PLANNING COMMISSION AGENDA

October 12, 2010, 7:00 p.m.
Multipurpose Room/Council Chamber
Burien City Hall, 400 SW 152nd Street
Burien, Washington 98166

This meeting can be watched live on Burien Cable Channel 21 or streaming live and archived video on www.burienmedia.org

I. ROLL CALL

II. AGENDA CONFIRMATION

III. PUBLIC COMMENT Public comment will be accepted on topics not scheduled for a public hearing.

IV. APPROVAL OF MINUTES
a. September 28, 2010

V. PUBLIC HEARING
a. 2010 Proposed Comprehensive Plan Amendments
- 2010-1 Northeast Redevelopment Area (NERA): Repeal all or part of "Property Acquisition Areas" (Goal PA-1 and Policies PA 1.1-PA 1.9) on pages 2-36 and 2-37
- 2010-2 Chestine and Robert Edgar for Lake Burien Neighborhood: Comprehensive Plan Map Amendment and Rezone Request

VI. OLD BUSINESS
a. 2010 Proposed Comprehensive Plan Amendments, Discussion and Possible Recommendation

VII. NEW BUSINESS

VIII. PLANNING COMMISSION COMMUNICATIONS

IX. DIRECTOR'S REPORT

X. ADJOURNMENT

Future Agendas (Tentative)
October 26:
- 2010 Proposed Comprehensive Plan Amendments, Discussion and Recommendation (if needed)
- El Dorado West Retirement Rezone Request, Introduction and Discussion

Planning Commissioners

	Jim Clingan (Chair)	
Nancy Tosta (Vice Chair)	Greg Duff	Joe Fitzgibbon
Ray Helms	Rachel Pizarro	John Upthegrove

City of Burien

BURIEN PLANNING COMMISSION
REGULAR MEETING
September 28, 2010
7:00 p.m.
Multipurpose Room/Council Chambers
MINUTES

To hear the Planning Commission's full discussion of a specific topic or the complete meeting, the following resources are available:

- *Watch the video-stream available on the City website, www.burienwa.gov*
- *Check out a DVD of the Council Meeting from the Burien Library*
- *Order a DVD of the meeting from the City Clerk, (206) 241-4647*

CALL TO ORDER

Chair Joe Fitzgibbon called the September 28, 2010, meeting of the Burien Planning Commission to order at 7 p.m.

ROLL CALL

Present: Joe Fitzgibbon, chair; Jim Clingan, Ray Helms, Nancy Tosta, John Upthegrove

Absent: Greg Duff, Rachel Pizzaro

Administrative staff present: Chip Davis and Stephanie Jewett, planners

AGENDA CONFIRMATION

Direction/Action
Motion was made by Commissioner Clingan, seconded by Commissioner Tosta, and passed unanimously to approve the agenda for the September 28, 2010, meeting.

PUBLIC COMMENT

Sandy Gledhill-Young, 1936 SW 168th St., Burien
Ms. Gledhill-Young, noting that she was representing five generations of her family, asked the commissioners to grant the Lake Burien applicants' Comprehensive Plan amendment.

Commissioner Pizzaro arrived at 7:03 p.m.

Chestine Edgar, 1811 SW 152nd Street, Burien
Ms. Edgar instructed the commissioners to decide whether the Lake Burien neighborhood best meets the criteria for the low density Comprehensive Plan designation or the moderate density designation.

Bob Edgar, 12674 Shorewood Dr. SW, Burien
Mr. Edgar stated that the City had three and a half months to prepare its staff report on his proposed Comprehensive Plan amendment but he received the staff report the Friday before the meeting and only had three and a half days to prepare a response.

Robert Howell, 15240 20th Ave SW, Burien
Mr. Howell stated that waterfront property should be viewed differently from other properties and the density of surrounding areas should not be considered when determining the density of the neighborhood surrounding Lake Burien.

DRAFT

Greg Anderson, 15451 11th Ave SW, Burien
Mr. Anderson said the City's Critical Areas Map shows the locations of potential critical areas, but the actual presence or absence of a critical area supersedes the map.

APPROVAL OF MINUTES

June 8, 2010

Direction/Action

Motion was made by Commissioner Clingan and passed unanimously to approve the June 8, 2010, meeting minutes.

OLD BUSINESS

2010 Proposed Comprehensive Plan Amendments, Introduction and Discussion

Chip Davis introduced the two proposed Comprehensive Plan amendments on the 2010:

- Proposed Comprehensive Plan Amendment #2010-1 Northeast Redevelopment Area (NERA), to repeal all or part of "Property Acquisition Areas" (Goal PA-1 and Policies Pa1.1-PA 1.9) on pages2-36 and 2-37
- Proposed Comprehensive Plan Amendment #2010-2 Chestine and Robert Edgar for Lake Burien Neighborhood, Comprehensive Plan map amendment and rezone request.

Follow-up

The commission will conduct a public hearing on the proposed amendments at its October 26th meeting.

NEW BUSINESS

Election of Chair and Vice-chair

Commissioner Upthegrove nominated Commissioner Clingan for chair; Commissioner Fitzgibbon seconded. Commissioner Clingan was elected chair by unanimous vote.

Commissioner Upthegrove nominated Commissioner Tosta for vice-chair; Commissioner Clingan seconded. Commissioner Tosta was elected vice chair by unanimous vote.

PLANNING COMMISSION COMMUNICATIONS

Commissioner Upthegrove thanked Commissioner Fitzgibbon for his service as chair of the commission over the past year.

Commissioner Tosta asked if there is a specific avenue for discussing the fees charged to people interacting with the City.

DIRECTOR'S REPORT

None.

ADJOURNMENT

Direction/Action

MOTION to adjourn the meeting was made by Commissioner Pizarro. Meeting adjourned at 8:34 p.m.

APPROVED:_____

_____

Jim Clingan, chair
Planning Commission

DRAFT

CITY OF BURIEN, WASHINGTON
MEMORANDUM

DATE: October 6, 2010

TO: Planning Commission

FROM: Charles W. "Chip" Davis, AICP, Planner

SUBJECT: Public Hearing on Comprehensive Plan Amendments.

PURPOSE/REQUIRED ACTION:

This purpose of this agenda item is for the Planning Commission to hold a public hearing regarding the 2010 Comprehensive Plan amendments. No action is required; however following the public hearing the Planning Commission may make a recommendation to the City Council if so inclined.

BACKGROUND:

The Planning Commission recommended the 2010 docket to the City Council on June 8, 2010. The City Council adopted the 2010 Comprehensive Plan Docket on July 19, 2010.

On September 28th the Planning Commission received a presentation from staff which included a brief summary of each item accompanied by recommendations for each of the Comprehensive Plan amendments. The commission also received information for Amendment 2010-2 from the applicant and public comments regarding the proposed Comprehensive Plan Map amendment and rezone request.

Commissioners should bring their materials and handouts received at the September 28th meeting for use at this meeting. If you no longer have them please contact me **before** the meeting so I can prepare one for your use.

COMPREHENSIVE PLAN AMENDMENTS

Attached you will find a staff recommendation for each of the proposed Comprehensive Plan amendments that was provided in your September 28, 2010 meeting packet. The recommendation reports include a brief description of the amendments and an analysis of the applicable review criteria.

The City has not received any written public comments, other than the ones received at your last meeting, by the time this memo was being prepared. If written comments are received, they will be provided to you at the meeting.

NEXT STEPS

Following the public hearing on the 2010 Comprehensive Plan docket items the Commission may choose to take action or defer action until your next scheduled meeting on October 26, 2010.

Should the Commission desire to take action on any or all of the 2010 Comprehensive Plan amendments, staff recommends the Planning Commission make a motion to recommend to the City Council approval or denial of each item. Following your discussion the Commission may:

a. Move to adopt the staff recommendation as presented; or

b. Make modifications to the recommendation and outline the findings and conclusions in support of the modifications; or

c. Move to deny the proposed amendments.

Staff recommends the Planning Commission make a motion for each of the proposed amendment recommendation then discuss and make a recommendation to the City Council.

Suggested Motion: *I move that the Planning Commission recommend to the Burien City Council approval of Comprehensive Plan Reference number _____ as set forth in attachment _____ of the staff recommendation report.*

If you have any questions before the meeting, please contact me at (206) 248-5501 or by e-mail at chipd@ci.burien.wa.us.

Attachments: Staff Recommendations

1. **2010-1, Property Acquisition Areas Goal and Policy Text Amendment**
2. **2010-2, Lake Burien Neighborhood Plan Map Amendment and Rezone Request**

CITY OF BURIEN
Dept. of Community Development
400 SW 152nd Street, Suite 300
Burien, WA 98166
(206) 248-5510

2010 Comprehensive Plan Text Amendment

AMENDMENT REFERENCE NUMBER: 2010-1

APPLICANT(S): City of Burien

LOCATION: Comprehensive Plan Text Amendment

REQUEST:

Repeal all or part of "Property Acquisition Areas" (Goal PA-1 and Policies PA 1.1 – PA 1.9 on pages 2-36 and 2-37 of the Burien Comprehensive Plan.

TAX PARCEL NUMBER(S): Not applicable

STAFF RECOMMENDATION:

Repeal all of Goal PA-1 Property Acquisition Areas and Policies PA 1.1 – PA 1.9 as set forth in Attachment 1.

FINDINGS

HISTORY:

In 1995, the Burien City Council adopted Ordinance No. 133 which established Chapter 18.130 of the interim zoning code to regulate property acquisition by public entities. The newly established chapter was directed primarily at airport affected properties in the northeast portion of Burien which were being acquired by the Port of Seattle.

In 1997, the City's initial Comprehensive Plan recognized the impact of airport operations on the northeast portion of Burien. The Plan created the "Northeast Special Planning Area" to provide policy guidance for future redevelopment to airport-compatible uses.

In 2001-2003, the City created a "Joint Advisory Committee" of interested area residents, property owners, Port of Seattle and business interests to create a more specific plan for facilitating such redevelopment in the newly named "Northeast Redevelopment Area" (NERA). Following preparation of a Supplemental Environmental Impact Statement (SEIS), the City Council adopted new Comprehensive Plan policies and zoning regulations for "Special Planning Area 4" (SPA-4). The new SPA-4 was designed to encourage redevelopment of the entire NERA with business park uses. The Council established a 2 acre minimum parcel size for redevelopment and prohibited new residential uses.

Since 2003, SeaTac Airport's third runway opened, and the economy entered a recession and with little redevelopment over the intervening years, the City Council authorized a new effort to redefine the NERA which culminated in 2009 with the adoption of Ordinance No. 529. The adopted amendments encourages creation of an airport-compatible business park in a new "Airport Industrial" (AI) zoning designation, with new residential uses and small businesses allowed in a new "Professional-Residential" (PR) zoning designation in the northwest part of the area along 8th Avenue South. The amendment also eliminated the 2 acre minimum required for redevelopment and allows auto sales and retail uses in the southern portion of the AI zoned area.

Ordinance No. 529 also repealed BMC 18.130 providing planning and zoning guidance for property acquisition by public entities. The language in Comprehensive Plan Goal PA.1 mirrors that language which was eliminated from the Burien Zoning Ordinance by Ordinance No. 529 and adoption of the proposed Comprehensive Plan amendment would ensure the two documents are consistent.

REVIEW OF CRITERIA FOR COMPREHENSIVE PLAN AMENDMENT

Zoning Code section 19.65.095.4 contains the criteria for review of a proposed Comprehensive Plan amendment. To be approved, the proposed amendment must meet all of the following criteria:

A. The request has been filed in a timely manner.

The request to amend the Comprehensive Plan for elimination of Comprehensive Plan Goal PA.1 and Plan Policies PA 1.1 – PA 1.9 was made prior to June 1, 2010, as required in BMC 19.65.095.

B. There is a public need for the proposed amendment.

The public need for the amendment is to complete land use actions which were initiated by Ordinance No. 529 to provide for the orderly transition of land uses in the Northeast Redevelopment Area (NERA) and ensure the Comprehensive Plan and Zoning Ordinance are consistent with one another.

C. The proposed amendment is the best means for meeting the identified public need.

The proposed amendment will eliminate language in the Comprehensive Plan which has been removed from the Zoning Ordinance by the Burien City Council and will ensure consistency between the two documents.

D. The proposed amendment is consistent with the overall intent of the goals and policies of the Burien Comprehensive Plan, Growth Management Act and Countywide Planning Policies; and

Approval of the proposed amendment will ensure consistency between the goals and policies of the Burien Comprehensive Plan and Zoning Ordinance in conformance with the stated intent of the Growth Management Act requiring consistency.

There are no applicable policies in the King County Countywide Planning Policies relating to the proposed amendment.

E. The proposed amendment will result in a net benefit to the community.

The proposed amendments will facilitate redevelopment of land impacted by airport operations, providing additional revenues to the community and more flexibility for property owners in the area.

F. The revised Comprehensive Plan will be internally consistent.

The proposed amendments will be consistent with the remaining portions of the Comprehensive Plan.

G. The capability of the land can support the projected land use.

Approval of the proposed amendment will not impact the ability of the land to support projected land use.

H. Adequate public facility capacity to support the projected land use exists or can be provided by the property owner(s) requesting the amendment, or can be cost-effectively provided by the City or other public agency.

Approval of the proposed amendment will not impact public facility capacities.

I. The proposed amendment will be compatible with nearby uses.

NERA development standards are already in place as a result of Ordinance No. 529, and will result in adequate protections for publically acquired properties.

J. The proposed amendment would not result in the loss of capacity to meet other needed land uses, such as housing.

Approval of the proposed amendment will not impact the capacity to meet other needed land uses, such as housing.

K. For a Comprehensive Plan map change, the applicable designation criteria are met and either of the following is met:

i. Conditions have so markedly changed since the property was given its present Comprehensive Plan designation that the current designation is no longer appropriate;

ii. The map change will correct a Comprehensive Plan designation that was inappropriate when established.

Not Applicable. No change is proposed for the Comprehensive Plan map.

ATTACHMENTS

1—Proposed Comprehensive Plan Text Amendments
2—Eliminated Chapter 18.130 Property Acquisition by Public Entities

City of Burien
Comprehensive Plan Text Amendment

~~**Property Acquisition Areas**~~

~~**Goal PA.1**~~

~~***Continue to maintain control over land use within the City in order to prevent degradation of economic vitality, property values, essential infrastructure and the natural environment.***~~

~~Pol. PA 1.1 All land acquired within the City for public purposes by public entities is subject to the City's zoning and planning jurisdiction and shall be developed in a manner consistent with City regulations (planning, zoning, development standards, health, and safety requirements) to the extent allowed by law.~~

~~Pol. PA 1.2 Except as provided by state law, including RCW 36.70A.200, all land acquired within the City for public purposes by public entities shall be designated for use as open space land or for public facilities designed to benefit the City and its residents (e.g. fire station, school building) and shall be subject to the zoning requirements applicable to open space and or public facilities. The open space land use and open space zoning designation shall allow only parks, recreational, and open space areas, or other public land uses.~~

~~Pol. PA 1.3 Except to the extent otherwise provided in state law, property within the City acquired for public purposes by public entities may not be used for new commercial activities, unless the City makes a finding that such land uses are of value to the City and should be permitted. All commercial land uses of property shall be subject to City land use regulations and shall be restricted in accordance with the City's land use plans, zoning ordinances and development regulations to the extent allowed by law.~~

~~Pol. PA 1.4 Modification, demolition, and relocation of buildings and structures on land acquired within the City for public purposes by public entities shall require City approval and permits to the extent allowed by law.~~

~~Pol. PA 1.5 The City Department of Community Development shall adopt and implement permitting procedures for building, health, and safety regulations to be administered by the City.~~

~~Pol. PA 1.6 Public entities acquiring areas within the City for public purposes shall perform a SEPA environmental checklist and an environmental survey to investigate soil and site contamination before the City will allow site preparation, construction or demolition activities. All identified soil and site contamination shall be remediated as a condition of site modification.~~

~~Pol. PA 1.7 Any site development activity on land acquired within the City for public purposes by public entities shall meet City zoning regulations.~~

~~Pol. PA 1.8 To the extent allowed by law, the City shall retain full authority over the management, operation, and maintenance of streets and street right of ways in land acquired within the City for public purposes by public entities.~~

~~Pol. PA 1.9 The City shall develop a permit process whereby public streets may be vacated.~~

City of Burien
Zoning Ordinance Text Removed by Ordinance No. 529

Chapter 18.130
PROPERTY ACQUISITION BY PUBLIC ENTITIES
Sections:
18.130.010 Planning and zoning jurisdiction on lands acquired by public entities.
18.130.020 Limits on use of land acquired by public entities.
18.130.030 Requirements for development on lands acquired by public entities.
18.130.040 Management of streets and street rights-of-way within and adjacent to land acquired by public entities.

18.130.010 Planning and zoning jurisdiction on lands acquired by public entities.
(1) All land acquired within the city of Burien for public purposes by public entities is subject to the city's zoning and planning jurisdiction.
(2) All land acquired within the city of Burien for public purposes by public entities shall be developed in a manner consistent with city planning, zoning, development, health, and safety requirements. [Ord. 133 § 1, 1995]

18.130.020 Limits on use of land acquired by public entities.
(1) Except to the extent otherwise provided in state law, all land acquired within the city of Burien for public purposes by public entities shall be designated for use as parks and recreation land or for community facilities designed to benefit the city and its residents (e.g. fire station, school building) and shall be subject to the zoning requirements applicable to parks and recreation and/or public facilities. The open space land use and open space zoning designation shall allow only parks, recreational areas, or other public land uses.
(2) Except to the extent otherwise provided in state law, property within the city of Burien acquired for public purposes by public entities may not be used for new commercial activities, unless the city makes a finding that such land uses are of value to the city and should be permitted. All commercial land uses of property shall be subject to city land use regulations and shall be restricted in accordance with the city's land use plans, zoning ordinances and development regulations.
(3) Modification, demolition, and relocation of buildings and structures on land acquired within the city of Burien for public purposes by public entities shall require city approval and permits.
(4) The city of Burien shall adopt and implement permitting procedures for building, health, and safety regulations. [Ord. 133 § 1, 1995]

18.130.030 Requirements for development on lands acquired by public entities.
(1) Public entities acquiring areas within the city of Burien for public purposes shall perform a SEPA environmental checklist and an environmental survey to investigate soil and site contamination before the city of Burien will allow site preparation, construction or demolition activities. All identified soil and site contamination shall be remediated as a condition of site modification.
(2) Any site development activity on land acquired within the city of Burien for public purposes by public entities shall meet city of Burien zoning regulations. [Ord. 133 § 1, 1995]

18.130.040 Management of streets and street rights-of-way within and adjacent to land acquired by public entities.
The city shall retain full authority over the management, operation, and maintenance of streets and street rights-of-way in land acquired within the city of Burien for public purposes by public entities. [Ord. 133 § 1, 1995]

CITY OF BURIEN
Department of Community Development
400 SW 152nd Street, Suite 300
Burien, WA 98166
(206) 248-5510

2010 Comprehensive Plan Amendment and Rezone Request

AMENDMENT REFERENCE NUMBER

2010-2

APPLICANT

Chestine and Robert Edgar for Lake Burien Neighborhood

TAX PARCEL NUMBER

Various (See Vicinity Map)

REQUESTS

1. Change Comprehensive Plan designation of Lake Burien Neighborhood, as defined by applicant, from Moderate Density Single-Family Residential to Low Density Single-Family Residential.
2. Rezone Lake Burien Neighborhood, as defined by applicant, from RS-7,200 (Residential Single-Family) to RS-12,000 (Residential Single-Family).

STAFF RECOMMENDATIONS

1. Deny Comprehensive Plan designation change of Lake Burien Neighborhood, as defined by applicant, from Moderate Density Single-Family Residential to Low Density Single-Family Residential.
2. Deny rezone of Lake Burien Neighborhood, as defined by applicant, from RS-7,200 (Residential Single-Family) to RS-12,000 (Residential Single-Family).

FINDINGS

HISTORY

Comprehensive Plan Land Use Designations:

1993: The City of Burien Interim Land Use Plan and Map (Ordinance 27) designated the subject properties as Single Family (RS-7,200).

1997: The City of Burien Comprehensive Plan Map designated the subject properties as Single-Family (3 units per acre).

1999: The Burien Comprehensive Plan map designated the subject properties as Moderate Density Single-Family (5 – 6 units per acre).

Zoning Designations:

1981: The King County Zoning Map designated the subject parcels RS-7,200 Single-Family Residential.

1994 - Ordinance 87 map attachment shows the subject parcels zoned R-6 Single-Family Residential (Six units per acre).

1997 - Ordinance 252 map attachment shows the subject parcels zoned RS-7,200 Single-Family Residential.

1999 - Ordinance 264 map attachment shows the subject parcels zoned RS-7,200 Residential Single-Family.

CURRENT LAND USE: Single-family residences are the predominant land use.

ADJACENT COMPREHENSIVE PLAN/ZONING DESIGNATIONS

Direction	Comp. Plan Designation	Zone	Current Uses
North	Moderate Density Residential Neighborhood	RS-7,200 (Single-Family Residential)	Single-Family Residences
Northwest	Neighborhood Commercial and Low Density Multi-Family Residential Neighborhood	CN (Neighborhood Center) and RM-12 (Multi-Family Residential)	Neighborhood Commercial and Multi-Family Residences
South	Moderate Density Residential Neighborhood	RS-7,200 (Single-Family Residential)	Single-Family Residences
West	Low Density Residential Neighborhood	RS-12,000 (Single-Family Residential)	Single-Family Residences and Private Elementary School
East	Special Planning Area 2 (Ruth Dykeman Children's Center) and High Density Multi-Family Neighborhood	Special Planning Area 2 (Ruth Dykeman Children's Center) and RM-18 Residential Multi-Family	Juvenile Treatment Facility and Multi-Family Residences

DISCUSSION

The current Comprehensive Plan and Zoning designations for the Lake Burien Neighborhood, as defined by the applicant (see Attachment 3), allow for single-family uses with minimum lot sizes of

7,200 square feet. Of the approximately 135 lots, the majority of the lots are developed with single-family residences (see Attachments 1 and 2). The applicant indicates that Lake Burien is a critical area and warrants extra protection a more environmentally compatible comprehensive plan map designation. The applicant also contends that there is a conflict between the comprehensive plan text and map for the area surrounding Lake Burien. The requested Comprehensive Plan amendment and rezone request from Moderate Density Residential to Low Density Residential and from RS-7,200 Single-Family Residential to RS-12,000 Single-Family Residential is proposed to address both of these concerns.

The area surrounding Lake Burien has been delineated as a moderate density residential area since the incorporation of the City of Burien. With the exception of a brief period in 1997, the zoning designation for the area has been 6-units per acre since 1981 when King County controlled the zoning. The overall density of development in the area is more reflective of the Moderate Density Residential Neighborhood platted lot pattern of five to six units per acre and exceeds the Low Density Residential Neighborhood pattern of four units per acre or less. There is no apparent conflict between the text and the plan map in this regard.

In regard to the protection of critical areas, the requested change would have far less effect on generation of surface water runoff and other aspects for protection of water quality. Regulations are already in place, as part of the Critical Areas portion of the zoning code or targeted low impact development measures could be pursued through the permitting process to better achieve environmental protection. The requested change would impact only the relatively small number of lots that could be developed in the future and the difference in maximum impervious surface coverage and other development standards in the RS-7,200 and RS-12,000 could create non-conforming properties with regard to impervious surface coverage. There are provisions in the zoning code to address lots which exceed this development standard.

REVIEW OF CRITERIA FOR COMPREHENSIVE PLAN AMENDMENT

Zoning Code section 19.65.095.4 contains the criteria for review of a proposed Comprehensive Plan amendment. To be approved, the proposed amendment **must meet all of the following criteria** (shown in bold italics, followed by staff response):

A. The request has been filed in a timely manner.

The request was made by a resident of the area under consideration. The request was received by the City of Burien on June 1, 2010 consistent with the June 1, 2010 deadline date, as required in BMC 19.65.095.

B. There is a public need for the proposed amendment.

It has not been adequately demonstrated that the current map designation of the area for Moderate Density Residential Development is in conflict with the Comprehensive Plan text. Additionally, it has not been demonstrated that the requested change would more effectively address the public need than could be addressed using existing Critical Area protective regulations based on existing policies in the Comprehensive Plan which are related to environmental protection.

C. The proposed amendment is the best means for meeting the identified public need.

The proposed amendment is not the best means for addressing the environmental issues for the subject area properties surrounding Lake Burien. There are better means such as Critical Area regulations, storm water regulations and targeted low impact development measures implemented during the permitting process would be more effective.

D. The proposed amendment is consistent with the overall intent of the goals and policies of the Burien Comprehensive Plan, Growth Management Act and Countywide Planning Policies.

As stated in the Burien Comprehensive Plan (Policy RE 1.5), the intent of the Low Density Residential Neighborhood Designation is to provide for low density residential development. Development in this designation includes existing neighborhoods that are zoned for four units per acre or less.

Properties designated Low Density Residential neighborhood should reflect the following criteria (shown in italics, followed by staff response):

1. The area is already generally characterized by single family residential development at four units per acre or less; and

The neighborhood is generally characterized by residential development of greater than four units per acre.

2. Relative to other residential areas within the City, the area is characterized by lower intensity development as shown on Map LU-2 (page 2-3).

The neighborhood is designated for suburban intensity development as shown on Map LU-2.

3. The land is designated as a potential landslide hazard area, steep slope area, or wetland on the City of Burien's Critical Area Map,

A portion of the neighborhood immediately adjacent to the lake is designated wetland on the Critical Areas Map.

4. The existing and planned public facilities for the area cannot adequately support a higher density.

There are sufficient existing and planned public facilities to support the current density.

5. The area is subject to existing impacts from high levels of airport-related noise.

The area is subject to airport-related noise but is not subject to high levels of airport-related noise.

The area subject to the requested amendment is <u>more</u> reflective of its current designation when one reviews the criteria in Policy RE 1.6, Moderate Density Residential Neighborhood. This designation is characterized by single family residential uses at greater than four units per acre,

existing public facilities adequate to support residential development at current density, does not have significant amounts of critical areas and if located outside the area designated as Urban, is limited to five units per acre.

E. The proposed amendment will result in a net benefit to the community.

The applicant has not demonstrated that the proposed amendment will result in a net benefit to the community from increased protection of water quality and critical areas as more targeted and efficient measures are already in place as a result of other Comprehensive Plan policies, Critical Area and storm water regulations.

F. The revised Comprehensive Plan will be internally consistent.

The applicant has not demonstrated any existing inconsistency in the Comprehensive plan that would warrant the proposed amendment and approval of the proposed amendment would be inconsistent with existing policies.

G. The capability of the land can support the projected land use.

The proposed amendment, contrary to the applicant's claim, will not have an impact on existing density and since the benefits of changing the designation from moderate to low density will be minimal the capability of the land to support the projected land use classification will not be appreciably affected.

H. Adequate public facility capacity to support the projected land use exists, or, can be provided by the property owner(s) requesting the amendment, or, can be cost-effectively provided by the City or other public agency.

Adequate public facility capacity exists to support the requested amendment.

I. The proposed amendment will be compatible with nearby uses.

The proposed amendment will be compatible with the properties located on a small portion of the north boundary and a small portion of the west boundary of the subject area. The proposed amendment will not necessarily be compatible with properties located on a portion of the west boundary that are designated Multi-Family and Neighborhood Commercial and on a portion on the east boundary that are designated Special Planning Area 2 and Multi-Family.

J. The proposed amendment would not result in the loss of capacity to meet other needed land uses, such as housing.

The proposed amendment would result in the loss of capacity to meet other needed land uses such as housing, as the applicant acknowledges in the application. Measures cited by the applicant, such as transfer of development rights, are not currently included in the Comprehensive Plan and could not be used to mitigate this impact. The shifting of responsibility for meeting housing capacity requirements cannot be accomplished through the proposed amendment.

K. For a Comprehensive Plan map change, the applicable designation criteria are met and either of the following is met:

i. Conditions have so markedly changed since the property was given its present Comprehensive Plan designation that the current designation is no longer appropriate; or,

ii. The map change will correct a Comprehensive Plan designation that was inappropriate when established.

The applicant has not demonstrated that conditions have so markedly changed since the previous designation that the current designation is no longer appropriate or that the map change is required to correct a designation that was inappropriate when established. The existing designation as Moderate Density Residential Neighborhood was established as a result of a public planning process and has been in place since Burien's incorporation in 1993.

REVIEW OF CRITERIA FOR REZONE

Zoning Code section 19.65.090.3 contains the criteria for review of a proposed rezone. To be approved, the proposed amendment **must meet all of the following criteria** (shown in bold italics, followed by staff response):

A. The rezone is consistent with the Comprehensive Plan.

The proposed rezone to RS-12,000 Single-Family Residential would be consistent with the proposed Comprehensive Plan if the Comprehensive Plan designation is changed. Staff is recommending that the Comprehensive Plan change be denied (see discussion above).

B. The rezone bears a substantial relation to the public health, safety or welfare.

The rezone would not provide significant protection for critical areas in regard to water quality, given the relatively minor difference in impervious surface coverage requirements as a result of the requested rezone. More effective avenues already exist for addressing critical area protection and surface water impacts on Lake Burien (see discussion above). Consequently, the rezone will not significantly contribute to the public's health, safety and welfare.

C. The rezone will not be materially detrimental to uses or property in the immediate vicinity of the property.

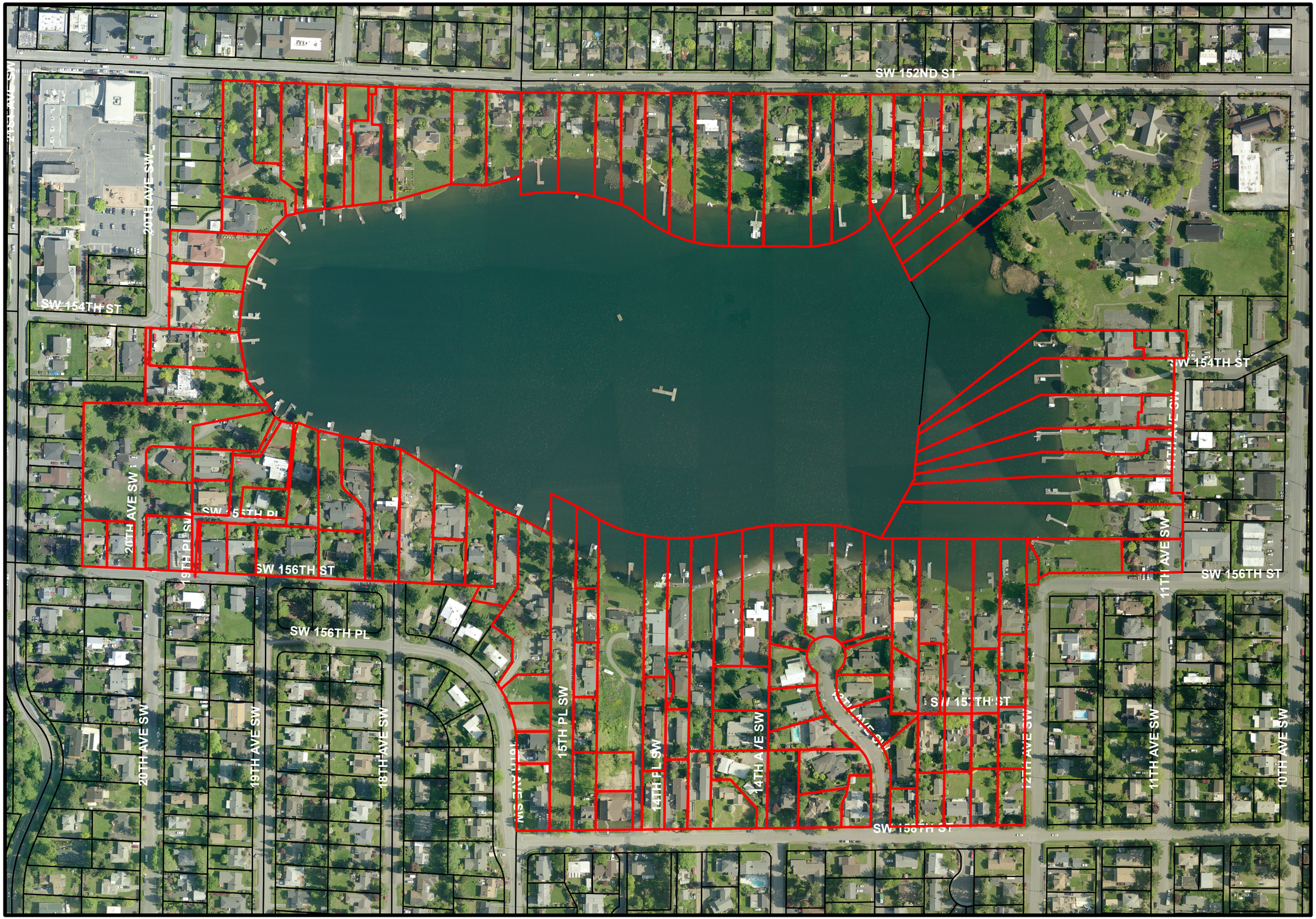
There is no evidence to support that a rezone would be materially detrimental to uses in the immediate vicinity of the subject area.

D. The rezone has merit and value for the community as a whole.

The rezone does not have merit and value for the community as a whole (see discussion above).

ATTACHMENTS

1- Vicinity Zoning and Land Use Map
2- Aerial Photo, dated 2009
3- Comprehensive Plan Amendment Request, June 1, 2010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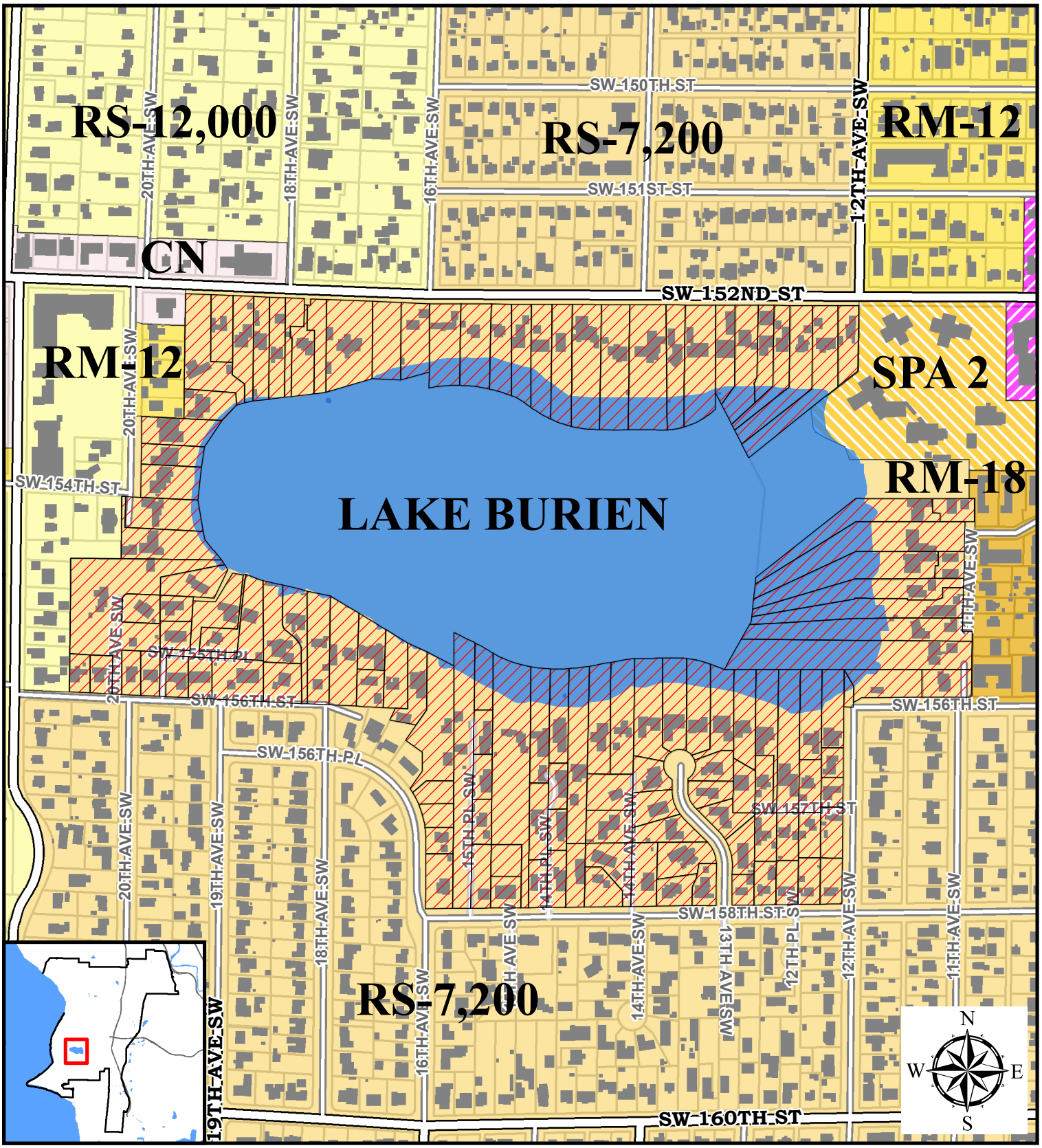
Reference No. 2010-2
Comprehensive Plan Map Amendment and Rezone
Edgar/Lake Burien Neighborhood - Zoning/Land Use



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Last updated 9/23/2010
By: Chip Davis

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Burien
Washington, USA

Comprehensive Plan Amendment Request (Includes rezones)

400 SW 152nd Street, Suite 300 Burien, WA 98166
Phone: (206) 241-4647 • FAX: (206) 248-5539
www.burienwa.gov

PLA 10-0770

Amendment Type	Reference Number (staff will assign)
✓ Map amendment ___ Text amendment ○ Quasi-Judicial Rezone	___

APPLICANT INFORMATION	
Name: Chestine+Robert Edgar Company: —	Daytime Phone: (425) 971-4786
Mailing Address: 1811 SW 152nd St. Burien 98166	Fax Number:
Contact person (if different): Same	Daytime Phone:
Property owner (if different):	Daytime Phone:
Mailing Address:	Fax Number:

e-mail c_edgar2@yahoo.com

SITE INFORMATION (if applicable) Attachment H Map	
Site Address: Lake Burien Neighborhood	Parcel Number: —
Existing Zoning District: RS-7200/Moderate Density	Existing Comprehensive Plan designation: Moderate Density Residential
Requested Zoning RS-12000/Low Density	Requested Plan designation: Low Density Residential
Number of Acres: 33.6	Current Land Use: Single family Residential

Critical areas present: ☑ Wetlands ☑ Streams ☑ Critical Aquifer ☐ Landslide Hazard Area ☑ Fish & Wildlife

Brief description of proposal (attach additional sheets if necessary):

Change the land use designation on the Burien Comprehensive Land Use Map from *"Moderate Density Residential Neighborhood"* to *"Low Density Residential Neighborhood"* for the Lake Burien Neighborhood.
Change or amendment any City of Burien regulations, policy, maps, etc. so that they are coordinated, clear, consistent and in agreement with the Burien Comprehensive Plan Land Use designation of *"Low Density Residential Neighborhood"* for the Lake Burien Neighborhood.
The **Phasing of Uses and Densities, Goal PH.1, Pol. PH 1.1** (page 2-25) to be implemented, from current use and density to the new use and density generated, as a result of this amendment change.
See attachments.

SIGNATURE

I, Chestine Edgar, a citizen of the Lake Burien Neighborhood declare that I am ~~the owner of the property~~ involved in this application, and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects true and correct to the best of my knowledge and belief. I designate Chestine Edgar to act as my agent with respect to this application. I agree to reimburse the City of Burien for the costs of professional engineers and other consultants hired by the City to review and inspect this proposal when the City is unable to do so with existing in house staff.

Dated: 6/1/10 Signature: Chestine Edgar

RECEIVED
JUN 01 2010
CITY OF BURIEN

To: The City of Burien
From: Chestine Edgar-petitioner for change to 2009 Burien Comprehensive Plan Land Use Map
Robert Edgar-petitioner for change to 2009 Burien Comprehensive Plan Land Use Map
Date: May 28, 2010

Subject: 2010 Burien Comprehensive Plan Amendment Request-Change to Land Use Map

This amendment request is to resolve the inconsistencies in the 2009 Burien Comprehensive Plan between the plan text policies and the land use map for the Lake Burien Neighborhood.

Summary of Changes Sought by the Petitioners

Change the land use designation on the Burien Comprehensive Land Use Map from *"Moderate Density Residential Neighborhood"* to *"Low Density Residential Neighborhood"* for the Lake Burien Neighborhood.

Change or amendment any City of Burien regulations, policy, maps, etc. so that they are coordinated, clear, consistent and in agreement with the Burien Comprehensive Plan Land Use designation of *"Low Density Residential Neighborhood"* for the Lake Burien Neighborhood.

The **Phasing of Uses and Densities, Goal PH.1, Pol. PH 1.1** (page 2-25) to be implemented, from current use and density to the new use and density generated, as a result of this amendment change.

Short and Plain Statement of the Grounds for the Burien Comprehensive Plan Map Amendment

I. Lake Burien is a critical area (wetland, aquifer recharge area) by state, county and city designation and as such warrants extra protection in land use map designation.
II. The Lake Burien Neighborhood is defined as a Low Density Residential Neighborhood by the Land Use Element policy text in the 2009 Burien Comprehensive Plan.
III. The Lake Burien Neighborhood is shown as a Moderate Density Residential Neighborhood on the 2009 Burien Comprehensive Plan Land Use Map.
IV. Therefore, there appears to be an inconsistency between the 2009 Burien Comprehensive Plan policy text and the 2009 Burien Comprehensive Plan Land Use Map.
V. Whenever there is an inconsistency between Comprehensive Plan policy text and maps, the policy text is the controlling factor. The Burien Comprehensive Plan Land Use Map needs be corrected for the Lake Burien Neighborhood.
VI. Therefore, other related city maps and regulations need to be consistent with the corrected 2009 Burien Comprehensive Plan Land Use Map.

Statement to Sustain the Amendment to the Burien Comprehensive Plan Map

I
LAKE BURIEN IS A CRITICAL AREA (WETLAND, AQUIFER RECHARGE AREA) BY STATE, COUNTY AND CITY DESIGNATION AND AS SUCH WARRANTS EXTRA PROTECTION IN LAND USE MAP DESIGNATION

Lake Burien is designated as a Critical Area for the following reasons; it is an aquatic resource, a wetland, an aquifer recharge area, and an area of importance for wildlife (Grette Associates 2008) (Attachment A-King County Map, Attachment B-Herrera 2010, Attachment C-Cooke 2010). Lake Burien is also considered a shoreline of the state. The City of Burien's 2009 Critical Areas Map (Attachment D-Critical Area Map) shows that a significant portion of the properties that are immediately adjacent to Lake Burien are categorized as Critical Areas.

As a result of the inconsistency between the Comprehensive Plan policy text and the Land Use Map, there appears to be a disregard for the protections of Critical Areas as required by RCW 36.70A (The Growth Management Act). The protection of critical areas and the need for lower density land use is recognized in sections **RCW 36.70A.020, 36.70A.060, 36.70A.170, 36.70A.172, 36.70A.175 and 36.70A.480.** The **King County Comprehensive Plan**, which serves to guide **Countywide Planning Policies**, recognizes the importance of Critical Areas in **Chapter 1-Regional Planning** and **Chapter 4-Environment.** In the **2009 Burien Comprehensive Plan**, the need to protect Critical Areas is recognized in **Chapter 2-Plan Policies**.

In all of the previously mentioned documents, the requirement of Best Available Science (BAS) is required when dealing with Critical Areas. The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Natural Environment, Goal EV.1, Pol. EV 1.8** (page 2-27), states: *"The City requires the use of Best Available Science for protecting critical areas within the community pursuant to the Growth Management Act [RCW 36.70A.172(1)]."* **RCW 36.70A.172 Critical Areas – Designation and Protection – Best available science to be used,** states: *"(1) In designing and protecting critical areas under this chapter, counties and cities shall include the best available science in developing policies and development regulations to protect the functions and values of critical areas."*

In a review of the Best Available Science for protecting and saving wetlands and other critical areas, the following strategies were cited:
1. limiting uses,
2. avoiding development in some areas,
3. transferring development density to another site, and
4. public protection of the critical area as a valuable site (MRSC-Best Available Science-Critical Areas, 4/10).

While buffers and mitigation have been strategies used to protect wetlands and critical areas, they have been proven not adequate to prevent "no net loss" to these critical areas (King County website, PSWSMRP, "Wetlands and Urbanization", Azous and Horner, 1997). Pollutants reach wetlands mainly through runoff (PSWQA 1986; Stockdale 1991). Urbanization of wetlands and the watersheds that feed wetlands generate large amount of pollutants such as eroded soils from construction sites, toxic metals and petroleum wastes from roadways and nutrients and bacteria

from residential areas. "*At the same time that urbanization produces larger quantities of pollutants, it reduces water infiltration capacity, yielding more surface runoff.*"(Loucks 1989; Canning 1988). The addition of 66% more residences to any a critical area wetland will result in a significant impact to the area and cause net loss to the area (Attachment E-Map showing lot impacts). Residential uses that impact wetlands include: "*a. Human presence and activity that impacts or drives off fish and wildlife. Bigger residences usually mean more people on the property, whether family members or guests. b. Pets that prey on or drive off fish and wildlife. More family members increase the likelihood of having more pets. c. Machinery and vehicular noise that impacts or drives off fish and wildlife. More people on the property increase the likelihood of having more machines and vehicles - including automobiles, watercraft, yard machinery, and recreational vehicles. d. Use of chemicals and fertilizers for house and yard. Larger structures and grounds increase the use of chemicals. e. Uses of night lighting that impacts or drives off fish and wildlife. Larger structures and grounds typically increase the use of night lighting.*" (Making Small Shoreline Buffers Work with Buffer Science, March 2010). The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Natural Environment, Wetlands, Goal EV.6, Pol. EV 6.1**, (page 2-33), states: "*The City shall protect its wetlands with an objective of no overall net loss of functions and values.*"

New construction and added impervious surface area can significantly impact Aquifer Recharge Areas. "*Lake Burien is mapped as an Aquifer Recharge Area, a Critical Area. Alterations to the surface conditions within an Aquifer Recharge Area associated with development, such as changes in impervious surface area, channeling of runoff and changes in the soils, can affect the rate and quantity of water entering the aquifer. Additionally, contamination of waters within the Aquifer Recharge Area can adversely impact the entire aquifer*" (Grette, 2008). The **2009 Burien Comprehensive Plan, 2.8 STORM WATER ELEMENT, Goal ST.1, Protecting Water Quality, Pol. ST 1.10**, (page 2-111), states: "*In the interest of the residents of Burien, the Puget Sound area and adjoining communities, the City will protect the quality of surface water bodies that are located within the drainage basins of the City.*"

Therefore, another critical strategy that should be employed in the protection of urbanized critical areas and wetlands is to keep the land use of these areas at low density usage. This concept of low density usage is supported by the **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Residential Neighborhoods, Goal RE.1, Pol. RE 1.5, Low Density Neighborhood** (page 2-8) and should be reflected by land use designations at "*4 units per acre or less, due to the constraints posed by critical areas.*"

Additionally, under the Public Trust Doctrine (Attachment F-Public Trust Doctrine), the water quality and the environmental preservation are considered as valid public trust issues. This is a simple but powerful legal concept that obliges all levels of government to manage natural resources in the best interest of their citizens, without sacrificing the needs of future generations (Science Daily, April 13, 2009). As a legal concept, it is well established in the United States at the state level and in federal agencies. Lake Burien is a critical area that falls under the domain of the Public Trust Doctrine. The Lake Burien neighborhood contains significant amounts of critical area and as such should be designated as "*Low Density Residential Neighborhood*" by both the Comprehensive Plan policy text Goal RE.1, Pol. RE 1.5 and the Comprehensive Plan Land Use Map.

II
THE LAKE BURIEN NEIGHBORHOOD IS DEFINED AS A LOW DENSITY RESIDENTIAL NEIGHBORHOOD BY THE LAND USE ELEMENT POLICY TEXT IN THE 2009 BURIEN COMPREHENSIVE PLAN

According to the **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Residential Neighborhoods, Goal RE.1, Pol. RE 1.5** (page 2-8), a Low Density Residential Neighborhood is described as being "*zoned for 4 units per acre or less, due to the constraints posed by critical areas.*" The **Designation Criteria in Goal RE.1, Pol. RE 1.5** (page 2-9) contains two criteria that are relevant to this discussion: *"Properties designated 'Low Density Residential Neighborhood' should reflect the following criteria:*

1. *The area is already generally characterized by single family residential development at four units per acre or less*
3. *The land is designated as potential landslide hazard area, steep slope area, or wetland on the City of Burien's Critical Areas Map."*

Lake Burien appears as a critical area on the City of Burien's Critical Areas Map. The justification for the Critical Area classification is previously addressed Section I. The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Natural Environment, Goal EV.1, Pol. EV 1.2** (page 2-26), states: "*Development should be directed toward areas where their adverse impacts on critical areas can be minimized.*"

In spite of the lot size designation of 7200 sq ft, the land around Lake Burien has always (approximately 100 years) been characterized by single family residential development at four units per acre or less. This development pattern was a result of the fact that King County originally determined that Lake Burien properties had 100' setback requirements from the lake edge. The historical nature of the lake is documented in the attached letter from Joe Wozniack (Attachment G). For this reason, the Lake Burien neighborhood had been identified in Burien's 1997 Comprehensive Plan with an R-3 land use designation.

While in the 1999 amendment to the Burien Comprehensive Plan, the Lake Burien neighborhood was changed from R-3 to R-6, the change appears to have been made on historical paper lot size from King County. In an extensive review of the Burien City files including meeting minutes, draft maps, citizen comments and King County records, there is no evidence of discussions about Best Available Science for this critical area being used in the final decision of how Lake Burien would be change from R-3 to R-6 designation on the Comprehensive Plan Land Use Map. Also, there is no evidence of discussions by the Planning Commission, City Council or City staff about what was the actual and physical land use around Lake Burien or what Best Available Science relating to critical areas was used in the decision making process.

The residential properties surrounding Lake Burien are already physically characterized by single family residential development at four units pre acre or less and meet the definition of a "*Low Density Residential Neighborhood*" as defined in **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Residential Neighborhoods, Goal RE.1, Pol. RE 1.5.** (pages 2-8 & 2-9). Additionally, significant portions of properties immediately adjacent to Lake Burien are categorized by the City of Burien as Critical Areas. Therefore by the Comprehensive Plan policy text definition, the Lake Burien neighborhood is designated as *"Low Density Residential Neighborhood"*.

III
THE LAKE BURIEN NEIGHBORHOOD IS SHOWN AS A MODERATE DENSITY RESIDENTIAL NEIGHBORHOOD ON THE 2009 BURIEN COMPREHENSIVE PLAN LAND USE MAP

The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Residential Neighborhoods, Goal RE.1, Pol. RE 1.6, Designation Criteria** (page 2-10) defines a "*Moderate Density Residential Neighborhood*" and contains one criteria that is relevant to this discussion: "*3. The area does not have significant amounts of critical areas.*"

Since the Lake Burien neighborhood has significant amounts of critical areas, it does not match the Comprehensive Plan policy text definition of "*Moderate Density Residential Neighborhood.*"

IV
THEREFORE, THERE APPEARS TO BE AN INCONSISTENCY BETWEEN THE 2009 BURIEN COMPREHENSIVE PLAN POLICY TEXT AND THE 2009 BURIEN COMPREHENSIVE PLAN LAND USE MAP

The first paragraph of the Washington State Growth Management Act (GMA) section **RCW 36.70A.070 Comprehensive plans – Mandatory elements,** states:
"*The comprehensive plan of a county or city that is required or chooses to plan under RCW 36.70A.040 shall consist of a map or maps, and descriptive text covering objectives, principles, and standards used to develop the comprehensive plan. The plan shall be an internally consistent document and all elements shall be consistent with the future land use map.*"

According to the **2009 Burien Comprehensive Plan, Land Use Plan Implementation, Goal PI.1,** there is a requirement to "*Implement the goals and policies of the land use plan through a variety of means and mechanisms which are coordinated and consistent.*"

Since the 2009 Comprehensive Plan policy text and Comprehensive Plan Land Use Map are not in agreement about the neighborhood density for Lake Burien, there is a lack of coordination and consistency.

V
WHENEVER THERE IS AN INCONSISTENCY BETWEEN COMPREHENSIVE PLAN POLICY TEXT AND MAPS, THE POLICY TEXT IS THE CONTROLLING FACTOR. THE BURIEN COMPREHENSIVE PLAN LAND USE MAP NEEDS BE CORRECTED.

The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Land Use Conflicts, Pol. PI 1.6** (page 2-39) states: "*If there is a conflict between the comprehensive plan land use map and the land use designation policies, the land use designation policies control.*"

There is an inconsistency between the 2009 Comprehensive Plan text policies and the Land Use Map. Therefore the Comprehensive Plan policy text controls Comprehensive Plan Land Use Map. The Lake Burien neighborhood needs to be designated a "*Low Density Residential Neighborhood*" on the Comprehensive Plan Land Use Map.

VI
THEREFORE, OTHER RELATED CITY MAPS AND REGULATIONS NEED TO BE CONSISTENT WITH THE CORRECTED 2009 BURIEN COMPREHENSIVE PLAN LAND USE MAP.

The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Land Use Plan Implementation, Goal PI.1, Pol. PI 1.2** (page 2-38) states: *"The City's development regulations should be consistent with other City plans and activities, including other development requirements. Development regulations shall be clearly written and absent of duplicative, uncoordinated or unclear requirements."*

This amendment request is for the lots immediately adjoining Lake Burien to have a land use map density designation of *"Low Density Residential Neighborhood"* as supported by the 2009 Comprehensive Plan text policies, and that other City of Burien regulations, policy, maps, etc. regarding land use are coordinated, clear, consistent and in agreement with the 2009 Burien Comprehensive Plan Land Use designation of *"Low Density Residential Neighborhood"*. See the attached map for the requested map change (Attachment H).

Summary of Changes

Change the land use designation on the Burien Comprehensive Land Use Map from *"Moderate Density Residential Neighborhood"* to *"Low Density Residential Neighborhood"* for the Lake Burien Neighborhood.

Change or amendment any City of Burien regulations, policy, maps, etc. so that they are coordinated, clear, consistent and in agreement with the Burien Comprehensive Plan Land Use designation of *"Low Density Residential Neighborhood"* for the Lake Burien Neighborhood.

The **Phasing of Uses and Densities, Goal PH.1, Pol. PH 1.1** (page 2-25) to be implemented, from current use and density to the new use and density generated, as a result of this amendment change.

Comprehensive Plan Amendment Criteria

This next series of responses will follow the list of items requested by the city under the topic of "Comprehensive Plan Amendment Criteria" shown on page 2 of the "Burien Comprehensive Plan Amendment Request" application form.

A. The request has been filed in a timely manner.

The "Burien Comprehensive Plan Amendment Request" application form requesting a "Map Amendment" to the 2010 Burien Comprehensive Plan was submitted to the City of Burien on: **June 1, 2010** with a City of Burien **mandated** fee of: $1,723.63

B. There is a public need for the proposed amendment.

Under RCW 36.70A, there is a requirement for consistency throughout the comprehensive plan text and maps as well as protections for Critical Areas. There is a public need for this proposed amendment because the policies stated in the **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Residential Neighborhoods, Goal RE.1, Pol. RE 1.5** (page 2-8) do not appear to be consistent with the Comprehensive Plan Land Use Map for the Lake Burien neighborhood. As a result of these inconsistencies, there appears to be a disregard for the protections of Critical Areas as required by RCW 36.70A (The Growth Management Act). The protection of critical areas and the need for lower density land use is recognized in sections **RCW 36.70A.020, 36.70A.060, 36.70A.170, 36.70A.172, 36.70A.175 and 36.70A.480.** The **King County Comprehensive Plan**, which serves to guide County-wide Planning Policies, recognizes the importance of Critical Areas in **Chapter1-Regional Planning** and **Chapter4-Environment.** The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Natural Environment, Wetlands, Goal EV.6, Pol. EV 6.1** (page 2-33) states: "*The City shall protect its wetlands with an objective of no overall net-loss of functions and values.*"

Also, the **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Land Use Conflicts, Pol. PI 1.6** (page 2-39) states: "*If there is a conflict between the comprehensive plan land use map and the land use designation policies, the land use designation policies control.*"

In all of the previously mentioned documents, the requirement of Best Available Science (as previously addressed in Section I) is required when dealing with Critical Areas. In a review of the Best Available Science for protecting, saving wetlands and other critical areas, the following strategies were cited:

1. limiting uses,
2. avoiding development in some areas,
3. transferring development density to another site, and
4. public protection of the critical area as a valuable site (MRSC-Best Available Science-Critical Areas, 4/10).

While buffers and mitigation have been strategies used to protect wetlands and critical areas, they have been proven not adequate to prevent "no net loss" to these critical areas (King County website, PSWSMRP, "Wetlands and Urbanization", Azous and Horner, 1997). Pollutants reach wetlands mainly through runoff (PSWQA 1986; Stockdale 1991). Urbanization of wetlands and the watersheds that feed wetlands generate large amount of pollutants such as eroded soils from construction sites, toxic metals and petroleum wastes from roadways and nutrients and bacteria from residential areas. "*At the same time that urbanization produces larger quantities of pollutants, it reduces water infiltration capacity, yielding more surface runoff.*"(Loucks 1989; Canning 1988). Additionally, residential development and the increased human usage of the land results in a significant impact to a critical area wetland and causes net loss. Increased amounts of impervious surface in residential areas on or adjacent to critical areas causes damage to wetlands, aquifer recharge areas and water quality. Therefore, another critical strategy that should be employed in the protection of urbanized critical areas and wetlands is to keep the land use of these areas at low density usage. This concept of low density usage is supported by the **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Residential Neighborhoods, Goal RE.1, Pol. RE 1.5, Low Density Neighborhood** (page 2-8) and should be reflected by land use designations at *"4 units per acre or less, due to the constraints posed by critical areas."*

Additionally, under the Public Trust Doctrine, the water quality and the environmental preservation are considered as valid public trust issue. This is a simple but powerful legal concept that obliges all levels of government to manage natural resources in the best interest of their citizens, without sacrificing the needs of future generations (Science Daily, April 13, 2009). As a legal concept, it is well established in the United States at the state level and in federal agencies. Lake Burien is a critical area that falls under the domain of the Public Trust Doctrine.

The protection of the natural environment, water quality, critical areas and consistency in the comprehensive plan are well documented public needs.

C. The proposed amendment is the best means for meeting the identified public need.

The proposed amendment is the best means for meeting this identified public need of creating consistency throughout the comprehensive plan and maps and for protection of critical areas because land use is controlled by policy and map designation in the Comprehensive Plan. This is the only legal mechanism for creating plan consistency and for maintaining a low density residential development in a critical area such as Lake Burien.

D. The proposed amendment is consistent with the overall intent of the goals and policies of the Burien Comprehensive Plan, Growth Management Act and Countrywide Planning Policies.

The proposed amendment is in agreement with the Burien Comprehensive Plan, Chapter 2:

A) 2.2 LAND USE ELEMENT:
   1) Residential Neighborhoods, Goal RE.1, Pol. RE 1.5, Pol. RE 1.6
   2) Natural Environment, Goal EV.1, Pol. EV 1.2, EV 1.8, Goal EV. 2, Goal EV.4, Goal EV.5, Goal EV.6, Pol. EV 6.1
   3) Land Use Plan Implementation, Goal PI.1, Pol. PI 1.1, Pol. PI 1.2, Pol 1.5
   4) Land Use Conflicts, Pol. PI 1.6
   5) Phasing Uses and Densities, Goal PH.1, Pol. PH 1.1

B) 2.8 STORM WATER ELEMENT:
   1) Protecting Water Quality, Goal ST.1, Pol. ST 1.10

The proposed amendment is in agreement with the Growth Management Act/RCW 36.70A:

1) Planning goals, 36.70A.020
2) Definitions, 36.70A.030
2) Natural resources and critical areas, 36.70A.060
3) Comprehensive plans-Mandatory elements, 36.70A.070
4) Natural resource lands and critical areas, 36.70A.170
5) Critical areas-Designation and protection-Best available science to be used, 36.70A.172
6) Wetlands to be delineated in accordance with manual, 36.70A.175
7) Shorelines of the state, 36.70A.480

The proposed amendment is in agreement with King County Countywide Planning Policies:

1) Chapter 1-Regional Planning
2) Chapter 4-Environment

E. The proposed amendment will result in a net benefit to the community.

The proposed amendment will result in a net benefit to the community by having a Comprehensive Plan that is internally consistent in both text and maps. The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Land Use Plan Implementation, Goal PI.1, Pol. PI 1.1** (page 2-37) states: *"The Comprehensive Plan, development regulations, function plans and budgets should be mutually consistent and reinforce each other."*

Goal PI.1, Pol. PI 1.2 (page 2-37) states: *"The City's development regulations should be consistent with other City plans and activities, including other development requirements. Development regulations shall be clearly written and absent of duplicative, uncoordinated or unclear requirements."*

Burien citizens and City staff who use the Burien Comprehensive Plan will not be confused by internal inconsistencies. Other city plans, development regulations, functional plans and budgets will also be consistent. In addition, the protection of the water quality, natural environment and critical areas in this part of the city will benefit the whole community.

F. The revised Comprehensive Plan will be internally consistent.

The revised Comprehensive Plan will be internally consistent because it appears to be inconsistent without this change. It will also be in compliance with the Washington State Growth Management Act **(RCW 36.70A.070 Comprehensive plans – Mandatory elements)** which mandates that a Comprehensive Plan "*...shall be an internally consistent document and all elements shall be consistent with the future land use map.*"

G. The capability of the land can support the projected land use.

Best Available Science suggests that the carrying capacity of the properties around Lake Burien would not be negatively impacted if the properties are designated as *"Low Density Residential Neighborhood"*. This amendment reduces the current proposed density and land use designation demands on a critical area – Lake Burien.

H. Adequate public facility capacity to support the projected land use exists.

RCW 36.70A.030 Definitions (12) states: *"'Public facilities' include streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools."* This public facility capacity and infrastructure already exist to support the projected land use of *"Low Density Residential Neighborhood"*. The city has the resources to make the required change to the maps, mailings to impacted residents and staff time involved in the cost of implementing this amendment. The city also has mechanisms in place to do these clerical items in a cost effective manner.

I. The proposed amendment will be compatible with nearby uses.

The proposed amendment will be compatible with nearby uses which are mainly residential. The amendment will simply reduce density in an already residential neighborhood. The area to be changed on the map is currently adjacent to properties already classified as a *"Low Density*

Residential Neighborhood". The amendment will simply resolve an internal inconsistency on a map for a residential neighborhood that is currently classifiable as a *"Low Density Residential Neighborhood"* by 2009 Comprehensive Plan policy text.

J. The proposed amendment would not result in the loss of capacity to meet other needed land uses such as housing.

The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Phasing of Uses and Densities, Goal PH.1, Pol. PH 1.1,** (page 2-25) states: *"Where appropriate, the City will encourage and support the use by individual property owners of alternatives to development. Such alternatives may include transfer of development rights ("TDR") to the downtown and other appropriate areas, conservation easements, open space tracts, and other mechanisms designed to permanently eliminate development."*

The proposed amendment has the potential for no net loss of housing capacity by employing the transfer of development rights and promoting density in the downtown core which is in accordance with Burien's vision or by using the TDR to an already, high density area of the newly annexed area of Burien. If no alternatives were available such as the TDR, then this amendment change would generate a 2% loss in residential lots according to the King County Comprehensive Plan 2020 goal. The projection map (Attachment E) was prepared by the city in 1999 prior to the Land Use Map Designation change for Lake Burien Neighborhood. At that point in time, it was projected that the Lake Burien area could increase by 53 new lots (66%). Since that time, there have been a few sub-divisions of property and some short plats created. So, the current number of new lots that could be put on the lake is 40+. However since that document was prepared, the city has expanded the possible new housing units in the city by creating the downtown core area. In the downtown core, buildings can be up to seven stories in height. The zoning that resulted from the creation of the Town Square Complex and similar future projects in that area could replace the target number lost around the lake. Simply stated, between the downtown area and the newly annexed, high density use areas, it will be fairly simple to accommodate 40+ housing units by 2020.

Additionally, as suggested in the Comprehensive Plan of 1997, there should be a phase-in period for any owners around Lake Burien who might claim economic loss as a result of being density land use change. The 1997 Comprehensive Plan allowed a one and a half year period before the total plan was put in place. This is allowed by the **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Phasing of Use and Densities, Goal PH.1** (page 2-25) which can be used *"To allow for the orderly phasing of current uses and densities to desired future uses and densities."* A similar phasing period for this amendment change to the 2009 Comprehensive Plan Land Use would help any Lake Burien property owner, who might claim significant economic hardship or loss resulting from the Land Use Map change.

K. For a Comprehensive Plan Map change, either of the two following are met:

i. Conditions have so markedly changed….

This criteria is not applicable.

ii. The map change will correct a Comprehensive Plan designation that was inappropriate when established.

Since this is a 2009 Comprehensive Plan map change, the applicable designation criteria are met because a map change will correct an inconsistency between the 2009 Comprehensive Plan policy text and 2009 Comprehensive Plan maps. The 2010 Burien Comprehensive Plan will also be in compliance with the Washington State Growth Management Act (**RCW 36.70A.070 Comprehensive plans – Mandatory elements)** which mandates that a Comprehensive Plan "*…shall be an internally consistent document and all elements shall be consistent with the future land use map.*"

Rezone Criteria

This next series of responses will follow the list of items requested by the city under the topic of "Rezone Criteria" shown on page 2 of the "Burien Comprehensive Plan Amendment Request" application form.

A. The amendment is consistent with the Comprehensive Plan.

The amendment that is being proposed will make the 2010 Burien Comprehensive Plan Land Use Map consistent with the text of its policies.

B. The amendment bears a substantial relation to the public health, safety, or welfare.

This amendment seeks to protect critical areas that involve water quality. The protection of water quality is of the utmost importance to public health and safety and is required by RCW 36.70A.

C. The amendment is in the best interest of the community as a whole.

The protection of water quality is of value to the current community and future generations. Lake Burien is a critical area that justifies protection under the Public Trust Doctrine. Its importance as a critical area warrants a zoning map change and other related documents change to be consistent with the Burien Comprehensive Plan Land Use designation of *"Low Density Residential Neighborhood"*.

The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Land Use Implementation, Goal PI.1,** (page 2-37), states: *"Implement the goals and policies of the land use plan through a variety of means and mechanisms which are coordinated and consistent."*
The **2009 Burien Comprehensive Plan, 2.2 LAND USE ELEMENT, Land Use Implementation, Goal PI.1, Pol. PI 1.1.**, (page 2-37), states: *"The Comprehensive Plan, development regulations, functional plans and budgets should be mutually consistent and reinforce each other."*

Therefore, if the Comprehensive Plan Land Use Map is amended; then the other city documents such as the Zoning Map and supporting text requirements and regulations regarding land use development, redevelopment and zoning will also need to be amended to be consistent with the 2010 Comprehensive Plan for the area of Lake Burien.

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PSWSMRO, "Wetlands and Urbanization", (Azous and Horner, 1997)

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Recommendations on Making Small Shoreline Buffers Work with Buffer Science, (March 2010)

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ATTACHMENT A

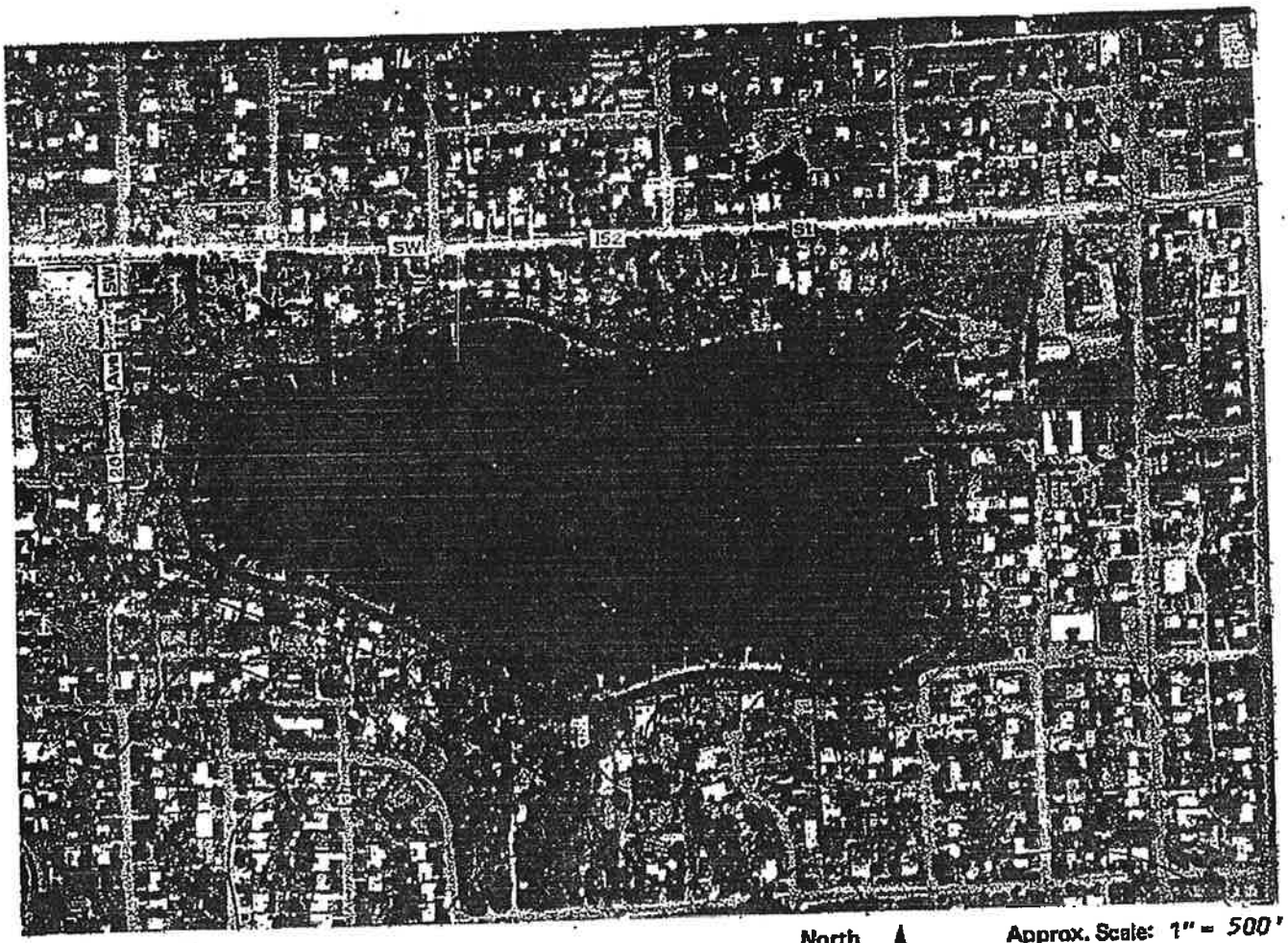

Photo Date: 5-80

North ▲

Approx. Scale: 1" = 500'

WETLAND: Miller Creek 5

COMMUNITY PLAN AREA: Highline

LOCATION: NW SW 19-23-4
NE SE 24-23-3

BASIN OR DRAINAGE: Puget Sound

INVENTORY DATE: 8-18-81

ACREAGE: 42

CLASSIFICATION:	Fish and Wildlife Service	Common Name
L1UB3	Lacustrine, Limnetic, Unconsolidated Bottom, Mud	Open Water
L2UB2	Lacustrine, Littoral, Unconsolidated Bottom, Sand	Open Water

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland

Miller Creek 5

OBSERVED SPECIES: (refer to list in Appendix 1)

Trees:	AR, PT
Herbs:	IP, NP, NO, PP, TL
Shrubs:	CS, SX, SD
Sedges/Rushes/Grass/Fern:	EX, SV
Birds:	KF, GB, GH, CG, MA, VS, TS, BS, RB, AR, ST, SS
Mammals:	
Fish:	
Other:	

RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)

Recorded/Observed:	
Potential:	

SIGNIFICANT HABITAT FEATURES:

OUTLET:

Type:	Channel, Control Weir
Condition:	Open
Outflow enters:	Stream

POTENTIAL STORAGE:

Existing Active:	21 ac. ft.
Potential Active:	21 ac. ft.

GENERAL OBSERVATIONS:

WETLAND EVALUATION SUMMARY:

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category		Rank (by percentile)	
		Sub-basin	County-wide
Hydrology:	runoff storage potential, water quality, potential for minimizing damage in downstream areas	85	80
Biology:	quality of habitat, abundance and diversity of plant and animal species	85	76
Visual:	diversity and contrast of wetland and surrounding vegetation, surrounding landforms	42	24
Cultural:	types of access, proximity to schools/institutions, overall environmental quality	100	99
Economic:	presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	100	69

WETLAND RATING:

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

Wetland Rating: 2

ATTACHMENT B

DATA ANALYSIS REPORT

Lake Burien, Washington

Prepared for

Lake Burien Shore Club
15702 13th Avenue SW
Burien, Washington 98166

Prepared by

Herrera Environmental Consultants
2200 Sixth Avenue, Suite 1100
Seattle, Washington 98121
Telephone: 206.441.9080

March 16, 2010

Note:
Some pages in this document have been purposefully skipped or blank pages inserted so that this document will copy correctly when duplexed.

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Introduction

The Lake Burien Shore Club has for many decades taken an active role in protecting water quality and ecological functions of Lake Burien. The Draft Shoreline Master Program (Reid Middleton 2009) currently before the Burien Planning Commission includes policy and regulation provisions for establishment of public access to Lake Burien. However, it did not identify existing lake conditions or address potential impacts to those conditions from physical access to the lake by the general public.

The Lake Burien Shore Club (Shore Club) requested that Rob Zisette of Herrera Environmental Consultants (Herrera) summarize existing information on conditions of the lake and identify potential impacts to those conditions as a result of public access to the lake. This report summarizes the existing physical, water quality, aquatic plant, and fish and wildlife conditions in Lake Burien. Based on these conditions, potential impacts to the lake from establishing public access are then addressed.

Information presented in this report is based on review of readily available data and reports. Additional information was obtained by Rob Zisette during a site visit on March 13, 2010. This report was prepared by Rob Zisette, who is a limnologist with 30 years of lake research experience.

Per the detailed discussion below, Lake Burien presents several contraindications for adding public access to the burdens it must carry. One is the increased potential for the introduction and facilitation through public access of non-native, invasive aquatic plants and animals, which could severely impair habitat, water quality, aesthetics, and recreational activities in the lake. Another is the presence of the bluegreen algae *Anabaena* and *Aphanizomenon,* which account for the vast majority of bluegreen blooms in Washington lakes, and can produce the toxins microcystin and anatoxin-a.

Physical Characteristics

According to historical reports by King County (2010), Lake Burien is 44 acres in size with a mean depth of 13 feet (4.0 meters) and a maximum depth of 29 feet (8.8 meters). Features listed for Lake Burien in Lakes of Washington (Wolcott 1973) include an area of 43.7 acres, a maximum depth of 33 feet (10.0 meters), and a lake surface elevation of 320 feet mean sea level. Bathymetric (water depth) contours are shown in Figure 1 (Messick 2010).

The lake watershed is approximately 250 acres in size (King County 2010) as shown in Figure 2 (Messick 2010). The watershed boundary shown as the yellow line in Figure 2 reasonably agrees with the storm drain maps prepared by the City of Burien (Burien 2010). Thus, the watershed area is approximately six times the lake area. The watershed consists entirely of urban land use and no streams currently drain into the lake. The City of Burien (2010) has located 11 stormwater outfalls in the lake (see Figure 7E in Grette 2008).

Lake Burien drains to an outlet channel located at the northeast corner of the lake (see blue line in Figure 2). Lake water flows from this short channel over a weir that was installed in the 1960s to reduce the lake level drawdown during the dry summer months (Warren 2010). Flow from the weir enters a culvert that drains southeast to Miller Creek. Recent observations indicate that there has been no surface outflow from the lake from approximately late April to early November (Warren 2010).

The lake level typically decreases approximately 2 feet during the summer. During the wet winter months, the lake level is generally maintained within 0.2 feet of the weir elevation, which is approximately equivalent to the ordinary high water mark. No flooding of shoreline properties has been observed (Warren 2010). Based on 1 year of lake level data from October 1994 through September 1995 (King County 2010), the lake level increased from to a minimum elevation of 69 centimeters (2.3 feet) below the weir in October 1994 to a maximum elevation of 5 centimeters (0.2 feet) above weir in January 1995, and then decreased to a minimum elevation of 58 centimeters (1.9 feet) below the weir by the end of September 1995.

Lake Burien is located in an aquifer recharge area (Burien 2009). The lake may not receive much groundwater inflow because of the shallow surrounding topography. It is likely that stormwater drainage is the primary hydrologic input to Lake Burien, with additional input from direct precipitation.

Water Quality

Eutrophication and Phosphorus Cycling

The principal water quality concern for lakes is eutrophication. Eutrophication is a process of nutrient enrichment and increased productivity that can occur naturally, and is commonly accelerated in urban lakes. Phosphorus is the primary nutrient controlling eutrophication of lakes because it is typically the nutrient that limits algae growth, since large pools of carbon and nitrogen are available in the atmosphere. Stormwater runoff is the primary source of phosphorus in most urban lakes, including Lake Burien. Other external sources of phosphorus in Lake Burien include direct precipitation and shallow ground water, which enters the lake via storm drain outfalls and may also enter the lake via seeps in the nearshore zone of the lake. An additional external source of phosphorus is waterfowl feces, which can be a significant source for small shallow lakes.

Internal loading is also a common source of phosphorus to urban lakes. Internal loading refers to processes inside the lake that contribute phosphorus to the water and includes various components in the lake phosphorus cycle. Typically, the primary source of internal loading is the release of iron-bound phosphorus from anoxic (i.e., low or no oxygen) sediments. Anoxic sediment release of phosphorus typically occurs in deep portions of the lake where oxygen is consumed by decomposing microorganisms, but can also occur in shallow sediments that are highly enriched with organic matter or located under aquatic plant canopies. Other sources of internal phosphorus loading include shallow (oxygenated) sediment release during algae blooms

that create high pH conditions (greater than 9), vertical migration of bluegreen algae (cyanobacteria) from the sediments up into the water column, and decay of algae and aquatic plants in the water column.

In the Puget Sound lowlands, most of the external phosphorus loading to lakes occurs during the wet winter months. Most of that external load settles to the lake bottom and then recycles back into the water column as internal loading during the dry summer months when lakes are thermally stratified. Lakes of sufficient depth, such as Lake Burien, become thermally stratified in the late spring when the surface waters warm and become less dense than the cooler deep waters. As water temperature and density differences increase in the water column during the summer, a thermocline becomes established that separates the epilimnion (surface layer) and hypolimnion (bottom layer). A strong thermocline (high thermal gradient) dramatically reduces the transport of phosphorus from deep sediments in the hypolimnion to algae growing in the epilimnion. A weak thermocline can temporarily degrade during cool, windy periods of the summer, causing the movement of the phosphorus-rich hypolimnion waters into the epilimnion. Ultimately, the thermocline breaks down in the fall when the lake temperature cools, and the lake becomes completely mixed in November. Many lakes experience rapid growth (blooms) of algae in the fall in response to both internal (mixing) and external (stormwater) phosphorus sources.

Insufficient amounts of temperature profile data are available from King County (2010) to evaluate the location or strength of the thermocline in Lake Burien. Temperature was measured in the surface (1 meter depth) and the bottom (8 meter depth) water samples on two occasions per year during the summer of 2000 through 2004. Surface water temperatures ranged from 16 to 23°C and bottom water temperatures ranged from 10 to 18°C, and there was typically a 5°C difference between the surface and bottom water sample. Based on these data, it is unknown whether the 5°C change is abrupt or gradual and represents a strong or weak thermocline, respectively.

Trophic State

Lakes are classified into the following three categories of trophic state that represent increasing amounts of eutrophication:

- Oligotrophic (not enriched)
- Mesotrophic (moderately enriched)
- Eutrophic (highly enriched)

Trophic state is determined using summer (June through September) mean values of three parameters:

- Total phosphorus concentration in the epilimnion (surface layer)
- Chlorophyll *a* concentration in the epilimnion (phytoplankton pigment in the surface layer)

- Secchi depth (water transparency measured by lowering an 8-inch Secchi disk in the water until it disappears from view)

A trophic state index (TSI) is calculated for each of these parameters where values less than 40 represent an oligotrophic lake, values between 40 and 50 represent a mesotrophic lake, and values greater than 50 represent a eutrophic lake.

Trophic state parameters were measured in Lake Burien during the summers of 1998, 2000, 2001, 2002, 2003, and 2004 as part of the King County Lake Stewardship Program. Water samples were collected by lake stewards (residents) and analyzed by the King County Environmental Laboratory. Data quality is reviewed and posted on the stewardship program website (King County 2010). The Lake Burien data are presented for surface (1 meter) total phosphorus concentration in Figure 3, surface (1 meter) chlorophyll *a* concentration in Figure 4, Secchi depth in Figure 5, and trophic state index (TSI) in Figure 6.

Total Phosphorus

Surface (1-meter depth) phosphorus concentrations in Lake Burien typically ranged from 10 to 15 micrograms per liter (ug/L) in April through July, and typically increased to a range of 15 to 20 ug/L in September and October (see Figure 3). A minimum concentration of 7 ug/L was observed in May 2002 and a maximum concentration of 29 ug/L observed in October 2001.

Bottom (8-meter depth) water samples were also analyzed for total phosphorus on two occasions each year and exhibited a much higher mean concentration (33 ug/L) than the surface water samples (14 ug/L) collected concurrently. Higher concentrations of phosphorus are typically observed in bottom water samples due to the decay of settled organic matter. Much higher total phosphorus concentrations likely would have been observed in bottom water samples if the hypolimnion had become anoxic during the summer. In addition, mean total phosphorus concentrations were the same (33 ug/L) for bottom water samples collected in May and June compared to those collected in August and September. These results suggest that internal loading from anoxic sediment release may not have been a significant source of phosphorus in Lake Burien.

Cholorophyll a

Chlorophyll *a* is the primary photosynthetic pigment present in all species of algae. Concentrations of chlorophyll *a* are used as a measure of phytoplankton (free-floating algae) biomass. Surface (1-meter depth) chlorophyll *a* concentrations in Lake Burien typically ranged from 2 to 4 micrograms per liter (ug/L) in May through August, and typically increased to a range of 4 to 8 ug/L in September and October (see Figure 4). Surface chlorophyll *a* concentrations exceeded 8 ug/L on one occasion in October 2000 (12.8 ug/L) and October 2003 (12.2 ug/L).

Bottom (8-meter depth) water samples were also analyzed for chlorophyll *a* on two occasions in each of 3 years (2002-2004). The mean summer (August/September) chlorophyll *a*

concentrations were much higher in the bottom water samples (18.5 ug/L) than in the surface water samples (3.4 ug/L) collected concurrently. Higher concentrations of chlorophyll *a* may be observed in bottom water samples due to settling of phytoplankton, but this large of a difference suggests that phytoplankton may have been growing at the low light levels and high phosphorus concentrations near the bottom of the lake.

Phytoplankton

Water samples were also analyzed for phytoplankton composition by King County. Phytoplankton analysis results are presented in reports but not in the online database (King County 2010). A list of observed phytoplankton species has been compiled by lake resident Christine Edgar (Edgar 2010). Phytoplankton identified in Lake Burien include common genera in the following groups:

- Diatoms: *Fragilaria*, *Asterionella*, *Cyclotella*
- Chlorophytes (greens): *Botryococcus*, *Crucigenia*
- Cryptophytes: *Cryptomonas*
- Dinoflagellates: *Peridineum*, *Ceratium*
- Chrysophytes: *Dinobryon*
- Bluegreens (cyanobacteria): *Anabaena*, *Aphanizomenon*, *Aphanothece*, *Anacystis*

Phytoplankton succession in Lake Burien appears to generally follow the following pattern of dominance common to mesotrophic lakes: diatoms in the spring, dinoflagellates and greens in the summer, and bluegreens in the fall. There have been no reports of bluegreen algae blooms in Lake Burien.

Observations of the bluegreens *Anabaena* and *Aphanizomenon* in Lake Burien are of particular interest. These two genera (along with *Microcystis*, which has not been reported in Lake Burien) account for the vast majority of bluegreen blooms in Washington lakes, and both genera can produce the toxins microcystin and anatoxin-a (Ecology 2010b). Toxic algae blooms have been documented at an increasing rate in Washington lakes over the past 25 years and are an emerging public health issue. Although most blooms are not toxic, pets and wildlife have died after exposure to toxic bluegreens in Washington lakes, and people have become ill after swimming in lakes with blooms of toxic bluegreens (Ecology 2010b).

Secchi Depth

Secchi depth is a measure of water transparency or clarity that is primarily affected by phytoplankton concentrations, but it can also be affected by water color (tannins), bacteria, inorganic colloidal matter, and suspended fines (silt and clay). Typically, Secchi depth decreases as chlorophyll *a* increases when water transparency is primarily affected by phytoplankton, but the effects of phytoplankton biomass on Secchi depth can vary widely depending on the size the dominant phytoplankton cells or colonies.

Secchi depths in Lake Burien are shown on an inverse scale in Figure 5 for comparison with temporal patterns in total phosphorus and chlorophyll *a*. Secchi depths showed a general pattern of decreasing from 4 to 6 meters in May to 2 to 3 meters in October. However, the temporal pattern in Secchi depth is not as consistent as it is for total phosphorus and chlorophyll *a*. Unusual observations include a particularly low Secchi depth of 2.0 meters in May 2000 and a particularly high Secchi depth of 6.0 meters in October 2004.

Trophic State Index

Trophic state indices (TSIs) are presented for total phosphorus, chlorophyll *a*, Secchi depth, and the mean value for these three TSIs in Figure 6. Trophic state indices ranged from 39 to 43, which is in the lower range of mesotrophic status (40 to 50). Overall, the mean summer TSI did not exhibit a substantial increasing or decreasing trend between 1998 and 2004. The lower mesotrophic status of Lake Burien is rather unusual considering it is located in a totally developed basin within King County.

King County (2001) evaluated the trophic status and water quality trends in 49 small lakes that participated in volunteer lake monitoring activities. Ratings included 14 oligotrophic lakes, 20 mesotrophic lakes (including Lake Burien), 13 eutrophic lakes, and 2 hypereutrophic lakes (TSI greater than 60). Trend analysis of data for 1996 through 2000 identified a statistically significant increase in the mean TSI for four lakes and a significant decrease for one lake. Although more than 5 years of data may be needed to detect a change in the TSI, mesotrophic lakes such as Lake Burien are much more susceptible to changes in trophic state than are eutrophic lakes.

Aquatic Plants

Aquatic plants are an important component of lakes because they provide habitat for invertebrates and fish, supply food for waterfowl, and can affect the phosphorus cycle and algae growth in lakes. Excessive growth of aquatic plants can severely impair habitat, water quality, aesthetics, and recreational activities. For example, many lakes in King County and throughout Washington have been infested with the non-native, invasive plant Eurasian watermilfoil (*Myriophyllum spicatum*), which typically grows in large monotypic (single species) stands that form a dense canopy. In addition, another non-native plant Brazilian elodea (*Egeria densa*) has more recently invaded local lakes where jurisdictions have undertaken a substantial effort at eradication. Information on invasive plant species identification, occurrence, impacts, and control methods are provided on websites maintained by King County (2010) and the Washington Department of Ecology (2010a).

King County (1999) conducted an aquatic plant survey of Lake Burien on August 12, 1999. The aquatic plant map is presented in Figure 7. Eighteen plant species were identified including 5 submergent types, 2 floating-leaved types, and 10 emergent types. The submergent types included a dwarf spike rush (*Eleocharis*), one pondweed species (*Potamogeton pusillus*), common waterweed (*Elodea canadensis*), and two genera of macroalgae (*Nitella* and *Chara*).

These native submergent plants were present to a maximum depth of 6 meters and covered a total of 30.8 acres, representing 70 percent of the lake area. Although the number of submergent plant species was relatively low, the high coverage of submergent plants and absence of a non-native species are indicative of high habitat quality.

The floating leaved types included a native water lily (*Nuphar lutea*) and the non-native white water lily (*Nymphaea odorata*) covering a total of only 0.3 acres. The low coverage of white water lily indicates that this non-native species does not impair habitat or recreational activities in the lake.

Three non-native plants designated as noxious weeds were observed among the emergent types. Purple loosestrife (*Lythrum salicaria*) and garden loosestrife (*Lysimachia vulgaris*) were observed along much of the north and south shores (see Figure 7). Reed canarygrass (*Phalaris arundinacea*) was also observed at one location on the north shore and one location on the east shore. Lake Burien residents have recently been working with Katie Messick of King County to map and control these noxious weeds. A map of the most recent survey conducted in July and September 2009 by King County is presented in Figure 8 (Messick 2010). The number of observed plants was similar, but many plant locations have changed since the 1999 survey.

Overall, the aquatic plant community in Lake Burien provides excellent habitat for fish and wildlife, and does not appear to impair aesthetic or recreational benefits of the lake. The excellent condition of this community is not common for other lakes located within developed basins within King County. The principal reason for its excellent condition is that an invasive submergent plant such as milfoil has not become established in the lake. To prevent and address potential introductions of invasive plants, the Shore Club should continue to educate residents and survey the lake for the presence of invasive species.

Fish and Wildlife

Lake Burien provides habitat for numerous fish and wildlife. An inventory of fish and wildlife observed in the immediate vicinity of Lake Burien has been recently compiled by lake resident Christine Edgar (Edgar 2010). This information is briefly summarized here and is currently being evaluated by Dr. Sarah Cooke, a senior wetland biologist with Cooke Scientific Services located in Seattle, Washington.

Fish species observed in Lake Burien by lake residents include the following types of warm water fish: largemouth bass, perch, crappie, pumpkinseed sunfish, and catfish (Edgar 2010). A bass inventory conducted approximately 12 years ago by R.L. Steater identified only healthy largemouth bass weighing 3 to 8 pounds each. In addition, small numbers of lake trout have been planted on occasion by lake residents (Warren 2010).

Numerous aquatic animals have been observed in the lake, including turtles, frogs, crayfish, otter, waterfowl, and water-dependent birds. Two species of note include the western painted

turtle, which is an endangered species in Washington, and the bull frog, which is a non-native species that impacts native amphibian populations.

Public Access Impacts

Lake Burien is surrounded by private property and currently there is no public property for physical access to the lake by the general public. As noted in the Introduction, the Draft Shoreline Master Program (Reid Middleton 2009) currently before the Burien Planning Commission includes policy and regulation provisions for establishment of public access to Lake Burien. Although public access could increase recreational benefits of the lake, it would threaten the existing habitat for aquatic organisms in the lake.

The primary threat of public access to aquatic habitat would be the increased opportunity for introductions of non-native, nuisance species to the lake. Of primary concern would be the introduction of Eurasian watermilfoil (milfoil). Milfoil is very abundant in nearby lakes and small fragments of this invasive plant are commonly present on watercraft and readily transported to other lakes where viable fragments are released to establish a new population. Introductions of milfoil or other aquatic nuisance species do not occur solely through motorized watercraft or large crowds; it is now recognized that less intensive uses can result in the introduction of harmful species, with harmful results to the water body. As noted above, information about milfoil and other invasive plant species is provided on websites maintained by King County (2010) and the Washington Department of Ecology (2010a).

If milfoil or other invasive plant species became established in the lake it would likely have significant, direct impacts on aquatic habitat and indirect impacts on water quality in Lake Burien. Milfoil can grow to a depth of at least 6 meters and would likely occupy most of the lake area within a relatively short period of time (e.g., less than 10 years). The aquatic plant biomass would likely increase in the lake to an excessive amount that could dramatically increase internal phosphorus loading, and ultimately fuel nuisance growths of filamentous algae and blooms of toxic bluegreen algae.

Public access would also increase the potential for introductions of aquatic invertebrates that can have devastating effects on aquatic habitat and water quality. Washington lakes are currently threatened by introductions of the quagga mussel, zebra mussel, New Zealand mudsnail, rusty crayfish, spiny water flea, and others (WDFW 2010). There is no reason to assume that Lake Burien would be immune from effects of these organisms and, due to its relatively small size, it may have less capacity to accommodate them.

A study of aquatic invasive species transport by small-craft boats and trailers was recently conducted in northern Wisconsin and the Upper Peninsula of Michigan (Rothlisberger et al. 2010). This research confirmed the widespread understanding that boats are an important vector in the spread of aquatic invasive species. A total of 13 aquatic plant species and 51 taxa of small-bodied organisms were observed on the tested boats.

In summary, any public access scenario for Lake Burien would entail significant risk of degradation to the lake's ecological functions as described above. And once set in motion the processes resulting in such degradation are not easily reversed.

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Figures

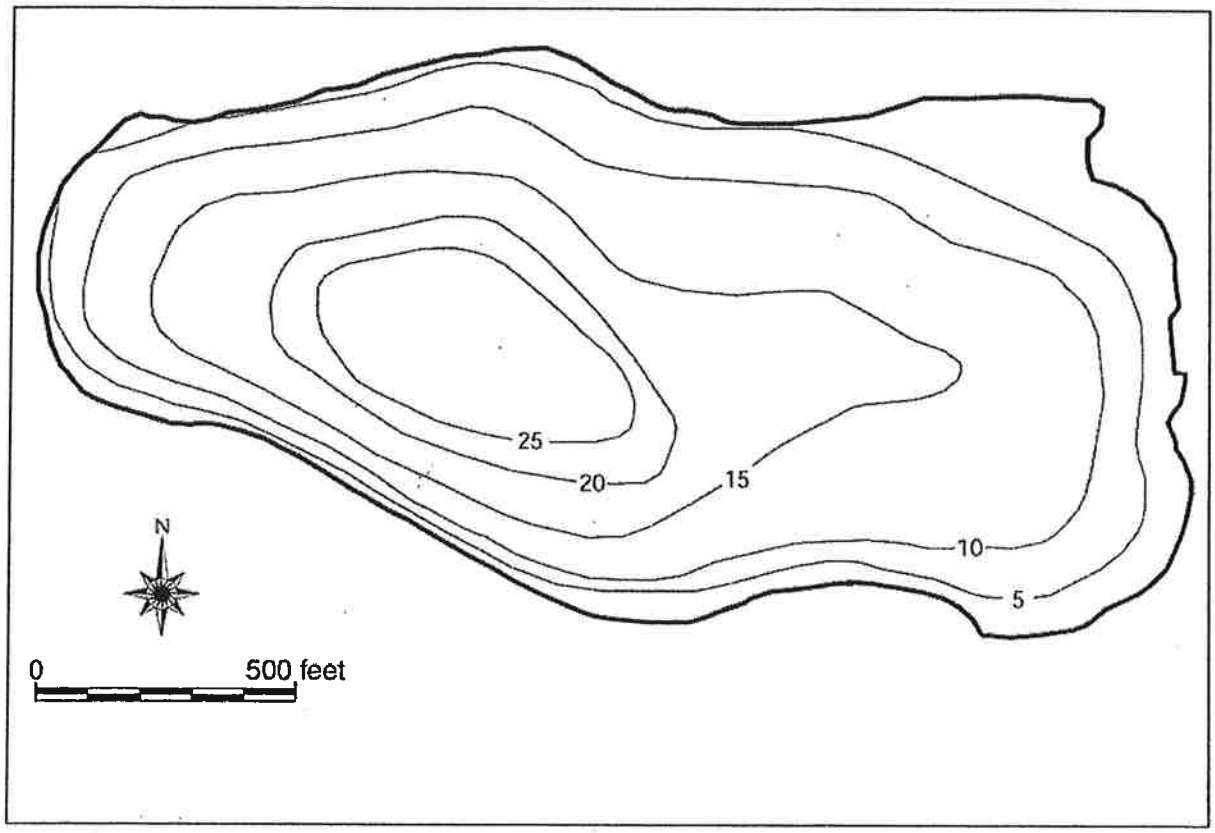

Figure 1. Lake Burien bathymetry showing depth contours in feet (source: Messick 2010).

Figure 2. Lake Burien watershed (source: Messick 2010).

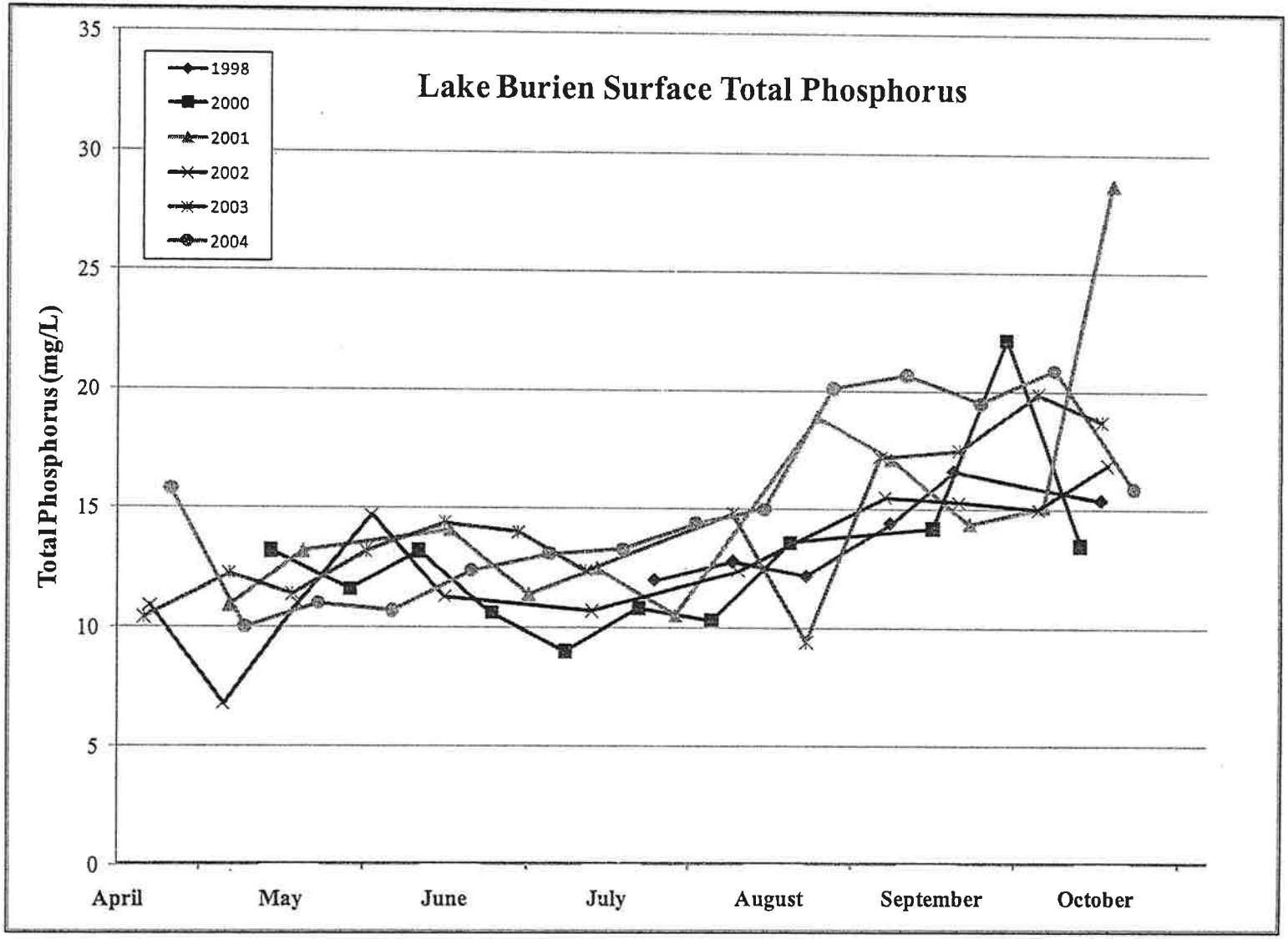

Figure 3. Lake Burien total phosphorus concentrations at 1 meter depth (source: King County 2010).

77

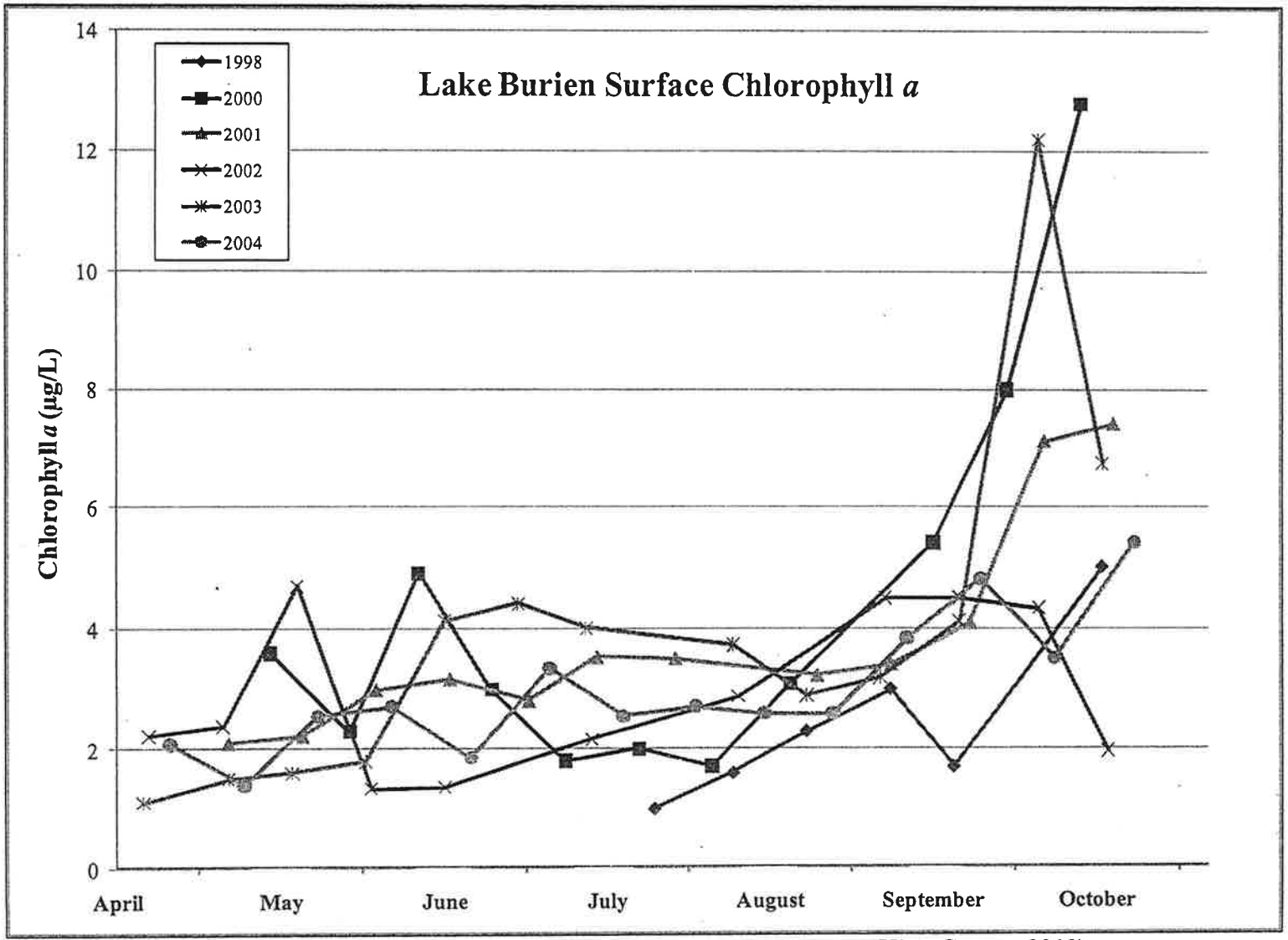

Figure 4. Lake Burien chlorophyll *a* concentrations at 1 meter depth (source: King County 2010).

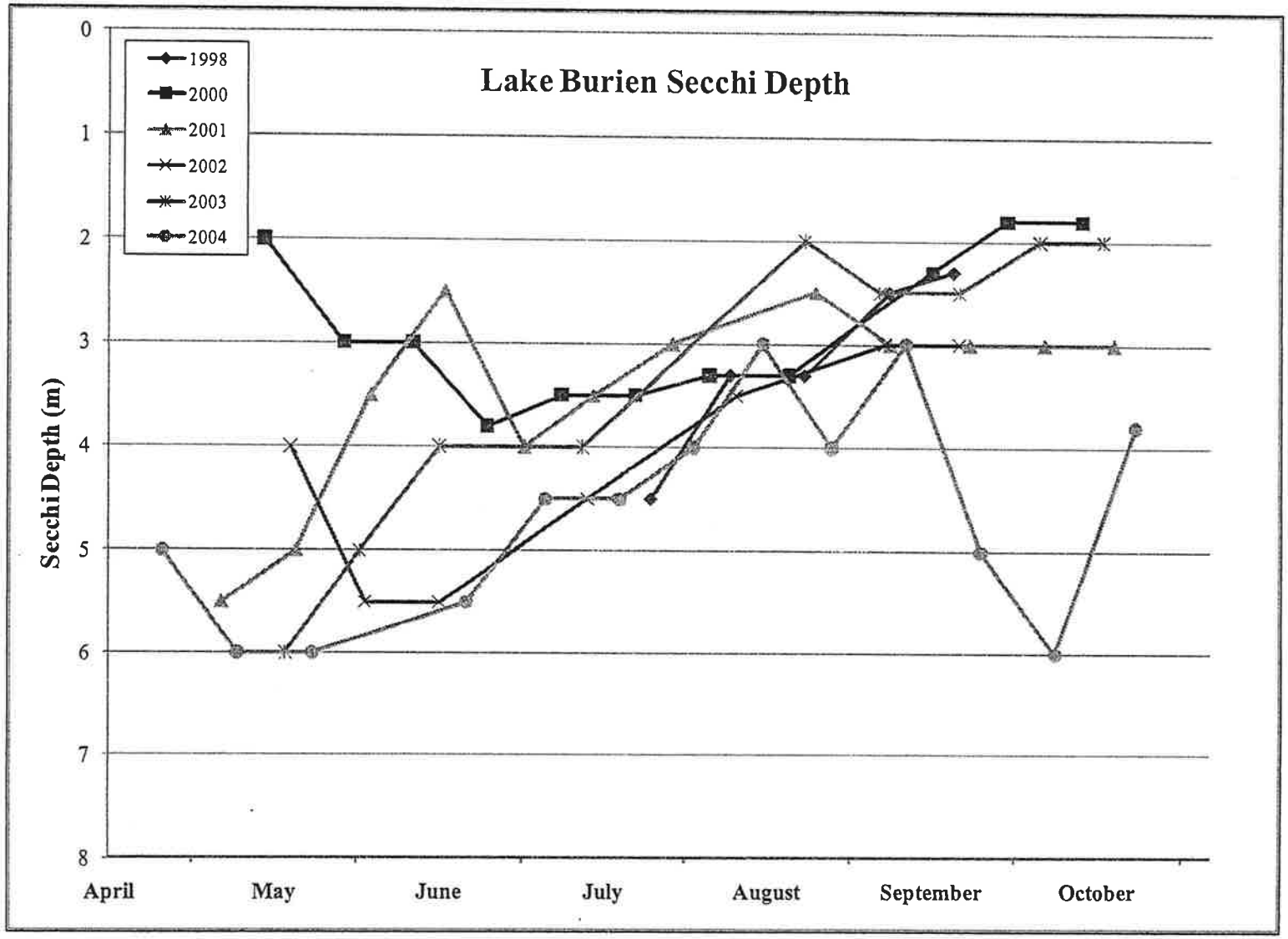

Figure 5. Lake Burien Secchi depths (source: King County 2010).

79

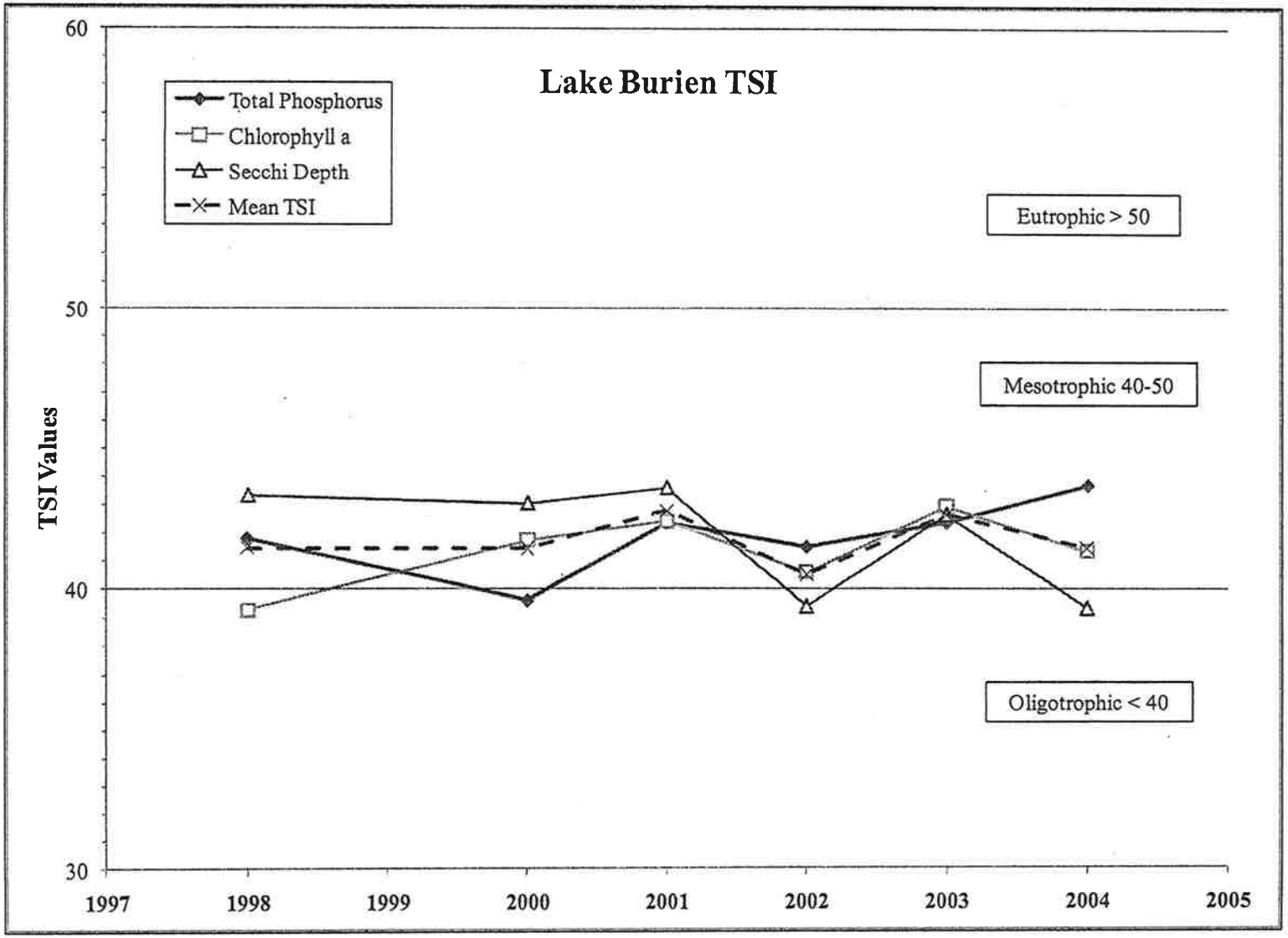

Figure 6. Lake Burien trophic state indices.

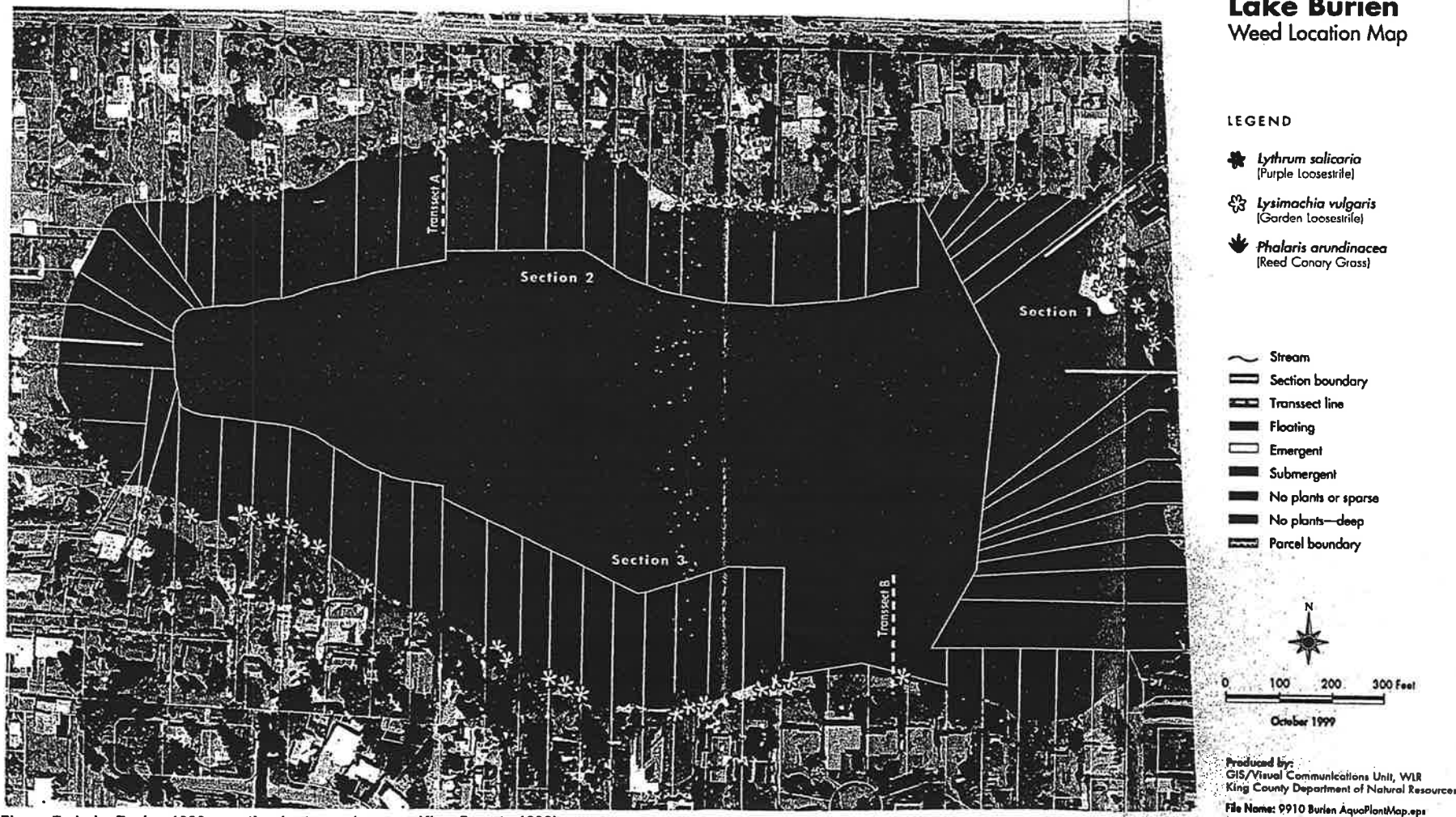

Figure 7. Lake Burien 1999 aquatic plant map (source: King County 1999).

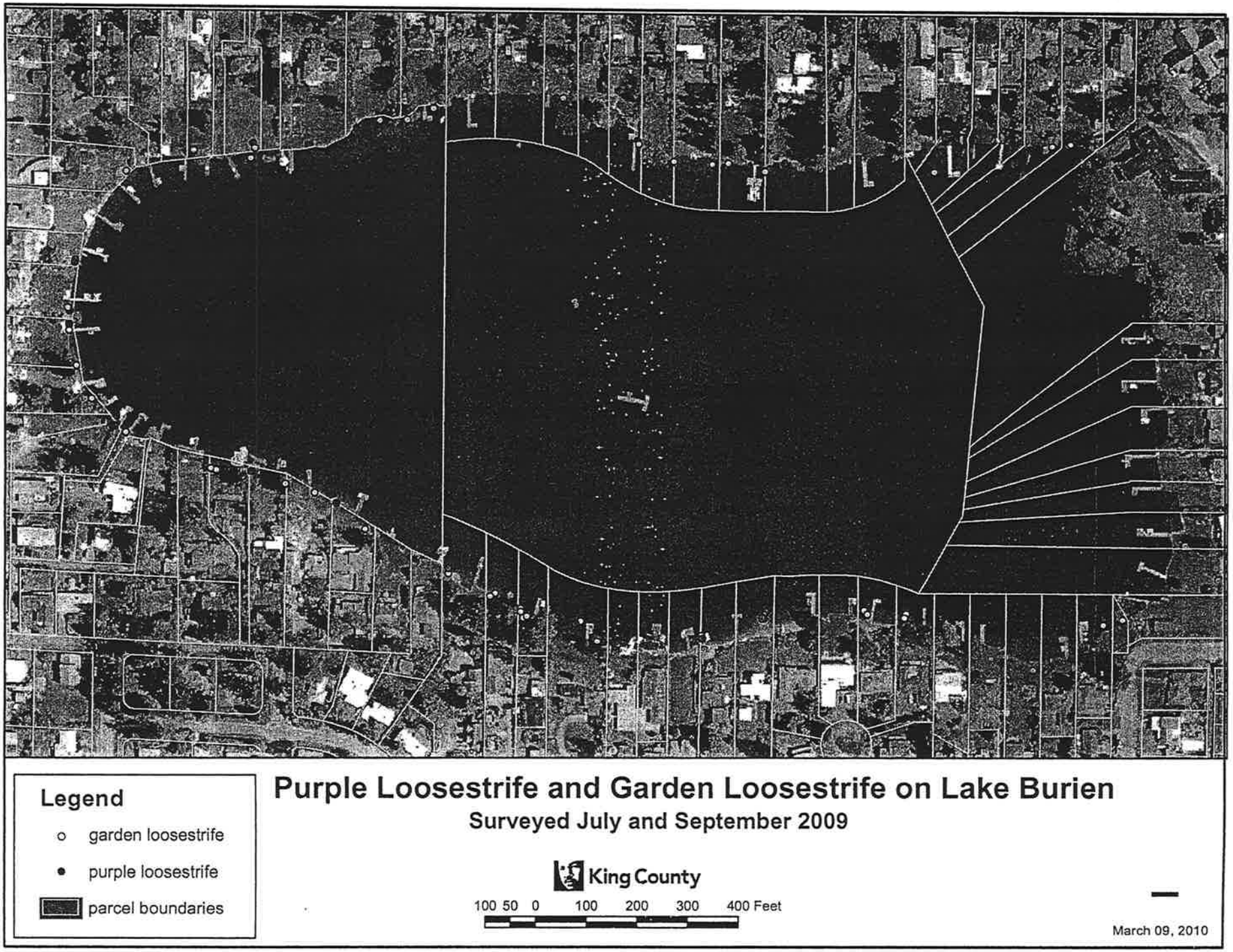

Figure 8. Lake Burien 2009 purple loosestrife and garden loosestrife locations (source: Messick 2010).

HERRERA
ENVIRONMENTAL
CONSULTANTS

Rob Zisette

Aquatic Science Principal

Rob Zisette, an aquatic science principal, has 28 years of professional experience specializing in surface water management, including lake restoration projects, aquatic plant management studies, stormwater management plans, and environmental impact statements. He has developed and implemented monitoring and quality assurance project plans for various freshwater and marine and water and sediment quality investigations. Mr. Zisette has mapped aquatic plants, evaluated aquatic plant management techniques, developed aquatic nuisance prevention plans, assessed plankton communities, identified nutrient sources, and evaluated lake restoration techniques in lakes and reservoirs. He has assessed benthic invertebrate populations, fish habitat, and riparian conditions in lakes and streams. He has evaluated nonpoint source pollution and the effects of best management practices (BMPs) in urban drainage basins. Additional experience includes water quality impact analysis for solid and hazardous waste management projects, sediment quality characterization and dredge disposal analysis for marine sediment management projects, laboratory analysis of water samples for various chemical and biological parameters, and quality assurance review of field and laboratory data.

Example Lake Projects:

Vancouver Lake Research Plan and Management Alternatives
Vancouver Lake Watershed Partnership, Vancouver, WA
Mr. Zisette provided technical input to the development of a 5-year research plan for Vancouver Lake that included research on water dynamics, nutrients, sediment, food web interactions, toxic contaminants, and fish and wildlife habitat. He also provided technical review of a summary of management action alternatives for the control of cyanobacteria in Vancouver lake.

Lake Steilacoom Calcium Oxide Treatment Study
City of Lakewood, WA
Mr. Zisette developed a quality assurance project plan to monitor a series of calcium oxide treatments in Lake Steilacoom for the City of Lakewood. Mr. Zisette coordinated water quality monitoring conducted twice a month at seven lake stations, and provided technical review of a report that evaluated treatment impacts and effectiveness. He is currently conducting a feasibility study of treating the lake with aluminum sulfate.

Lake Youngs Reservoir Limnological Studies
City of Seattle, WA
Mr. Zisette evaluated the feasibility of techniques for controlling off-flavors produced by periphytic blue-green algae (cyanobacteria) in Lake Youngs Reservoir for Seattle Public Utilities. He presented feasibility findings and a study approach to a workshop comprised of limnologists and stakeholders for the selection of preferred alternatives. Mr. Zisette designed in-reservoir tests and prepared a monitoring and quality assurance project plan for evaluating the effectiveness of four preferred alternatives: chlorine tabs, granulated copper algaecide, aluminum sulfate, and sediment capping. He used scuba diving to treat two sets of test plots (shallow and deep) and collect periphyton, water, and sediment samples. He designed a long-term periphyton monitoring program, and conducted 18 periphyton surveys that included underwater videotaping and the collection of replicate periphyton samples along survey transects. Mr. Zisette coordinated the testing of geosmin and MIB production by odor-producing algae cultures, and he prepared a

Years with HEC: 20

Credentials

M.S. in Water Resource Management, University of Washington, 1980

B.S. in Environmental Biology, University of Calgary, 1978

WSDOT Construction Site Erosion and Spill Control Certification Course, 2001

OSHA 40-Hour Health and Safety Training for Hazardous Waste Sites, since 1988

Scuba Diving Certification, 1979

Specialties

Lake management

Water quality

Stormwater management plans

Marine and freshwater sediment

Monitoring and quality assurance plans

taste and odor management plan based on results of the study. He also designed a comprehensive, long-term monitoring program for tracking changes in water quality and enhancing current knowledge of ecological relationships in the reservoir. Mr. Zisette assisted with the development of a water and phosphorus budget for this drinking water reservoir to quantify effects of drawdown from changes in ground water inflow and internal phosphorus cycling. He prepared a monitoring plan for evaluating effects of an air diffusion mixing system that was designed to reduce the short-circuiting of inflow through Lake Youngs. He designed and implemented special studies for evaluating the cycling of phosphorus, organic carbon, and copper between sediments and waters in shallow regions of the reservoir. Mr. Zisette prepared an aquatic plant management plan, installed bottom barriers, and successfully employed a hand-pulling technique to eradicate an early infestation of Eurasian watermilfoil. He conducted three aquatic plant surveys using sonar, visual, and sampling techniques for mapping the distribution, density, and biomass of aquatic plant species. Mr. Zisette co-authored an exotic aquatic species prevention program that included fact sheets and equipment decontamination procedures for the control of zebra mussels and invasive plants.

Lake Youngs Limnology Expert Panel Workshop
City of Seattle, WA

Mr. Zisette participated in a workshop with other limnology experts to evaluate observed trends in drinking water quality primarily associated with algae growth in Lake Youngs for Seattle Public Utilities. Mr. Zisette evaluated spatial and temporal trends in key hydrologic and water quality parameters using graphical and statistical analysis of a comprehensive set of limnological data collected over a 15-year period at eight monitoring sites located in Lake Youngs and the Cedar River Watershed. He prepared a report that summarized the observed trends, presented the data analysis findings to the expert panel, participated in discussions among experts at a workshop, and provided recommendations for future data collection and analysis to address water quality concerns.

Union River Reservoir Monitoring and Operation Evaluation
City of Bremerton, WA

Mr. Zisette developed a comprehensive monitoring program for the Union River Reservoir, which is impounded by Casad Dam and is the primary source of the unfiltered, 8-mgd drinking water system operated by the City of Bremerton. Existing monitoring procedures and historical data were reviewed to provide recommendations for changes in sampling station locations/depths, sampling frequency, and sample analysis parameters and methods. Mr. Zisette assisted the City with monitoring levels of cyanobacteria (blue-green algae) and microcystin for comparison to human toxicity criteria established by the World Health Organization. Mr. Zisette investigated the cause of excessive periphyton (attached filamentous algae) growth in the reservoir outlet (Union River) that resulted in filter clogging complaints from customers during the summer of 2002. He established appropriate monitoring procedures for tracking periphyton growth and developed reservoir operating guidelines to prevent nuisance levels of periphyton growth in the future. Mr. Zisette provided action levels for various monitoring parameters, develop outlet gate selection criteria to optimize water quality for various reservoir surface elevations, and provided training of City staff on limnological principles and methods for collecting periphyton samples.

Green Lake Alum Treatment and Integrated Phosphorus Management Plan
Seattle Parks and Recreation, WA

Mr. Zisette managed a project providing planning, engineering, and monitoring services to Seattle Parks and Recreation for the treatment of Green Lake with aluminum sulfate (alum) during the spring of 2004 to reduce the internal loading of phosphorus and resulting toxic algae blooms. He conducted a comprehensive study to determine the optimum approach to treating Green Lake with alum. Mr. Zisette prepared an integrated phosphorus management plan (IPMP) to obtain coverage under the Washington Department of Ecology's aquatic nuisance plant and algae control National Pollutant Discharge Elimination System (NPDES) general permit. He coordinated engineering and monitoring services for the 14-day alum treatment of Green Lake in the spring of 2004 that included preparation of the treatment specifications, drawings, and engineering cost estimate; contractor bid review and selection; and monitoring to assess pre-treatment, treatment, and post treatment water quality conditions. He prepared the alum treatment monitoring report presenting construction oversight and water quality monitoring results, and comparing those results to the project

objectives. Mr. Zisette also conducted stormwater monitoring and evaluated pollutant sources and treatment methods for controlling inputs of phosphorus and fecal coliform bacteria to the lake. He collected and analyzed sediment cores using divers to evaluate the presence of alum in lake sediments, and conducted underwater video surveys of the treated lake bottom to document disturbance by common carp and other benthic fish. He also developed a carp bioturbation model that predicts effects of sediment disturbance by common carp on lake phosphorus concentrations and loadings. Mr. Zisette prepared the post-treatment monitoring report presenting results of water quality monitoring, sediment monitoring, and carp bioturbation modeling. He also mapped aquatic plants in Green Lake using sonar and GPS, and recommended methods for control of Eurasian watermilfoil.

City of Portland Roslyn Lake Alternatives Analysis
City of Portland, OR

Mr. Zisette prepared a water quality modeling report for the City of Portland Water Bureau that evaluated future conditions of Roslyn Lake in Sandy, Oregon resulting from the decommissioning of a power plant on this storage reservoir. He reviewed of a previous water quality modeling effort and gathered background hydrology and water quality data. Mr. Zisette developed lake morphometry and hydrology alternatives that were based on protection of beneficial uses, a new source of inflow, and dramatic reduction of inflow rates. Mr. Zisette selected PHOSMOD as an appropriate model and used it to estimate the seasonal and long term water quality effects of the chosen alternatives. He presented modeling and sensitivity analysis results at a lake management conference.

Capitol Lake Water Quality Studies
Washington Department of General Administration, Olympia, WA

Mr. Zisette prepared a monitoring plan and coordinated field activities for evaluating impacts on water quality, benthic invertebrates, and fish from the drawdown of Capitol Lake in Olympia, Washington. He monitored water quality in Capitol Lake and Budd Inlet before, during, and after lake drawdown.

Capitol Lake Adaptive Management Plan
Washington Department of General Administration, Olympia, WA

Mr. Zisette evaluated sediment quality and dredge disposal options to assist the Washington Department of General Administration with the development of a sediment management strategy for Capitol Lake in Olympia, Washington. He reviewed historical sediment characterization studies and identified additional testing requirements for disposal of dredged sediments at either an upland or open-water disposal site. Mr. Zisette prepared a sediment sampling and analysis plan for review by PSDDA agencies. He collected replicate sediment cores from four locations in a proposed dredging site, validated data according to PSDDA procedures, and compared results to criteria established by PSDDA, MTCA, Thurston County, and surface water quality standards. Mr. Zisette identified locations of potential upland disposal sites, evaluated truck and rail transportation alternatives, summarized permitting requirements, and recommended the most cost-effective method for the handling and disposal of dredged lake sediments.

Boundary Reservoir Water Quality Assessment
Seattle City Light, WA

Mr. Zisette assisted with the development and implementation of a water quality monitoring program for evaluating trophic conditions and potential bull trout habitat in a 12-mile long impoundment of the Pend Oreille River. He evaluated spatial and temporal variability of trophic state indicators (secchi depth, total phosphorus, and chlorophyll a) and plankton populations in the reservoir based on data collected for the monitoring program and previous studies.

Green Lake Phase IIC Restoration Project
Seattle Parks and Recreation, WA

Mr. Zisette coordinated monitoring of water quality in Green Lake, Seattle, Washington, for evaluating the effects of alum treatment. Mr. Zisette prepared specifications for the purchase of an aquatic plant harvester and assisted in developing a harvesting plan for the control of Eurasian watermilfoil in the lake. Mr. Zisette prepared and implemented the stormwater quality monitoring plan for sampling five storm events per year at

17 locations. He evaluated the potential for internal phosphorus loading from results of diurnal studies. Mr. Zisette coordinated development of the lake's water budget and stormwater phosphorus budget.

Silver Lake Phase II Restoration Project
Cowlitz County, WA

Mr. Zisette coordinated and participated in monitoring water quality and discharge during five storm events at the two largest inflow streams and the outlet of Silver Lake in Cowlitz County, Washington for evaluating the effects of grass carp introduction. He was responsible for development of the lake's water budget over a two-year period, which included compilation of precipitation, evaporation, and lake level data and modeling stream inflow.

Horseshoe Lake Phase II Restoration Project
City of Woodland, WA

Mr. Zisette coordinated monthly water quality sampling and annual benthic invertebrate sampling at Horseshoe Lake in Woodland, Washington for evaluating the effects of lake flushing and alum treatment.

Lake Sacajawea Phase II Restoration Project
City of Longview, WA

Mr. Zisette analyzed water samples for various constituents and evaluated the effects of lake flushing upon plankton communities for the restoration analysis of Lake Sacajawea for the City of Longview.

Lake Ballinger Phase II Restoration Project
City of Mountlake Terrace, WA

Mr. Zisette mapped the distribution and density of aquatic plant species using a combination of sonar, visual, and sampling techniques in Lake Ballinger for the City of Mountlake Terrace. He analyzed water samples and reported on nutrient and plankton interactions in the lake.

Phantom Lake Phase I and II Restoration Projects
City of Bellevue, WA

Mr. Zisette collected water samples from monitoring wells, seepage meters, and lake inlets for the restoration analysis of Phantom Lake for the City of Bellevue. He coordinated development of the lake's water budget and calculation of stormwater nutrient loads using a spreadsheet model.

Lake Lawrence Phase I Restoration Project
Thurston County, WA

Mr. Zisette monitored well points and domestic wells on a quarterly basis for the diagnostic study of Lake Lawrence for Thurston County. He evaluated impacts of existing and future land use on water quality and recreational use of the lake. Mr. Zisette assessed chemical results of lake sediment cores for impacts of historical practices in the watershed on the lake's trophic condition.

Martha Lake Phase I Restoration Project
Snohomish County, WA

Mr. Zisette coordinated the stormwater monitoring program for the diagnostic study of Martha Lake for Snohomish County. He collected water samples and flow measurements on an hourly basis at three stations for four storm events.

Pine Lake Phase I Restoration Project
King County, WA

Mr. Zisette monitored and reported on the lake nutrient budget and trophic state for the diagnostic study of Pine Lake for King County. He identified a wetland as the major external source of phosphorus and primary cause of excessive algal growth in the lake.

ATTACHMENT C

COOKE SCIENTIFIC
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COOKESS@COMCAST.NET WWW.COOKESCIENTIFIC.COM

March 23, 2010

Attn: Don Warren, President & Lake Steward
Lake Burien Shore Club
Burien, WA

RE: Review of the City of Burien's Draft Shoreline Master Plan (SMP) as it applies to Public Access for Lake Burien

Dear Mr. Warren:

The Lake Burien Shore Club is concerned that the Draft Shoreline Master Program (SMP) adopts a policy of public access for Lake Burien without an investigation into the impacts it might have on the Lake ecosystem and water quality. The Shore Club asked me, in my capacity as a professional wetlands scientist, to review the portions of the Draft SMP amendments pertaining to Lake Burien, and to determine what data, if any, exists to support the City's proposed public access policies. As detailed below, my review and analysis of the existing data and my own field investigation lead me to the conclusion that there is insufficient information to support adoption of these policies and that such adoption would likely be inconsistent with the level of protection required to maintain the sensitive lake, it's adjacent wetlands, streams, and associated wildlife, in sound ecological health.

Findings Summary

It is apparent that the Burien Shoreline Master Program Update relies on the following reports generated by City's Consultants:

- Shoreline Inventory (Grette Associates 2008)
- Shoreline Analysis and Characterization (Grette Associates 2008)
- Cumulative impacts Analysis (Grette Associates 2009)
- Shoreline Restoration Plan (Grette Associates 2009)

These documents do not reflect analysis of existing data and conditions with respect to Lake Burien as is required under the Shoreline Management Act (SMA) and outlined in the Shoreline Management Plan Guidelines adopted by the Department of Ecology (WAC 173-26-201, Comprehensive Process to Prepare or Amend Shoreline Master Programs, Section 3C and D).

The City is proposing public physical access to the Lake without studying the impacts to the Lake functions that could result, and therefore, without addressing measures necessary to mitigate such impacts. The Draft SMP is therefore, not in

compliance with the Shoreline Management Act (SMA) (RCW 890.58), and SMP Guidelines (WAC 173-26, Part III). The SMA and SMP Guidelines require current scientific-based or a "Best Available Science" (BAS) -based characterization of shoreline ecological functions, adoption of a no-net-loss policy with respect to these ecological functions, recognition of potential consequences from proposed management actions, and adoption of appropriate mitigation measures.

Focusing primarily on the Lake's wetland functions. I have reviewed all the documents and web-based resources listed in the reference section at the end of this document in addition to undertaking the personal communications listed there. I also conducted reconnaissance field research at the Lake and its wetlands on March 3, 2010. Most of the wetlands information I have reviewed (and gathered) is notably not referenced in the City's or its consultant's characterization and resultant analysis. The Lake's aquatic resources, and potential impacts to them from the proposed public access, were finally addressed in a report by limnologist Rob Zisette of Herrera Environmental Consultants, which was submitted to the Planning Commission by the Shore Club on March 17, 2010. This report concluded that providing public access to Lake Burien could have adverse and unintended impacts on its ecological well-being in terms of the introduction of invasive, non-native plant and animal species, and the potential for water quality degradation.

Analysis

1. **Proposed SMP Policies are not based on current and best available science.** In reading the four reports listed above which formed the basis for the Draft SMP Update, it is apparent that very little attempt was made to find the available data for the Lake, let alone do additional studies required by the SMA and SMP guidelines. Rather, the City's consultant team stated that they only needed to comply with the characterization of the Lake found in the City's Municipal Code and Comprehensive Plan. In my own discussions with Department of Ecology scientists, (Pers. Comm. With Eric Stockdale, March 2010), it has been made clear that an SMP developed without analysis of current lake conditions and functions (e.g., water quality, hydrology, and wildlife habitat) would be unlikely to survive Ecology's mandatory SMP review process.

   There is little evidence that Grette staff reviewed existing Lake data or coordinated their recommendations with any other scientists with expertise of the Lake. The SMP guidelines specifically identify this collaboration as being essential to the characterization and impact assessment for developing the SMP. King County has an on-line a report that covers ten years of study data and analysis of the Lake. There is only one apparent reference to other studies in the Grette reports and this is regarding phosphorus concentrations in the Lake. This data likely comes from the King County Lake Report, although it is not listed in the bibliography. The Coastal Atlas (Wa. DOE Web resource 2010) similarly is not referenced and it shows the quality of Lake Burien to be excellent, in stark

the lakeshore frontage of a particular lot. The herbaceous patches are dominated by softrush and yellow-flag iris, but native rushes, grasses and sedges can also be found. There are scattered sandy beaches around the Lake and resident reports indicate that turtles nest on most.

The Lake water quality is remarkably good, according to the Department of Ecology Coastal Atlas and King County Lake Monitoring Data, as well as the analysis recently prepared by Rob Zisette at Herrera Environmental Consultants. The only motors allowed in the Lake are electric. The lake residents do not move their boats from Lake Burien to outside lakes and back. This means that there are few to no opportunities for invasive weeds to be introduced into the Lake. Mr. Zisette's limnology report addresses the ecosystem effects of introduction of invasive species, plant and animal.

The Lake residences are on sewer so there is no septic effluent leaching into the Lake, a common occurrence in other lakes throughout the County. There were no algal blooms, and I could see the bottom in areas where the depth is reported to be at least 10 feet (King County Web site bathymetry). There appear to be only a few patches of pond lily (as seen on aerial photographs from the summer). I saw no algae, milfoil or elodea (common noxious aquatic weeds in urban lakes)

The Lake is currently entirely developed with residences, with the exception of the Ruth Dykeman parcel in the northeast corner. The dominant activity on the Lake is by personal boats, most using electric motors. Electric motors make very little wake as they tend to move very slowly through the water. Additionally, the local residents and Lake Steward monitor the Lake for any irregular activity. Residents for the most part, keep their dogs from the Lake, so there is no dog fecal matter entering the lake and according to residents there is relatively little disturbance of the birds by dogs or cats.

3. **SMP Public Access provisions should not be adopted in absence of required scientific support and analysis**

Based on my research and observations, I find Lake Burien to be in surprisingly good condition for an urban lake and the water quality, habitat, and the number of species of wildlife present are not matched in the urban setting. In a case such as this, public access would result in (potentially irreparable) impacts to the ecosystem. It would be unwise to introduce public access which could upset the current balance, especially without investigating what the potential impacts might be.

References

City of Burien, Washington. December 2009. Ordinance 528. City of Burien, Burien Comprehensive Plan Update.

City of Burien 2003. Burien Municipal Code. Chapter Title 19.

Grette Associates. 2008 City of Burien Shoreline Master Program Update Shoreline Inventory.

contrast to all other lakes in the urban corridor. The Lake shore is completely surrounded by private property and no residents report seeing Grette staff on their properties to collect data.

As part of the impact analysis, it is important to know what wildlife currently exists on the lake. No wildlife censuses were done as part of the lake characterization and there was no attempt to collect existing data from King County and/or local residents regarding the Lake's resident birds, migratory birds, mammals, fish, amphibians, reptiles or insects. The residents and a local fish expert, Richard Streater, have identified trout, bass, sunfish and perch, yet the City in their Municipal Code, Comprehensive Plan, and Draft SMP state there are no fish in the Lake. As discussed below, shore residents regularly observe eagles, hawks, and heron preying on fish in the Lake. The Lake Steward has not been contacted by anyone from the City's consultant team, despite the fact that he has a significant amount of data after years of monitoring the Lake.

2. **Lake Reconnaissance and other data discoveries.** In addition to reviewing and analyzing existing data respecting Lake Burien, I visited the Lake on March 3, 2010; met with shore residents and circumnavigated the shoreline in a boat. I took photographs, recorded vegetation types, shoreline characteristics, water visibility, the presence of invasive plant species: aquatic, wetland, and upland plant and animal taxa. I ran the wetland data through the Wetland Rating form for Western Washington (Hruby 2004) and I took notes on birds and fish and reptiles. A neighbor showed me photos of the painted turtles that lay eggs on her beach, and there are reports that red slider turtles may also be present. There are bullfrogs and Cascade frogs, and crayfish in the Lake. None of this information is included in Grett's Shoreline Inventory or Shoreline Analysis and Characterization. One wonders how Grette developed the Impact Analysis without being aware of the wildlife and water quality of the Lake.

   For more than 60 years, shore residents have tracked wildlife use of the lake and environs and recently have been taking bird census data, some using Audubon Guidelines. Priority species, including bald eagles, osprey, and blue heron use this lake for perching and feeding. These species are observed regularly. Although not documented in the City's record, the residents give first hand reports of this. I saw both blue heron and bald eagles the day I visited. Lake residents have identified over 80 different species of birds. Long-term residents report bird sightings have increased since the development of the third runway and filling of many of the wetlands at SeaTac. An animal inventory was compiled by the residents and included bats, mice, rats, voles, shrews, raccoons, weasels, opossums, squirrels (grey), and a historic sighting of otter in the 90's.

   There are existing patches of undisturbed wetlands scattered around the Lake, especially in the northeast corner in front of the Ruth Dykeman Center. This area has a large aquatic plant community dominated by hardstem bulrush (a native plant), with an associated riparian corridor that leads to the outlet and Burien Creek which has both upland and wetland components. The other lakeshore vegetation patches are both herb and shrub dominated, ranging from 1/5 to ½ of

Grette Associates. 2008 City of Burien Shoreline Master Program Update Shoreline Analysis and Characterization.

Grette and Associates. 2009 City of Burien Shoreline Master Program Update Cumulative Impacts Analysis.

Grette and Associates. 2009 City of Burien Shoreline Master Program Update Shoreline Restoration Plan.

King County Water Quality in Lakes report. 1998 – 2004. Lake testing http://your.kingcounty.gov/dnrp/wlr/water-resources/small-lakes/data/lakepage.aspx?SiteID=43

King County. 2009. Lake Burien Lake Characterization. Web resource http://your.kingcounty.gov/dnrp/wlr/water-resources/small-lakes/data/lakepage.aspx?SiteID=43

Sheldon, D., T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. March 2005. Wetlands in Washington State - Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.

Washington State. Revised Code of Washington *RCW 36.70A.172. Growth Management ACT.*

Washington State. 1972. Revised Code of Washington 90.58. Shoreline Management ACT.

Washington State. 2003. (WAC 173-26, Part III) Shoreline Master Program Guidelines

Washington State Department of Ecology. 2010. The Coastal Atlas. Web resource. https://fortress.wa.gov/ecy/coastalatlas/viewer.htm

Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10. March 2006. Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance (Version 1).Washington State Department of Ecology Publication #06-06-011a. Olympia, WA.

Personal communications

Erik Stockdale, Washington State Department of Ecology, Bellevue staff. Staff assigned to review the Burien SMP. March 3 and 11.

Richard Streater, fishing lures author and fish expert. March 2010

Sarah Spear Cooke
Certified Wetland Professional and Fellow
Society of Wetland Scientists

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Sarah Spear Cooke, Ph.D.

Wetlands Ecologist, Soil Scientist, Plant Ecologist and Taxonomist

Expertise

- Wetlands creation, restoration, and enhancement , CAD design and implementation
- Wetlands delineation and delineation methodology instruction
- Invasive weed identification and development of control strategies, control manuals, and field oversight of control efforts
- Ordinary High Water Mark (OHWM) determinations and instruction.
- Regulatory and Permitting Assistance, on local, state and national levels
- Wetland Functional Evaluation, including the "SAM" method and a botanical expert on the development of the State wetland manual
- Masters in Botanical taxonomy, Doctorate in Botany and soils, specializing in wetland plants
- Author *A Field Guide to the Common Wetland Plants of Western Washington & Northwestern Oregon,* published by the Seattle Audubon Society
- Certified soil scientist (hydric soils), soils mapping and classification
- Watershed Analysis
- Rare plant surveys and mapping
- Mine reclamation ecology and uplands restoration

Dr. Cooke has 24 years of experience in wetlands ecological research and environmental consulting, and 27 years of experience in ecological and geological research, in the Pacific Northwest. She specializes in habitat creation, restoration and enhancement projects, both in design and implementation. She excels in permitting assistance on the local, state, and national level. She was a co-senior investigator for the Puget Sound Wetland and Stormwater Management Research Program, a 10-year systematic wetland ecosystem study conducted under the auspices of the Environmental protection Agency, The US Geological Survey, Washington State, and King County in Washington State. Dr. Cooke's areas of expertise include: wetland and stream inventories, delineation, restoration/mitigation designs, baseline studies, permitting, and monitoring programs; weed identification and control; rare plant surveys and vegetation mapping; soil assessments; watershed analysis; and environmental assessments in the region. She has more experience in developing assessment methodologies than any other private wetlands consultant in the PNW. She has extensive experience in classroom instruction of wetlands ecology, restoration ecology and implementation, delineation protocols, functional assessment, weed identification and control, hydric soils, and wetland plant identification. She has 16 years experience in managing multidisciplinary teams, supervising subcontractors, and generating reports, and marketing from a consulting perspective. She currently teaches restoration ecology and implementation, wetland botany, and weed ecology and control at Portland State University. She is a former instructor for the Wetland Certification Program at the University of Washington and Wetland Ecology and Science for the graduate program at the Evergreen State College. She has been teaching classes for the Coastal Training Program through the

Washington State Department of Ecology for eight years and has taught wetland Delineation for the US Army Corps of Engineers. She is also the senior author/editor of the *A Field Guide to the Common Wetland Plants of Western Washington & Northwestern Oregon*. And the Semi Quantitative Wetlands and Buffer Functional Assessment Method used since 2001 by most wetland practitioners.

Education

Ph.D., University of Washington, Dissertation title: The Edaphic Ecology of Two Northwest American Composite Species. Major: Botany, Geology, and Soils; minor Statistics, Plant Physiology, and Genetics
M.S., Plant Taxonomy, University of Washington, 1987.
Honors Degree, Geobotany, McGill University, 1979.
B.S., Biology and Geology, McGill University, 1979.
Undergraduate studies in Biology and Geology at Purdue University 1974-76.

Experience

- Self-employed, Cooke Scientific. Seattle Washington. Projects include wetland mitigation (restoration, enhancement, and creation), wetland delineations, weed identification and control, wetland inventories, wetland functional assessments, wetland and sensitive areas permitting (federal, state and local jurisdictions), rare plant surveys, vegetation and soil mapping, environmental evaluations, environmental impact statements, watershed analysis, and mine reclamation, third party regulatory review for various small jurisdictions. 1998-present.
- Western Washington Representative, Washington State Noxious Weed Board. 2005 to present. Chair, Standards committee. Developed a methodology for inventorying weeds used by County Weed boards in Wa.
- Instructor, Habitat Restoration, and Mitigation. Wetland Training Institute. Syllabus development, classroom instruction, and field trips. Spring 2010.
- Instructor, PNW Winter Twig ID. Coastal Training Program, Washington State Department of Ecology, classroom instruction, and field trips. 2007-present
- Instructor, Grass, Sedge and Rush ID in PNW. Coastal Training Program, Washington State Department of Ecology, classroom instruction, and field trips. 6-class contract, 2004-present.
- Instructor, Washington State Wetland Rating System in Western Washington. Coastal Training Program, Washington State Department of Ecology, classroom instruction, and field trips. 6-class contract, 2005-2006.
- Instructor, Weeds of the Pacific Northwest. Portland State University, Portland, Oregon. Syllabus development, classroom instruction, and field trips. Summer 2004.
- Development Advisory Team. Washington State Wetland Rating for Western Washington. Washington State Department of Ecology. 2002-2004.
- President Pacific Northwest Chapter Society of Wetland Scientists. May1999- May 2000. Executive Vice President SWS PNW Chapter 1998-1999.
- Development Advisory Team. Washington State Functional Assessment Method. Washington State Department of Ecology. 1996-1998.
- Instructor, WNPS Native Plant Stewardship program, King, Snohomish, Pierce Counties, Washington Native Plant Society, Syllabus development, classroom instruction, Fall 1996- present.
- Instructor, Hydric soils class, University of Washington, College of Forest Resources, Center for Urban Horticulture. 1998, 2006.
- Instructor, Habitat Restoration, and Mitigation. Portland State University, Portland, Oregon. Syllabus development, classroom instruction, and field trips. Fall 1998- 2008.

- Owner, Cooke Scientific Services, Inc. Seattle, Washington. Principal Scientist and President of company. Projects include wetland mitigation (restoration, enhancement, and creation), wetland delineations, wetland inventories, wetland functional assessments, wetland and sensitive areas permitting (federal, state and local jurisdictions), rare plant surveys, vegetation and soil mapping, environmental evaluations, environmental impact statements, watershed analysis, and mine reclamation in upland and wetland areas. 1995-2003.
- Instructor, Wetland Plants of the Pacific Northwest; Winter trees and shrubs; and Grasses, Sedges, and Rushes. Portland State University, Portland, Oregon. Syllabus development, classroom instruction, and field trips. Spring 1998- present.
- Principal Scientist, wetlands Group, Pentec Environmental Inc., Edmonds, Washington. Started, marketed, and managed the wetlands group. Projects included wetland mitigations (restorations, enhancements and creations), wetland delineations, wetland inventories, wetland functional assessments, wetland and sensitive areas permitting (federal, state and local jurisdictions), rare plant surveys, vegetation and soil mapping, environmental evaluations, environmental impact statements, watershed analysis, mine reclamation in upland and wetland areas. 1990 – 1995.
- Instructor, University of Washington, Extension Services, Wetland Certification Program. Wetland Science and Ecological Processes. . Syllabus development, classroom instruction, and field trips. 1994-1996.
- Instructor, University of Washington, Extension Services, Wetlands Flora of Western Washington. Syllabus development, classroom instruction, and field trip. 1990-1996.
- Long-term Research Co-manager, Puget Sound Wetlands and Stormwater Management Research Program. Experimental design, implementation, and coordination of a five-year total ecosystem survey and monitoring study. 1987-1996.
- Project Coordinator, Senior Editor and Author. US Environmental Protection Agency/Washington Native Plant Society. A Field Guide to the Wetland Flora of Pacific Northwest Project. Grant writing, project management, technical coordination, and writing the grass, sedge, and rush sections of book. 1992-1997.
- Instructor, Washington State Department of Ecology, Wetland and Riparian Restoration, a workshop for agency staff and consultants. Co-development of syllabus, text, class instruction for the vegetation portion of the workshop. 1993.
- Co-instructor, Hydric Soils workshop. University of Washington Center for Urban Horticulture, College of Forest Resources. 1992.
- Instructor, Hydric Soils, Processes and Characteristics. University of Washington Extension Services. Development of syllabus, text, classroom instruction, and class field trip. 1992.
- Co-instructor, Wetlands Ecology. The Evergreen State College, Masters of Environmental Science. Co-development of syllabus and co-instructor for wetlands ecology, management, and regulatory policy class. 1991.
- Instructor, Interagency Wetlands Delineation Agency Training/USACOE, EPA, SCS, Fish, and Wildlife Service. Taught vegetation and soils methodology (1987 and 1989 methodologies).
- Field Biologist/Soil Scientist, King County Wetlands Inventory. Paper inventory, development of field assessment protocol, manager field-inventory. 1990.
- Professional Botanist, Washington Native Plant Society. Research, teaching workshops related to the native flora, establishment, and curator of the plant species distribution library. 1989.
- Senior Wetlands Ecologist, Shapiro and Associates. Wetland delineation, plant identification, vegetation analysis, soils assessment, aerial photo

interpretation, and report writing, with emphasis on wetlands problems, and toxic waste. 1988.

- Botany and Soils Consultant and Subcontractor, Raedeke Associates. Plant identification, vegetation analysis, soils assessment, and aerial interpretation with emphasis on wetlands problems. 1986-1987.
- Team Member, Cedar River Watershed Long-term Wetlands Monitoring Project, Seattle City Light. Design and implementation of vegetation and soils aspects of the study, and air photo interpretation. 1988.

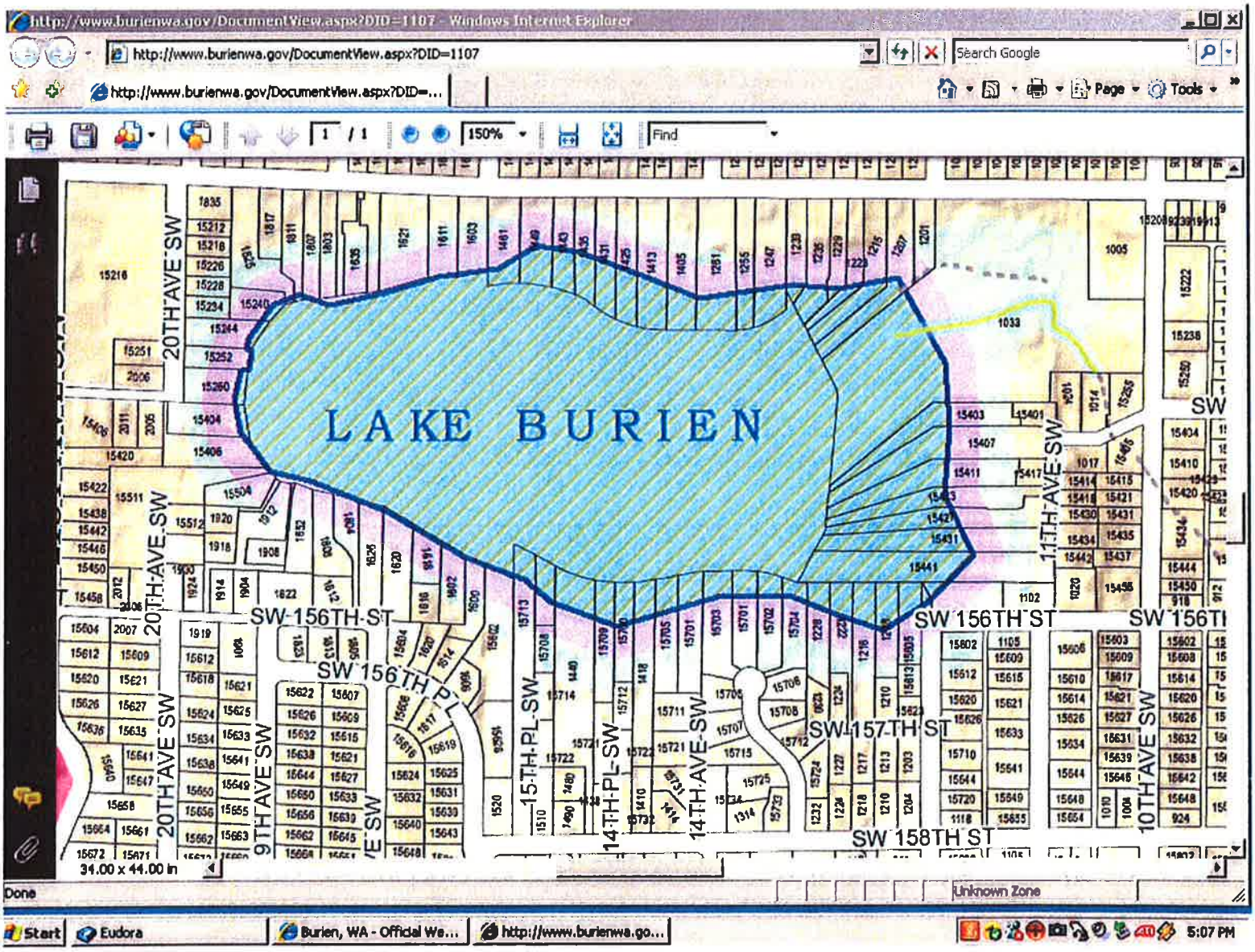
Awards

- International fellow. Society of Wetland Scientists. Dr. Cooke was one of three internationally scientists recognized by the SWS for our contributions to Wetland Science. 2003.
- Elected President, Society of Wetland Scientists, Pacific Northwest Chapter. 1999-2000.
- Best Paper Award. International Serpentine Conference, Society of Serpentine Ecology. 1999.
- Sigma Xi, Forestry Society. Elected to be a member of the Washington State Chapter of Sigma Xi, the professional Foresters Society. 1994.

Professional Affiliations

- Member of Society of Wetland Scientists
- Member Society for Ecological Restoration
- Member Association of State Wetland Managers
- Member Sigma Xi
- Member Ecological Society of America
- Member Consulting Soils Scientists of America

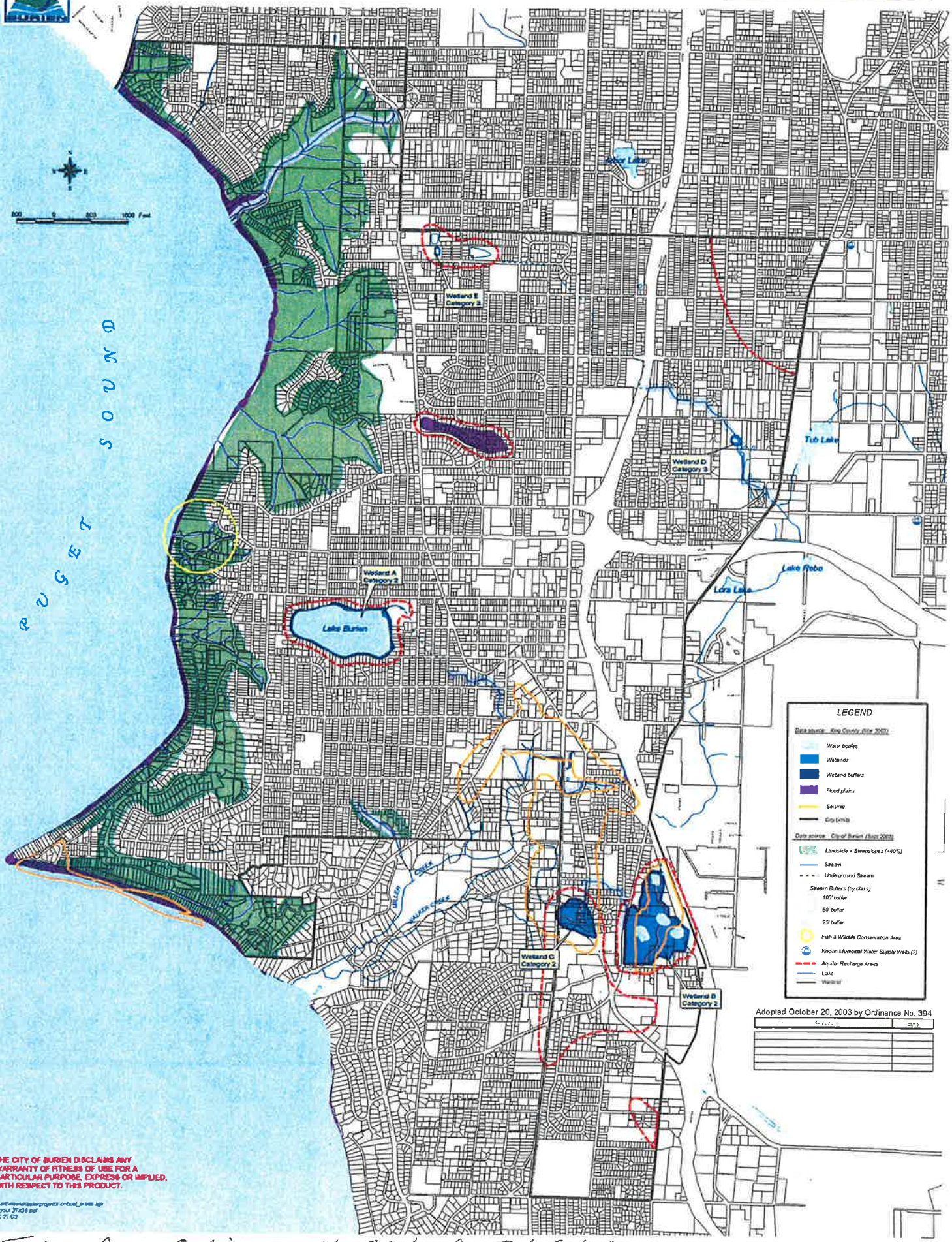
ATTACHMENT D



aqua color /// = wetlands
aqua color = aquifer recharge area
*tan color = seismic / no areas on Lake Burien
light pink = wetland buffer
green stream = type 4

CITY OF BURIEN
CRITICAL AREAS MAP

Note: This map is for display only. All delineations are approximate. Additional sensitive areas not shown may also be identified by onsite or other studies.

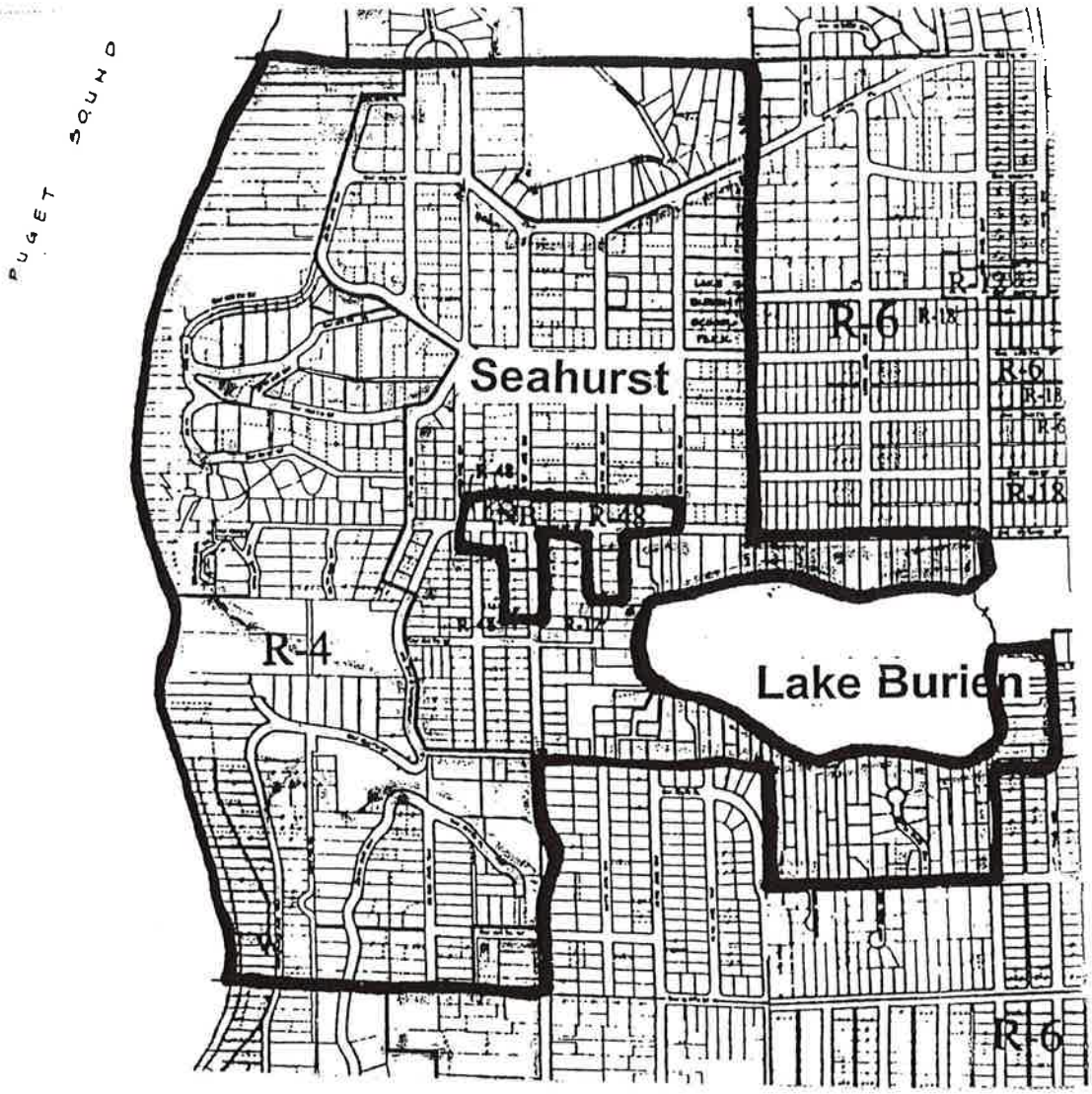


Adopted October 20, 2003 by Ordinance No. 394

THE CITY OF BURIEN DISCLAIMS ANY WARRANTY OF FITNESS OF USE FOR A PARTICULAR PURPOSE, EXPRESS OR IMPLIED, WITH RESPECT TO THIS PRODUCT.

Taken from Ordinance No. 394 Adopted Oct. 2003

ATTACHMENT E



SEAHURST ANALYSIS AREA

Potential new lots per existing zoning (at 7,200 or 9,600 square feet per lot)	**413** (45% increase over existing number of lots)
Potential new lots per Comprehensive Plan (between 12,000-15,000 square feet per lot)	**162** (18% increase over existing number of lots)
Base number of potential new lots per compromise "metering" system (at 7,200 or 9,600 square feet per lot)	**162** (18 % increase over existing number of lots)

LAKE BURIEN ANALYSIS AREA

Potential new lots per existing zoning (at 7,200 square feet per lot)	**53** (66% increase over existing number of lots)
Potential new lots per Comprehensive Plan (12,000 square feet per lot)	**2** (3% increase over existing number of lots)
Base number of potential new lots per compromise "metering" system (at 7,200 square feet per lot)	**2** (3% increase over existing number of lots)

TAKEN FROM 1999 ADDENDUM TO COMP. PLAN EIS

DRAFT

"The Public Trust Doctrine and Coastal Zone Management in Washington State", Washington Dept. of Ecology, October 1991

ATTACHMENT F

C. Interests Protected by the Doctrine

1. Interests Protected Under Washington Law

The classic list of interests protected by the public trust include commerce, navigation, and fisheries.[236] The Washington Supreme Court has followed the general trend by recognizing a broad range of public interests. The court noted in Orion that it had extended "the doctrine beyond navigational and commercial fishing rights to include `incidental rights of fishing, boating, swimming, water skiing, and other related recreational purposes.'"[237]

Under Washington law, environmental quality and water quality are probably also protected interests. The public's interest in fishing can only be realized if water quality and quantity are adequate to support fish.[238] Moreover, the Washington Supreme Court indicated in Orion that it would look favorably on a claim that protecting the environment is a public trust interest. The court noted how it has found trust principles embodied in Shoreline Act underlying policy, "which contemplates `protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life . . .'"[239] Moreover, in another footnote, the court cited Marks v. Whitney, a California case which recognized the public interest not only in ecological values, but also in preserving tidelands in their natural state.[240] Therefore, given the proper case, the Washington Supreme Court may well follow several other states by recognizing water quality and environmental

[236]Johnson, Water Pollution and the Public Trust Doctrine, 19 Envtl. L. 485, 495 (1989). Even early cases like Arnold v. Mundy, 6 N.J.L. 1, 12 (1821) recognized a broad spectrum of public interests that included "fishing, fowling, sustenance and all other uses of the water and its products."

[237]Orion Corp. v. State, 109 Wash. 2d 621, 641, 747 P.2d 1062, 1073 (1987), quoting Wilbour v. Gallagher, 77 Wash. 2d 306, 316, 462 P.2d 232 (1969) cert. denied, 400 U.S. 878 (1970).

[238]United States v. State Water Resources Board, 182 Cal. App. 3d 150, 227 Cal. Rptr. 161, 201 (1986) (holding that Water Board had authority to supervise appropriators under the public trust doctrine to protect fish and wildlife); Johnson, Water Pollution and the Public Trust Doctrine, 19 Envtl. L. 485, 488 (1989).

[239]Orion, 109 Wash. 2d at 641 n.11, 747 P.2d at 1073 n. 11, quoting Portage Bay-Roanoke Park Comm'ty Council v. Shorelines Hearings Bd., 92 Wash. 2d 1, 4, 593 P.2d 151 (1979).

[240]Orion, 109 Wash. 2d at 641 n. 10, 747 P.2d at 1073 n.10.

Taken from state document on Public Trust Doctrine

domain to acquire trust burdened lands, those lands may become exempt from the trust. The few case precedents on this issue, however, are conflicting.[229]

Third, lands may be exempt from the public trust doctrine because of an Indian treaty or agreement[230] entered into prior to statehood. Presumably the trust would not apply to Indian country because of the rule that state law does not apply to Indian reservations unless Congress clearly expresses such an intent.[231] Whether a treaty gives a tribe title to the beds underlying navigable waters, involves conflicting presumptions. On the one hand, a fundamental principle in interpreting Indian treaties is that they are to be interpreted in the way the Indians would have understood them.[232] Most Indians presumably believed they were receiving the water bodies and beds within or alongside their reservations. On the other hand, under the equal footing doctrine, the federal government held the lands underlying navigable waters in trust for each future state until they entered the Union. These two legal principles collided directly in Montana v. United States.[233] The Court there found that the Crow treaty language did not overcome the presumption that the beds of navigable waters remain in trust for future states and pass to the new states when they assume sovereignty. The Court noted that the Crow Tribe had historically depended on buffalo and other upland game rather than on fishing. Therefore, it concluded that the state, not the tribe, held title to the bed of the Big Horn River. Whether an Indian tribe or the state holds title to the bed of navigable waters is likely to turn on the language of the treaty or agreement, and on whether the tribe has historically depended on resources located in the water or on submerged land.[234] If the tribe has title then the public trust interest under state law is probably extinguished, on the theory that state law does not generally apply on an Indian reservation unless Congress clearly expresses such an intent.[235]

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[229]See, e.g., U.S. v. 1.58 Acres, 523 F. Supp. 120, 124 (D. Mass. 1981) (noting that the federal government is as restricted in its ability as states are in abdicating its sovereign jus publicum to private individuals); but cf. United States v. 11.037 Acres, 695 F.Supp. 214 (N.D. Cal. 1988) (holding that where the federal government exercises its powers of eminent domain, the state public trust doctrine is extinguished). See also supra Section III.A. for a discussion of the existence of a federal public trust doctrine.

[230]No treaties were signed with Indian tribes after 1871. However, reservations were created thereafter, usually by agreement between the tribe and the Executive, approved by Congress. Additional reservations were created by Executive Order and by congressional legislation. **F. Cohen, Federal Indian Law** 103 (1982 ed.).

[231]For a general discussion of federal preemption of state law, see **Cohen**, supra at 270-79.

[232]United States v. Winans, 198 U.S. 371 (1905).

[233]450 U.S. 544 (1981).

[234]For a recent case where the court found that a tribe had title to the water beneath a navigable waterway, see Puyallup Indian Tribe v. Port of Tacoma, 717 F.2d 1251 (9th Cir. 1983), cert. denied, 465 U.S. 1049 (1984). See also Note, Not on Clams Alone: Determining Indian Title to Intertidal Lands, 65 **Wash. L. Rev.** 713 (1990).

[235]**Cohen**, supra at 270-79.

preservation as public trust interests.[241] If water quality is a protected interest, then the public trust doctrine might affect activities which degrade water quality, including discharges of wastes into public waters, activities which cause erosion and thus silting of waterbodies, and prior appropriations which reduce the assimilative capacity of waterbodies and thus result in quality degradation.[242] Needless to say, any application of the public trust doctrine in these areas would have to take account of existing federal and state laws on water pollution, the prior appropriation code, and the legitimate economic expectations of those affected.

Early courts did not often expressly address environmental quality as a protected public trust right. It was widely thought that nature's bounty was limitless. More recent experience has shown that pollution can limit or destroy public enjoyment of trust resources just as much as filling or committing tidelands and shorelands to private, monopoly uses.[243] In the past, the public trust doctrine did not allow such monopolization; now that the threat to public environmental rights is in the form of pollution and environmental degradation, the courts are expanding their interpretation of the public trust doctrine to protect the public rights from that threat.

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[241] Several courts have recognized environmental quality as a public trust interest. See, e.g., National Audubon Society v. Superior Court of Alpine County, 33 Cal.3d 419, 658 P.2d 709, 189 Cal. Rptr. 346 (1983); Marks v. Whitney, 6 Cal.3d 251, 259-60, 491 P.2d 374, 380, 98 Cal. Rptr. 790, 796 (1971); Kootenai Environmental Alliance v. Panhandle Yacht Club, 105 Idaho 622, 632, 671 P.2d 1085, 1095 (1983) (extending the doctrine to cover "navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, and water quality"); Treuting v. Bridge and Park Commission of Biloxi, 199 So.2d 627 (Miss. 1967); Just v. Marinette, 56 Wis. 7, 17, 201 N.W. 761, 768-69 (1972) (finding a public right to preserve wetlands because "they serve a vital role in nature"). In 1987 the Oregon Legislature enacted two statutes indicating that the public trust doctrine covers water quality. **Or. Rev. Stat.** §§ 537.336, .460 (1987). See also Johnson, supra note 235, at 496-98. But cf. MacGibbon v. Board of Appeals of Duxbury, 369 Mass. 512, 517-18, 340 N.E.2d 487, (1976) (holding that preservation of ocean food chain and tidelands in natural state was not as "practical" or "productive" as dredging and filling wetlands).

[242] Johnson, supra note 35, at 505.

[243] **D. Slade, et al.**, supra note 35, at 133.

2. Interests Potentially Protected in Washington

a. Right of Public to Walk and/or Harvest shellfish on Privately Owned Tidelands

The Washington Supreme Court has not had an opportunity to consider whether the public has a right to walk across privately owned tidelands, or whether the public may dig clams on those tidelands. One commentator notes that nearly all states recognize that the public trust doctrine provides the public a right to pass and repass over public trust tidelands.[244] While states' courts have issued opinions which generally lend support to the public's right of access, precious few have directly addressed the issue of whether the public has a right to walk across privately owned tidelands.

For example, the Rhode Island Supreme Court in Jackvony v. Powel,[245] looked to Rhode Island's Constitution which guarantees to the people "all the privileges of the shore," and concluded that one of those privileges included the right to pass along the shore.[246] The case did not, however, involve the public's rights to pass along a privately held beach. It involved an attempt by a beach commission to fence off a beach owned by the city of Newport. Similarly, in Tucci v. Salzhauer,[247] a New York court held that the public had a right to pass and repass over lands owned by the Town of Hempstead. Thus, Tucci, like Jackvony, recognized a public right of passage, but did not specifically address the question of whether the public would have a right to pass over privately held tidelands.

New Jersey Supreme Court decisions suggest that the public would have a right to walk over privately held tidelands. The public's rights to use tidal lands and water "encompasses navigation, fishing and recreational uses, including bathing, swimming and other shore activities."[248] Presumably, "other shore activities" would include the right to walk along tidelands. Also significant is the fact that New Jersey has recognized the public's right to use the dry sand area of privately owned beaches under the public trust doctrine.[249] Because the New Jersey Supreme Court was willing to go so far as to recognize public's right to use privately owned dry sand areas of beaches, it probably would not have a problem recognizing the public's right to walk over privately held tidelands.

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[244] **D. Slade et al.,** supra note 35, at 162.

[245] 21 A.2d 554 (R.I. 1941).

[246] Id. at 558. See also Nixon, Evolution of Public and Private Rights to Rhode Island's Shore, 24 **Suffolk U.L. Rev.** 313, 325-26 (1990) (discussing a recent amendment to the Rhode Island Constitution that listed a right to pass along the shore as a public right).

[247] 40 A.D. 2d 712, 336 N.Y.S.2d 721 (1972). The court noted that the public's right of passage even included the right to push a baby carriage along the shore. Id., 336 N.Y.S.2d at 724.

[248] Matthews v. Bay Head Improvement Association, 471 A.2d 355 (N.J. 1984).

[249] Id.

ATTACHMENT G

II. SPECIFIC TO LAKE BURIEN VOLUME I:

1. The PCP shows the Ruth Dykeman Children's Center as being zoned Downtown Commercial and as part of a Special Enhancement Area.

COMMENT: **The residents and landowners on Lake Burien absolutely object to this re-zone and all the implications stated or otherwise, or that may be implied by future bureaucratic interpretation that this designation carries.**

2. The residential area surrounding Lake Burien is R-3. This is covered by Pol RE 1.5 The Low Density Residential Neighborhood designation on page II-8. This is, appropriately, the lowest density of units per acre in the hierarchy of residential/multi-family designations. The Ruth Dykeman Children's Center's changed designation is covered by Pol BU 1.6 The Downtown Commercial designation on page II-18. This is a designation of higher commercial intensity of use exceeding that of the Neighborhood Center, The Intersection Commercial, and The City Center Commercial designations.

ANALYSIS:

BU 1.3 The Neighborhood Center contains the following: "The design of these areas, including the size, location and design of parking lots, shall be strictly regulated to ensure compatibility with the surrounding neighborhood."

BU 1.4 The Intersection Commercial contains the following: " The edges of these areas need to be well-defined to contain development and limit encroachment into single family areas."

BU 1.5 The City Center Commercial contains the following: "Development on the edge of this area must be compatible with the character of adjacent single family neighborhoods."

BU 1.6 The Downtown Commercial designation contains absolutely no similar limiting, defining, or constraining provision as part of this policy statement as set forth in above in Bu 1.3, 1.4, and 1.5.

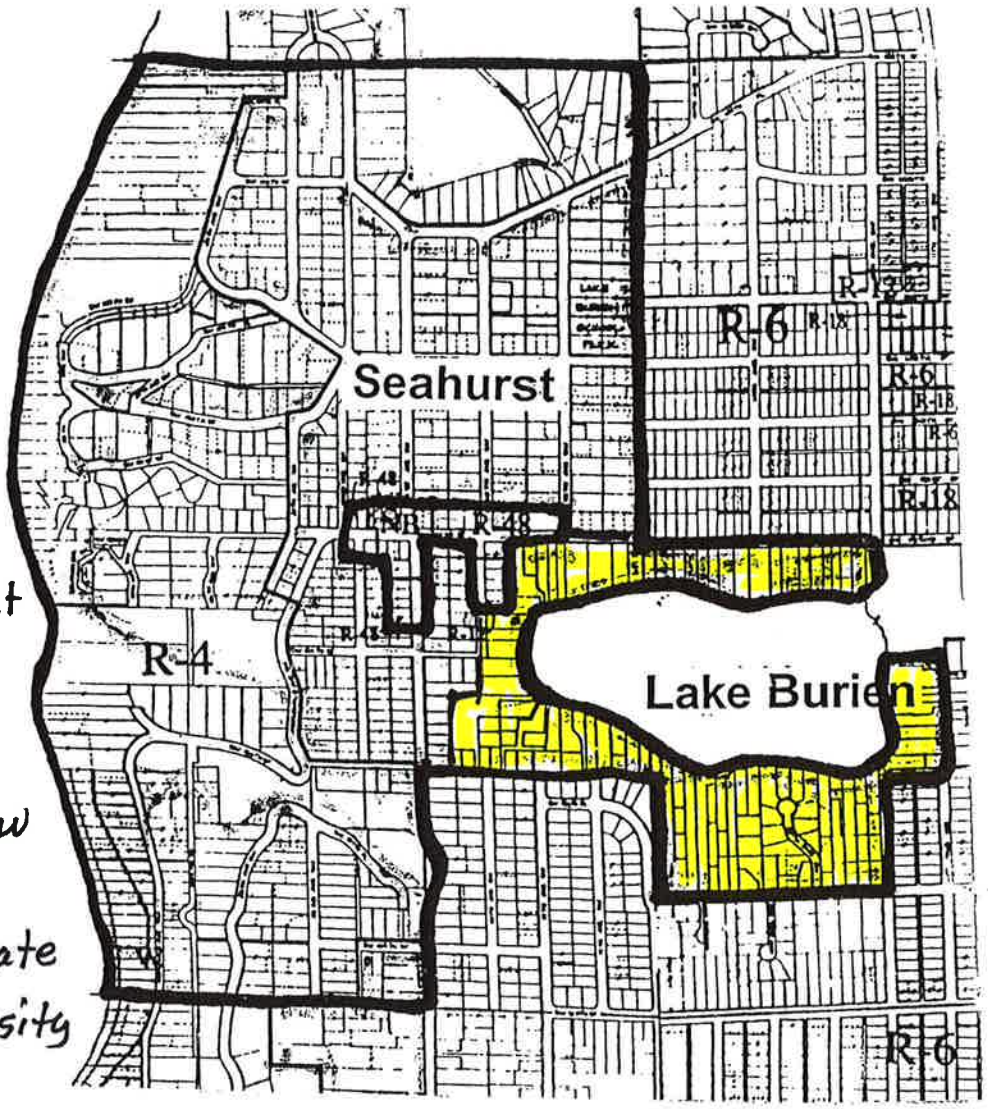
The Downtown Commercial designation contains no limiting, defining or constraining provisions to protect the adjacent "Low Density Residential Neighborhood" zoned single family residential area.

COMMENT: **The residents and landowners on Lake Burien absolutely object to the absence of any protective provision in The Downtown Commercial designation as it applies to the Ruth Dykeman Children's Center and the adjacent "Low Density Residential Neighborhood" zoned single family residential area.**

(NOTE: Pol. RE 1.5 the "first" 2nd statement is incorrect. Map LU-2 shows only Steep Slopes, Suburban and Urban. It does not show any "rural".)

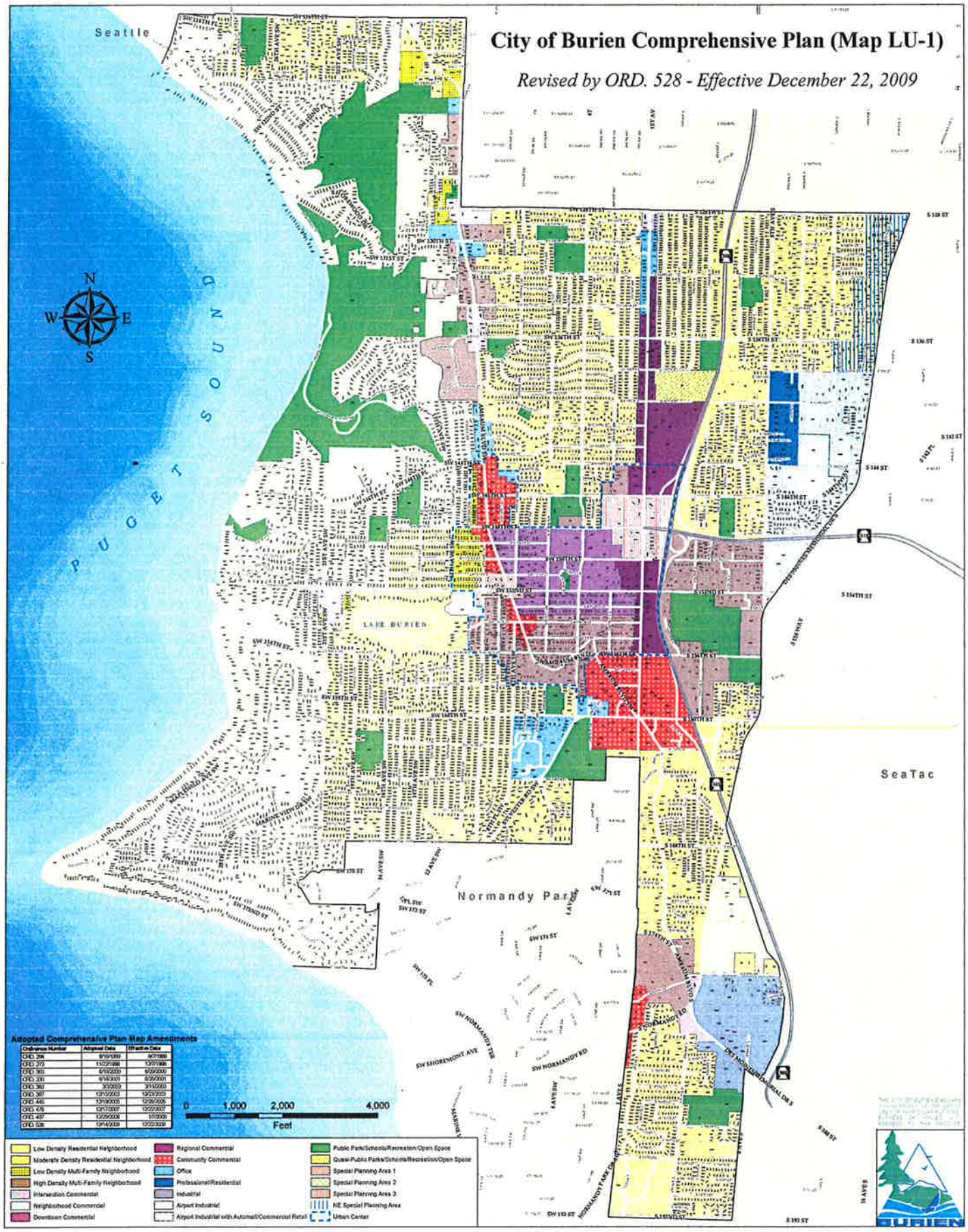
Taken from letter submitted to The City of Burien Council Members by J. J. Wozniak, President and on behalf of The Lake Burien Shore Club, October 30, 1997

ATTACHMENT H



Map Amendment Change

Area in yellow to change from moderate to low density residental


City of Burien Comprehensive Plan (Map LU-1)
Revised by ORD. 528 - Effective December 22, 2009
Seattle
PUGET SOUND
LAKE BURIEN
Normandy Park
SeaTac
N
S
E
W
0
1,000
2,000
4,000
Feet
Adopted Comprehensive Plan Map Amendments
Low Density Residential Neighborhood
Moderate Density Residential Neighborhood
Low Density Multi-Family Neighborhood
High Density Multi-Family Neighborhood
Intersection Commercial
Neighborhood Commercial
Downtown Commercial
Regional Commercial
Community Commercial
Office
Professional/Residential
Industrial
Airport Industrial
Airport Industrial with Automall/Commercial Retail
Public Park/Schools/Recreation/Open Space
Quasi-Public Parks/Schools/Recreation/Open Space
Special Planning Area 1
Special Planning Area 2
Special Planning Area 3
NE Special Planning Area
Urban Center
BURIEN