MEMORANDUM OF AGREEMENT
SNOHOMISH BASIN MITIGATION BANK

This Memorandum of Agreement regarding the establishment, use, operation, and maintenance of Snohomish Basin Mitigation Bank (hereinafter, the Bank) is made and entered into by and among Habitat Bank, LLC (hereinafter, Sponsor), the U.S. Army Corps of Engineers (Corps), and the Washington State Department of Ecology (Ecology), with reference to the following:

I. PREAMBLE

A. Purpose: The purpose of this Memorandum of Agreement (hereinafter, Agreement) is to specify responsibilities for the establishment, use, operation, and maintenance of the Bank. It is intended to supplement and implement the Mitigation Banking Instrument (hereinafter, the Instrument) for the Bank, and hereby incorporates the provisions of the Instrument by reference. The Bank will provide compensatory mitigation for adverse impacts to waters of the United States, including wetlands, that result from activities authorized by Federal, State, and local authorities, when use of the Bank has been specifically approved by the appropriate regulatory agencies.

B. Location and Ownership of Parcel: Whereas, the Sponsor owns approximately 199 acres of land located in the floodplain of the Snoqualmie River, four miles upstream of its confluence with the Skykomish River and five miles south of the city of Monroe, in Snohomish County, Washington.

C. Project Description: Whereas, pursuant to this Memorandum of Agreement, the Sponsor will, in phases, restore and/or enhance approximately 199 acres of aquatic and associated upland habitat in accordance with the provisions of this Agreement and the Instrument, and shall then maintain each established phase of the Bank in accordance with the provisions of this Agreement and the Instrument. The Bank presently consists of approximately 174.4 acres of drained former wetlands and 24.6 acres of partially drained wetlands. The Sponsor has developed a plan to restore and/or enhance 154.2 acres of wetland and 2.1 acres of stream and riparian habitat, and restore native vegetation communities. Following implementation, the Bank is projected to consist of 25.9 acres of forested wetland, 38.1 acres of scrub-shrub wetland, 79.5 acres of emergent wetland, 3.3 acres of aquatic bed wetland, 30.2 acres of upland floodplain forest, and 22.0 acres of perimeter buffer (mixed uplands and wetlands), as detailed in Chapter 5 of the Instrument. The Bank is intended to, among other purposes, restore wetland hydrology to drained former wetlands, enhance the hydrology of partially drained wetlands, and restore various native vegetation communities.

D. Establishment and Use of Credits: Whereas, upon satisfaction of the performance standards contained in the Instrument, credits will be established in accordance with the procedures outlined in this Agreement and the Instrument, presently projected to total 148.9 credits, and made available for compensatory mitigation in accordance with the applicable
requirements of Sections 401 and 404 of the Clean Water Act (33 U.S. Code §§ 1341, 1344),
Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. Code § 403), Washington State Water
Pollution Control Act (Chapter 90.48, RCW), Shoreline Management Act (RCW 90.58), Growth
Management Act (RCW 36.70A), Hydraulic Code (RCW 75.20), and other Federal, State, and
local authorities. The final number of acquired credits will be determined in accordance with the
procedures specified in Section 7.1 of the Instrument, following achievement of the project
objectives and performance standards specified in Chapter 6 of the Instrument, and will be
awarded for mitigation use pursuant to Section 7.2 and Tables 5a, 5b, and 5c of the Instrument.

E. Mitigation Bank Review Team. Whereas, the Mitigation Bank Review Team
(MBRT) is the group of Federal, State, and local agencies that has reviewed and approved the
provisions of the Instrument. The MBRT for the Bank consists of:

4. Washington Department of Natural Resources.
5. Snohomish County.

II. AUTHORITIES

The establishment, use, operation and maintenance of the Bank are carried out in accordance with
the following authorities:

A. Federal:

1. Clean Water Act (33 USC §§ 1251 et seq.)
2. Rivers and Harbors Act of 1899 (33 USC § 403)
3. Fish and Wildlife Coordination Act (16 USC §§ 661 et seq.)
4. Regulatory Programs of the Corps of Engineers, Final Rule (33 CFR Parts 320-331)
5. Guidelines for Specification of Disposal Sites for Dredged and Fill Material
   (40 CFR Part 230)
6. Memorandum of Agreement between the Environmental Protection Agency
   and the Department of the Army concerning the Determination of Mitigation Under the
   Clean Water Act, Section 404(b)(1) Guidelines (February 6, 1990)
7. Federal Guidance for the Establishment, Use, Operation of Mitigation Banks
   (60 F.R. 58605 et seq.)
8. Regulatory Guidance Letter No. 02-02, Guidance on Compensatory Mitigation
   Projects for Aquatic Resource Impacts under the Corps Regulatory Program pursuant to
   Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of
   1899, U.S. Army Corps of Engineers, December 26, 2002
9. Regulatory Guidance Letter No. 05-01, Guidance on Use of Financial
   Assurances, and Suggested Language for Special Conditions for Department of the Army
   Permits Requiring Performance Bonds, U.S. Army Corps of Engineers, February 14, 2005

B. State of Washington:

1. Washington Water Pollution Control Act, RCW 90.48 et seq.
NOW, THEREFORE, the parties agree to the following:

III. ESTABLISHMENT OF THE BANK

A. Scope of Work. The Sponsor agrees to perform all necessary work in accordance with the provisions of this Agreement until it is demonstrated to the satisfaction of the Corps and Ecology, in consultation with the MBRT, that the project complies with all conditions contained herein.

B. Permits. The Sponsor will obtain all appropriate environmental documentation, permits and other authorizations needed to establish and maintain the applicable phase of the Bank, prior to the award of any mitigation credits. This Agreement does not fulfill the requirement, or substitute, for such authorization.

C. Bank Establishment. The Bank will be established as described in Sections 6.2 through 6.5 of the Instrument, and credits will be awarded to the Sponsor in accordance with the procedures and schedules referenced in Articles IV.D through IV.G of this Agreement. In the event the Sponsor determines that modifications to the Bank development plan are necessary, the Sponsor shall submit a written request for such modification to the MBRT, through the Chairs, for approval. Documentation of implemented modifications shall be made consistent with Article III.F. of this Agreement, and Sections 12.0 and 12.1, as well as Tables 5a, 5b, 5c and 7 of the Instrument and other applicable sections in any amendments to the Instrument.

D. Financial Assurance Requirements: The Sponsor agrees to provide the following financial assurances for the work described in this Agreement:

1. Irrevocable Letter of Credit: The Sponsor shall furnish a Letter of Credit to provide financial assurance underlying the establishment and functionality of each phase of the Bank. The value of the Letter of Credit will be based upon environmental and construction risks associated with each phase of construction as represented by the costs of contingency actions plus
administrative costs for the entity implementing the financial assurances. A separate Letter of Credit shall be furnished for each phase of Bank establishment, except as approved by the Corps and Ecology. Alternatively, the Sponsor may request, and the Corps and Ecology may approve, the substitution of an escrow account for any of the Irrevocable Letters of Credit required under this Agreement. The form and content of the instructions for any such escrow account must be specifically approved before an escrow arrangement may be utilized in satisfaction of the financial assurance obligations during the period of establishment of the Bank. The Corps and Ecology must specifically approve the identity of the escrow agent. The provisions of the escrow arrangement must conform to each of the requirements of Article III.D.1.c. of this Agreement. In particular, the provisions of the escrow instructions must expressly authorize either the Corps or Ecology to independently access and direct either partial or full disbursement of the escrow account funds, without any requirement for approval or assent by the Sponsor. Furthermore, the Sponsor must waive any and all opportunity to challenge or delay any such access or disbursement. Additionally, the escrow account must extend until the final performance standards are met, and may be terminated only at the written direction of both the Corps and Ecology.

a. The Corps or Ecology, acting independently or in concert, may direct disbursement from each credit funds account under the following circumstances: upon abandonment of Bank establishment efforts directed at a particular phase, or any failure stemming from any cause to achieve any of the Bank Objectives or Performance Standards reflected in Section 6.5 of the Instrument in regard to a particular phase, including but not limited to deficient design, ineffective establishment, deterioration of functionality or performance after establishment, financial limitations of the Sponsor, or force majeure. Ninety calendar days prior to accessing funds pursuant to a Letter of Credit, the Corps and Ecology shall provide specific and express written direction for corrective action to the Sponsor in accordance with Article V.D. of this Agreement and Section 12.2 of the Instrument. If, within 90 days of delivery of notice of the demand for corrective action, the Sponsor has initiated compliance efforts and the Corps and Ecology have determined, in their sole discretion, that substantial progress has been made toward completion of corrective action, the Corps and Ecology will defer accessing the credit account.

b. Following consultation with the MBRT, the Corps and Ecology may access the funds guaranteed by each Letter of Credit to accomplish any of the following objectives or features of the Bank: construction, establishment, monitoring, or adaptive management activities reflected in, or directly supporting accomplishment of, the Objectives and Performance Standards reflected in Section 6.5 of the Instrument. Corrective or remedial actions determined to be necessary will be accomplished through a Third Party Designee selected by the Corps and Ecology.

c. The form and content of each Letter of Credit shall be approved by the Corps and Ecology and instituted by the Sponsor prior to the release of any credits reflecting satisfaction of any performance standards under Objectives 2 through 6 as delineated in Section 6.5 of the Instrument. The Corps and Ecology must specifically approve all terms and conditions of the Letter of Credit, as well as the identity of the financial institution issuing and underwriting the Letter of Credit. The approval of the financial institution selected by the Sponsor shall not be unreasonably withheld. The required form and contents of the Letter of Credit are:
(1) The Letter of Credit shall take the general form of an agreement on the part of the issuing financial institution to honor the engagement reflected therein. A separate and distinct Letter of Credit shall be furnished in the following amounts:

   (i) Phase I: $10,000
   (ii) Phase II: $55,000
   (iii) Phase III: $15,000

(2) Each Letter of Credit shall be irrevocable. Each Letter of Credit may not be withdrawn or canceled by the issuing financial institution prior to the articulated expiration date, which may be no earlier than 12 years from the date of issuance. If the Letter of Credit applicable to any phase of the Bank shall expire by its own terms prior to the termination of the establishment phase of the Bank as specified in Article V.F. of this Agreement, the Sponsor must reinitiate an acceptable Letter of Credit prior to the award of any further credits from any phase of the Bank. Each Letter of Credit shall provide that the issuing financial institution shall honor the credit engagement and pay to the Third Party Designee the directed sum without inquiring whether the directing Beneficiary agency or the receiving Third Party Designee has a right to make such a demand, and without acknowledgement of any inconsistent claim of the Sponsor to those funds.

(3) Each Letter of Credit shall be issued to, and shall designate, the Corps and Ecology as distinct and independent Beneficiaries. Each Letter of Credit shall identify and designate the Third Party Designee. Upon the direction of either the Corps or Ecology, in writing on agency letterhead, the issuing financial institution shall disburse from the credit funds account to the Third Party Designee the amount specified by the Corps or Ecology, up to a maximum cumulative amount as reflected in the Letter of Credit. The Corps or Ecology shall be authorized to direct or make partial drawings, and multiple successive drawings, upon the credit account. The Corps and Ecology shall have the exclusive authority to direct disbursement of funds from the credit funds account, and the direction of only one of these two agencies is required in order to accomplish a disbursement.

(4) Each Letter of Credit shall acknowledge that, from time to time, the Beneficiary agencies may authorize a reduction in the required level of credit during the effective period of the Letter of Credit. Any such reduction must be authorized by both the Corps and Ecology, as Beneficiary agencies. Upon receipt of both authorizations, in writing on agency letterhead, the issuing financial institution will be authorized to reduce the level of maximum extended credit, and it may, as arranged between the Sponsor and the issuing financial institution, reissue or amend the applicable Letter of Credit accordingly to reflect that change.

(5) Each Letter of Credit shall acknowledge that the Beneficiary agencies may authorize cancellation of the Letter of Credit applicable to a designated phase prior to the scheduled expiration date reflected therein. Any such cancellation must be authorized by both the Corps and Ecology, as Beneficiary agencies. Upon receipt of both authorizations, in writing on agency letterhead, the issuing financial institution will be authorized to withdraw or
rescind, as arranged between the Sponsor and the issuing financial institution, the applicable Letter of Credit.

d. At the direction of the Corps and Ecology, the Sponsor agrees to substitute the identification of the Third Party Designee with a replacement entity for each applicable Letter of Credit. The Sponsor agrees that it shall execute either an amendment or replacement of each applicable Letter of Credit in order to effect such a substitution. If substitution of the Third Party Designee is directed, all other terms and conditions of the applicable Letter of Credit shall remain unchanged, particularly including the credit amount and the expiration date.

e. Upon request of the Sponsor, the Corps and Ecology, in consultation with the MBRT, may authorize reductions in the required credit account limits of each of the Letters of Credit when the Corps and Ecology have determined, in consultation with the other members of the MBRT and the Sponsor, that the Bank Objectives and Performance Standards reflected in Section 6.5 of the Instrument are being timely met.

f. Upon satisfaction of all Objectives and Performance Standards required in Section 6.5 of the Instrument for each phase, and upon a determination by the Corps and Ecology that the Sponsor has completed the following, the Corps and Ecology will authorize rescission or cancellation of the Letter of Credit applicable to that phase:

   (i) for the final phase of Bank implementation, the Sponsor satisfied the additional requirements reflected in Article V.F. of this Agreement for termination of the establishment phase of the Bank;

   (ii) for all preceding phases of Bank implementation, the Sponsor has been awarded all credits for that phase, or has permanently ceased banking activities applicable to that phase.

g. The Sponsor is solely responsible for any costs, fees, or premiums associated with the issuance, modification, continuation in force, or termination of each Letter of Credit. Any such costs may not be deducted from the principal of the Letter of Credit.

h. Notwithstanding the fact that the Letter of Credit applicable to a particular phase has been accessed, and full or partial remedial or corrective action has been taken by the Third Party Designee, unless this Agreement is terminated pursuant to Articles V.E. and VII.D. the Sponsor shall remain responsible for the timely and effective achievement of all the Objectives and Performance Standards mandated in Section 6.5 of the Instrument.

2. Long-Term Management and Maintenance Endowment Fund:

   a. The Sponsor shall institute an endowment fund, established and maintained through an escrow account, to fund management and maintenance actions as defined in Article V.H. of this Agreement following the termination of the establishment phase of the Bank. This Long-Term Management and Maintenance Endowment Fund shall be incrementally
funded throughout the establishment phase of the Bank, with the funds disbursed to a Long-Term
Steward upon the Sponsor’s relinquishment of responsibility for long-term maintenance and
management of the Bank. The Sponsor agrees to continue to deposit funds in the Long-Term
Management and Maintenance Endowment Fund escrow account, pursuant to Article
III.D.2.b.(i) of this Agreement until the Long-Term Management and Maintenance Fund is fully
funded in accordance with Article III.D.2.b.(ii) of this Agreement.

b. To implement the Long-Term Management and Maintenance
Endowment Fund, the Sponsor shall establish an escrow account in an accredited and Federally
insured financial institution, as follows:

(i) The Long-Term Management and Maintenance Endowment
Fund escrow account shall be funded throughout the establishment phase of the Bank by
depositing a designated sum corresponding to each sale or transfer of mitigation credits. This
designated sum shall be $1,250.00 per full credit sold or be prorated for fractions of a credit.

(ii) The Long-Term Management and Maintenance Fund shall be
considered to be fully funded when the total value of the escrow account, including the principal
amounts deposited and retained earnings, has accumulated to a total value of $150,000.00 in
2005 dollars. Once the Long-Term Management and Maintenance Fund is fully funded, the
Sponsor shall be released from any further obligation to deposit a designated sum corresponding
to each sale or transfer of credits. The Sponsor will be permitted to accelerate contributions to
the Long-Term Management and Maintenance Endowment Fund, and by doing so the Sponsor
may defer subsequent contributions until the balance in the Endowment Fund no longer matches
or exceeds the balance required by the computation in Article III.D.2.b.(i).

(iii) The Sponsor shall enter into an escrow agreement with both
the Corps and Ecology. The escrow agreement for the Long-Term Management and
Maintenance Endowment Fund shall be signed prior to the release of any credits, for any phase
of the Bank, reflecting satisfaction of any performance standards under Objectives 2 through 6 as
delineated in Section 6.5 of the Instrument.

(iv) The Long-Term Management and Maintenance Endowment
Fund escrow account may bear interest or other earnings. Any earnings generated by the escrow
funds shall remain deposited with other escrow account funds. Earnings in excess of the full
funding amount specified in Article III.D.2.b.(ii) of this Agreement will be returned to the
Sponsor at the time that full funding amount is disbursed to the Long-Term Steward.

(v) The Sponsor shall be responsible for all escrow agency and
associated account fees, including account termination and final reconciliation costs, which may
not be paid out of escrow account funds or the interest generated thereon.

(vi) The terms of the escrow instructions shall permit regular
recurring deposits to the escrow principal as sales or transfers of credits are made and designated
sums corresponding to those sale or transfers are deposited to the escrow account.
c. Upon receipt of written instructions signed by the Sponsor, Corps, and Ecology, the Long-Term Management and Maintenance Endowment Fund escrow account shall be terminated and all funds disbursed pursuant to the instructions of the Corps and Ecology.

E. Real Estate Provisions: All real property to be included within all phases of the Bank is presently owned in fee simple by the Sponsor. A conservation easement will be placed on the Bank real property, pursuant to the provisions of Section 14.0 of the Instrument. A parcel forming a portion of the buffer for phase 2, is not owned by the Sponsor and not a part of the Bank property, a conservation easement has been previously recorded with Snohomish County by its present owner, and reviewed and approved by the MBRT, to allow this property to be restored and protected. The Sponsor may request to append additional real property located within the Bank service area to the Bank project, by following the procedure prescribed in Article III.C. of this Agreement.

F. As-built Report. The Sponsor agrees to submit to the each member of the MBRT an as-built report after completing construction of each phase of the Bank. The as-built report will be prepared pursuant to the applicable performance standards in Section 6.5 of the Instrument, and must describe in detail any material deviation from the applicable portion of the site plan, as described in the Instrument.

IV. OPERATION OF THE BANK

A. Service Area: The Bank is approved to provide compensatory mitigation for impacts to the Waters of the United States, including wetlands, within a portion of Water Resources Inventory Area 7, “Snohomish River,” as shown in Figure 10 of the Instrument. In exceptional situations, the Bank may be used to compensate for an impact that occurs outside of the Service Area if specifically approved by the regulatory agency(ies) having jurisdiction over that impact and the MBRT, where the MBRT determines that such use of credits would provide practicable and environmentally preferable compensation. If the Corps and Ecology determine that the Sponsor has sold or transferred credits at any time to provide compensatory mitigation for loss of aquatic resources outside of the Service Area without prior approval, or has engaged in fraudulent transactions in the sale or transfer of credits, the Corps and Ecology, in consultation with the other members of the MBRT, may direct that the sale or other transfer of credits immediately cease.

B. Access to the Bank Site. The Sponsor will allow, or otherwise provide for, access to the Bank site by members of the MBRT or their agents or designees as reasonably necessary for the purpose of inspection, compliance monitoring, and remediation consistent with the terms and conditions of this Agreement and the Instrument, throughout the periods of Bank establishment, operation, and long-term management and maintenance. Inspecting parties shall provide the Sponsor reasonable prior notice of a scheduled inspection and shall not unreasonably disrupt or disturb activities on the property.

C. Projects Eligible to Use the Bank. Public and private proponents of activities regulated under Sections 401 and 404 of the Clean Water Act (33 U.S. Code §§ 1341, 1344), Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. Code § 403), Washington State Water Pollution Control Act (Chapter 90.48, RCW), Shoreline Management Act (RCW 90.58), Growth
Management Act (RCW 36.70A), Hydraulic Code (RCW 75.20), and other Federal, State, and local authorities, located within the Service Area of this Bank may be eligible to use the Bank as mitigation for unavoidable impacts. Proponents’ projects outside of the Service Area will be eligible to utilize credits from the Bank with the express approval of the MBRT, where the MBRT determines that it is practicable and environmentally desirable to do so.

D. Availability of Mitigation Credits:

1. Schedule of Credit Availability: Subject to the documentation and scheduling provisions of Sections 6.5 and 7.2 and Tables 5a, 5b, and 5c of the Instrument, the Sponsor may submit to the MBRT written evidence that particular performance standards have been achieved. If the Corps and Ecology, after consulting with the other members of the MBRT and the Sponsor, concur that certain performance standards have been achieved in full or part, it is agreed that the whole or pro-rated credits associated with those performance standards will become available for marketing by the Sponsor. Full or partial release of credits will be confirmed by email from either co-chair of the MBRT to the Sponsor. The email will list specific credits from Table 5a, 5b or 5c of the Instrument that have been released. Each instance of sale or any other transfer of Bank credits to a third party shall be reflected in a credit transaction agreement, retained by the Sponsor and made available for Corps and/or Ecology review, if requested. Each such credit transaction agreement must include the name, address, and telephone number of the purchaser or transferee. Each transaction agreement that is associated with a permit must also indicate the permit number of the impacting project, the number of Bank credits involved in the transaction, and must expressly specify that the Sponsor, and its successors and assigns, assume legal responsibility for accomplishment and maintenance of the transferee’s compensatory mitigation requirements associated with the impacting project, upon completion of the credit transaction. Each credit transaction agreement that is associated with a permit shall be recorded with the county auditor. A copy of the recorded transaction agreement shall be provided to the Corps and Ecology.

2. Availability of Credit in the Event an Irrevocable Letter of Credit is Accessed: In the event the Corps or Ecology accesses the credit funds account established pursuant to Article III.D.1. of this Agreement and accomplishes any objectives, performance standards, or features of the Bank pursuant to Article III.D.1.b. of this Agreement, the Corps and Ecology, in consultation with the other members of the MBRT, may award credits for marketing by the Sponsor, reflecting objectives and performance standards achieved as a result of such remedial action. Credits may be awarded pursuant to the schedule and criteria for achievement of performance standards for each phase of the Bank, as established in Sections 6.5, 7.2, and Tables 5a, 5b, and 5c of the Instrument.

E. Conditions on Debiting: Credits may not be awarded sooner than specified in Tables 5a, 5b, and 5c of the Instrument, except in special situations with the written approval of the Corps and Ecology, in consultation with the other members of the MBRT, and in accordance with the procedures, criteria, and limitations expressed in Section 7.2 of the Instrument.

F. Accounting Procedure:
1. The Sponsor shall record each credit withdrawal transaction with the Snohomish County Auditor, and submit a copy of the recorded transaction to the MBRT within 30 days.

2. The Sponsor shall maintain a ledger of the credits that are awarded through the achievement of specified performance standards, as well as credits that are debited through sale or transfer. The Sponsor shall submit an annual ledger to each member of the MBRT showing a cumulative tabulation of all transactions at the Bank to date, as specified in Section 10.0 of the Instrument.

3. The ledger shall be submitted in conjunction with the annual monitoring report, until all credits are awarded and sold or transferred, or the Sponsor has informed the MBRT that it has terminated banking activity.

G. Credit Deficit: If the Corps and/or Ecology determine at any point that the Bank is operating without prior written approval at a deficit, award and sale or other transfer of credits will immediately cease, and the Corps and/or Ecology, in consultation with the MBRT and the Sponsor, will determine what remedial actions are necessary to correct the situation and will direct their performance prior to the award of any additional mitigation credits.

H. Provisions For Use of the Mitigation Bank Area: The Sponsor shall not:

1. Grant additional easements, rights of way, or any other property interest in or to the project areas without the written consent of the Corps and Ecology, in consultation with the MBRT.

2. Use or authorize the use of any areas within the Bank for any purpose that is contrary to the provisions of the Instrument or conservation easement, or which interferes with the conservation purposes of the Bank.

V. MAINTENANCE AND MONITORING OF THE BANK

A. Maintenance Provisions: The Sponsor agrees to perform all necessary work to achieve and maintain the performance standards as specified in Section 6.5 of the Instrument. These maintenance activities conducted during the establishment phase of the Bank shall also include, but not be limited to, the short-term maintenance objectives detailed in Section 6.3.14) of the Instrument.

B. Monitoring Provisions: The Sponsor agrees to perform all necessary work to monitor the Bank to demonstrate compliance with the performance standards established in Section 6.5 of the Instrument. Monitoring shall include all formal and informal monitoring activities specified in Sections 6.3.12, 6.3.13 and 6.5 of the Instrument.

C. Reports: The Sponsor shall submit to each member of the MBRT monitoring reports describing the conditions of the Bank and relating those conditions to the project objectives and performance standards. Reports will contain the information specified in, and be submitted in accordance with the schedule established in, Sections 6.5 and 12.1 of the Instrument.
D. Contingency Plans/Remedial Actions: In the event the Bank fails to achieve by the
specified date one or more of the performance standards delineated in Section 6.5 of the
Instrument, the Sponsor shall develop necessary contingency plans and implement appropriate
remedial and monitoring actions for the Bank as specified in Section 12.2, to attain the project
objectives and performance standards specified in Section 6.5 of the Instrument. Prior to their
execution, proposals for the contingency plans and remediation and monitoring activities must be
approved by the Corps and Ecology, in consultation with the Sponsor and the MBRT. In the
event the Sponsor fails to implement necessary remedial actions within the prescribed period, the
Corps and/or Ecology, following consultation with the Sponsor and the MBRT, will direct
remedial, corrective, and/or sanctioning action in accordance with the procedures specified in
Section 12.2 of the Instrument. Alternatively, the Corps and Ecology may accomplish such
remedial action directly, acting through a Third Party Designee, by accessing the Letter of Credit
funds account pursuant to Article III.D.1.(a) and (b) of this Agreement.

E. Default: Should the Corps and/or Ecology, in consultation with the MBRT, determine
that the Sponsor is in material default of any provision of this Agreement and the Instrument, the
Corps and/or Ecology may cease award of mitigation credits, and may notify the Sponsor that the
debiting, sale, and/or transfer of mitigation credits are suspended until the delineated deficiencies
are rectified. Upon written notification of suspension, the Sponsor agrees to immediately cease any
debiting, sale, or transfer transactions not yet finally completed, until informed by the Corps and/or
Ecology that debiting, sale, or transfer of credits may be resumed. Should the Sponsor remain in
default for a period of 90 days, the Corps and/or Ecology, following consultation with the MBRT,
may terminate this Agreement, the Instrument, and any subsequent banking operations. In the
event such termination action is commenced, the Sponsor agrees to fulfill its pre-existing
obligations to perform all establishment, monitoring, maintenance, management, and remediation
responsibilities relating to credits that were awarded, sold, or transferred prior to termination.

F. Termination of the Establishment Phase of the Bank: Prior to termination of the
establishment phase of the Bank, the MBRT will perform a final compliance inspection to
evaluate whether all performance standards have been achieved. Upon the Corps and Ecology
determining, in consultation with the other members of the MBRT and the Sponsor, that:
(1) all applicable performance standards prescribed in the Instrument have been achieved;
(2) all available credits have been awarded, or the Sponsor has permanently ceased
banking activities;
(3) the Sponsor has prepared a Long-Term Management and Maintenance Plan, that has
been approved by the Corps and Ecology, pursuant to Section 11.3 of the Instrument;
(4) the Sponsor has assumed responsibilities for accomplishing the Long-Term
Management and Maintenance Plan, in which case the Sponsor will fulfill the role of Long-Term
Steward, or has assigned those responsibilities to another Long-Term Steward pursuant to Article
V.H. of this Agreement;
(5) the Long-Term Management and Maintenance Endowment Fund has been fully funded;
(6) the contents of the Long-Term Management and Maintenance Endowment Fund have
been transferred to the Long-Term Steward; and
(7) the Bank has complied with the terms of the Instrument and this Agreement,
then the Corps and Ecology will jointly issue a letter certifying that the establishment phase of
the Bank has terminated, and that the period of long-term maintenance and management has
commenced.

G. Termination of the Operational Life of the Bank: Following the termination of the
establishment phase of the Bank, upon sale or transfer of all credits or upon written declaration
by the Sponsor that it has permanently ceased banking activities, the Corps and Ecology,
following consultation with the other members of the MBRT, will jointly issue a letter certifying
that the operational life of the Bank has terminated.

H. Long-Term Maintenance and Management: The Sponsor shall develop a Long-Term
Management and Maintenance Plan consistent with the guidelines and objectives specified in
Section 11.3 of the Instrument, and submit the Plan for approval by the Corps and Ecology, in
consultation with the other members of the MBRT. The Sponsor is responsible for execution of
the approved Long-Term Management and Maintenance Plan. The Sponsor may only deviate
from the approved Plan upon written approval of the Corps and Ecology, following consultation
with the Sponsor and the MBRT. The Sponsor may assign its long-term management and
maintenance responsibilities to a third party assignee, which will then serve as Long-Term
Steward in place of the Sponsor. The identity of the assignee and the terms of the long-term
management and maintenance agreement between the Sponsor and the assignee must be
approved by the Corps and Ecology, following consultation with the MBRT, in advance of
assignment. This long-term management and maintenance assignment agreement will reflect that
the assignee has assumed the obligation, owed to the MBRT, of accomplishing the Long-Term
Management and Maintenance Plan. The Corps and Ecology will also execute this assignment
agreement, and in exchange for the assignee’s promise to achieve the Long-Term Management
and Maintenance Plan, the Corps and Ecology will agree to transfer the contents of the Long-
Term Management and Maintenance Endowment Fund to the assignee. Upon execution of a
long-term management and maintenance assignment agreement and the transfer of the contents of
the Endowment Fund, and upon satisfaction of the remaining requirements for termination of the
establishment phase of the Bank, the Sponsor shall be relieved of all further long-term
management and maintenance responsibilities under this Agreement and the Instrument.

I. Transfer of Ownership of the Bank Site: The Sponsor shall remain responsible for
complying with the provisions of this Agreement and the Instrument throughout the operational
life of the Bank, regardless of the ownership status of the underlying real property, unless those
responsibilities have been assigned pursuant to the provisions of Article VII.D. of this
Agreement. The Sponsor may transfer ownership of all or a portion of the Bank to another party
provided the Corps and Ecology, following consultation with the other members of the MBRT,
expressly approve the transfer in writing.
VI. RESPONSIBILITIES OF THE CORPS AND ECOLOGY

A. The Corps and Ecology agree to provide appropriate oversight in carrying out provisions of this Agreement.

B. The Corps and Ecology agree to review and provide comments on project plans, monitoring reports, contingency and remediation proposals, and similar submittals from the Sponsor in a timely manner. As Chairs, the Corps and Ecology will coordinate their review with the other members of the MBRT.

C. The Corps and Ecology agree to review requests to modify the terms of the Instrument, transfer title or interest in the Bank, determine achievement of performance standards in order to evaluate the award of credits for each phase of the Bank, or approve the Long-Term Management and Maintenance Plan. As Chairs, the Corps and Ecology will coordinate review with the members of the MBRT so that a decision is rendered or comments detailing deficiencies are provided in a timely manner. The Corps and Ecology agree to not unreasonably withhold or delay decisions on such requests.

D. The Corps and Ecology agree to act in good faith when rendering decisions about acceptability of financial assurances, requiring corrective or remedial actions, requiring long-term management and maintenance actions, and awarding credits. The Corps and Ecology will exercise good judgment in accessing the Irrevocable Letter of Credit funds account, and will utilize those monies only to the extent they reasonably and in good faith conclude that such remedial or corrective actions are an effective and efficient expenditure of resources. In implementing the process delineated in Article III.D.1.b. of this Agreement, the Corps and Ecology shall act in good faith in determining the scope and nature of corrective actions to be undertaken; shall act in good faith in conducting monitoring, developing reports, and assessing compliance with performance standards; and shall not unreasonably limit corrective action activities or otherwise apply their discretion so as to unduly prejudice the Sponsor as to the timing or number of credits awarded. Corps and Ecology approval of the identity of the assignee responsible for executing the Long-Term Management and Maintenance Plan, and approval of the terms of the long-term management and maintenance assignment agreement, shall not be unreasonably withheld.

E. The Corps and Ecology shall periodically inspect the Bank site as necessary to evaluate, in consultation with the other members of the MBRT, the achievement of performance standards, to assess the results of any corrective measures taken, to monitor implementation of the Long-Term Management and Maintenance Plan, and, in general, to verify the Sponsor’s compliance with the provisions of the Instrument and this Agreement.

F. Upon satisfaction of the requirements of Article V.F. of this Agreement, the Corps and Ecology shall certify, following consultation with the Sponsor and the MBRT, that the establishment phase of the Bank has terminated and that the period of long-term maintenance and management has commenced. Following the termination of the establishment phase of the Bank, upon sale or transfer of all credits or upon written declaration by the Sponsor that it has
permanently ceased banking activities, the Corps and Ecology, following consultation with the other members of the MBRT, will jointly issue a letter certifying that the operational life of the Bank has terminated.

VII. OTHER PROVISIONS

A. Force Majeure: In the event of a natural catastrophe (such as significant flood, drought, disease, wildfire, or regional pest infestation) that the Corps and Ecology, in consultation with the Sponsor and the MBRT, determine is beyond the control of the Sponsor to prevent or mitigate, the Sponsor may request, and the Corps and Ecology, in consultation with the MBRT may approve, changes to the construction, operation, project objectives, performance standards, or crediting formula of the Bank, pursuant to the standards and procedures specified in Section 11.2 of the Instrument. Alternatively, the Corps and Ecology may elect, following consultation with the Sponsor and the MBRT, to proceed with the procedure delineated in Article III.D.1 of this Agreement to access the credit funds account to accomplish corrective or remedial action.

B. Decision Making by Consensus: The Corps and Ecology will strive to achieve consensus regarding issues that arise pertaining to the establishment, operation, maintenance, and management of the Bank. As Chairs, the Corps and Ecology shall coordinate the review and oversight activities of the MBRT so as to best facilitate opportunity to reach the desired consensus. Review and oversight decisions shall take into account the views of the Sponsor to the maximum extent practicable. Where consensus cannot otherwise be reached within a reasonable timeframe, following full consideration of the comments of the members of the MBRT and following consultation with the Sponsor, the Corps holds the responsibility and authority under Section 404 of the Clean Water Act, and Ecology holds independent responsibility and authority under Section 401 of the Clean Water Act and RCW ch. 90.48, to make final decisions regarding the application of the terms of this Agreement and the Instrument.

C. Entry into Effect, Modification or Amendment, and Termination of the Agreement: This Agreement will enter into effect upon the signature by authorized representatives of each of the Corps, Ecology, and the Sponsor, as of the date of the last of these three signatures. This Agreement may be amended or modified only with the written approval of the Sponsor, Ecology, and the Corps, and any such modifications or amendments will take effect following consultation with the other members of the MBRT for this Bank. This Agreement may be terminated by the mutual agreement of the Sponsor, Corps, and Ecology, following consultation with the MBRT, or may be terminated under the terms of Article V.E. of this Agreement in the case of default by the Sponsor. In the event any such termination action is commenced, the Sponsor agrees to fulfill its pre-existing obligations to perform all establishment, monitoring, maintenance, management, and remediation responsibilities relating to credits that were awarded, sold, or transferred prior to termination.

D. Assignment of Obligations under this Agreement: The Sponsor may be permitted to assign its obligations, responsibilities, and entitlements under this Agreement and the Instrument to a third party. The Corps and Ecology, following consultation with the MBRT, must approve the identity of the assignee in order for any assignment to effectively relieve the Sponsor of those obligations. In evaluating a prospective assignee, the Corps and Ecology may consider
characteristics such as environmental mitigation expertise, wetlands mitigation project or analogous experience, and financial strength and stability. Approval of the identity of the assignee will not be unreasonably withheld. The assignee must execute a Memorandum of Agreement and a Mitigation Banking Instrument with the Corps and Ecology under terms identical, to the extent practicable, to the present Agreement and Instrument. As required under performance standards 1B., 1D., and 1E., respectively, of the Instrument, an approved conservation easement must be in effect and recorded, and the applicable financial assurances established pursuant to Articles III.D.1. and III.D.2. of this Agreement must be initiated. The obligations, responsibilities, and entitlements under this Agreement and the Instrument may reside in only a single entity at any one time, and may not be severed or transferred piecemeal. However, the physical ownership of the Bank site real property and the obligations, responsibilities, and entitlements under this Agreement and the Instrument are separate and distinct; thus, ownership may be transferred independently of assignment of this Agreement and the Instrument. Once assignment has been properly accomplished, the Sponsor will be relieved of all its obligations and responsibilities under this Agreement and the Instrument.

E. Specific Language of Agreement Shall Be Controlling: To the extent that specific provisions of this Agreement change, modify, obviate or delete terms and conditions contained in the Instrument or other documents that are incorporated into this Agreement by reference, and that are not legally binding, the specific language within this Agreement shall be controlling.

F. Notice: Any notice required or permitted hereunder shall be deemed to have been given either (i) when delivered by hand, or (ii) three (3) days following the date deposited in the United States mail, postage prepaid, by registered or certified mail, return receipt requested, or (iii) sent by Federal Express or similar next-day nationwide delivery system, addressed as follows (or addressed in such other manner as the party being notified shall have requested by written notice to the other party):

Habitat Bank, LLC
Owner
801 E 1st St. Suite B107
Cle Elum, WA 98922
425-785-8428

U.S. Army Corps of Engineers, Seattle District
Mitigation Banking Specialist/Co-chair of the MBRT
Regulatory Branch, CENWS-OD-RG
4735 E. Marginal Way South
P.O. Box 3755
Seattle, WA 98124-3755
206-764-3495

Washington State Department of Ecology
Mitigation Banking Specialist/ Co-chair of the MBRT
Shorelands and Environmental Assistance Program
PO Box 47600
G. Entire Agreement: This Agreement, incorporating the provisions of the Instrument as indicated, constitutes the entire agreement between the parties concerning the subject matter hereof.

H. Invalid Provisions: In the event any one or more of the provisions contained in this Agreement are held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provisions hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had not been contained herein.

I. Effect of Agreement:

1. This Agreement does not in any manner affect statutory authorities and responsibilities of the signatory parties. This Agreement is not intended, nor may it be relied upon, to create any rights in third parties enforceable in litigation with the United States or the State of Washington. This Agreement does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the property, with the sole exception of the right on the part of the Corps and Ecology to require the Sponsor to implement the provisions of this Agreement, including recording the conservation easement, required as a condition of the issuance of permits for discharges of dredged and fill material into waters of the United States associated with construction and operation and maintenance of the Bank.

2. Corps approval of this Instrument constitutes the regulatory approval required for Snohomish Basin Mitigation Bank to be used to provide compensatory mitigation for Department of the Army permits pursuant to 33 C.F.R. 332.8(a)(1). This Instrument is not a contract between the Sponsor or property owner and the Corps or any other agency of the Federal government. Any dispute arising under this Instrument will not give rise to any claim by the Sponsor or property owner for monetary damages. This provision is controlling notwithstanding any other provision or statement in the Instrument to the contrary.

J. Headings and Captions: Any paragraph heading or caption contained in this Agreement shall be for convenience of reference only and shall not affect the construction or interpretation of any provision of this Agreement.

K. Counterparts: This Agreement may be executed by the parties in any combination, in one or more counterparts, all of which together shall constitute one and the same instrument.

L. Binding: This Agreement shall be immediately, automatically, and irrevocably binding upon the Sponsor and its heirs, successors, assigns and legal representatives upon execution by the Sponsor, Ecology, and the Corps.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date herein below last written.

PARTIES

By the Sponsor

__________________________________
Victor Woodward
Bank Sponsor/Owner
Habitat Bank, LLC
Snohomish Basin Mitigation Bank

Date

By the Corps

__________________________________
Colonel Mark A. Geraldi
Commander and District Engineer
U.S. Army Corps of Engineers Seattle District

Date

By Ecology

__________________________________
Gordon White
Manager, Shorelines and Environmental Assistance Program
Washington State Department of Ecology

Date
SNOHOMISH BASIN MITIGATION BANK
MITIGATION BANKING INSTRUMENT

SUBMITTED BY:

Habitat Bank, LLC
15600 NE 173rd St
Woodinville, WA  98077
(425) 785-8428

PREPARED BY:

Talasaea Consultants, Inc.
15020 Bear Creek Rd
Woodinville, WA  98077
(425) 861-7550

July 28, 2005

Amended December 15 2016
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1.0 INTRODUCTION

Section 404 of the Clean Water Act (CWA) (33 USC 1344 et seq.) and Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) authorize the Department of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the United States, including wetlands and other special aquatic sites, and for activities in, or affecting, navigable waters of the United States. The Department of the Army, through its U.S. Army Corps of Engineers (USACE) Regulatory Program, makes decisions to issue or deny permits based on a public interest review (33 CFR Parts 320-330) and, for activities subject to regulation under Section 404, compliance with the U.S. Environmental Protection Agency’s (EPA) “Guidelines for the Specification of Disposal Sites for Dredged and Fill Material” (40 CFR Part 230), known as the Section 404(b)(1) guidelines.

The Washington Department of Ecology (DOE) regulates wetlands under the State Water Pollution Control Act and the Shoreline Management Act and provides technical assistance to other agencies that regulate wetlands under separate statutes, such as the Hydraulic Code (Washington Department of Fish and Wildlife). In addition, DOE provides technical assistance to local governments under the Growth Management Act. The DOE and other state agencies use the State Environmental Policy Act (SEPA) process as a mechanism to identify potential wetland-related concerns early in the permitting process.

These government agencies generally require mitigation for adverse impacts to the aquatic environment associated with regulated activities. The Council on Environmental Quality has defined mitigation to include avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts. For those impacts that remain after taking appropriate steps to avoid and minimize adverse impacts, appropriate and practicable compensatory mitigation is required to offset those remaining unavoidable impacts. Compensatory mitigation includes restoring, enhancing, creating, and preserving the aquatic system functions that would be lost or impaired due to an authorized activity. Compensatory mitigation may be implemented to offset the adverse impacts of one or more authorized projects within a single consolidated mitigation project. Consolidated mitigation projects, such as mitigation banks, may result in greater overall environmental benefit than those achieved with numerous small, individual mitigation projects and are usually more cost-effective to implement.

Guidance pertaining to the type and extent of mitigation that may be required by the USACE is provided in the February 6, 1990, “Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act 404(b)(1) Guidelines.” This memorandum of agreement emphasizes the importance of a national goal to achieve an overall no net loss of the nation’s remaining wetlands base and notes, without providing further guidance, that mitigation banking may be an acceptable form of compensatory mitigation under certain conditions.

On November 28, 1995, six federal agencies jointly issued detailed guidance, “Federal Guidance for the Establishment, Use, and Operation of Mitigation Banks”, that details how mitigation banks can be used to satisfy the mitigation requirements of the Section 404(b)(1) guidelines. This federal guidance defines mitigation banking as the restoration, enhancement, creation, and, in exceptional circumstances, preservation undertaken to compensate in advance and at one location for adverse impacts to the aquatic ecosystem. Mitigation banking can be an appropriate form of compensatory mitigation when other forms of mitigation cannot be practicably achieved at the impact site or would not be as environmentally beneficial. Many federal, state and local agencies recognize that mitigation banking can benefit the aquatic ecosystem, as well as permit applicants, regulatory and natural resources agencies, and the general public.
The Washington Department of Ecology by order of the State Legislature has developed a set of draft Mitigation Banking regulations. In the 2004 legislature the DOE was authorized to start a mitigation bank pilot program to evaluate the draft rules. The SBMB is part of the DOE mitigation bank pilot program.

Snohomish County through Title 30.62.375 of the Unified Development Code, allows for wetland mitigation banking when approved by the Director of Planning and Development Services, in accordance with the criteria set forth in SCC 30.62.375 subsection 2 to provide wetland mitigation as required by chapter 30.62 SCC.

King County, through administrative rules codified in King County Code (KCC) 21A.24.345, established the criteria governing the creation and use of wetland mitigation banks in the county to compensate for unavoidable impacts to wetlands, in accordance with the Metropolitan King County Council's directive.

The Federal, State and Local agencies who ultimately are signatories to this Instrument are hereafter referred to as the Mitigation Bank Review Team (MBRT).

Habitat Bank, LLC (HB), proposes to develop a wetland mitigation bank, the Snohomish Basin Mitigation Bank (SBMB), by restoring and enhancing wetlands, other aquatic resources, and riparian habitat on 225 acres in Snohomish County, Washington (Figure 1) to generate marketable wetland mitigation credits. The SBMB lies near the confluence of the Snoqualmie and Skykomish Rivers in what was historically a large wetlands complex, supported by flooding along the Snoqualmie River and, to a lesser extent, the Skykomish River. Over the last 100 years the site has been cleared, leveled, drained with ditches and subsurface drainage tiles, protected by flood gates and pumps, and placed under agricultural production (truck crops and, more recently, pasture). The general goal of mitigation at the SBMB site is to restore hydrology to drained former wetlands, enhance the hydrology of partially drained farmed wetlands, and restore native vegetation communities, including forested wetlands, scrub-shrub wetlands, wet meadow, marsh, vegetated shallows, stream channels, and ponds.

2.0 LEGAL AUTHORITY

The SBMB is established in accordance with the following federal and state statutes, regulations, guidelines, and policies:

- Clean Water Act (33 USC 1251 et seq.)
- Regulatory Program of the U.S. Army Corps of Engineers (33 CFR Parts 320-331)
- U. S. Army Corps of Engineers Regulatory Guidance Letter 02-2
- Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (February 6, 1990)
- Federal Guidance for the Establishment, Use, and Operation of Mitigation Banks (60 FR 58605-58614, November 28, 1995)
- National Environmental Policy Act (42 USC 4321 et seq.)
- Council on Environmental Quality Procedures for Implementing the National Environmental Policy Act (40 CFR Part 1500-1508)
- Executive Order 11990 (Protection of Wetlands)
Nothing in the agreement shall be construed as altering the requirements of, and agency responsibilities pursuant to, these laws, regulations, and policies.

3.0 SCOPE OF THIS MITIGATION BANKING INSTRUMENT

This mitigation banking instrument (MBI), which was prepared in accordance with “Federal Guidance for the Establishment, Use and Operation of Mitigation Banks,” shall serve as the detailed implementation plan for the establishment and operation of the Snohomish Basin Mitigation Bank (SBMB) near Monroe, in Snohomish County, Washington. The terms and provisions of this MBI will be incorporated into a Memorandum of Agreement (MOA) that will govern the relationship between HB and the regulatory agencies having jurisdiction over, and/or substantial interest in, the SBMB. That MOA shall also serve as the “Memorandum of Agreement” and “Implementation Manual” per Snohomish County regulations and, when combined with the initial SBMB Prospectus, As-Built Report, and Performance Monitoring Reports, shall constitute the “Implementation Plan” per King County Regulations. Under that MOA, HB shall:

- Implement and maintain the SBMB as specified in the MOA and this MBI;
- Protect in perpetuity the 199-acre SBMB through development of a conservation easement;
- Maintain accounting records for the SBMB; and
- Monitor the SBMB for gains in aquatic ecosystem functions and values and implement corrective actions, as needed, to ensure that the SBMB achieves the performance standards established in this MBI.
The following agencies participated in the development of the banking instrument:

- U.S. Army Corps of Engineers, Seattle District (USACE)
- U.S. Environmental Protection Agency (EPA)
- Washington State Department of Ecology (Ecology)
- Washington State Department of Fish and Wildlife (WDFW)
- Washington State Department of Natural Resources, Aquatic Resources Division (DNR)
- Snohomish County (SC)
- King County (KC)

The USACE and the Washington State Department of Ecology, as co-chairs of the MBRT, each hold independent authority to make final decisions regarding terms and conditions of this MBI if consensus among the MBRT members cannot otherwise be reached within a reasonable time frame.

4.0 BUSINESS PURPOSE AND ECOLOGICAL GOALS OF THE BANK

The purpose of the SBMB is to generate mitigation credits for projects that will have an adverse impact on the aquatic environment and need to compensate for those impacts as a condition of their permits. Impacts that could be compensated for by the SBMB include those to wetlands, streams and critical area buffers. The goal of the SBMB will be to provide more extensive, higher quality, and more cost-effective restoration and enhancement of aquatic resources than can typically be achieved by other forms of compensatory mitigation. The goal of the SBMB is to provide permit applicants greater flexibility in compensating for unavoidable adverse impacts to the aquatic ecosystem in an ecologically beneficial manner.

The environmental goals of the SBMB are to:

A. Provide for the replacement of the chemical, physical, and biological functions of wetlands and other aquatic resources that are lost or degraded as a result of authorized impacts;
B. Provide a net gain in high quality, sustainable wetland and aquatic ecosystem function and acreage, through restoration and enhancement of the site.
C. Consolidate mitigation for authorized aquatic ecosystem impacts into a single large, environmentally significant site in advance of impacts that use the site for mitigation.
D. Provide high quality refuge and off-channel rearing habitat for federally-listed and state priority fish species.

5.0 LOCATION AND BASELINE CONDITIONS OF THE SBMB SITE

The proposed project is located in very close proximity to the Snoqualmie River in the east half of Section 35 and the west half of Section 36, Township 27 North, Range 6 East, in Snohomish County, Washington. The site is located approximately 4.6 miles south of Monroe and 2.7 miles northwest of Duvall (Figure 1). The site is east of High Bridge Road and lies in the 100-year floodway of the Snoqualmie River. In general, the SBMB ranges in elevation between 25 and 38 feet above sea level; the lowest elevation on the site (22 feet), is at the bottom of the primary drainage canal. The SBMB encompasses a depressional area that under natural conditions was frequently flooded by the Snoqualmie
River. The area has been diked, ditched, tiled, and protected by a floodgate since approximately 1910. The site is bordered on three sides by agricultural land and to the east by a relatively undisturbed forested wetland with a pond, used as a hunting club.

The local geology of the SBMB area is the direct result of glaciation (up until 10,000 years ago) and more recently, the work of the Snoqualmie River. Since the last glacial retreat, the river has been eroding, transporting, depositing, and sorting these glacial deposits. The topography of the SBMB area is primarily alluvial in nature with features such as the historic floodplain, abandoned channel meanders, meander scars, levees, and terraces all built and/or maintained by the river.

The vast majority of the soils on the alluvial bottomlands of the SBMB formed under an aquic or peraquic moisture regime (saturated in the upper part of the soil to create reducing conditions). Predominant soil textures range from sandy loam to sandy clay loam. These soils are very deep, have slow permeability, and are artificially drained. A large portion of the SBMB area is underlain by highly decomposed peat soils, which is indicative of a pre-existing stable wetland ecosystem.

Historically the primary sources of hydrology in the SBMB area included: 1) flooding by the Snoqualmie River, 2) groundwater flow parallel to the river, 3) lateral groundwater flow from the watershed surrounding the site, 4) surface water inflow, and 5) direct precipitation. Today an extensive network of subsurface drainage tiles and surface drainage ditches has effectively drained the majority of the SBMB area, thereby eliminating wetland hydrology. A flood control berm and floodgate preclude flooding of the site by the river, except during Snoqualmie River flows exceeding 34 feet in elevation. At least two streams naturally flowed through the SBMB area prior to European settlement of the site. These streams were relocated and converted to drainage ditches during agricultural development of the site. Flow within these ditches or channels, is augmented by groundwater discharge, seeps and springs along the west margin of the site. The streams, which enter the site from culverts under High Bridge road and from the south through the main ditch, are classified as Type 4 and 5 streams by Washington State and Snohomish County Code due to their small size and lack of fish access. Currently 6400' of these streams cross the site while confined to drainage ditches. To efficiently remove water from the site these streams plus other sources of water such as seeps and drainage tiles are all channeled via constructed ditches into a main south to north ditch which runs from King County in the south, north into Pearson Eddy through the flood control structure.

Prior to European settlement of the SBMB site, the alluvial bottomlands of the Snoqualmie River were covered by a mosaic of scrub-shrub wetlands with inclusions of forested wetlands, wet meadows, marsh, and aquatic beds. Today, the site is covered exclusively by pasture grasses (Table 1).

Small areas of low quality wetlands still exist on the SBMB mostly associated with old river channel depressions, abandoned ditches, and the very lowest portions of the site (Figure 2). Most of the SBMB has been effectively drained and wetland hydrology eliminated. Approximately 24 acres, or 12% of the site, retains wetland hydrology and are considered farmed wetlands. The balance of the site is comprised of natural upland and drained former wetlands.

Given the relatively homogeneous vegetation and lack of horizontal and vertical structural diversity of the SBMB area, wildlife species diversity is relatively low on the SBMB site. Species common to agricultural fields are typical of the SBMB site. Currently, no salmonid species are able to gain access to the SBMB site, except during overbank flood events, due to the obstruction provided by the Pearson Eddy floodgate and flood control berm. According to State records and databases, there are no known priority species or habitats, rare plants, or high quality ecosystems on the SBMB site.
Table 1A. Summary of Existing and Proposed Conditions for the SBMB by Phase. Table 1A shows the area of expected wetland hydrology restored per phase, the SBMB will restore 129.6 acres of new Category II wetlands to the national wetland inventory. Table 1B shows the mix of different habitat types restored to the site from the current condition in acres and length of stream restoration in linear feet.

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<th>RESTORATION PHASE</th>
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<td>Phase 2</td>
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<td>Floodplain Upland</td>
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<td>Forested Wetland</td>
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<td>Scrub-Shrub Wetland</td>
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<td>Aquatic Bed Wetland</td>
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<tr>
<td>Pasture</td>
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</table>

Professional judgment based on training and experience in the application of several methods (WET, HGM, HEP, and SAM) was used to assess wetland and buffer functioning at the SBMB site. Additional detail on the baseline conditions and functions can be found in the Critical Areas Report for the Snohomish Basin Mitigation Bank.
Table 2 summarizes existing wetland functions and predicts the relative extent of these functions with implementation of this Bank. A substantial increase in function is expected to result, generally rising from low values, to moderate to high values. This “ecological lift” forms the basis for bank credits that may compensate for future impacts to wetlands, streams, buffers, and other resources in the service area.

Table 2. Summary of Wetland Functional Assessment Under Existing Conditions and with Project Implementation.

<table>
<thead>
<tr>
<th>WETLAND FUNCTION</th>
<th>EXISTING CONDITION</th>
<th>WITH PROJECT IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater Recharge</td>
<td>Low</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Groundwater Discharge</td>
<td>Low to Moderate</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Flood Storage and Desynchronization</td>
<td>Moderate</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Shoreline Anchoring and Dissipation of Erosive Forces</td>
<td>Low to Moderate</td>
<td>Very High</td>
</tr>
<tr>
<td>Sediment Trapping</td>
<td>Low to Moderate</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Nutrient/Pollutant Retention, Removal, Transformation,</td>
<td>Low</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>and/or Transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Chain Support</td>
<td>Very Low to Low</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Wildlife and Fish Habitat</td>
<td>Very Low to Low</td>
<td>High to Very High</td>
</tr>
<tr>
<td>OVERALL</td>
<td>Low</td>
<td>Moderate to High</td>
</tr>
</tbody>
</table>

Baseline conditions for fish will be evaluated in Pearson Eddy between the floodgates and the main stem of the Snoqualmie River and then behind the flood gates on the bank site. These baseline conditions can be compared in the future with fish use of the established wetland system to determine the overall benefit of the Bank to salmon, bull trout and other fish species.

6.0 SITE DEVELOPMENT PLAN

6.1 Description of Proposed Activities

Given that the SBMB site has been drained, protected from flooding, and converted to agriculture, the general goal of mitigation design is to restore and enhance wetland hydrology and replant the area with native wetland plants to provide a variety of wetland types. Forested wetlands would be comprised of three strata of native species (forest, shrub, and groundcover), scrub-shrub wetlands would have two layers (shrub and groundcover), while wet meadow, marsh, and aquatic bed areas would be comprised of one layer. The proposed elevations and hydrologic regimes for the proposed wetland types are summarized in Table 3. The mitigation construction and planting plans are shown in Figures 4 - 9 of 11.

Given the general goals of the mitigation design, the following actions are proposed:

- Eliminate current dairy operations, including use of the bottomland pastures by cattle.
- De-commission subsurface drains and drainage ditches.
- Excavate two linear basins to create meander scar-like topographic features with attendant wetland cover types.
- Spread salvaged topsoil over the graded areas to provide an effective root growth medium and seed source for revegetation.
- Provide wildlife habitat features such as seasonally ponded areas, woody material, brush piles, snags, nesting boxes, etc.
- Restore the streams that once traversed the SBMB area and connect them to Pearson Eddy through a fish-passable structure.
- Re-establish salmonid rearing and holding habitat in and along the restored streams that traverse the SBMB area.
- Re-plant all disturbed soil with plantings and seed mixes comprised of indigenous trees, shrubs, grasses, and forbs.
- Allow the river to backflood the SBMB area through Pearson Eddy.
- Provide effective stream shading by planting native streamside riparian tree and shrub species.
- Plant native trees and shrubs indigenous to the project area in designated cover type areas at a sufficient density to facilitate desired horizontal and vertical structure.
- Establish and maintain upland buffers (where appropriate) and screening buffers around the margin of the wetlands mitigation area.
- Monitor and control noxious weeds including reed canary grass, purple loosestrife, Japanese knotweed and Himalayan blackberry.

Table 3. Target Hydrology

<table>
<thead>
<tr>
<th>Cover Type</th>
<th>Ground Elevation ft.</th>
<th>Target Hydrology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depth ft.</td>
<td>Duration</td>
</tr>
<tr>
<td>Forested Wetland</td>
<td>29-30</td>
<td>0.0</td>
</tr>
<tr>
<td>Scrub-shrub Wetland</td>
<td>27-30</td>
<td>0.0</td>
</tr>
<tr>
<td>Wet Meadow</td>
<td>26-28</td>
<td>0-1.0</td>
</tr>
<tr>
<td>Marsh</td>
<td>24-26</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Aquatic Bed</td>
<td>&lt;24</td>
<td>&gt;3.0</td>
</tr>
</tbody>
</table>

The primary goal of the restoration and enhancement activities on the SBMB is to re-establish a high quality, self-sustaining wetland environment. Although a shallow water table will exist across the SBMB area, the site will have a complex, difficult-to-predict hydrology because there will be many variables affecting water level, and surface flooding provided by the Snoqualmie River occurs on a somewhat random basis. The expected area of restored wetland hydrology is shown in Figure 11. Portions of phase 2 will be a mix of wetlands and small hummocks with shrub scrub cover that may have very small areas with upland conditions, this area has been classified as wetland in the proposed conditions. HB acknowledges that its efforts are primarily to “jump start” the natural restoration process and that natural forces, will ultimately shape the character of the site once construction is complete. After the initial 10 year monitoring period it will be acceptable for the weir structure to be replaced by beaver dams or other natural structures.
6.2 Construction Phasing

The SBMB will be completed in three phases to minimize financial risk and to match credit availability with credit demand. Areas planned for each phase of restoration are shown in Figure 9.

Phase One involves approximately 41 acres in the SE corner of the SBMB site that contains a significant portion of the higher elevation ground that will be restored to forested and scrub-shrub wetlands. This area requires minimal grading and no permits. HB has started this restoration to test different planting and maintenance techniques and to jump start development of the forest canopy structure.

Phase Two, scheduled to go to construction in 2005, will focus on restoring the hydrology and topographic variability to approximately 115 acres of the lower elevation portions of the site, and to establishing surface water flow in a new meandering stream channel connected to Pearson Eddy. The main ditch and flood gates at Pearson Eddy will remain in operation for at least one season to allow stream channel plantings to establish. After one season, the small creeks coming off the hillside to the west and south of the SBMB and the main ditch from the south will be diverted to the restored stream channel.

In Phase Three, scheduled to go to construction in 2010, depending upon credit demand, HB will add higher elevation scrub-shrub wetlands around the southwest and west sides of the SBMB and enhance an old meander scar on the south side of the SBMB. The two main streams flowing into the SBMB through ditches from the South and West will be restored to more natural conditions. Unneeded segments of the main ditch will be partially filled and converted into aquatic bed and marsh cover types.

With the MBRT’s approval, a portion of Phase Three could be included in the Phase Two construction if buffer credit demand warrants early restoration of buffer.

6.3 Site Development

The following steps will be taken to implement the SBMB site development plan for each phase of construction:

1) Remove livestock
The first step in implementing the proposed site development plan will be to discontinue dairy operations, which will involve eliminating livestock grazing and liquid manure disposal on the pastures that will be restored to wetlands and/or enhanced. Mowing or grazing of pastures may continue temporarily to help control noxious weeds.

2) Designate construction plans on the ground
The areas that will be restored in each phase of the mitigation process will be surveyed, flagged, and staked in the field prior to initiating work. These include areas to be cut and filled during the grading process, holding areas for topsoil, planting areas for specific cover types, etc.

3) Implement temporary surface runoff, erosion, and sediment control BMP measures
All areas with exposed soils will be managed and protected with Best Management Practices (BMPs) to minimize surface water runoff, erosion, and sedimentation per the Snohomish County grading permit and grading regulations. A temporary erosion and sediment control plan (TESCP) will be implemented immediately prior to and during all phases of SBMB construction. Upon completion of grading and
planting activities, a storm water pollution prevention plan (SWPPP) will be implemented to protect critical areas.

4) **Plant areas that do not need to be graded and/or that can be protected during the subsequent steps in the site development plan**

Areas of the SBMB that do not require grading or a high degree of manipulation, such as the higher elevations in the interior of the site, will be planted as soon as feasible following discontinuance of dairy operations. These areas will primarily be planted with trees and shrubs as specified under Section 6.5. Late summer or early fall reed canary grass control with glyphosate will be required in these areas to eliminate competition for the plantings.

5) **The grading plan will be staked in the field**

The final grading plan will be staked in the field with specific reference points monumented for ease of relocation. Staking will identify both the horizontal locations and vertical positions of graded landforms and the various cover types.

6) **Site grading**

Construction of the SBMB will involve a wide range of grading activities, including temporary removal of topsoil, filling in drainage ditches, reconstructing stream channels, excavating depressions for new aquatic bed and marsh wetlands, and building up areas for forested and scrub-shrub wetlands. Once grading has been completed, salvaged topsoil will be re-spread over the finished land surfaces. At least six inches of topsoil will be applied. Grading will be accomplished with a variety of equipment including crawler-tractors, earthmovers, backhoes, graders, and dump trucks. The use of such equipment will be restricted to specific work areas and precluded from sensitive areas. Depths and elevations of graded surfaces will be carefully monitored and survey checked to ensure that the site development plan is correctly implemented.

7) **Salvage of topsoil**

No topsoil will be imported to the site. The residual soils are very fertile and suitable for effective revegetation of the SBMB area. At least 8 inches of topsoil will be stockpiled for re-application to the graded surfaces.

8) **Wildlife habitat features**

Wildlife habitat features will be installed following the application of the topsoil. These features will include down woody material (e.g., root wads, stumps, logs, etc.), brush piles, snags, and bird nest boxes. Downed woody material will be placed in upland buffers, forested wetlands, and scrub-shrub wetlands, as well as on the banks of relocated streams. The SBMB is subject to regular flooding and additional woody material will be moved regularly onto the site by floodwaters once enough plant structure forms to restrain larger material.

9) **Planting**

The SBMB will be revegetated to forested wetland, scrub-shrub wetland, wet meadow, marsh, aquatic bed wetland, and riverine/stream cover types. All plant materials will be native, locally adapted species purchased from one or more commercial nurseries. The aquatic bed cover type will not require specific plantings as appropriate species will naturally pioneer the areas through transport of seeds on birds and other animals as well as seed transported by moving water. Species have been selected based on the following criteria: 1) adaptation to specific water regime, 2) value to wildlife, 3) value as barrier or buffer vegetation, 4) pattern of growth, 5) native to this type of wetland in western Washington, and 6) cost and availability. A list of candidate plant species, from which the planted species must be selected,
is presented in Appendix A. The approximate planting densities and locations are shown in the Conceptual Site Planting Plan (Figure 8).

a. **Forested Buffers, Forested Wetland, and Scrub-Shrub**

   Establishment of forested buffers and wetlands, as well as scrub-shrub wetlands, will involve planting native trees and shrubs as selected from the candidate plant list. Shrub and tree planting in the mitigation area will include live stake, bare root, balled-and-burlapped, and containerized stock. Once the topsoil has been prepared and habitat features placed, the forested and scrub-shrub stock will be planted. In general, woody stock will be planted at a density of 500 trees and shrubs per acre, with regular spacing for ease of maintenance. The planting densities and locations are shown in the Site Planting Plan (Figure 8).

b. **Wet Meadow**

   Planting of wet meadow will primarily involve the application of a seed mix comprised of native forb species selected from the candidate plant list. The seed can either be drilled, broadcast or hydro-seeded, with the seed application rate adjusted accordingly. In addition, wet meadow plant plugs may also be applied in the wetter areas.

c. **Marsh**

   Planting of marsh will primarily involve the application of marsh plant plugs. In addition, marsh areas will be seeded with a marsh seed mix comprised of species from the candidate plant list.

10) **Irrigation**

   A temporary aboveground irrigation system may be installed as necessary. However watering is not likely to be required since natural flooding and a high water table will maintain effective soil moisture during the growing season.

11) **Construction Management**

   A pre-construction meeting will be held on-site to review and discuss all aspects of the mitigation project prior to beginning construction. The SBMB sponsor, a representative from Snohomish County, the project manager, the contractor, and interested MBRT members will attend the meeting. A qualified wetland consultant, landscape architect, and/or restoration specialist will supervise construction to ensure that the objectives and specifications of this plan are met.

12) **Post-Construction Assessment**

   A post-construction assessment will be conducted upon completion of each phase of the mitigation work and a report, including as-built drawings, and confirmation of key (high and low) elevations will be submitted to the MBRT. The purpose of this assessment will be to determine whether the site conditions are consistent with the approved plan and to establish baseline conditions for future monitoring.

13) **Performance Monitoring**

   A performance monitoring program will be implemented to determine the degree of success of the mitigation effort. Monitoring shall include conducting periodic surveys and site evaluations until HB can demonstrate to the satisfaction of the MBRT that all performance standards have been achieved. Monitoring will include measurements and observations of site stabilization, wetland hydrology, vegetal cover, plant survival, vegetation structure and species composition, functional values, and weed invasion.
14) **Maintenance during the Operational Life of the Mitigation Bank**

General maintenance will be performed throughout the year to address conditions that may limit the success of the mitigation bank area and attainment of performance standards and objectives. HB is responsible for all site maintenance activities throughout the operational life of the SBMB. Maintenance activities will include, but are not limited to, vegetative maintenance (including replanting, repair of any areas subject to erosion, weed control around plantings, mowing, control of invasive species, control and discouragement of voles, beaver and deer foraging on plants) and general maintenance (including fence repair, road and trail maintenance as necessary, clean-out of culverts, monitoring of the water control structures, and clean-up of trash).

### 6.4 Stream Channel and Pearson Eddy Flood Gates

The primary drainage ditch that leads straight north into Pearson Eddy and transports surface water through the bank site will be replaced by a naturally meandering stream channel. The new channel will be constructed, planted, and left to stabilize for a year before water is redirected into it from the existing ditch system. Once water is diverted to the new stream channel the old ditch will be re-contoured per the grading plan.

Log weirs will be installed in the stream channel to control water levels, assure fish passage and promote channel stability as it moves through the bank site to Pearson Eddy. The main stream will pass over 6 log weirs, five of these will be installed just as the stream drops into the ditch connecting with Pearson Eddy. The logs will act as beaver dams once did to protect the channel bottom from downcutting into the excavated ditch. The log weirs will be adjustable and are planned to hold water on the site at an elevation of 26 feet +/- 1 foot depending upon adaptive management practices to encourage the target vegetative cover types.

The flood gates and dike at Pearson Eddy are planned for removal as part of a restoration project sponsored by the Cascade Land Conservancy with Ducks Unlimited and the NRCS. Combined, these groups have purchased 242 acres to the north including Pearson Eddy and almost a mile of Snoqualmie River shoreline. The continued presence of flood gates in the near term will help protect the bank site from flooding while the planting and stream channel restoration work stabilize. While wetland hydrology will be restored to the bank site without removal of the flood gates, fish refuge and rearing habitat restoration and a more natural hydrologic connection to the Snoqualmie River will require removal of the flood gates.

### 6.5 Objectives and Performance Standards

HB expects that development of the SBMB will result in substantial gains in aquatic ecosystem functions over those that are present now or would likely be present on the site if the SBMB were not constructed. Because these functional gains will be used to offset comparable losses to other components of the aquatic environment in the SBMB service area, HB must be able to document that it has successfully brought about those aquatic ecosystem gains before the SBMB credits can be released for sale. HB’s success will be measured by the following performance objectives established for the SBMB, each of which is subdivided into specific performance standards.

1. Permanently protect aquatic ecosystem functions at the SBMB by completing the MBI, initiating financial assurance mechanisms, and implementing a conservation easement with permanent funding for site stewardship.
2. Restore and enhance wetland hydrology to 117.3 acres of phases 1 and 2 and 33.4 acres of phase 3 by disabling drain tiles, disabling the drainage ditch system, de-leveling the site and restoring a more natural hydrologic connect to Pearson Eddy to promote wetland hydrology.

3. Restore natural riverine wetland function to the SBMB by replacing 6,400 linear feet of ditched, straightened stream channel with 9,900 linear feet of meandering stream channel across the site and constructing a fish passable transition (weir) from the restored stream channel into Pearson Eddy.

4. Restore native stream and wetland vegetation communities appropriate for the site.

5. Control invasive species to allow native vegetation communities to establish and dominate the bank site.

6. Enhance wildlife habitat by installing perch poles, cavity trees, large woody debris and brush piles in the wetlands, uplands and riparian area.

**Performance Standards**

The performance standards below provide a gauge for measuring the success of the ecological restoration and enhancement efforts at the SBMB. Each phase will be independently evaluated for attainment of these objectives and performance standards.

Unless otherwise noted, all documentation required for showing attainment of performance standards (right column of tables below) will be submitted to the MBRT for review and approval as a condition of credit release. Documentation can typically be included in required monitoring reports.

**Objective 1: Permanently protect aquatic ecosystem functions at the SBMB by completing the MBI, initiating financial assurance mechanisms, and implementing a conservation easement with permanent funding for site stewardship.**

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A. Complete the development of an appropriate Mitigation Banking Instrument and Memorandum of Agreement. This standard must be met before any other SBMB credits can be released.</td>
<td>Mitigation Banking Instrument and Memorandum of Agreement have been signed by the necessary regulatory agencies.</td>
</tr>
<tr>
<td>1B. Protect ecosystem function by placing an MBRT approved conservation easement on the property. For each phase of the SBMB, this performance standard must be met before the credits associated with Objectives 2 through 6 can be released.</td>
<td>Provide the MBRT a copy of the signed MBRT approved conservation easement and evidence that it has been recorded with Snohomish County and placed on the property title.</td>
</tr>
</tbody>
</table>
1C. Conservation and habitat restoration easements will be placed on areas identified in the MBI as off-site buffers. For each phase of the SBMB, this performance standard must be met before the credits associated with Objectives 2 through 6 can be released.  

Provide the MBRT with a copy of the conservation easement and evidence that it has been recorded with Snohomish County and placed on the property title.

1D. Provide financial assurance for each phase by establishing an Irrevocable Letter of Credit pursuant to the requirements established in Article III.D.1. of the MOA. For each phase of the SBMB, this performance standard must be met before the credits associated with Objectives 2 through 6 can be released.  

Demonstrate to the MBRT that a compliant and acceptable Irrevocable Letter of Credit has been established to provide financial assurance for each phase.

1E. Establish a Long-Term Management and Maintenance Endowment Fund escrow account pursuant to the requirements established in Article III.D.2. of the MOA. This performance standard must be met before the credits associated with Objectives 2 through 6 can be released, regardless of phase.  

Demonstrate to the MBRT that a Long-Term Management and Maintenance Fund has been initiated through establishment of a compliant and acceptable escrow account.

Objective 2: Restore and enhance wetland hydrology to 117.3 acres of phase 1 and 2 and 33.4 acres of phase 3 by disabling drain tiles, disabling the drainage ditch system, de-leveling the site and restoring a more natural hydrologic connect to Pearson Eddy to promote wetland hydrology.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A. Disable drain tiles, disable drainage ditches, de-level the site and re-contour it to promote wetland hydrology.</td>
<td>Documentation including photographs of the destruction of drain tiles, plugged ditches and as built drawings with key water control feature elevations will be provided to the MBRT.</td>
</tr>
<tr>
<td>2B. Wetland hydrology has been restored to effectively drained wetlands as a result of disabling the drain tile system.</td>
<td>During years 3, 5, and 7, use data collected from permanent monitoring wells to demonstrate that wetland hydrology has been restored in areas where the drain tile system was disabled.</td>
</tr>
<tr>
<td>2C. In years 2 and 5 permanently ponded areas comprise less than 14 acres of phase 1 and 2, and 2 acres of phase 3.</td>
<td>Measure permanently ponded areas and document with photographs during August or September of years 2, and 5.</td>
</tr>
</tbody>
</table>
2D. Improve the hydrologic connection to Pearson Eddy by either removing the flood gates or upgrading them with a fish passable structure.

Document that this work was completed with photographs and as-built drawings.

2E. A wetland delineation will be conducted on Phase 1 in Year 10 and Phase 2 in Year 6 to verify that at least 105 acres of Phases 1 and 2, collectively, are wetlands. A wetland delineation will be conducted on Phase 3 in Year 5 to verify that at least 26 acres of Phase 3 are wetlands. A wetland delineation will be conducted on Phase 2 in Year 10 and Phase 3 in Year 9, to verify that at least 116 acres of Phases 2 and 3, collectively, are wetlands.

MBRT-approved wetland delineations conducted in year 10 for Phase 1, years 6 and 10 for Phase 2, and years 5 and 9 for Phase 3, in accordance with the 1987 Corps of Engineers Wetland Delineation Manual and appropriate supplements in effect at the time of delineation.

Objective 3: Restore natural riverine wetland function to the SBMB by replacing 6,400 linear feet of ditched, straightened stream channel with 9,900 linear feet of meandering stream channel across the site and constructing a fish passable transition (weir) from the restored stream channel into Pearson Eddy.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A. The meandering stream channels and other water control features are constructed according to the approved plans, and any changes from initial plans are approved by the MBRT.</td>
<td>As built drawings including final site grades (topography), stream channels, berms, weir locations and specifications, and any changes from approved plans will be provided to the MBRT. Photo document water levels in the stream channel in year 1, as the system and plantings stabilize and then as stream flow is diverted to the restored channel in year 2.</td>
</tr>
<tr>
<td>3B. Stream flow at high levels pass properly over the weir system and the through the meandering stream channels and do not cause excessive erosion at any point in the restored system.</td>
<td>Monitor flow of the stream through the restored channel and weir system at different flow rates. Document flows, any erosion problem encountered, and any remedial action taken in monitoring reports for years 3, 5 and 7.</td>
</tr>
<tr>
<td>3C. In years 3 and 10, the stream channels and weir structures are consistent with WDFW requirements for fish passage.</td>
<td>Provide to the MBRT WDFW verification that the constructed channel and structures satisfy WDFW requirements for fish passage.</td>
</tr>
</tbody>
</table>
Objective 4: Restore native stream and wetland vegetation communities appropriate for the site.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4A. Site planted according to approved planting plan.</td>
<td>As-built plans and photographs documenting that the site has been planted in accordance with the approved planting plan. Documentation will include planting dates, plant quantities, species diversity, and locations of each plant community.</td>
</tr>
<tr>
<td>4B. At years 3, 5 and 7 forested wetlands will have a minimum density of 350 living native trees at least one meter in height per acre. Four (three in phase 1) native tree species shall each comprise at least 10% of the trees in these areas, or number at least 35 per acre.</td>
<td>Permanent transects, 100-feet long and 20-feet wide will be established during the baseline assessment within each plant community in the mitigation areas. During monitoring events, trees, shrubs, and herbaceous vegetation will be evaluated within each of these sampling locations. The establishment of shrubs and trees will be evaluated in a 20-foot-wide belt along the established transect. The species and location of shrubs and trees within this belt will be recorded, and will be evaluated during each monitoring event to determine percent survival. Percent survival and percent of total will be determined based upon the original planting and will not include volunteers. Herbaceous species occurring along the transect will be recorded. Documentation of satisfaction of the planting performance standards will include reports of surveys of species, species quantities (by numbers or area coverage, as appropriate), and plant locations. Other practicable and effective vegetation measurement methods may be used if approved by the Signatories.</td>
</tr>
<tr>
<td>4C. At years 3, 5 and 7 scrub-shrub and upland areas will have a minimum density of 350 living native trees at least one meter in height and/or shrubs per acre. Five (four in phase 1) native woody species shall each comprise at least 10% of the number of trees and shrubs in these areas.</td>
<td></td>
</tr>
<tr>
<td>4D. At years 3, 5 and 7 marsh, wet meadow, and aquatic bed areas will have a total of at least 10 native facultative and wetter species.</td>
<td></td>
</tr>
<tr>
<td>4E. At years 3, 5 and 7 marsh and wet meadow areas will have at least 70% areal cover of native facultative and wetter species. No single species will make up more than 30% of the total areal cover.</td>
<td></td>
</tr>
<tr>
<td>4F. At years 3, 5 and 7 forested and scrub-shrub portions of the buffer areas will have a minimum of 350 living native trees at least one meter in height or shrubs per acre. Four native species shall each comprise at least 10% of the trees or shrubs in these areas.</td>
<td></td>
</tr>
<tr>
<td>4G. At year 10 there will be a minimum of 250 living native trees at least one meter in height per acre in forested wetland areas and 250 living</td>
<td></td>
</tr>
</tbody>
</table>
native shrubs or trees per acre in scrub-shrub wetland areas.

4H. At year 10 there will be at least 8 native facultative and wetter species in marsh, wet meadow, and aquatic bed areas.

4I. At year 10 emergent wetlands will have at least 90% areal cover of native facultative and wetter species. No single species will make up more than 30% of the total areal cover.

Objective 5: Control invasive species to allow native vegetation communities to establish and dominate the bank site.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5A. In years 3 and 5, the cover of invasive species in each phase of the SBMB will be no more than 50% of the baseline cover, and the year 5 cover of invasive species will be lower than the year 3 cover. For purposes of performance standards 5A and 5C, invasive species are Himalayan blackberry, purple loosestrife, reed canary grass, scotch broom, tansy ragwort, English ivy, Japanese knotweed, Himalayan knotweed, giant knotweed and hybrid knotweed.</td>
<td>Baseline mapping of the cover of these invasive species over the bank site will be conducted during June – August of the first full growing season following initial construction (typically year 1 or 2). The size and location of each patch/colony of invasive species larger than 30 square feet will be mapped. The areal extent of invasive species will be remapped during June-August of years 3 and 5 and reported to the MBRT. The reports will document changes in the cover of invasive species relative to baseline conditions and describe the status and results of invasive species management activities.</td>
</tr>
<tr>
<td>5B. No living specimens of Japanese, Himalayan, giant, or hybrid knotweed; purple loosestrife; or English ivy will be allowed to survive on the SBMB site.</td>
<td>Document the methods and results of surveys of the entire SBMB site, conducted during years 2, 5, and 10.</td>
</tr>
<tr>
<td>5C. In year 10 invasive species, as a group, do not dominate more than 20% of the bank site.</td>
<td>A report on the results of a statistically valid survey of the vegetative cover of the bank site. At each survey site (e.g., transect), the aerial covers of all invasive species present shall be combined into a single “invasive species” group. This species group will be considered dominant if its aerial cover is greater than any other species and exceeds 30% of that survey site.</td>
</tr>
</tbody>
</table>
Objective 6: Enhance wildlife habitat by installing perch poles, cavity trees, large woody debris and brush piles in the wetlands, uplands and riparian area.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Monitoring Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>6A. One perch pole and one cavity tree will each be provided per every 5 acres of upland; 80% of perch poles and cavity trees will each be present in year 10.</td>
<td>Provide as-built drawings and demonstrate success with an MBRT tour of the site after construction. Document location and use of the habitat features in monitoring reports.</td>
</tr>
<tr>
<td>6B. One root wad will be provided for every 250 feet of stream channel.</td>
<td></td>
</tr>
</tbody>
</table>

In the event that a specific performance standard is not being fully met but the MBRT believes that satisfactory progress has been made towards meeting this standard, the MBRT may, at its discretion, release some or all of the credits associated with that performance standard, as detailed in Tables 5a, 5b, and 5c.

6.6 Multiple Use Plan and Other Activities

Recreational, educational, and scientific activities that do not conflict with the stated purpose and goals of the SBMB or adversely affect the ecological functioning of the SBMB may occur on SBMB property. Cattle and horse grazing may continue temporarily on portions of the site to maintain control of grasses and invasive species until that section is restored per the site development plan.

The Mount Vernon Research and Extension Unit of the Washington State University has been given access to approximately two acres of Phase 3 for research on various methods of restoring native vegetation in areas dominated by reed canary grass. Dr. Timothy Miller will be overseeing these tests for a period of approximately five years. This testing program will provide useful data both for the SBMB and for others doing similar restoration and enhancement work in the Northwest. Eventually this area is intended to be a portion of the Phase 3 buffer that will be shrub scrub or forested upland.

The site may be used by the owner and guests for walking, bird watching, horseback riding and other passive recreation including hunting and fishing as long as it is not done on a commercial basis and does not conflict with the stated purpose and goals of the bank, or adversely affect the ecological viability of the SBMB. No structures can be constructed on a portion of the bank protected by the SBMB conservation easement or other protective covenants.

7.0 CREDIT/DEBIT DETERMINATION

7.1 Credit Generation

HB will generate SBMB credits by restoring 174 acres of effectively drained wetlands and other uplands, enhancing 25 acres of degraded farmed wetlands, and constructing approximately 9,000 linear feet of stream channel to replace 6,400 feet of existing ditched stream (Table 1B).
For purposes of the SBMB, a credit is defined as the increase in aquatic ecosystem functioning that would result from re-establishment, rehabilitation, enhancement or establishment on the SBMB that is equivalent to the aquatic ecosystem functioning of one acre of intact Category II wetland in Western Washington. A credit represents the functions and area of a Category II wetland system including forested, scrub shrub and emergent floodplain wetlands.

The wetlands at the bank site are riverine flow-through systems which provide water quality, hydrologic and habitat functions. Wildlife supported include fish, herptiles, mammals, waterfowl, birds of prey and other bird species. The bank provides flow attenuation and reduction of downstream erosion for the Snoqualmie, Skykomish and Snohomish Rivers.

While the actual number of credits generated by the SBMB cannot be determined until the project is constructed and the success of re-establishment, rehabilitation, and enhancement activities is assessed by the MBRT, the number is expected to be 148.9 credits, as shown in Table 4. The final number of credits will be determined by the MBRT and based upon the achievement of performance standards.

**Table 4. Wetland Credit Generation by Bank Development Activity and Construction Phase.**
Credit calculation is based on the aquatic ecosystem functions performed by a typical category II wetland in Western Washington. Wetland re-establishment and rehabilitation credits plus floodplain upland buffers credits will be combined into a single “Wetland/Stream” credit type. This table does not include 22.0 non-credit acres on the 199 acre SBMB and 2.3 acres adjoining the SBMB that are designated as permanent perimeter buffer.

<table>
<thead>
<tr>
<th>Process</th>
<th>Present Acreage</th>
<th>Conversion Rate</th>
<th>Wetland Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase 1</td>
<td>Phase 2</td>
<td>Phase 3</td>
</tr>
<tr>
<td>Wetland Re-establishment</td>
<td>15.2</td>
<td>78.9</td>
<td>28.6</td>
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<tr>
<td>Wetland Rehabilitation</td>
<td>4.4</td>
<td>18.8</td>
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<tr>
<td>Floodplain Upland Buffer</td>
<td>15.3</td>
<td>12.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Total Credits</td>
<td>22.0</td>
<td>97.0</td>
<td>29.9</td>
</tr>
</tbody>
</table>

Perimeter buffer and floodplain upland buffer acreage may be utilized for buffer mitigation in conjunction with local government regulations. HB will report sales of floodplain upland buffer credits to the MBRT at which point these acres would not be eligible for conversion to wetland credits.

There is an opportunity to develop rearing and holding habitat for Federally-listed and other priority fish species within the SBMB area. These improvements would provide substantial gains in fishery habitat quality that could compensate for adverse impacts of permitted projects. HB will coordinate with the MBRT, Tribes, WDF&W, USF&WS, and NOAA Fisheries to determine potential future credit for this habitat improvement. HB may work with the appropriate agencies to improve habitat for other Federally-listed or other priority species within the SBMB. Nothing in this MBI shall prevent HB from receiving additional credit for this work provided it does not conflict with the provisions of this MBI.
Potential credits resulting from activities performed as part of this project for storm water retention, carbon sequestration, pollution or nutrient reduction are retained by Habitat Bank and may be sold separately at some point in the future with no effect on the value or number of credits established by this MBI, provided the generation of such credits does not produce a conflict with the provisions of this MBI. It is the prerogative of each regulatory agency to determine which type of credit may be used for compensation and in what combination. HB will notify the MBRT if any new credits are established.

Nothing in this MBI shall prevent HB from working with the MBRT or authorized regulatory agency to develop new credits or exchange existing SBMB credits for other types of endangered species or habitat credit defined in future years by regulatory authorities, provided this action does not conflict with the provisions of this MBI.

7.2 Credit Release Schedule

SBMB credits will be released by the MBRT for sale as the performance standards associated with those credits are met, with the following exceptions: (1) no credits may be released prior to meeting performance standards 1A, which require the banker to complete the development of an MBI and MOA for this bank, and (2) no credits associated with the Year 10 performance standards (the credits in the Year 10 column of Tables 5a., 5b., and 5c.) for a particular phase may be released until at least 60% of the credits associated with Years 0 through 7 for that phase have been released. The MBRT may award partial credit for partial accomplishment of a performance standard. Once a credit is released, HB may sell or transfer that credit at any time, subject to the provisions of this MBI.

For each phase of the SBMB, the MBRT will normally approve the release of credits according to the schedule in Table 5a, 5b or 5c, below, provided HB demonstrates success in meeting the subject performance standards and is in compliance with the provisions of this MBI. To request the release of credits associated with a particular performance standard HB will provide the MBRT clear documentation of success, usually as an element of a scheduled monitoring report. The MBRT will expeditiously review the submitted documentation of success. If the MBRT determines that HB has successfully met a performance standard and is otherwise in compliance with the terms and conditions of the MBI, the MBRT will release for sale or transfer the SBMB credits associated with that performance standard pursuant to Table 5a, 5b, or 5c.

If HB is not able to meet a particular performance standard by the year indicated in 5a, 5b, or 5c, it may submit documentation of successful satisfaction of those performance standards during a subsequent year, and the appropriate credits will be released for sale or transfer without penalty.

If the institution of an adaptive management or remedial action plan as described in Section 12.2 causes delay in the achievement of a performance standard, the timeline for achievement of each subsequent milestone for that performance standard will be deferred for a like interval, unless otherwise specifically approved. If the Bank is determined to be operating without prior written approval at a deficit at any time, award and debiting of credits will immediately cease. The MBRT, in consultation with HB, will determine what remedial actions are necessary to correct the situation and direct their performance prior to the release of any additional mitigation credits.

Phases 1 and 2 will enter into the credit generation process concurrently. The initial conservation easement will be placed over both phases shortly after the MBI is signed. However, Phases 1 and 2 will be treated independently in terms of credit release since Phase 1 is two years ahead of Phase 2 in construction timing. The conservation easement for Phase 3 will be put in place once demand warrants
construction. In addition, the release of credits tied to performance standards 3B and 3C for Phase 1 will require that these same performance standards be simultaneously met for Phase 2.

Table 5a. Credit Release Schedule for Phase 1 of the SBMB. The number of credits released is anticipated to total 22.0 credits, as shown in Table 4.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Number of Credits Released</th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</table>

¹ Year 0 is the calendar year during which the MBI is signed and a conservation easement implemented for that phase. Year 2 is normally the calendar year following the year during which construction was completed and the year during which as-built drawings are submitted.

² No credits associated with the Year 10 performance standards for a particular phase may be released until at least 60% of the credits associated with Years 0 through 7 for that phase have been released.
Table 5b. Credit Release Schedule for Phase 2 of the SBMB. The number of credits released is anticipated to total 97.0 credits, as shown in Table 4.

<table>
<thead>
<tr>
<th>Performance Standard</th>
<th>Number of Credits Released</th>
<th>Year&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
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<sup>1</sup> Year 0 is the calendar year during which the MBI is signed and a conservation easement implemented for that phase. Year 2 is normally the calendar year following the year during which construction was completed and the year during which as-built drawings are submitted.

<sup>2</sup> No credits associated with the Year 10 performance standards for a particular phase may be released until at least 60% of the credits associated with Years 0 through 7 for that phase have been released.
Table 5c. Credit Release Schedule for Phase 3 of the SBMB. The number of credits released is anticipated to total 29.9 credits, as shown in Table 4.

<table>
<thead>
<tr>
<th>Performance Standard</th>
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</tr>
</thead>
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<td><strong>Total</strong></td>
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</table>

¹ Year 0 is the calendar year during which the MBI is signed and a conservation easement implemented for that phase. Year 2 is normally the calendar year following the year during which construction was completed and the year during which as-built drawings are submitted.

² No credits associated with the Year 10 performance standards for a particular phase may be released until at least 60% of the credits associated with Years 0 through 7 for that phase have been released.
7.3 CREDIT RATIOS

SBMB credits may be used, subject to the approval of the regulatory agencies with jurisdiction over projects that desire to utilize the SBMB, to compensate for authorized permanent or temporary impacts, as well as to resolve enforcement or permit compliance actions, such as replacing previously implemented project-specific mitigation that has partially or completely failed. This section establishes for potential bank customers and regulatory agencies guidance on the approximate number of SBMB credits typically required to compensate for the permanent loss of certain aquatic resource types and functional levels (Table 6). The actual number of SBMB credits required to compensate for an adverse impact to aquatic resources in any particular situation depends on many factors (e.g., whether the impact is permanent or temporary) and will be determined on a case by case basis by the regulatory authority(ies) authorizing the impact.

Table 6. The number of SBMB credits normally required to compensate for a permanent loss of a listed aquatic resource. (Wetland impacts are measured in acres.) Wetland functional categories are based on the “Washington State Wetland Rating System for Western Washington, as revised 2004.” Due to the variety and typically high level of functioning of both streams and Category 1 wetlands, compensation for impacts to these resources by SBMB credits will be determined by the regulatory agencies on a case by case basis.

<table>
<thead>
<tr>
<th>Resource Impact</th>
<th>SBMB Credits per Unit of Impact</th>
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</thead>
<tbody>
<tr>
<td>Wetland, Category I</td>
<td>Case by case</td>
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<tr>
<td>Wetland, Category II</td>
<td>1.2</td>
</tr>
<tr>
<td>Wetland, Category III</td>
<td>1.0</td>
</tr>
<tr>
<td>Wetland, Category IV</td>
<td>.85</td>
</tr>
<tr>
<td>Critical Area Buffer</td>
<td>Case by case</td>
</tr>
<tr>
<td>Stream</td>
<td>Case by case</td>
</tr>
</tbody>
</table>

Impacts to critical area buffers for wetlands, streams, lakes and other areas regulated by local jurisdictions within the bank service area can be mitigated by use of universal bank credits with the approval of the appropriate regulatory agencies. Since one bank credit is generated for every 5 acres of aquatic wetland or riparian buffer restoration, a ratio of “.20 : 1” for critical area buffer impacts results in a “1 : 1” ratio for area on the ground of permitted buffer impact to buffer restoration at the bank. Buffer values vary in every situation so the amount of universal credit required in each permit situation can be determined on a case-by-case basis by the regulatory agency reviewing the project according to local regulations.

HB may work with King or Snohomish County to use SBMB credits for county-sponsored in-lieu fee programs or may work on pilot programs to allow counties to purchase buffer credits and then sell them in small units for impacts to critical area buffers in residential lot developments or for agricultural drainage maintenance impact programs.

8.0 PROCEDURES FOR USING THE MITIGATION BANK

An applicant for a Department of the Army, State of Washington, King County, or Snohomish County permit for a project with adverse impacts to the aquatic environment must generally obtain the approval
of each involved regulatory agency in order to use the SBMB as a source of compensatory mitigation. To receive approval to use the SBMB, the applicant must demonstrate to the satisfaction of the regulatory agencies with jurisdiction over that project that the project complies with all applicable requirements pertaining to alternatives and mitigation sequencing and that purchasing credits from the SBMB for compensatory mitigation would be in the best interest of the environment. Specifically, a permit applicant must generally be able to demonstrate to the regulatory agencies that:

A. There is no practicable alternative to adversely impacting the water body, critical area, buffer or other regulated area, and

B. All appropriate and practicable measures to minimize adverse impacts to the aquatic ecosystem have been considered and included in the project.

Local jurisdictions may establish policies where the best management practices for small impacts to low value, isolated wetlands are for the permittee to go directly to the SBMB for credits. Upon receiving permission to utilize credits from the SBMB the permittee must contact HB to ensure that credits are available. Upon completion of the transaction, HB will inform the permitting regulatory agency of each completed transaction, via email with an attached copy of the accounting ledger per Section 10.0.

9.0 SERVICE AREA

The service area for SBMB generally includes WRIA 7 below the 2,500-foot elevation contour (Figures 10, 10a, 10b) downstream to where the Snohomish River starts to mix with the salt water of Puget Sound and becomes estuarine (Cowardin Classification, 1979).

The service area is further defined as follows:

<table>
<thead>
<tr>
<th>Service Area Boundary Restrictions</th>
<th>Intent/Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In the Skykomish River basin the service area extends up to and includes to the City of Index.</td>
<td>This portion of the boundary stops short of the 2,500-foot elevation because SBMB is located on the Snohomish River (a glacially formed floodplain), rather than the Skykomish River (a more recently formed floodplain), and impacts in the upper reaches of the Skykomish River are generally not considered appropriately mitigated for at the bank.</td>
</tr>
<tr>
<td>2. In the Snohomish River basin the service area extends down to the line identified in the Salmon Overlay to the Snohomish Estuary Wetland Integration Plan (SEWIP Salmon Overlay) (City of Everett and Pentec, 2001) as the line separating Ecological Management Unit 1 from Ecological Management Unit 2.</td>
<td>The area within Ecological Management Units 2-7 in the SEWIP plan was historically estuarine area where most of the wetlands were tidally influenced and exposed to salinity &gt;0.5 parts per thousand. The goal of SEWIP is to restore as much of those wetlands to their historical condition as possible. This watershed plan has been adopted by the City of Everett as part of their Shoreline Master Program. The use of a comprehensive watershed plan for the area is consistent with policies and rules of the agencies on the MBRT and is preferential to use of the bank in EMUs 2-7.</td>
</tr>
<tr>
<td>3. Ecological Management Units 2-7 in the SEWIP plan are excluded from the service area.</td>
<td>The Tulalip Sub-basin Watershed is excluded from</td>
</tr>
</tbody>
</table>
the service area because most of it drains directly to Puget Sound rather than to the Snohomish River. The sub-basin lies mostly within the Tulalip Indian Reservation.

5. The service area excludes all brackish marshes, halotrophic wetlands, or wetlands influenced by ocean-derived salt conditions of >0.5 parts per thousand salt at any time during the year. Due to the substantial historical loss of estuarine wetlands in the Puget Lowlands, the MBRT member agencies generally preclude using freshwater wetlands, such as those occurring at the SBMB, as compensatory mitigation for impacts to estuarine wetlands.

6. In the Everett Drainages Sub-basin the service area excludes any impacts that are large enough to require either an Individual 404 permit or Individual 401 certification. Most of the Everett Drainages Sub-basin drains directly to Puget Sound rather than the Snohomish River. Even so, the sub-basin is included in the SBMB service area, with project size limitations, because it is very difficult to find mitigation opportunities in this highly developed urban area. Larger impact projects may be more appropriately mitigated for in sub-basins closer to Everett to minimize the potential effects of transferring functions out of the lower Snohomish River sub-basins.

The SBMB may be used to compensate for permitted impacts outside of the service area or in adjacent portions of WRIA 8 (Sammamish River watershed) or other nearby areas within King and Snohomish Counties if specifically approved by the appropriate regulatory agencies and the Signatories, and such mitigation would be practicable and environmentally preferable to other mitigation alternatives.
10.0 ACCOUNTING PROCEDURES

A. HB shall establish and maintain for inspection and reporting purposes a ledger of all credit transactions. The following information will be recorded in the ledger for each transaction:

1. Date of transaction
2. Number of credits transacted
3. For credits released for sale or transfer, reference the performance standard(s) and Bank phase to which the released credits correspond.
4. For credit sales/transfers, include the name, address, and telephone number of purchaser; permit or project number(s) and name of regulatory agency(s) requiring permits; location of the project for which the credits are being purchased; and a brief description of the adverse project impacts requiring compensatory mitigation (e.g., nature, size, and quality of aquatic resource affected, functions and values of wetlands and buffers)
5. For credits withdrawn from the ledger for reasons other than credit purchase, include the specific reason for the withdrawal.
6. Number of credits available in the SBMB at the time of transaction
7. Bank balance after this transaction

B. HB shall provide the MBRT with a copy of each bank transaction within 30 days of the transaction.

C. HB shall provide the MBRT a copy of the bank ledger, as of December 31st of the previous year, by January 31 of each year until all credits have been awarded and sold or otherwise transferred, or until HB has informed the MBRT in writing that it has terminated banking activity.

11.0 LONG-TERM PROTECTION AND MANAGEMENT

11.1 Protective Covenant

HB shall dedicate in perpetuity, by an appropriate conservation easement, the property involved in each phase of the SBMB that is to be restored or enhanced for credit. In order to satisfy Performance Standard 1.B., this conservation easement must be approved by the MBRT. This easement will be recorded with Snohomish County. The conservation easement shall not be removed or modified without written approval of the MBRT. Conveyance of any interest in the property shall be subject to this conservation easement. Use prohibitions reflected in the easement preclude the site from being used for activities that would be incompatible with the intent of the easement. All restrictions shall be granted in perpetuity without encumbrances or other reservations, except those encumbrances or reservations (e.g., retention of recreation and privileges by the landowners) approved by the MBRT as not adversely affecting the ecological viability of the SBMB. Any area not encumbered by the conservation easement will not be credited for use in the SBMB.

The conservation easement shall reflect, as one of the rights afforded the grantee, that the site owner warrants that it will comply with all such applicable state and local requirements for controlling noxious weeds on the SBMB site. Furthermore, this conservation easement shall provide that all structures, facilities, and improvements within the SBMB, including roads, trails, and fences, that are merely incidental to the functionality of the mitigation site but necessary to the SBMB’s management and
maintenance activities, shall be maintained by the site owner for as long as is necessary to serve the needs of long-term management and maintenance. All structures, facilities, and improvements that directly and substantially contribute to the functionality of the mitigation site, including the log weir system at the northwest corner of the site leading into Pearson Eddy, will be included within the responsibilities delineated in the Long-Term Management and Maintenance Plan. If the log weir structure is eventually replaced by a more naturalized structure resulting from nearby trees maturing and beavers becoming established on the site, this structure will no longer need to be actively maintained provided the naturalized structure provides a level of fish passage, erosion protection, and site hydrology that is similar to the original structure and acceptable to the MBRT.

11.2 Force Majeure

The mitigation bank is vulnerable to acts of nature such as wildfires, climatic instability, depredation (beavers and deer), disease, and/or adverse flooding and/or fluviogeomorphic change and/or gross vandalism such as arson, that are beyond the control of HB to prevent or mitigate. The occurrence of any such act may necessitate changes to the SBMB, including revision of the MBI, performance goals or other management plans, to allow for activities that would offset and/or counteract the negative environmental impacts of that act. Depending upon the circumstances, it may be appropriate to let nature take its course, particularly when acceptable environmental conditions would be expected to eventually reestablish. If any such act occurs the MBRT, in consultation with HB, shall determine what changes to the SBMB and/or this MBI will be in the best interest of the SBMB and the aquatic environment. Any change to the SBMB necessitated by an act of nature or gross vandalism, beyond the control of HB shall be specified in an appropriate document and require the approval of the MBRT.

Acts of nature or gross vandalism addressed in this section shall not affect the status of previously released credits, whether or not they have yet been sold or transferred.

11.3 Long-Term Management and Maintenance

HB is responsible for ensuring that a Long-Term Management and Maintenance Plan is developed and implemented to protect and maintain in perpetuity the wetland functions and values of the SBMB site. This plan must be approved by the MBRT prior to termination of the operational life of the Bank. Once the operational life of the Bank has terminated pursuant to Article V.F. of the MOA, HB shall assume responsibility for implementing that Plan, as provided in Article V.G. of the MOA. HB may assign this responsibility through a long-term management and maintenance assignment agreement to a third party assignee, pursuant to the provisions of Article V.G. of the MOA. At the same time this assignment agreement is executed, the MBRT will disburse the contents of the Long-Term Management and Maintenance Endowment Fund, pursuant to Article III.D.2.c.(vii) of the MOA. Subsequent deposits to the Long-Term Management and Maintenance Endowment Fund will be disbursed to the Third Party Designee under Article III.D.2.b. of the MOA, as necessary to support the long-term management and maintenance activities of the assignee, or upon termination of the Endowment Fund escrow account pursuant to Article III.D.2.c.(viii) of the MOA. Upon execution of the long-term management and maintenance assignment agreement and transfer of the Long-Term Management and Maintenance Endowment Fund, HB shall be relieved of all further long-term management and maintenance responsibilities under this MBI and the MOA.

The Long-Term Management and Maintenance Plan that directs HB’s activities during the interim transition period prior to assignment of long-term management and maintenance responsibilities, and directs the activities of the assignee thereafter, shall adhere to the following guidelines and objectives:
A. The stepped weir constructed at the northwest corner of the bank site will be monitored to insure that it remains fish-passable and does not cause erosion or adversely affect the intended hydrology of the mitigation bank. All maintenance and repair necessary to meet these requirements shall be included in the long-term monitoring and maintenance plan.

B. Periodically patrol the SBMB site for signs of trespass and vandalism. Maintenance will include reasonable actions to deter trespass and repair vandalized areas.

C. Monitor the condition of such structural elements of the bank site as signage, fencing, roads, and culverts. The long-term management and maintenance plan will include provisions to maintain and repair these structures as necessary to achieve the goals of the mitigation bank and comply with the provisions of the conservation easement. Structures that are no longer needed to facilitate or protect the ecological functioning of the bank site may be removed or abandoned if consistent with the terms and conditions of the conservation easement.

D. Inspect the SBMB site at least annually to locate any recurrence of English ivy and the invasive knotweed species listed under performance standard 5A. Any plant of these species discovered on the SBMB site must be eradicated. The MBRT anticipates that this long-term control will involve identifying and eradicating a relatively small number of recurrences each year. In the event that the Snoqualmie River watershed becomes so infested with these species in the future that their effective control on the SBMB site is either no longer practicable or unreasonably expensive, the MBRT will consider appropriate changes to the Long-Term Management and Maintenance Plan. The level of control for the species addressed in this paragraph may exceed the level of control imposed independently by state and local authorities.

To gain MBRT approval, the Long-Term Management and Maintenance Plan shall consist of enumerated performance standards that will demonstrate achievement of each guideline or objective. During the transition interim period, HB shall document that it is achieving these performance standards, pursuant to Article V.G. of the MOA, by submitting status reports to the MBRT annually or on a schedule approved by the MBRT. Monitoring and reporting requirements following the interim transition period will be conducted and submitted as specified in the Long-Term Management and Maintenance Plan.

A primary goal of the SBMB is to create a self-sustaining natural wetland system that achieves the intended level of aquatic ecosystem functionality with minimal human intervention, including long-term site maintenance. As such, natural changes to the vegetative community, other than changes caused by noxious weeds, that occur after all SBMB performance standards have been met are not expected to require remediation.

HB, as the owner of the SBMB site, will retain responsibility for controlling noxious weeds pursuant to all applicable state and local requirements in force at that time. These obligations are imposed on the owner of the SBMB site independently of this MBI, and are not subject to oversight and verification by the MBRT. Noxious weed control measures may include mechanical vegetation control, herbicide treatments, temporary plantings, and water regime control.

**12.0 MONITORING, REPORTING, AND REMEDIAL ACTIONS**

HB shall monitor and report on the progress of the SBMB toward achieving the goals, objectives, and performance standards established by this MBI and take all actions directed by the MBRT to remediate any problem that prevents a component of the SBMB from achieving the goals, objectives, and
performance standards of the SBMB. Procedures for as-built reports, monitoring reports and remedial actions are described below.

A. As-built reports will be submitted to the MBRT for each phase of construction, upon final grading and planting to verify topography, hydrology, construction and planting. The report will include site topography, descriptions of planting, wetland boundary, water control structures, designated photo points, ground water monitoring wells, staff gauges, and other pertinent data.

B. HB will prepare and submit to the MBRT annual monitoring reports that document the condition of the SBMB and its progress toward achieving the goals, objectives, and performance standards (Tables 5a, 5b, and 5c). Monitoring reports for each calendar year will be submitted by February 1st of the following year.

C. Throughout the first winter and spring following each phase of construction of the SBMB, HB will carefully monitor hydrology and the functioning of relocated streams and drainages. HB will also conduct an initial vegetation survival survey for each phase during the spring following planting to document planting success and to quickly respond to any problems. Results of these surveys will be included in the monitoring reports.

<table>
<thead>
<tr>
<th>Table 7. Schedule of Reporting Activities for Each Phase of Construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIME SINCE COMPLETION OF BANK ACTIVITIES (YEARS)</strong></td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>As Built Report</td>
</tr>
<tr>
<td>Monitoring Reports</td>
</tr>
</tbody>
</table>

**12.1 Reports**

Each monitoring report shall contain the following information:

A. An overview of the current ecological condition of the SBMB including a survey of the vegetative and wildlife communities, effectiveness of the restoration and enhancement activities accomplished to date, and progress of the SBMB in achieving the specific performance standards of the SBMB. To provide data for evaluating progress towards achievement of performance standards, permanent vegetation transects will be established at selected locations within each phase of the bank. The same performance transects will be re-visited each period, with a record kept of all plant species found. Vegetation data in forested and scrub-shrub areas will include species, cover by species, average stem diameter, and height. Standard MBRT-approved vegetation measures and techniques will be used to demonstrate whether performance standards are being met. Experience in the field may indicate that other performance monitoring methods would provide more useful information; the MBRT must approve in advance any changes in the means of gathering or reporting performance data. All monitoring will be conducted by qualified personnel.

B. A detailed discussion about the likely cause and impact of any setback or failure that occurred and recommendations for future actions and strategies that might resolve those problems.
C. Pertinent additional information on such aspects of the SBMB as hydrology, soils, vegetation, fish and wildlife use of the area, recreational and scientific use of the SBMB, and acts of nature, such as disease, wildfire, and flooding that occurred.

D. Proposals for any contingency or remedial measures.

E. Photographs of the SBMB taken from permanent locations that are accurately identified on the as-built drawings. The photographs are intended to document the progress of each component of the SBMB, as well as the SBMB in general, toward achieving the goals and performance standards of the SBMB. Such photo-monitoring will include general vantage points around the margin of the SBMB, vantage points within the SBMB, and at specific monitoring locations such as transects and/or sampling points.

12.2 Remedial Action during the Operational Life of the Bank

In the event that one or more components of the SBMB do not achieve performance standards or comply with any other requirement of this MBI, the following sequence of remedial actions shall be taken:

A. If the monitoring reports, or inspection by representatives of the MBRT agencies, indicate persistent failure to achieve and maintain the prescribed performance standards, HB shall propose adaptive management actions to correct the shortcomings. The MBRT may also unilaterally direct adaptive management actions, following consultation with HB, if the MBRT identifies a need for corrective action and no adaptive management plan acceptable to the MBRT has been submitted within a reasonable period of time. The adaptive management plan shall specify the corrective activities to be conducted, the schedule of completion of those activities, and a monitoring plan for assessing the effectiveness of the adaptive management. The objective of the adaptive management plan shall be to attain the originally prescribed performance standards, unless the MBRT expressly establishes replacement performance standards, following consultation with HB, in light of circumstances and conditions observed at the site. If HB proposes to institute replacement performance standards, HB may not initiate activities designed to achieve those replacement standards until the new performance standards are approved by the MBRT. During the period that a specific component of the SBMB is out of compliance, the MBRT may suspend its approval of the use of that component’s SBMB credits as compensatory mitigation for authorized projects.

B. If remedial actions taken by HB under the provisions of the preceding paragraph do not bring that component of the SBMB into compliance with the requirements of this MBI, including any approved changes to the MBI, HB may:

1. Provide written notice of its intent to discontinue efforts to achieve one or more performance standards for that component of the SBMB. Upon providing such notice, no credits may be established for that component, but at the discretion of the MBRT HB may be released from future maintenance and monitoring obligations for that component provided that releasing HB from those obligations does not adversely affect the remainder of the SBMB. If the MBRT approves such a release from HB’s obligations, any previously released credits not yet sold or transferred for that component shall be removed from the SBMB ledger, and any credits already sold or transferred for that component shall be replaced with unsold credits. If there are insufficient unsold or untransferred credits to replace those removed credits, HB shall implement other appropriate compensatory mitigation approved by the MBRT.
2. If the failure of one or more components of the SBMB to comply with the requirements of this MBI adversely affects the ability of the SBMB to achieve its goals and objectives or HB does not make a reasonable effort to bring the SBMB into compliance with the MBI, the MBRT, after notifying HB, may terminate this MBI and operation of the SBMB. HB shall implement all appropriate compensatory mitigation that the MBRT determines is necessary to compensate for those authorized impacts to the aquatic environment that have not been successfully compensated for by the SBMB pursuant to the requirements of the MBI.

C. The MBRT may, alternatively, implement remedial action on its own initiative, acting through a Third Party Designee, by accessing the Letter of Credit funds account established pursuant to Section 13.0A. of this Instrument and Article III.D.1. of the MOA.

13.0 FINANCIAL ASSURANCES

A. HB shall furnish a Letter of Credit to provide financial assurance underlying the establishment and functionality of each phase of the Bank, as provided in Article III.D.1 of the MOA. A separate Letter of Credit may be furnished for each phase of Bank establishment. The MBRT may direct disbursement from each credit funds account established through an Irrevocable Letter of Credit upon abandonment of Bank establishment efforts directed at a particular phase, or any failure stemming from any cause to achieve any of the Bank Objectives or Performance Standards reflected in Section 6.5 of the Instrument in regard to a particular phase, including but not limited to deficient design, ineffective establishment, deterioration of functionality or performance after establishment, financial limitations of the Sponsor, or force majeure. The MBRT may access the funds guaranteed by each Letter of Credit to accomplish any of the following objectives or features of the Bank: construction, establishment, monitoring, or adaptive management activities reflected in, or directly supporting accomplishment of, the Objectives and Performance Standards reflected in Section 6.5 of this Instrument. The Irrevocable Letter of Credit shall have the following general features, all as governed more specifically by Article III.D.1. of the MOA: the Letter of Credit applicable to each phase of the Bank shall be issued at a designated level of credit, as required by the MBRT for that particular phase, which level of credit may be reduced at the discretion of the MBRT as it determines that the objectives and performance standards of this Instrument are being timely met; the MBRT may make multiple drawings on the credit funds account to accomplish the purposes of the Letter of Credit; funds will be disbursed to, and all actions taken pursuant to a Letter of Credit shall be accomplished by, a Third Party Designee as delineated in the Agreement; and HB will be provided a period of time in which to undertake corrective action itself prior to the MBRT accessing a particular credit funds account. Notwithstanding the fact that the Letter of Credit applicable to a particular phase has been accessed, and full or partial remedial or corrective action has been taken by the Third Party Designee, HB shall remain responsible for the timely and effective achievement of all the Objectives and Performance Standards mandated in Section 6.5 of this Instrument.

B. In addition, as provided in Article III.D.2. of the MOA, HB shall institute a Long-Term Management and Maintenance Endowment Fund, established and maintained through an escrow account, to fund management and maintenance actions as defined in Section 11.3 of this Instrument following the termination of Bank operational life. The Long-Term Management and
Maintenance Endowment Fund shall be incrementally funded throughout the operational life of the Bank, with the funds disbursed to a Third Party Designee upon the Sponsor’s relinquishment of responsibility for long-term maintenance and management of the Bank, for initiation and execution of the management and maintenance activities. The MBRT may also access the Long-Term Management and Maintenance Endowment Fund escrow account to accomplish long-term management or maintenance of the Bank during the interim transition period between termination of the operational life of the Bank and assignment of long-term management and maintenance responsibilities to the third party assignee.

The Long-Term Management and Maintenance Endowment Fund shall have the following general features, all as governed more specifically by Article III.D.2. of the MOA: HB shall fund the endowment by depositing in the escrow account a designated sum corresponding to each sale or transfer of mitigation credits, with flexibility for HB to accelerate contributions without penalty; once the Long-Term Management and Maintenance Endowment Fund is fully funded, the Sponsor shall be released from any further obligation to deposit a designated sum corresponding to each sale or transfer of credits; and HB shall continue to deposit funds in the Long-Term Management and Maintenance Endowment Fund, even after the operational life of the Bank has terminated, and even after the responsibility for accomplishing long-term management and maintenance has been assigned to the Third Party Designee, until all awarded mitigation credits have been sold or transferred, or until the Long-Term Management and Maintenance Fund is fully funded, whichever occurs earlier.

HB shall provide an annual financial statement to the MBRT as part of the monitoring report by February 1 of each year. In the annual statement, HB shall discuss the status of each Irrevocable Letter of Credit and the associated credit funds account, and of the Long-Term Management and Maintenance Endowment Fund and the associated escrow account. HB shall assess the adequacy of the financial assurances to reasonably ensure the success of the SBMB and comply with the requirements of this MBI, and propose any adjustment to the financial assurances that HB deems appropriate in light of the requirements of this MBI. The MBRT will consider each proposal to adjust the financial assurances and provide HB a decision on that proposal within a reasonable amount of time. Approval of HB's proposal may not be unreasonably withheld.
14.0 BANK OWNERSHIP

All real property to be included within phases 1 and 2 of the SBMB is owned in fee simple by Habitat Bank, LLC (HB) and has been pledged for use in the SBMB consistent with this MBI. A portion of the buffer for phase 2 is owned by Walt DeJong as shown on the site plans. An easement for habitat restoration has been placed on this property’s title. Title to portions of phase 3 may be sold to another party but the conservation easement required by performance standard 1B. will be placed on the land at the time it is added to the bank. HB shall be responsible for developing, operating, and maintaining the SBMB subject to the requirements of this MBI throughout the Bank’s operational life, regardless of the ownership status of the underlying real property, unless the obligations and responsibilities under this MBI and the MOA are assigned to an approved third party as provided below in this section. The inclusion of the aforementioned properties in the SBMB and the granting of a conservation easement restricting future land uses for the benefit of the SBMB shall not convey or establish any property interest on the part of any party to this instrument nor to any purchaser of bank credits. The MBI does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the property, with the sole exception of the right on the part of the USACE to require HB to implement elements of the MBI, including recording the conservation easement, required as a condition of the issuance of a permit under Section 404 of the Clean Water Act for discharges of dredged and fill material into waters of the United States associated with construction and operation and maintenance of the SBMB.

HB may transfer ownership of all or a portion of the SBMB to another party provided the MBRT expressly approves the transfer in writing. With the express advance and written approval of the MBRT, HB may assign its responsibilities and obligations under this MBI and the MOA to a third party, pursuant to Article VII.E. of the MOA. Such assignment will take effect, and will release HB of its obligations under this MBI and the MOA, only when the assignee has executed an MBI and an MOA with the Corps or Engineers and the Washington Department of Ecology, and after that third party assignee has established the required financial assurances pursuant to the requirements of the MOA. All responsibilities and obligations under this MBI and the MOA must reside in a single entity at any one time, and may not be severed or assigned in a piecemeal fashion. MBRT approval of the identity of the assignee shall not be unreasonably withheld. The physical ownership of bank lands and the operating rights to the SBMB (sponsorship) are separable components of the SBMB and may be transferred independently.

15.0 BANK EXPANSION

If future demand in WRIA 7 warrants, HB may request MBRT approval to expand the SBMB. The Bank Sponsor shall develop and submit to the MBRT an Addendum to this MBI and an Amendment to the MOA that include a description of the location and baseline physical and biological conditions of the expansion area and describe how the project would comply with the provisions of the MBI including benefit to the watershed; performance standards; success criteria; credit/debit determinations; changes to the service area; long-term management; monitoring, reporting, and remedial actions; financial assurances; and other elements of the MBI and MOA, as appropriate.
16.0 MODIFICATION OF THE PROVISIONS OF THIS INSTRUMENT

The provision of this Instrument may be modified as mutually agreed to by HB and the MBRT. If changes are made to Federal, State or local mitigation banking regulations or policies, HB has the right to request modifications to this MBI that incorporate those changes. Approval for these modifications will not be unreasonably withheld by the MBRT.

17.0 NOTICE

Any notice required to be given under this Banking Instrument may be given by enclosing the same in an envelope, first-class, postage-prepaid, addressed to the party to whom notice is to be given at the following address:

Habitat Bank:
Habitat Bank, LLC
Mr. Victor Woodward
801 E 1st St. Suite B107
Cle Elum WA 98922

MBRT:
U.S. Army Corps of Engineers, Seattle District
Regulatory Branch
PO Box 3755
Seattle, WA 98124-3755

Washington State Department of Ecology
Wetland Mitigation Banking Program
PO Box 47600
Olympia, WA 98504-7600

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this Instrument as of the date indicated below.

________________________   __________________________
Victor Woodward          Date
Bank Sponsor
Habitat Bank, LLC

________________________   __________________________
Colonel Mark A. Geraldi  Date
Commander and District Engineer
U.S. Army Corps of Engineers Seattle District
Gordon White
Manager, Shorelines and Environmental Assistance Program
Washington State Department of Ecology

R. David Allnutt, Director
Office of Environmental Review and Assessment
U.S. Environmental Protection Agency, Region 10

Barb Moch
Director, Department of Planning and Development Services
Snohomish County
## APPENDIX A:

### List of Approved Plant Species

Table 1. Candidate List of Plant Species for Wetlands Mitigation and Buffer Establishment, Snohomish Basin Wetlands Mitigation Bank.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Indicator Status</th>
<th>Wetland</th>
<th>Cover Type</th>
<th>Upland Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TREES</strong></td>
<td></td>
<td></td>
<td>Forest</td>
<td>Scrub</td>
<td>Marsh</td>
</tr>
<tr>
<td>Vine Maple</td>
<td>Acer circinatum</td>
<td>FAC-</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Big-leaf maple</td>
<td>Acer macrophyllum</td>
<td>FAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red alder</td>
<td>Alnus rubra</td>
<td>FAC</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper birch</td>
<td>Betula papyrifera</td>
<td>FAC</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Hazelnet</td>
<td>Corylus cornuta</td>
<td>FAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black hawthorn</td>
<td>Crataegus douglasii</td>
<td>FAC</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oregon ash</td>
<td>Fraxinus latifolia</td>
<td>FACW</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sitka spruce</td>
<td>Picea sitchensis</td>
<td>FAC</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Black cottonwood</td>
<td>Populus trichocarpa</td>
<td>FAC</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bitter cherry</td>
<td>Prunus emarginata</td>
<td>FACU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas-fir</td>
<td>Pseudotsuga menziesii</td>
<td>FAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western crabapple</td>
<td>Pyrus fusca</td>
<td>FACW</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cascara</td>
<td>Rhamnus purshiana</td>
<td>FAC-</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Pacific willow</td>
<td>Salix lasiandra</td>
<td>FACW</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Scouler willow</td>
<td>Salix scouleriana</td>
<td>FAC</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Western red cedar</td>
<td>Thuja plicata</td>
<td>FAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western hemlock</td>
<td>Tsuga heterophylla</td>
<td>FAC-</td>
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</table>
PROJECT LOCATION

PROJECT SITE

SNOHOMISH BASIN MITIGATION BANK
CORPS PERMIT NO. 200300482

APPLICATION BY: Habitat Bank, LLC
15600 NE 173rd St.
Woodinville, WA 98072

IN: Wetlands Adjacent to Snoqualmie River
AT: High Bridge Road
COUNTY OF: Snohomish
STATE: Washington

FIGURE: 1 of 11
DATE: 19 July 2005
NOTES:
1. Wetland boundaries were field located, not surveyed, by Talasaena Consultants in the winter of 2004.
2. Source drawing was modified by Talasaena Consultants for visual enhancement.
1. Source drawing was modified by Talasaea Consultants for visual enhancement.
SECTION A - A’

(See Figure 3 for Section location on Plan)
SECTION B - B'
(See Figure 3 for Section location on Plan)
1. FOR LOG LOWERS 1 & 2, USE 36" dia. x 34" CEDAR OR FIR LOG, BARK INTACT.
2. FOR LOG LOWERS 3-5, USE 24" dia. x 34" CEDAR OR FIR LOG, BARK INTACT.
3. FOR LOWERS 6 & 7, USE 18" x 34" CEDAR OR FIR LOG, BARK INTACT WITH A TAPERED NOTCH (see Detail 1c below).

**LOG WEIR CROSS SECTION**

- **PLANT SLOPES**
- **1-2 MAN ROCK**
- **PLANT ROCK MIX AS SPECIFIED IN DETAIL 1a ABOVE.**

**LOG WEIR LONGITUDINAL SECTION**

- **NOTCH ELEVATION**
- **LOW FLOW**
- **HIGH FLOW**

**SECTION VIEW**

- **ELEVATION VIEW FROM DOWNSSTREAM**

**PLANT VIEW**

**TAPERED NOTCH DETAIL FOR LOG WEIR'S**

**NOTES:**

1. HELICAL SOIL SCREW ANCHORS SHALL BE 4-INCH DIAMETER.
2. EACH ANCHOR SHALL BE ADVANCED A MINIMUM DEPTH OF TEN FEET BELOW GRADE.
3. ANCHORS SHALL BE PLACED EVENLY ALONG THE LENGTH OF THE LOG WEIR WITH A MINIMUM SPACING OF 3 FEET.
4. USE MANUFACTURERS SPECIFICATIONS FOR INSTALLATION GUIDELINES.

**secure 20 mil pvc liner to log with 1/2 inch lath board, attach to log with 6d galvanized nails every 6".**

**secure log into bank and anchor buried ends of log with 1-2 man rock.**

**place rock mix a minimum of 12 inches deep in downstream pool area for each log. rock mix shall consist of rounded, uniform-graded gravel with a size composition of:**

- 15 PERCENT OF 0.0 TO 2.0 INCHES
- 40 PERCENT OF 2.0 TO 3.0 INCHES
- 45 PERCENT OF 3.0 TO 0.25 INCHES

**Table 1: Helical Soil Screw Anchor Quantities**

<table>
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<tr>
<th>ID</th>
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<td>1</td>
<td>34 feet</td>
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<td>2</td>
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<td>7</td>
<td>18 feet</td>
<td>18 inches</td>
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</table>

**Secure Log in Place with 14" Diameter Helical Soil Screws. The number of Screws per Log are listed in Table 1. Use manufacturers installation specifications provided as attachment A to these plan sets.**

**secure log in place with 14" diameter helical soil screws, use manufacturers installation specifications provided as attachment A to these plan sets.**

**see planting plan.**

**APPLICATION TO: Talasaea Consultants, Inc.**

**Snohomish Basin Irrigation Bank**

**corps permit no. 200000492**

**rule 6, log weir (77), division 1**

**county of: Snohomish state: Washington**

**figure 6 of 11 date: 16 july 2005**
2. SEGMENTED STANDPIPE & GATE VALVE POND DRAIN

3. LOG WEIR'S 1-5 -- STEEL CHANNEL IRON TO LOG CONNECTION DETAIL

4. LOG WEIR SILL PROFILES
Figure 10: Service Area
Snohomish Basin Mitigation Bank
Date: 13 December 2016
Figure 10 of 13
NOT PART OF BANK

PARCEL LINE

SCALE: 1" = 500'

0 250 500 1000

APPLICATION BY: Habitat Bank, LLC
15600 NE 173rd St.
Woodinville, WA 98072

IN: Wetlands Adjacent to Snoqualmie River
AT: High Bridge Road
COUNTY OF: Snohomish
STATE: Washington
DATE: 19 July 2005
Revised 6 March 2013

SNOHOMISH BASIN MITIGATION BANK
CORPS PERMIT NO. 200304482
FIGURE 11: RESTORED WETLANDS

NOTE:
1. Source drawing was modified by Talasaea Consultants for visual enhancement.

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
12020 Hoyt Creek Road Northeast
Woodinville, Washington 98077

Phone (425) 881-2550 – Fax (425) 881-7349

LEGEND

--- BANK BOUNDARY
--- EXISTING WETLAND BOUNDARY
--- WETLAND BOUNDARY POST CONSTRUCTION
--- PHASE BOUNDARY
--- UPLAND, POST CONSTRUCTION
--- WETLAND, POST CONSTRUCTION

PROPOSED AS-BUILT WETLAND AREAS
PHASE 1 - 21.6 acres
PHASE 2 - 99.9 acres
PHASE 3 - 34.8 acres

HIGH BRIDGE ROAD

DE LONG PARCEL

PARCEL LINE

HOEYMAN GUN CLUB PARCEL

WETLAND RESERVE PROGRAM - NRCS PARCEL

GRAPHIC SCALE
(IN FEET)