Discussion Draft **Appendix I**
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An Integrated Response to Managing Wetland Constraints on Industrial Lands

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Introduction

While the Industrial Land Certification Program has provided a pathway for economic success stories like the Lowe's distribution facility in Lebanon, it has also helped identify issues that communities face during the process of planning for such developments. In the Willamette Valley, one of the most often mentioned issues involves wetlands. In many cases, the presence of wetlands was not considered in the local land use planning for industrial development, so communities are not only surprised by the presence of wetlands on their undeveloped industrial land, but also by the complexity and cost of required mitigation. Communities like Dallas and Corvallis are engaging the ERT agencies as they address the costs of wetlands mitigation for their industrial areas, concerned that the added costs may end up making their land unattractive to potential employers. As these communities do not generally have a lot of available industrial land, particularly in large (20+ acres) parcels, the presence of wetlands further reduces the amount of buildable land for economic development purposes.

Community leaders perceive that they are being forced to balance economic goals with various (often conflicting) environmental goals. For example, if they address wetlands issues by identifying other lands to target for industrial development, that could lead to an urban growth boundary expansion and a rezone of agricultural land. One of the greatest impacts of the ERT partnership has been the ability to coordinate economic development and natural resource agency staff to guide communities through these types of issues. As issues are better understood, the need for resources to address them - both technical and financial - becomes paramount. OECDD has taken steps to include some wetlands-related expenses (those associated with industrial site readiness) in allowable uses of its Special Public Works Fund (SPWF). Tools such as Wetlands Conservation Planning (WCP) may provide higher quality information to communities to use in their land use planning efforts, but there are few existing resources to fund them. ERT agencies can be proactive in identifying new tools, resources and possibly incentives to package together to encourage better wetland planning on a local and regional scope. The following provides an overview of the issue and actions the ERT agency directors may consider taking to address it.

The Issue for Industrial Lands
Through implementation of the industrial site certification program, we are learning that many of the large, undeveloped industrial sites (particularly, but not exclusively, Willamette Valley sites) are substantially constrained by wetlands. Consider the following sample of mid-Valley sites currently in the certification queue:

Proposed certification site	Total size	Wetland area	% Wetland
So. Albany industrial site	295 ac.	166 ac.	56%
Dallas: Godsey Rd. site	52 ac	8 ac.	15%
Dallas: Holman Rd. site:	64 ac.	TBD	≈30%
Corvallis Airport Industrial Park:	195 ac.	66 ac.	34%
Lebanon: Burkhart site	47 ac.	28 ac.	60%
Lebanon: Rodeo site:	120 ac.	73 ac.	61%
Lebanon Airport site	129 ac.	TBD	>50%
Junction City: Oaklea site	85 ac.	≈20 ac.	24%
Millersburg industrial site	258 ac.	74 ac.	29%

The state has an established policy objective of no net loss of wetlands measured by acreage and function. Thus, even after exhausting wetland avoidance and impact minimization opportunities, many of these sites are so substantially constrained that the mitigation requirements (and corresponding cost) necessary to replace wetland acreage and function will still be large.

The Cost of Mitigating Wetland Constraints for Industrial Lands
Depending on the type of mitigation to be done, the Department of State Lands (DSL) requires a replacement acreage ratio ranging from 1:1 to 3:1. The cost of developing the mitigation can range from about $15,000 to $50,000 or more per acre (excluding the cost of land) depending on the size of mitigation site and form of land treatment. The discretionary state and federal wetland permit processes, and the associated mitigation requirements present a major constraint to the development of these large industrial sites.

An Overview of Existing DSL Tools to Address Wetland Constraints

DSL has a number of existing tools for addressing wetland constraints that can be categorized into reactive (i.e, when development has already been proposed on a site) and pro-active (i.e., before development is proposed on a site). Reactive tools for addressing wetlands constraints include the removal fill permit process and wetland mitigation banking. The department's pro-active tools include "virtual permitting," developed in response to the industrial site certification program and wetland conservation planning.

Each of DSL's existing tools, as well as their advantages and disadvantages for protecting the natural resource and increasing certainty for the development process are briefly described and discussed below:

Reactive Tools for DSL

Removal-Fill Permit Process

This is the standard tool by which DSL evaluates and authorizes wetland fill projects. It is a discretionary process whereby the merits of the proposed project and mitigation are evaluated on a case-by-case basis. The US Army Corps of Engineers administers a parallel federal permit process.

Advantages:

- Creates a direct linkage between impact site and mitigation site.

Disadvantages:

- For the applicant, the major disadvantage of this case-by-case approach is the uncertain time, cost, and outcome of the discretionary permit processes.
- Case-by-case permitting can be disadvantageous to the natural resource because it fosters a piece-meal approach to wetland mitigation whereby each applicant is responsible for identifying and managing their own mitigation site often resulting in fragmented mitigation sites across the landscape.

Wetland Mitigation Banking

Wetland banking is a means to address fragmented mitigation by consolidating the mitigation needs of multiple projects at a single larger site. For permit applicants that cannot otherwise provide mitigation within their project site, applicants may opt to purchase credits from an approved bank, where available. In Oregon, the US Army Corps of Engineers and DSL jointly administer a program to approve the creation, and monitor the performance of, mitigation banks. DSL and the Corps of Engineers must approve each sale of credits through their respective permit processes; however, the bank owner determines the pricing of credits. In Oregon there are currently 10 approved wetland mitigation banks of which five are located in the mid-Valley region. All are privately owned and operated.

Advantages:

- Using a mitigation bank frees the applicant of the liability for mitigation site development and performance.
- The advantage to the natural resource comes from amassing mitigation into larger, contiguous blocks for greater ecological success.

Disadvantages:

- **There are currently no bank credits for sale in the Mid-Valley region** (where the largest collection of large vacant industrial sites reside). When credits do become available from exiting banks, the quantity tends to sell out quickly and is often far less than the needs of even one large industrial site.

- Cost – credits, when they are available, currently sell for an average of $60,000 per acre.
- Potential disadvantage to the natural resource when locally important wetland functions are lost when mitigation is done at more distant mitigation bank.
- It is still a reactive tool in that the merits of the project and suitability of using a bank as mitigation are evaluated on case-by-case basis with the inherent uncertainty of the outcome.

Advance Mitigation

In some circumstances, it is advantageous for a removal-fill permittee to develop a wetland mitigation site larger than what is otherwise needed to offset the impacts for the proposed project. In such circumstances DSL can acknowledge the creation of excess (or advance) credits for future use by the permittee on another project. In essence, it becomes a single-user mitigation bank. Roseburg Forest Products (RFP) recently used this tool during the permitting of two large industrial projects in Douglas County. RFP was granted up to 24 acre-credits of advance mitigation for future industrial projects where RFP will be the applicant.

Advantages:

- It offers a single-user a means to hold credits without having to negotiate the more formal mitigation banking program.
- Wetland replacement (mitigation) is provided in advance of impact.
- Economies of scale can lower unit mitigation costs

Disadvantages:

- The program only serves businesses that anticipate future mitigation needs within the same region. It does not address the needs of an industrial site development with one-time mitigation needs.
- The program has uncertain support from the Corps of Engineers.

Proactive Tools for DSL

Virtual Permitting for Industrial Certification Sites

As part of DSL's effort to implement the mandates of HB 2011, the agency created a "virtual permitting" program for industrial certification sites. For those sites that will likely have wetland impact, DSL works with the site owner to quantify the likely level of impact, develop an alternatives analysis to ensure that impacts are minimized, and develop a conceptual mitigation plan to offset unavoidable impacts. These conceptual documents are approved by DSL and can then be used by a future project proponent to complete the removal-fill permit process at that time.

Advantages:

- "Virtual permitting" allows the owner to address the most difficult parts of the wetland permit application process in advance of a development proposal and receive early DSL buy-in, thus streamlining the future permit application process.
- Can increase the predictability of the future permitting effort for a project/site.

Disadvantages:

- It does not address the need for more regional, programmatic solutions.
- Not formally recognized by the Corps of Engineers.

Wetlands Conservation Plan (WCP)

The WCP is a planning tool defined by statute and rule that allows communities to take a more comprehensive and programmatic approach to protecting wetlands and resolving development conflicts in advance of the removal-fill permit process. In developing a WCP, a community (or group of contiguous communities) will inventory the wetlands within the planning area, evaluate the function and value of those wetlands in a regional context to determine which are best suited to protection versus development, identify a mitigation plan to compensate for all wetlands designated for development, and adopt local ordinances to implement the plan. Communities also have the option of assuming local administration of the state removal-fill permit program. To-date, only one community, Eugene, has an acknowledged WCP. One industrial certification site (Greenhill) has been the subsequent beneficiary.

Advantages:

- Provides for analysis of wetlands and their functions at a landscape scale.
- Maximizes wetland protection where most needed and development in wetlands where most appropriate.
- Provides a framework for siting mitigation projects so that landscape-scale functions can be maintained with long-term benefits to the community and resource.
- Provides opportunity to link wetland planning with stormwater, parks and open space, and similar community planning efforts.
- Delivers regulatory certainty for those projects that are consistent with the WCP.
- Corps of Engineers has mechanisms to acknowledge WCPs.

Disadvantages:

- Substantial investment of time and money needed. An aggressive schedule will still involve two or more years for WCP development and adoption. Cost may be reasonably estimated in the several hundred thousand dollar range. Time and cost will depend greatly on community size, natural resource base, and level of public involvement sought.
- Requires a community to have the vision and political will to see the process through to its conclusion.
- Uncertain implications relative to Measure 37.
- May require funding for strategic acquisition of protected sites.

Generally, WCPs are best suited to areas with high levels of wetland-development conflict and where there is a strong incentive for multiple landowners to work together for an overall solution. In the mid-Valley region, Corvallis, Albany, Dallas-Monmouth-Independence, and Lebanon may all be good candidates for piloting a WCP effort.

Coordinating Wetlands Planning with Land Use Planning

Experience with the industrial site certification program has pointed out to the natural resource agencies that their actions have economic impacts. In addition, agency staff who participate in the Economic Revitalization Team (ERT) process are well aware that coordination and partnership are essential to the successful completion of high priority local projects. A coordinated and integrated response to policy issues and program implementation is equally necessary.

An overview of the Land Use Goals related to wetland mitigation and industrial land supply, the wetlands issue from a land use perspective, the impact of DSL tools on the Land Use System, a brief description of Land Use tools that can be applied to managing wetlands constraints follows;

Overview of the Land Use Goals Relating to Wetlands Mitigation and Industrial Land Supply

Statewide Planning Goal 5 guides the identification, designation and protection of natural resource sites, including wetlands. Cities are required to adopt an inventory of significant wetlands and balance protection with development on the sites, although many have not yet done so. Counties can rely on the existing national wetlands inventory and defer to state and federal removal/fill regulations for protection. In practice, the level of detail varies by community. Communities that have not done a local wetland inventory may "discover" wetlands during the development process; at that time only the DSL and the Federal requirements apply.

Statewide Planning Goal 9 guides the provision of land supply for economic development and employment purposes. The Goal 9 administrative rule was recently updated to enable site suitability and market factors to be more explicitly factored into land supply planning. A community with designated employment land constrained by wetlands may adjust the buildable land supply by removing the wetland and making up the deficit elsewhere through a plan amendment and zone change or urban growth boundary expansion, as necessary. The standard process is an Economic Opportunities Analysis that includes site suitability characteristics.

Statewide Planning Goal 14 guides the process for adjusting and expanding the Urban Growth Boundary [UGB]. A change to a UGB must satisfy need and location criteria.

The Wetlands Issues From a Land Use Perspective

In theory, it is easy to deal with wetlands from a land use perspective: inventory wetland areas, identify up-front which wetlands to avoid and which can be developed, avoid including wetlands in the buildable land supply. In practice, however, several issues arise.

Integrating Wetlands Planning Into Comprehensive Plan Updates

The cost, timeliness and certainty of outcome of the wetland planning process leading to an updated comprehensive plan is an issue in many communities.

Many local governments have not completed the Goal 5 planning process, primarily due to lack of funding, high levels of controversy, lack of local expertise, and the scaling back of Periodic Review such that Goal 5 is not "triggered" for many communities. How can we best focus limited funding and state assistance on communities that are most in need of plan updates?

Development Patterns

Existing development, transportation facilities, other economic assets, jurisdictional boundaries, and wetland systems, do not necessarily form an efficient pattern on the landscape. From a development perspective:

- Does it make sense to create wetland checkerboards on good industrial land served by expensive transportation facilities?
- Does it make sense from a wetland perspective to let good wetlands get filled in an ad hoc manner for other uses?
- How can we best deal with the planning and economic difficulties encountered on land currently zoned for industrial development but, in fact, constrained by wetlands?

Community Planning, Regional Planning

It is possible and desirable for several local governments to work together to satisfy the requirements of the planning goals. However, most planning takes place at the single jurisdiction level. Wetlands, and for that matter employment and transportation, are regional phenomena.

City/County relations

A proposed UGB expansion must be co-adopted by the county. Therefore, it is essential that the county be included in the planning process that leads to a UGB expansion plan amendment proposal. Wetland inventories and mitigation plans for the expansion areas should be coordinated for best results. This has not been a problem in the past.

Land Use Priority system

The process for UGB expansion relies on a priority system to locate expansion away from farm and forest land. It requires land supply needs to be met, in order, on: urban reserve land, exception areas and adjacent non-resource land, marginal land, and lower value resource land, and finally, on farm or forest land if the expansion needs cannot be met on other lands. In practice, farmland is the only option, since industrial sites must consist of a flat topography and be of sufficient size. Thus, farmland preservation requirements are a major concern in providing sufficient industrial sites.

Measure 37

Adjustments to buildable land inventories may create Measure 37 issues: if land is down-zoned to protect resources, Measure 37 is triggered. However, federal wetlands protection

requirements are exempt from Measure 37, so wetlands protection does not necessarily trigger the measure.

Big Look Committee
The Big Look Task Force exists to wrestle with some of the larger policy questions. It is worthwhile to inform them with a clear statement of the problem and any suggested solutions.

Impact of the various DSL tools on the land use system.

A Wetlands Conservation Plan [WCP] is by definition a comprehensive wetland planning and mitigation process for an entire community and surrounding area. Once adopted into the comprehensive plan of a community it will be a basis for land use decisions. It also produces an inventory of wetlands inside the UGB. Once identified on an inventory, Goal 5 compliance is triggered during periodic review and UGB expansions.

Similar to a WCP but narrower in scope, DSL and DLCD jointly published a wetland planning guide in 2004 for communities working on Goal 5 compliance as a periodic review task or as part of a UGB expansion. This process ignores wetland features outside the specific planning area.

The other existing DSL tools, including removal/fill, mitigation banking, advance mitigation, and virtual permitting, do not directly impact or trigger the goals. There are some potential secondary effects, however. For example, information that identifies a wetland can be submitted during a UGB expansion process to trigger Goal 5 review and compliance. At that point a community would have to choose protecting all significant wetlands within the expansion area, or completing an Economic, Social, Environmental and Energy [ESEE] analysis. Another indirect impact could be a reduction in the buildable land supply caused by the identification of wetland areas and the uncertainty of effective replacement.

Land use Tools

DLCD administers a general fund grant program to help local governments with their planning, including wetland planning. It is a relatively small pot of money that is generally completely allocated early in the biennium to meet a wide variety of needs.

DLCD also has Community Services and Planning Services staff available to help communities identify issues and solutions. A typical project would result in a community submitting a plan amendment to make changes within or to expand their UGB.

Some Options to Proceed:

1) **Supply Side Incentives For Mitigation Banks**
   Supply side incentive by strategic state investment in the creation of new or expanded public or private sector banks to deliver credits for projects of regional or statewide economic importance.

2) **Demand Side Incentives For Wetlands Credit Resale Program**
   In North Carolina, the state manages a wetlands credit resale program. Funds to capitalize the program are provided to an agency (Ecosystem Enhancement Program of the NC Dept. of Natural Resources) with the mission of securing wetland credits for permitted fills. The agency uses some of its funding for planning to predict the near-term wetland mitigation credit needs of permittees by type and location. The agency then uses an RFP process to build an inventory of "certified" credits from private sector suppliers. Winning bidders then immediately begin credit production and are paid by the agency on a schedule tied to credit development milestones. The agency then resells the credits it has purchased to future fill permittees at prices that recover the full cost of securing the credits. As the credit inventory is depleted, new RFPs are issued. This approach can secure the supply, quality and price advantages of a competitive market for wetland credits (Shabman and Scodari, 2004).

3) **Flexible Service Areas For Wetlands Banks**
   Every wetland bank is assigned a service area (geographic area in which they are permitted to sell credits) at the time of creation. Currently, the mid-Valley banks with service areas that include most of the large industrial sites with significant wetland constraints have no credits to sell. The one bank with existing credits (Mud Slough Bank in Rickreall) does not have a service area that includes most of the mid-Valley industrial sites. In such cases, limited "flexing" of the service areas of credit-rich banks to meet regional credit shortages could be considered. This option would, however, exacerbate the problem of replacing wetland functions and values at locations distant from their point of loss. It would also face uncertain support from the bank approval agencies.

4) **Financing Wetland Mitigation**
   The Oregon Economic and Community Development Department (OECCD) can play a significant role in financing both the immediate and long-term solutions to industrial lands constraints. Legislative changes last biennium provide the statutory authority, within limitations, to finance the creation of wetland mitigation areas and wetland banks. And, when related to industrial land development, the department can also pay for the study and planning work associated with wetland delineation and mitigation.

   In addition, it may be possible to utilize funds from other sources, such as the Common School Fund, to invest in Wetland Mitigation Banks. These banks provide a return on investment equal to or exceeding other investment options and so may meet statutory requirements for the OCF. Other agencies, such as the Oregon Watershed

Enhancement Board and DEQ have funding for watershed restoration projects. By identifying high priority projects and focusing available funds in a basin-wide approach, the state can help affected communities manage the costs of developing mitigation approaches. OECDD has experience in working with other agencies to provide funding and project management related to watershed activities. Agency staff could be made available to provide contract management services.

5) Multi-Function Conservation/Wetland Mitigation Opportunity

There may be opportunities to link the work currently being done to develop an ecosystem marketplace for temperature trades to reduce the temperature of wastewater discharge in the Willamette Basin with needs for wetland mitigation.

Background: Under the Department of Environmental Quality's (DEQ) Total Maximum Daily Load (TMDL) program for temperature exceedances in the Willamette River, point sources are being assigned waste load allocations that limit the amount of thermal load that can be discharged to the river and tributaries. Direct treatment (cooling) of discharges may not be practical nor cost effective, and alternative temperature mitigation strategies such as increased beneficial reuse of reclaimed wastewater, trading of discharged thermal load for temperature mitigation activities elsewhere in the Willamette basin, or use of thermal "credits" from established Willamette River Restoration activities (ecosystem marketplace) are of increased interest among point source dischargers.

A pilot temperature trading project is underway in the Tualatin Basin, whereby Clean Water Services is funding riparian restoration projects on agricultural and rural lands in exchange for temperature reductions in effluent from waste water treatment plants. This approach is resulting in less cost to Clean Water Services and is expected to provide greater overall ecological benefits in terms of water quality and watershed health over a treatment by cooling option.

The Willamette Partnership – a coalition of business, conservation, agriculture and municipal services leaders founded in 2004 – is leading a multi-stakeholder effort to develop incentive-based tools to achieve needed ecosystem improvements and meet regulatory requirements faster and more cost-effectively than would be possible using existing tools alone. The program's overall goal is to develop the technical and legal frameworks necessary to ease transactions between sellers of ecosystem services such as fish and wildlife habitat and clean water, and those who are obligated by regulatory requirements or motivated by conservation interests to buy those services.

The Willamette Partnership recently received a grant from the Environmental Protection Agency (EPA) to work on the development of a water quality trading program for the Willamette Basin. The grant specifically calls for the development of the institutional framework for a market that will result in the trading of temperature credits in the Willamette Basin. This includes setting up the technical bases for trades, similar to what has been done in the Tualatin Basin through a watershed based permit issued to Clean Water Services.

The Willamette Partnership is currently engaged with a group of scientists and agency representatives in researching the efforts of floodplain and hyporheic zone restoration to improve stream temperatures. The results of this work would set the technical basis for temperature trades. DEQ is engaged in this effort to explore the feasibility of thermal trading approaches that would achieve documentable thermal reductions in the Willamette system. Any thermal trading scenarios would generally be implemented through wastewater discharge permits.

The Oregon Watershed Enhancement Board has funded a process to identify restoration priorities at the basin scale. Information about priorities for the Willamette Basin is included in a report title Willamette Basin Restoration Priorities, Watershed Summaries, December 21, 2005.

6) **"Pilot" Wetlands Conservation Planning (WCP)**
Develop a pilot wetlands conservation planning effort for a community or group of communities with substantial industrial land/wetland conflicts. The state, through existing economic development funds, technical assistance funds, or by special appropriation by the legislature, could participate in funding a WCP effort to test the viability of the process for addressing industrial land/wetland conflicts and its potential application on a broader scale. A legal assessment of the implications of Measure 37 on wetland conservation planning would be necessary before undertaking any such effort.

7) **Local Wetland Inventories**
As pointed out in the discussion on Goal 5 (page 6) although cities are required to adopt an inventory of significant wetlands, many have not done so. In addition, information provided by existing national wetland inventory is often not specific enough to be useful for development purposes. DLCD could fund local wetlands inventories by regions of interest.

8) **Wetland Improvement Districts**
Wetland Improvement Districts may be useful to delineate wetlands and wetlands planning costs that can be recouped at development time. This would function similar to a revolving loan to selected areas.

9) **Regional Planning and Cooperation**
Encourage more regional planning and cooperation to balance needs for agricultural land, wetland protection and employment at the more appropriate regional level.

10) **Increase Awareness Of And Funding For Wetlands Within The Land Use Planning Process**
Avoid future problems by increasing awareness of wetlands as part of the UGB expansion process. Increase resources available for planning and Economic Opportunity Analysis (EOA) projects.

11) UGB Safe Harbors

Establish a UGB safe harbor to streamline selection of less constrained industrial land for inclusion in the UGB. It will be difficult to pick a standard; it is probably wiser to deal with specifics during an Economic Opportunities Analysis (EOA) project. In addition, UGB safe harbors could be established to streamline removal of existing constrained industrial land from the industrial land supply. It is potentially controversial at the local level; it is probably wiser to deal with specifics during an EOA.

12) Transfer of Development Rights

Transfer of Development Rights [TDR's] is a planning tool that may be useful for managing wetland constraints at both the community and regional level.

13) Develop Industrial Land Policy

Develop an industrial land policy to identify and protect the best potential industrial sites. It may be easier to identify solutions for a small number of important industrial sites than address issues system wide.

Conclusions

These efforts are initially aimed at the Willamette Valley, where we find some of the world's best wetlands, farm lands and industrial lands, often in the same location. To really reach a solution, Oregon will need the world's best planning, mitigation, conservation and development tools.

Oregon will need a great mitigation credit bank system that starts with wetlands, but evolves into a complete conservation credit banking system including water temperature credits, air quality credits and more. It will have to operate with maximum market efficiency.

Oregon will also need, especially in the Willamette Valley, a large regional view of conservation and development interests, the values at stake, the ability to balance interests and values, and the tools needed to implement wise decisions. Initially, this can and should be part of the Big Look process currently underway.

It is useful to consider the variety of axii along which a set of solutions must operate effectively: planning/mitigation, remedial/preventative, near-term/long-term, urban/rural, private/public. There are more when the costs and sources of funding enter the discussion. It will also be useful to consider proposals in context and with an eye towards the future.

It is safe to say that ultimately several tools will be needed in the toolbox to enable Oregon's communities and citizens to reach appropriate solutions. It is also safe and practical to say that there needs to be a sensible place to begin. Acknowledging that more work is needed, there are some preliminary steps we can take.

We can immediately begin to work with selected communities to scope out industrial land supply adjustment projects. The goal is to have a small set of planning grant applications ready to go at the beginning of the next DLCD technical assistance grant funding cycle, or for any other ready funding source. The program tools already exist; perhaps more can be done to make things easier.

We can create incentives for the existing wetland mitigation banking program in Oregon, and we can create a market-making mitigation credit bank program at the state level as discussed above. The goal is to ensure that mitigation credits are always available for economic development recruitment and site certification projects.

We can identify funding sources for Wetland Conservation Planning efforts in selected small regions where economic development activity and wetlands are important and likely to intersect. The goal is to fund and run a few small pilot projects and learn from the experience.

We can explore the potential of funding staff resources at the Army Corp of Engineers to help relieve the bottleneck of wetland mitigation approvals for Oregon projects.

There are a variety of current and past research and policy efforts on these topics, and associated stakeholders. We are wise if we reach out to create awareness and inclusion. This will require good measures of wisdom, commitment and leadership.