location



in a zone where the use is permitted and the conditions imposed under subsections B3 and B4 are met.

Section 23.44.036(B)(2) requires the proponent to demonstrate the absence of a feasible alternative locative location in a zone where establishment of the use is permitted and provides as follows:

The Council's decision as to the feasibility of alternative locations(s) shall be based upon the Single Family Policies and a full consideration of the environmental, social and economic impacts on the community.

3. The Hearing Examiner concludes that an alternative nonshoreline, non-single family location should not be considered feasible if it cannot accommodate a sewage treatment plant equivalent to the one that is proposed to be expanded. "Equivalence" should include both technical sufficiency and physical capacity.

4. CSO issues are of very limited relevance to the "no feasible alternative" standard and the decision where secondary treatment facilities should be located.

5. For purposes of ascertaining the feasibility of an alternative, the Hearing Examiner declines to adopt or recommend a reduced flow level approach. While aggressive programs could curb water consumption, the Hearing Examiner is not persuaded that infiltration, increasing standards of living and other factors will offset conservation efforts. Nor should the possibility of additional hook-up fees, nonrenewal of a contract with a neighboring regional customer or other highly speculative possibilities be accorded substantial weight in the definite, long term question how alternatives should be analyzed and compared.

6. Cores 1, 2 and 3 all involve expansion or reconfiguration of sewage treatment plants located in the shoreline and in single-family zones. As such, they do not constitute feasible nonshoreline, non-single family alternative locations for such facilities and deserve no further discussion in this connection.

7. The Paschen Glacier Park alternative suggested by the Defense Fund was not evaluated by DCLU and is not reviewed de novo herein.

8. It is undisputed that West Point is the least costly of the proposals considered. Counsel for DCLU has noted that the Duwamish and Interbay alternatives to West Point are approximately "11-22% (1988 present worth)" more costly. The disagreement concerns the accuracy of estimates given by the respective parties and the weight to be accorded the ultimate cost.

9. It is also undisputed that utilizing the Interbay representative site alternative would probably lead to business and residential displacement and that the Duwamish alternative also has displacement and other negative socioeconomic impacts. DCLU's report reveals the Duwamish alternative to be \$173 million more expensive, to involve a new outfall and to require construction of an extensive new conveyance system through the City.

10. Given the fact that utility subsidy programs exist and are likely to continue, one could argue that the rate impact difference (DCLU projected \$10-13.44 per year) is only of moderate significance. However, translated to the public, utility consumers and members of the community whose resources will be tapped to meet these cost differences, the cost differences are very significant. Thus, if economic impact on the community were the sole criterion, there would be no feasible alternative to the operation of an existing, relatively isolated facility that has less substrata, utility relocation, conveyance line and other unknowns.

11. Seattle Municipal Code Section 23.44.036(B) and Section

24.60.610(A) require a "full consideration of environmental, social and economic impacts on the community." The Resolution 25173 goals and policies must be considered as well as the Single Family Policies.

12. In addition to its general cost benefits, Metro's West Point site is partly within the City shoreline district. It is relatively isolated and has direct access to wind and water current dispersion advantages. Changes to the core 4 proposal would likely result in a less obtrusive presence than currently exists. It is doubtful that the isolation provided by the bluff and the Discovery Park acreage could be replicated at either of the alternative sites. The West point proposal would displace no homes or businesses and would therefore create no direct loss of business revenue loss. Overall, the immediate environmental impacts are comparable to or less than the alternatives. Single family homes, for example, are closer to the Duwamish and Interbay representative sites than is the proposal site.

13. In applying the shoreline and single family feasibility tests, every element of the tests should be considered. In order to determine that an alternative is feasible, the decision-maker must find that it is acceptable when judged against the policies and impacts of the test; and that it can accomplish the (pollution control) objectives. Under the present regulatory scheme, it is not required that feasible alternatives be better (or cheaper) than the proposal in every respect.

14. State and City shoreline management policies encourage planning for and fostering of all reasonable and appropriate uses of the state's shorelines. The Shoreline Management Act functions to preserve the public's opportunity to enjoy the natural shoreline. As the Alki plant is removed from the beach and shoreline by a street and is upland from the shoreline, this SMA goal is of very limited applicability. Metro urges that since West Point's North Beach was altered, it is not "natural" and therefore does not fall squarely within the stated SMA goal.

15. The policies give priority to uses which are water-dependent, which preserve and enhance the public's opportunity to enjoy the shorelines and which minimize damage to the ecology and environment of the shoreline area. RCW 90.58.020. Sewage treatment plants, whether secondary treatment plants or stormweather plants, do not require a site in the state's shorelines in order to function, i.e., they are not water-dependent uses and they can operate effectively outside of the shoreline area to fully accomplish their intended purpose. (Outfalls are water-dependent.) Sewage treatment plants and stormweather facilities are not a preferred use of the City's shorelines when considered against the State Shoreline Management Act policies and the City's shoreline master program, as adopted and approved by the State Department of Ecology. The question of whether the shoreline should be considered "natural" is addressed by RCW 90.58.900. The SMA is to be "liberally construed to give full effect to the objectives and purposes for which it was enacted."

16. The Hearing Examiner concludes that expansion of the West Point facility would in some ways "enhance the public interest." Further, in its own unique way, the project is "consistent" with the control of pollution and prevention of damage to the natural environment. In general, however, relocation of the West Point operation would more clearly foster a reasonable and appropriate use of the shoreline area. Re-siting would allow future plant expansion in a properly zoned area that is not adjacent to unique park lands. Resiting therefore yields a long term vs. short term benefit consistent with SMA policy. Relocation would leave additional adjacent acreage to the shoreline and would thus tend to increase the degree of public access and recreational opportunities.

17. In addition to the foregoing, the Seattle Shoreline Program goals and policies would be more generally respected by a relocation of the West Point facility. Whether mitigated or not, the present treatment plant site fails to plan for future

the present treatment plant site fails to plan for future expansion needs that could be met in a non-park, non shoreline area. The present facility also is incompatible with the surrounding area and environment. It is not water dependent. Resiting would facilitate the relocation of this non-water dependent use.

18. Seattle Municipal Code Section 23.44.036(B) also requires consideration of the Single Family Policies. Codified at Seattle Municipal Code Section 23.16.002, the Single Family Policies tend to militate heavily against the Interbay alternative, but have limited application to the present West Point site. At Interbay housing units would be destroyed. No houses would be destroyed by the West Point expansion. One Single Family Policy Intent is to discourage the demolition of single-family residences and the displacement of residents. Resiting of the West Point facility would encourage no single-family rehabilitation nor in any way facilitate the provision of housing within West Point, Discovery Park or any other area of the City.

19. Further, regarding specific alternatives, the Duwamish is by DCLU's more conservative estimate some \$173 million more expensive. Nevertheless, under the present "no feasible alternative" test, which includes more than economic considerations, the Duwamish alternative is a feasible alternative to the proposal. It is consistent with state and City shoreline policies, even though Duwamish and Alki shorelines would be (temporarily) impacted. The Duwamish proposal would leave no treatment facility at West Point nor in any other shoreline area. Although not minor, the impacts of constructing conveyance and outfall facilities within and without shoreline areas will be temporary and can be further mitigated through the choice of construction techniques. Pursuit of the Duwamish alternative has some consistency with the City's Single Family Policies. The treatment facilities at West Point, located in a single-family "zone", would be removed and installation of new facilities and potential future expansion of such facilities directed to an area of the City's industrial zones and uses. Permit level conditions could be imposed to minimize traffic and other impacts on the Georgetown and other residential areas. The environmental impacts associated with this alternative, both construction and operational are not unusual for this type of facility. The street system can accommodate expected traffic flows without significant adverse impacts on residential streets or neighborhoods. Some of the environmental impacts, such as disturbance of toxic sediments, "replumbing the City" for roughly 16 miles to accommodate the conveyance system, and the construction under West Seattle present particular problems that deserve a most deliberate review.

20. The social and economic impacts of this alternative, although greater than the proposal in terms of displacement, relocation of businesses and sewer rates over the life of the plan, are not of such an extraordinary magnitude that they exceed the ordinance's elastic threshold of infeasibility. It should be emphasized however, that the social and economic impacts of this alternative are significant. Many South End residents feel that Seattle's South end already contains many highly visible public utilities and that the South End is "under seige." There are distinct air dispersion disadvantages to siting a plant in the Duwamish area. Substantially weighed against these considerations is the fact that the area is properly zoned for the use under consideration.

21. A large Interbay alternative would be consistent with State and City's shoreline policies. There would be no treatment facility at West Point nor in any other shoreline area. The alternative would require no significant new conveyance or outfall facilities within shoreline areas. It is feasible from the standpoint of outfall and conveyance line issues.

22. The Interbay alternative is also somewhat consistent with the City's Single-Family Policies. The treatment facilities

and installation of new facilities and potential future expansion of such facilities theoretically directed to an industrial area of the City. The environmental impacts associated with this alternative, both construction and operational, are not unusual for this type of facility, although the amount of excavation probably required (and shoring) may present special difficulties. The proximity and visibility of the Interbay industrial area to both Queen Anne and Magnolia would require careful planning, design and construction to mitigate the impacts of a major plant at this location. The Hearing Examiner is persuaded that the aesthetic impacts can be principally mitigated, although at substantial additional costs.

23. The Interbay and split alternatives conflict with the Single Family Policy thrust of preserving housing.

24. Further, construction of a large or split (38 acre) Interbay plant would probably require some rezoning of commercially zoned land or condemnation of Burlington Northern industrially zoned property. Burlington Northern has now intensified its development plan for its portion of the nodal area and presently indicates that less than half of its 10.57 acre parcel could be available for a sewage treatment plant in Interbay. Considering the social and economic costs inherent in a large or split Interbay proposal, the unresolved question of condemnation authority and the present zoning, Interbay is presently infeasible as an alternative. Section 23.44.036 requires consideration of a feasible alternative in a zone where the use is permitted. The Hearing Examiner reserves discussion on how this conclusion would be altered by rezones within the nodal area or by selection of specific alternative technology. The Hearing Examiner also notes that the split alternative would remove the existing facility from the single family and shoreline area, but at a extensive social and economic cost to two areas of the city.

25. With respect to the Alki proposal the present record also fails to indicate a feasible alternative. Metro proposes to convert and restrict the primary treatment plant to stormweather operation. This would entail construction of a pipeline system to transfer non-stormweather flow away from the facility to a West Point, Duwamish or other facility.

26. Alki has few if any of the special characteristics inherent to the West Point Discovery Park/West Point site although it is within the shoreline district. The Alki site is across Beach Drive from lands adjacent to Puget Sound. Its up-land location yields no direct impact on public opportunities to access or enjoy the shoreline.

27. In terms of social, economic and other impacts the Alki proposal will require acquisition or rezoning of no property, and generally will not require excavation in the street or on the beach. The new plant would only operate during rainy weather (approximately 60 times per year). Sludge truck traffic to and from the plant will be eliminated. Metro projects that transferring the 74 mgd of Alki stormwater elsewhere for treatment and disposal would cost \$90.5-140 million while conversion would estimate \$8.1 million (exclusive of "base" flow transfer costs). The estimate for the lot roof and yard drain separation and relocated contruction impact approximates \$35 million. Another alternative to the proposal for stormwater treatment on site is construction of storage tanks. Storage tanks could be economically impractical and may result in odor and other adverse impacts on the subject vicinity. While the shoreline and single family feasibility tests express a clear preference for nonshoreline and nonsingle family locations for sewage treatment facilities, these preferences must be weighed against and with full consideration of the above described and other environmental, social and economic impacts on the community.

28. Finally, it must be recognized that ultimate configuration, conveyance and other detail will have major implications

for all of the foregoing conclusions. There will be, for example, specific on-line, timing and other impacts related to conveyance lines and to the size of the plant that will ultimately receive the nonstormweather flows. It would therefore be appropriate to reexamine the Alki project in conjunction with the ultimate Council determination on the siting of a major secondary sewage treatment facility. It is noted that per Ordinance 113354 the burden of showing "no feasible alternative" on the proponent.

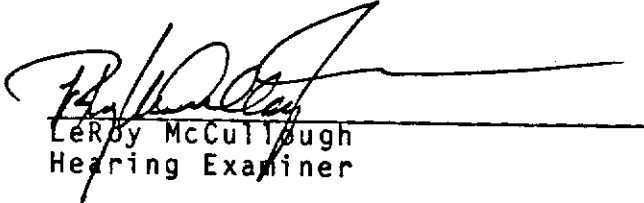
#### Recommendation

1. The Hearing Examiner recommends that the City Council deny Metro's plan shoreline permit application for the proposed West Point facilities because there is at least one feasible alternative to the West Point location.

2. The Hearing Examiner recommends that the City Council deny Metro's single-family council conditional use permit application for the proposed West Point facilities because there is at least one feasible alternative location for such facilities in a zone where such a use is permitted.

3. The Hearing Examiner recommends that the City Council approve Metro's plan shoreline permit application for the proposed stormweather facilities at Alki, contingent on facility consistency with the selected conveyance and secondary plant configurations as may be approved by the Council.

Entered this 30th day of November, 1987.

  
Leroy McCullough  
Hearing Examiner

#### REGARDING FURTHER CONSIDERATION

Pursuant to Seattle Municipal Code Section 23.76.054, as amended, any person substantially affected by a recommendation of the Hearing Examiner may submit a petition in writing to the City Council requesting further consideration. The petition must be submitted within fifteen days after the date of mailing the recommendation of the Hearing Examiner and addressed to: City Council, Urban Redevelopment Committee, Municipal Building, Seattle, Washington 98104. The request for further reconsideration shall clearly identify specific objections to the Hearing Examiner's recommendation, facts missing from the record, and the relief sought.

Pursuant to Seattle Municipal Code Section 23.76.054(D), if there is no request for further consideration Council action shall be based on the record established by the Hearing Examiner.

The City Council Urban Redevelopment Committee should be consulted for further information on the Council review process.

FINDINGS AND RECOMMENDATION

OF THE HEARING EXAMINER FOR THE CITY OF SEATTLE

In the Matter of the Application of

THE MUNICIPALITY OF METROPOLITAN  
SEATTLE (METRO)

DCLU PROJECT NOS.  
8606481 AND 8607443

for Council Conditional Use  
Approval to expand the West  
Point and Alki Sewage Treatment  
Plants

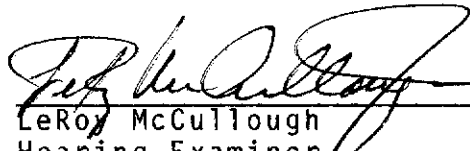
ORDER ON RECOMMENDATION

1. A Recommendation concerning applications 8606841 and 8607443 was issued by the undersigned on November 30, 1987.

2. Regarding Metro's application to convert its Alki treatment plant to a stormweather facility, application number 8607443, the final page of the Hearing Examiner Recommendation, numbered paragraph 3, is hereby revised for clarification to read as follows:

The Hearing Examiner recommends that the City Council approve Metro's plan shoreline and single family council conditional use permit application for the proposed stormweather facilities at Alki, contingent on facility consistency with the selected conveyance and secondary plant configurations as may be approved by the Council.

Entered this 2nd day of December, 1987.

  
Leroy McCullough  
Hearing Examiner  
Office of Hearing Examiner  
400 Yesler Building, 5th Floor  
Seattle, Washington 98104  
Telephone: (206) 684-0521

FINDINGS AND RECOMMENDATION

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CORRECTIVE ORDER ON  
RECOMMENDATION AND ORDER  
CONFIRMING EXHIBITS

I

A. A Recommendation concerning applications 8606841 and 8607443 was issued by the undersigned on November 30, 1987.

B. Regarding Metro's application to convert its Alki treatment plant to a stormweather facility, application number 8607443, the final page of the Hearing Examiner Recommendation, numbered paragraph 3, was revised for clarification by Order entered December 2, 1987.

C. Regarding said Recommendation, further revisions of a clerical nature are hereby entered as follows:

1. Finding 67, p. 9, should read as follows:

Metro also projects that locating a split sewage treatment plant at the Interbay and Duwamish representative sites would result in a net loss of \$22.768 million in assessed valuation and that the present value of the property tax revenues lost through 2030, assuming no increase in either valuation or millage rate, would be \$7.022 million.

2. In Findings 75, p. 11, the last sentence fragment should be deleted.

3. Conclusion 5, p. 17, second sentence should read that:

While aggressive programs could curb water consumption, the Hearing Examiner is not persuaded that infiltration, increasing standards of living and other factors will not offset conservation efforts.

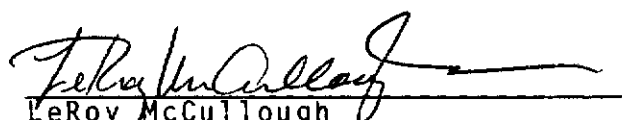
II

The public file forwarded to the City Clerk on November 30, 1987 did not include large Exhibits 184 and 185, subsequently provided the Office of Hearing Examiner.

Having reviewed the Exhibits and the accompanying 8 1/2 x 11 reductions thereof,

It is Ordered that the Exhibits and reductions are properly included within the record of this cause.

Entered this 11th day of December, 1987.

  
LeRoy McCullough  
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Telephone: (206) 684-0521