



**Acquisition Analysis and Investigation
(Phase One and Phase Two Reports)**
Confidential

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Introduction

Rivers of Steel Heritage Corporation (Rivers of Steel) is in the process of considering an acquisition of RiverQuest. For more than a year, the organizations have been involved in discussions on how a mutual benefit may arise through an acquisition of RiverQuest by Rivers of Steel. The organizations seem to be a strategic fit with one another. Since its founding, Rivers of Steel has expressed interest in developing programming with a physical presence on the three rivers, but it has not had the resources to do so. In addition, it has a well-developed and growing receptive services and tour business that could potentially benefit from ownership of a vessel. This also is an opportunity to help preserve the regional asset that is RiverQuest, which has long been heralded as a best-in-class STEM educational program provider. These benefits, however, must be considered in balance with potential costs and risks.

In October 2014, a RiverQuest/Rivers of Steel Merger Analysis was completed by Cosentino Consulting LLC and Mendes Consulting LLC. Their analysis preliminarily examined the feasibility of combining the two organizations and seeded further dialogue between staffs and Boards of Directors. In order to ensure an optimal decision is made about the future of this acquisition opportunity for Rivers of Steel, it sought to conduct additional analysis related to staffing needs and fee structures for various uses of the vessel (Phase One, completed July 2015) and more deeply assess and project integration costs and efforts over the next several years (Phase Two).

As part of ongoing due diligence, Rivers of Steel engaged The Hill Group, Inc. in May 2015 to perform Phase One of business planning for the potential acquisition. The purpose of this phase was to inform a final decision of whether to pursue the acquisition. To complete this scope of work, The Hill Group reviewed the RiverQuest/Rivers of Steel Merger Analysis and interviewed one of its authors, interviewed four members of the Rivers of Steel staff and board and four members of the RiverQuest staff and board, reviewed financial and staff structure documents provided by RiverQuest, conducted brief market research on potential fee structures, and projected financial and operational implications, including potential risks to Rivers of Steel. Appendix A identifies primary and secondary sources used.

Phase Two of business planning, which has occurred between August and November 2015 is focused on detailing revenue and expense projection developed in Phase One based on additional analysis of IT, fund development, and marketing integration along with identification and quantification of needed and desired upgrades to the vessel.

The following report contains findings for each phase and a synthesis of potential costs and risks of acquiring RiverQuest that the Board of Directors of Rivers of Steel may consider to help make a strategically-sound decision about the organization's future.

Analysis

The following analysis presents selected financial, strategic, and operational impacts from a potential acquisition of RiverQuest by Rivers of Steel as requested in April 2015.

Staffing

Current Organizational Structures

Rivers of Steel currently employs seven full-time staff, one part-time coordinator, and four consultants dedicated to the achievement of the organization's mission to conserve, interpret, and develop historical, cultural, and recreational resources throughout western Pennsylvania, including the eight counties that comprise the Rivers of Steel National Heritage Area.

RiverQuest, prior to several layoffs in 2015, employed eight full-time staff and 24 part-time seasonal staff dedicated to the achievement of its mission to engage students and people of all ages in hands-on science learning experiences that develop critical thinking skills and promote awareness of Pittsburgh's river ecosystems. As of March 2015, RiverQuest staff now includes six full-time staff, three part-time crew members, and up to 16 part-time educators (which varies depending upon the volume of educational tours).

Combined Organizational Structure

As a combined entity, there may be an opportunity to reduce the combined staff size as a result of administrative and programmatic efficiencies of scale. It is recommended that, at a minimum, specific RiverQuest positions remain intact in order to meet US Coast Guard requirements (Captain, Senior Deckhand, Junior Deckhand, and Unlicensed Engineer) and maintain fidelity to the well-designed educational program (Director of Education and multiple Education Crew). In addition to retaining current crew members, an additional crew may be required to operate the vessel if the number of tours grows significantly. A potential combined organizational chart includes these recommendations and requirements (see Figure 1).

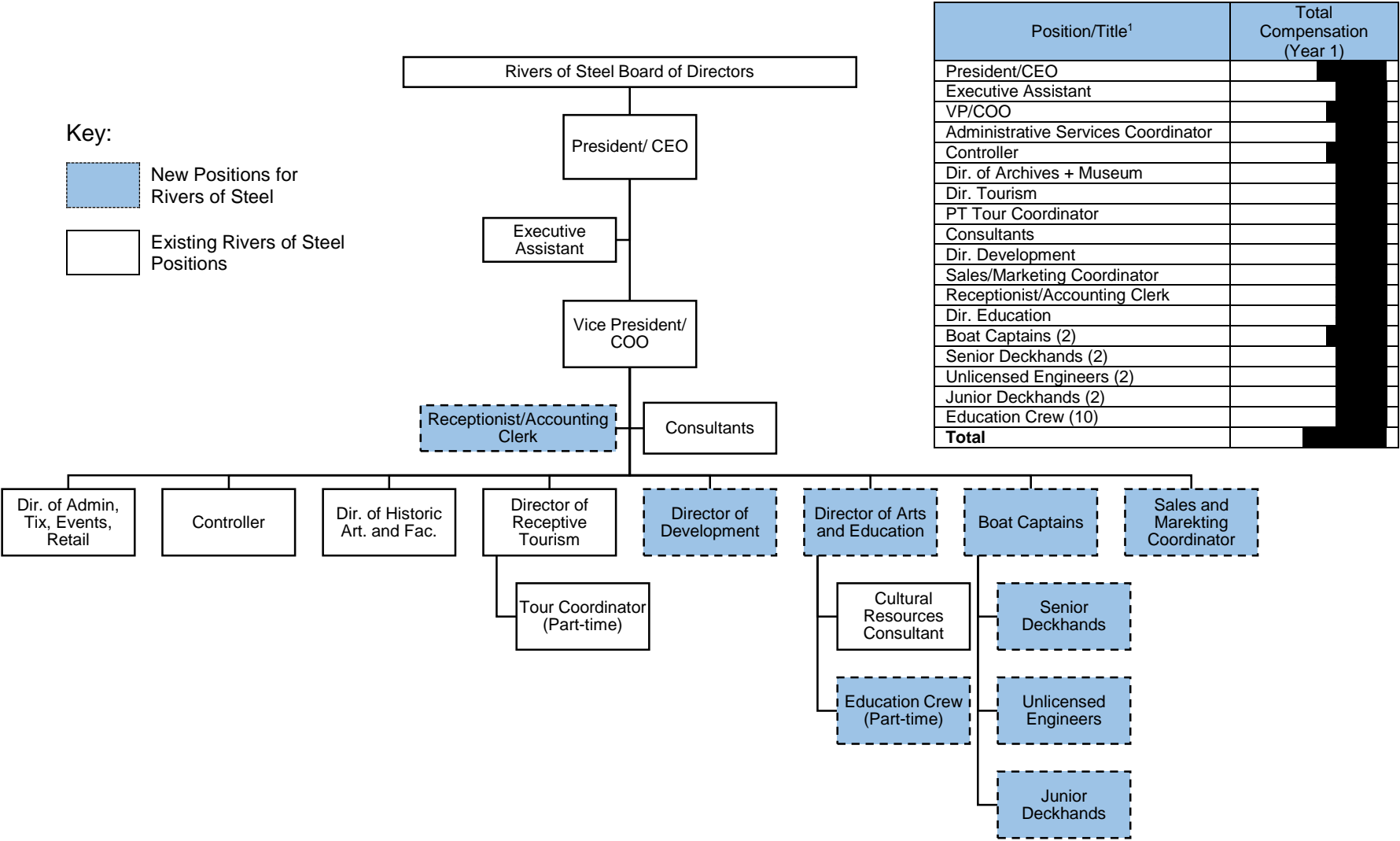
Job descriptions developed by RiverQuest for these positions are included in Appendix B. These descriptions include position-specific roles, responsibilities, and competencies that are not likely to change upon acquisition.

Two new positions (apart from those which would be added from RiverQuest) are recommended for Rivers of Steel if it decides to acquire RiverQuest. A full-time Vessel Sales and Marketing Coordinator will be tasked with sales and marketing to keep the vessel occupied by educational and other tours and events. A full-time Director of Development will play a key role in securing foundation, corporate, government, and individual financial support to close the projected annual gap from vessel operations. Rivers of Steel has considered adding this position in the past with or without the addition of RiverQuest.

Combined Staffing Costs

As Figure 1 indicates, total compensation (salary, taxes, and benefits) for a combined entity may total approximately \$1,344,373 with nominal annual increases over the next five years.

Figure 1: Combined Entity Organizational Chart



¹ See Appendix C for more information on staffing.

Fee Structures for Vessel Activities

RiverQuest has failed to be financially self-sufficient as a stand-alone organization for a number of reasons. Many school districts have historically underpaid for educational tours (see Table 1) versus the actual operating costs incurred by RiverQuest (see Table 2), potentially incurring more than \$250 in costs (average direct operating costs subtracted from average total revenue) for each trip on average at maximum capacity.

Table 1: Historical RiverQuest Fee structures

Organization and Program	Historical Fee Structure
<i>RiverQuest</i> – Two-hour Educational Tour	<ul style="list-style-type: none"> • \$0-30/student depending upon school district needs² • Average of \$5/student³ • Average total revenue with 90 students: \$450/tour

Table 2: Educational Tour Operating Costs

Organization and Program	Direct Operating Costs
<i>RiverQuest</i> – Two-hour Educational Tour, 90 students (maximum capacity) ⁴	<ul style="list-style-type: none"> • Staff: \$625 • Fuel: \$80 • Total: \$705 (\$353/hour)

In addition, RiverQuest has been unable to secure the necessary volume of non-education customers for public tours, charter tours, and events. As a result, RiverQuest has relied on foundation and corporate grants and gifts for 88 percent of its revenue over the past three years on average, based on an analysis of budgets provided by the organization.

As Rivers of Steel plans for a potential acquisition of RiverQuest, it is hopeful that new activities like public tours, charter tours, and private events will generate earned revenue to reduce this reliance on grants and gifts, which the local foundation community has indicated is no longer sustainable at past levels (as articulated by staff and board members from each organization). Financial self-sufficiency can be approached only if the unit price and annual volume of these new tours and events is adequate when combined with increased revenue from the educational program.

Local market dynamics will dictate the fees that can be charged by Rivers of Steel for educational, public, and charter tours and other private events. A brief review of fees charged by similar local organizations may indicate what price levels the local market will support (see Table 3), but it does not guarantee that customer volume will remain intact as fees fluctuate.

² According to conversation with RiverQuest staff on May 27, 2015

³ According to RiverQuest/Rivers of Steel Merger Analysis

⁴ According to analysis provided by RiverQuest on April 28, 2015

Table 3: Fee Structures for Related Local Organizations and Activities

Organization and Program	Advertised Fee Structure
<i>Gateway Clipper Fleet</i> – One-hour Sightseeing Tour ⁵	<ul style="list-style-type: none"> • \$20/Adult + tax and service charges • \$10/Child + tax and service charges
<i>Gateway Clipper Fleet</i> – Private Group Tour ⁶	<ul style="list-style-type: none"> • \$60/person
<i>Gateway Clipper Fleet</i> – Three-hour Corporate Charter Tour, weekday daytime, Queen Vessel 2 nd deck ⁷	<ul style="list-style-type: none"> • \$2,600 minimum revenue/tour with 70 person capacity (at least \$37/person)
<i>Gateway Clipper Fleet</i> – Three-hour Corporate Charter Tour, weekend daytime, Queen Vessel 2 nd deck ⁸	<ul style="list-style-type: none"> • \$3,200 minimum revenue/tour with 70 person capacity (at least \$46/person)
<i>Just Ducky Tours</i> – One-hour Public Tour ⁹	<ul style="list-style-type: none"> • \$22/Adult • \$15/Child (3-12 years) • \$5/Child (0-2 years)
<i>Just Ducky Tours</i> – One-hour Private Charter Tour ¹⁰	<ul style="list-style-type: none"> • \$595 for up to 30 people (at least \$20/person)
<i>Carnegie Science Center</i> – General Admission all-day ¹¹	<ul style="list-style-type: none"> • \$18.95/Adult • \$11.95/Child (3-12 years) • Group Rates are \$5-10/person depending upon day of week and season

Based on the review of local boat tour and educational field trip alternatives, it seems that RiverQuest can increase its prices and still be less than or in-line with competitors. However, little is known about the elasticity of demand for the RiverQuest educational tour. Increasing prices in any way, or requiring all districts to pay an increased minimum price, may negatively impact demand and eliminate any benefit from escalated fees. Staff and board from RiverQuest and Rivers of Steel expressed this concern in interviews.

For the purpose of planning, a model of fee structures, volume, and resulting revenue for various activities is below (see Table 4). Pessimistic projections model the current average fee structure for educational tours and less-than-comparable market rate for other tours. Optimistic projections model market-rate prices and increased tour volumes for demonstration purposes.

Table 4: Potential Future Fee Structures, Volume, and Revenues for Activities

Activity	Pessimistic				Optimistic			
	Fee	People per Tour	Annual Tours	Revenue	Fee	People per Tour	Annual Tours	Revenue
Educational Tours	\$5	70	35	\$12,250	\$10	70	50	\$35,000
Corporate Charter	25	70	18	31,500	37	70	36	93,240
Public Sightseeing	10	20	60	12,000	20	20	180	72,000
Group Tours	10	20	60	12,000	20	35	90	63,000
Total				\$67,750				\$263,240

⁵ According to website on May 13, 2015

⁶ According to phone call on May 13, 2015

⁷ According to phone call on May 13, 2015

⁸ According to phone call on May 13, 2015

⁹ According to website on May 13, 2015

¹⁰ According to website on May 13, 2015

¹¹ According to website on May 26, 2015

Integration of Information Technology

Rivers of Steel IT Physical Inventory

Rivers of Steel is currently fully networked with a Windows Server 8 and a Watchdog XTM33 Firewall. The server is equipped with a 24/7 cloud backup service. Rivers of Steel currently has a two terabyte server, and about one terabyte of free space to incorporate any RiverQuest data that will be necessary for the combined entity.

Rivers of Steel has eleven Windows based PC's and four Windows laptops currently in use. Of the laptops, two are significantly out of date and are not expected to last longer than two years. Most PC's are connected with both an individual and networked office printer/copier/scanner. The phone system in use by Rivers of Steel is a Toshiba CTX 670 with 12 spare digital ports for additional staff. If more circuit boards are purchased, a total of 96 digital ports may be used at the Bost Building. However, all of the phones are currently in use, and additional phones will need to be purchased for any additional staff at the Bost Building.

RiverQuest IT Physical Inventory

According to RiverQuest's IT consultant, no physical IT equipment needs to be transferred between RiverQuest and Rivers of Steel¹². RiverQuest currently possesses several outdated Mac computers which the consultant said were not worth incorporating into Rivers of Steel operations due to incompatibilities in software and operating systems. Retaining a uniform operating system for all company operations is likely to be the most cost-effective option.

The total amount of data stored on RiverQuest's server is estimated at 800 Gigabytes, although most of the data will not need to be transferred to Rivers of Steel's server¹³. The total amount of RiverQuest data that would be useful to Rivers of Steel is unknown, and consultants will need to determine the total size of a potential data transfer. Depending on the findings of the IT consultants, Rivers of Steel may have to expand its file storage capacity in order to assimilate all necessary RiverQuest data.

Software

Rivers of Steel staff work on a combination of Windows 7 Pro, Windows 8, and Windows 98 operating systems. It is suggested that any additional computers purchased for staff run on a system that is Windows 10 or newer. The office software package for day-to-day work is Microsoft Office 2010 Professional Plus.

RiverQuest has been operating on Mac OS for the past seven years, and much of its software has not been updated to more recent versions worth transitioning to Rivers of Steel. Rivers of Steel can focus on integrating RiverQuest data into the most current versions of Windows software to be best positioned for the future¹⁴.

Software Rivers of Steel uses to track revenues and expenses is Financial Edge by Blackbaud. Financial Edge has import/export capability with Excel and is flexible to incorporate corresponding data from RiverQuest. Costs associated with importing RiverQuest data into

¹² Patrick Cranston, personal communication, August 6, 2015

¹³ Patrick Cranston, personal communication, August 6, 2015

¹⁴ Patrick Cranston, personal communication, August 6, 2015

Financial Edge should be minimal and within the capability of Rivers of Steel's current IT consultant. RiverQuest also uses Salesforce.com as a CRM system, which may be valuable to Rivers of Steel in the future.

Rivers of Steel also uses DonorPro software for its donor management operations and communications. DonorPro is used by staff to manage and track donations, donors, and marketing activities. In a potential acquisition, Rivers of Steel would retain its DonorPro software and assimilate necessary donor data from RiverQuest.

Integration of RiverQuest IT into Existing Inventory

Full integration of all necessary RiverQuest data should not be difficult to achieve at a low cost. It is unclear if Rivers of Steel currently has enough room on its servers to incorporate all of the necessary digital data stored on RiverQuest servers, and further communication between IT consultants from both organizations is required to determine the actual amount of data that will be required by Rivers of Steel. A transfer of more than 400 Gigabytes of data will likely require Rivers of Steel to purchase additional storage space on its servers¹⁵. The potential cost of a storage capacity expansion has not been included in the Phase Two Pro Forma, though it is expected to be minimal. RiverQuest IT consultants have indicated their ability to easily transfer email data and other files, even between Mac and Windows computers¹⁶. Final integration of RiverQuest email and server data would fall under the IT consultant's current contract with RiverQuest and would not incur additional costs¹⁷. Rivers of Steel has already contacted DonorPro regarding data integration, and DonorPro has indicated its ability to assimilate RiverQuest data. When contacted by The Hill Group, a DonorPro representative said a conversion specialist should have no problem assimilating the data for an additional cost commensurate with the size of files being transferred and time necessary to complete the project¹⁸.

However, RiverQuest is currently in possession of a large volume of hard-copy administrative documents which need to be preserved. The total amount of documents is estimated to be 80 to 100 boxes, 30 to 40 of which are past curriculum and program materials. The other documents are strongly recommended to be preserved by Rivers of Steel for in accordance with best practice document destruction and retention policies. If Rivers of Steel acquires RiverQuest, these documents need to either be digitized and stored on Rivers of Steel servers or by physically stored at the Rivers of Steel offices. Due to the large volume of documents and the time and cost associated with manually digitizing each document, it is recommended that Rivers of Steel temporarily store the physical documents until they can be destroyed.

Rivers of Steel must integrate vessel activity into its online reservation and purchasing system. Currently, Rivers of Steel contracts its ticketing and online reservation services with a third party called Brown Paper Tickets. Brown Paper Tickets processes online payments and reservations to events created by Rivers of Steel on the Brown Paper Tickets website. Major competitors utilize ticketing and reservation software that is embedded in their own websites instead of redirecting to a third-party ticketing website. Rivers of Steel can incorporate vessel tours and events into its existing relationship with Brown Paper Tickets.

¹⁵ Rivers of Steel staff estimate

¹⁶ Patrick Cranston, personal communication, July 14, 2015

¹⁷ Patrick Cranston, personal communication, August 6, 2015

¹⁸ DonorPro customer service representative, personal communication, August 11, 2015

Integration of Marketing

An effective marketing strategy for the future of Rivers of Steel would leverage the positive perception RiverQuest has from its patrons and clients while clearly communicating the synergies and new opportunities afforded by an acquisition of Rivers of Steel. Initial marketing may trend towards “folding” RiverQuest programs into Rivers of Steel’s currently-offered programs. However, in the future, the vessel should be marketed in a way that fully incorporates Rivers of Steel tours, events, and programming into the use of the vessel.

It was stressed multiple times by RiverQuest and Rivers of Steel staff that, in order to be effective in its marketing, Rivers of Steel must make contacting RiverQuest and Rivers of Steel funders a high priority. An acquisition of another nonprofit organization can confuse funders who may be unsure if the mission they supported is still guiding the acquiring entity. A primary concern for Rivers of Steel should be reassuring the public that its mission is fulfilled more than ever by increasing its presence on the water. Additionally, past clients of RiverQuest must be reassured that their mission will not be lost in its incorporation into Rivers of Steel. The vessel will still be used as a mobile classroom, and it will also offer a wider range of educational and recreational experiences for people of all ages.

RiverQuest and Rivers of Steel staff also agreed that immediate action is needed to effectively market the acquired entity. Especially to engage past RiverQuest clients who have not been able to use the vessel for the past year, Rivers of Steel must set up individual meetings to personally communicate the continuity of programs and services following the acquisition, as well as Rivers of Steel’s desire to renew those relationships as soon as possible. Personal meetings with past supporters will communicate Rivers of Steel’s continuing dedication to its original mission, and they enable for questions and concerns of supporters to be immediately addressed and alleviated by Rivers of Steel staff. Especially for educational programming, immediate communication is essential to generating long-term commitments from schools. A list of recent RiverQuest charter clients can be found in Appendix D.

New advertising strategies need to be implemented by Rivers of Steel that incorporate the vessel into its current programming while adding new programs and services into its advertising and promotional materials. Some strategies currently employed by RiverQuest may be useful in advertising vessel-specific programming to schools, but these methods will need to be improved and augmented in order to increase sales in the future. Initial efforts should focus on retaining as much of the current base of clients from both RiverQuest and Rivers of Steel, and future efforts should strive to reach new customers and donors by leveraging the new capacities created by the vessel.

To accomplish this necessarily ambitious marketing strategy, The Hill Group recommends Rivers of Steel create a new full-time position dedicated to marketing and outreach. A Sales and Marketing Coordinator, as mentioned earlier, would be responsible for developing and implementing a sales and marketing strategy that includes the vessel and current Rivers of Steel programming, as well as establishing and maintaining relationships with clients and other stakeholders. A potential job description for the Sales and Marketing Coordinator can be found in Appendix B. By dedicating a full-time position to an experienced coordinator, Rivers of Steel can increase the number and frequency of customers for receptive tours, heritage events and vessel activities, all while alleviating pressure that currently rests on Rivers of Steel programming staff.

Concerns were raised by RiverQuest and Rivers of Steel staff regarding marketing and sales integration. Doubts remain that Rivers of Steel will be able to compete with established tour providers such as Gateway Clipper and Just Ducky Tours. There is also a risk that additional vessel revenue will come at the expense of existing Rivers of Steel tour revenue, and a new customer base will not be reached by merging the two organizations. Staff's concerns over revenue diversion, brand identity and differentiation, and overall integration are valid, and they must be monitored throughout the transition to ensure the acquisition is a value-added strategy. Efforts and sales dedicated to vessel operations should not come at the expense of existing Rivers of Steel programs or distract from Rivers of Steel's mission and vision for the future.

Integration of Fund Development

Much like marketing and sales, the early success of fund development integration relies on immediately engaging past and current RiverQuest and Rivers of Steel donors to ensure as few donors as possible are lost in the transition. Donors who supported the mission, vision, and values of each organization must understand that the acquisition enhances the abilities of both RiverQuest and Rivers of Steel, and their donations will achieve more good than ever.

To show Rivers of Steel's continuing commitment to its donors who may be deterred or confused by the implications of the acquisition, personal meetings are an ideal step to ensure their continuing support. Efforts to secure past and future business should involve a combination of executive staff such as the President and Vice President, as well as dedicated development staff able to schedule regular meetings with donors and foundations.

The addition of a new Director of Development could increase Rivers of Steel's chances of retaining current funding and growing funding in the future. A Director of Development who is experienced and specialized can generate enough income to offset the cost of his/her salary, even in the short term, by discovering new sources of funding while securing continued funding from current sources. Rivers of Steel currently does not have staff dedicated to fund development, and development responsibilities are spread among multiple staff and departments. Consolidating development under a single person should increase efficiency and quality of fund development, an area that is essential to Rivers of Steel's survival following the acquisition.

In addition to recapturing past donations, Rivers of Steel should dedicate itself to searching for new sources of funding that may become available through merging with RiverQuest. Opportunities for synergy may exist by increasing Rivers of Steel's presence on Pittsburgh's rivers while adding entirely new educational and environmental programming. As Rivers of Steel increases its breadth of services and programs, its donor base should also increase.

Rivers of Steel can take advantage of synergies in funding support afforded by the acquisition of the vessel. With an increased capacity for educational programming, a new physical presence on the river, and programming that promotes conservation, social responsibility, and natural science, Rivers of Steel can gain access to new donors, grants, and foundations. If Rivers of Steel decides to acquire the vessel, it must leverage these new opportunities for funding to help offset the high costs of operating the vessel. Preliminary research identifies several new funding opportunities worth Rivers of Steel's further exploration:

Table 5: Opportunities for New Funding

Grant/Program Name	Organization	Description
Environmental Education (EE) Grant	United States Environmental Protection Agency (EPA)	Grant to promote environmental awareness and stewardship
Environmental Literacy Grants Program	National Oceanic and Atmospheric Administration (NOAA)	Advances public environmental literacy and learning in STEM
DSF Charitable Foundation Education Grant	David Scaife Family	Supports education outreach programs, and programs engaging underserved youth
State and Regional Partnership Grant	Pennsylvania Department of Conservation and Natural Resources	Collaborative statewide initiatives that conserve and promote natural heritage through education

Sales, Marketing, and Outreach Strategies

Table 6 summarizes marketing and outreach strategies identified by RiverQuest and Rivers of Steel staff, as well as through market research. This table is not meant to be exhaustive, but rather a starting point from which to start stakeholder engagement following a potential acquisition.

Table 6: Stakeholder Outreach and Engagement

	Past RiverQuest Funders/Partners	Current Rivers of Steel Funders	Past and Potential Future Corporate Clients (See Appendix D)	Current Rivers of Steel Patrons	General Public
Win Position	<ul style="list-style-type: none"> • Their investment lives on 	<ul style="list-style-type: none"> • This makes RoS more effective at achieving its mission 	<ul style="list-style-type: none"> • Charters exist and will only get better 	<ul style="list-style-type: none"> • The programs you love still exist, and new ones are available 	<ul style="list-style-type: none"> • RoS offers affordable, high quality rivers-based educational and heritage programming for the whole family
Message	<ul style="list-style-type: none"> • RQ program still exists • Still a focus on education and environmental issues • Their ongoing support is still needed and appreciated 	<ul style="list-style-type: none"> • RoS is still focused • Synergy between RoS and RQ mission, vision, and values • The vessel helps achieve RoS's original goals • RoS has thought through the decision and its implementation 	<ul style="list-style-type: none"> • Corporate charters will not be abandoned or negatively changed • A new focus will be put toward growing corporate charter services • Service quality mindset, turn-key experience 	<ul style="list-style-type: none"> • RoS is adding an exciting new resource • Vessel will make RoS more kid-friendly than ever • Existing tours and events will be enhanced by a physical presence on the rivers 	<ul style="list-style-type: none"> • RoS has successful cultural programming enjoyed by thousands • Now we are adding a whole new dimension of educational programming • Experience Pittsburgh's past, present, and future from the rivers
Action Steps	<ul style="list-style-type: none"> • Set up meetings immediately post-acquisition • Develop value proposition and "road show" 	<ul style="list-style-type: none"> • Set up meetings immediately post-acquisition • Develop value proposition and "road show" 	<ul style="list-style-type: none"> • Set up sales and marketing function • Develop reservation system • Create menu of turn-key programs, packaging, pricing • Develop relationships with third party vendors 	<ul style="list-style-type: none"> • Push messaging to current and past users • Utilize email and mailing lists • Define heritage programming opportunities for vessel • Plan and publicize a "grand opening" celebration 	<ul style="list-style-type: none"> • Incorporate vessel into existing and new marketing • Plan and publicize a "grand opening" celebration • Leverage acquisition for marketing of entire enterprise

Maximizing Vessel Use

To maximize the revenue generating potential of the vessel in addition to educational tours, corporate charters, and group tours, Rivers of Steel should consider alternative uses for the vessel's space and capacities. Three areas of potential growth are public and private research, long term partnerships with universities and other entities, and greater focus on developing and expanding corporate charters.

Public and Private Research

Several partners and research clients of RiverQuest were contacted in an effort to estimate potential demand for the vessel's research capabilities. Below are brief descriptions of interviews with members of the Public and Private research community and their ability and willingness to utilize the vessel in the future. In general, research partnerships have been inconsistent and have not been a steady source of income for RiverQuest. Research partnerships also have typically been negotiated at cost as a fulfillment of RiverQuest's mission. An ideal research partnership would be an ongoing, regularly occurring project that could be scheduled around vessel charters and tours.

1. *Dr. Jeanne VanBriesen, Carnegie Mellon University
Co-Director, Water Quality in Urban Environmental Systems (WaterQUEST)*¹⁹

Dr. VanBriesen has placed constant monitoring equipment on the vessel during multiple seasons, with the intention of securing NSF funding to allow for CMU's implementation and expansion of the data collection project. To date, this funding has not been secured, and the results of the constant monitoring has been limited to unprocessed data. This relationship is prioritized for mission-based reasons rather than revenue-based reasons. There is future potential for grant-funded project work, but this represents a restricted fund "money in – money out" scenario. If Dr. VanBriesen obtains grant funding for additional research on the river, she will contact Rivers of Steel to discuss potential uses of the vessel.

2. *Riverlife*²⁰

In 2012, Riverlife approached RiverQuest with a request to perform vertical core sediment sampling to assess sediment transport over time. Because RiverQuest possessed neither the material resources nor the staff expertise to conduct this study, which was needed in a very short amount of time, RiverQuest referred the inquiry to University of Pittsburgh Department of Planetary Sciences, with whom it had an ongoing relationship. Additionally, the Pitt Geology Department has conducted river study work on board the vessel as part of their program, and has also utilized RiverQuest education as supplemental environmental science education for geology majors. Riverlife's current demand is only one day per year and does not represent a reliable source of revenue for onboard research.

¹⁹ Jeanne VanBriesen, personal communication, August 4, 2015

²⁰ Provided by Jeff Jordan, personal communication, July 14, 2015

3. *Wireless Waterways/Port of Pittsburgh*²¹

The Port of Pittsburgh Commission is a longstanding supporter of RiverQuest. As part of the Wireless Waterways Project, RiverQuest was connected with the Service Corporation to test technology called ARGUS that tracks a vessel's location and channel depth over time. RiverQuest did not benefit financially from this participation in the wireless "test bed," but rather it allowed participation in an activity that aligned with its mission to further education. Future research opportunities with the Port of Pittsburgh Commission may yield positive cash flows, depending on future contract negotiations between Rivers of Steel and the Commission.

4. *Other Government Research Opportunities*^{22,23}

Government entities such as the Army Corps of Engineers and the Pennsylvania Department of Conservation and Natural Resources (DCNR) could utilize the vessel's capacity for data collection and research on the Pittsburgh waterways. Although neither organization is currently seeking to hire a research vessel for long term projects, these large government programs may be worth exploring due to the longevity of their research and relatively high level of funding. Establishing relationships with the local offices of these agencies could pay dividends by providing a stable source of revenue while fulfilling the vessel's purpose as an educational research tool.

Long Term Partnerships with Universities and other Organizations

RiverQuest has worked to establish and maintain relationships with local universities for both research and chartering revenue. Most often, university clients have purchased individual programs rather than make larger commitments over time due to financial constraints. Efforts to engage universities in long term commitments can generate sources of stable revenue while accomplishing RiverQuest's mission and making Rivers of Steel an integral part of the educational community in Pittsburgh. RiverQuest's past relationships with local universities should be leveraged in creating new programs and longer-term partnerships. Table 7 lists past higher education partners of RiverQuest, their programs, program champions when applicable, and the duration of the partnership. While it may be worthwhile to continue pursuing these opportunities to fulfill the mission of Rivers of Steel and serve a broader base of clients, revenue generated from partnerships with universities for programming and research does not represent a reliable or sizeable cash flow.

²¹ Provided by Jeff Jordan, personal communication, July 14, 2015

²² U.S. Army Corps of Engineers Pittsburgh District Employee, personal communication, September 9, 2015

²³ "Search Solicitations", Pennsylvania EMarketplace, www.emarketplace.state.pa.us, accessed August 5, 2015

Table 7: Past RiverQuest Higher Education Partners²⁴

Institution	Partnered Programs	Dates
Carnegie Mellon University	<ul style="list-style-type: none"> Freshmen intro to Civil & Enviro. Engineering classes (Cliff Davidson) 	2012-2013
Community College of Allegheny County	<ul style="list-style-type: none"> Freshman environmental science classes Career educational programming, some in conjunction with Waterways Association 	2014
Duquesne University	<ul style="list-style-type: none"> Various environmental education, sampling, and analysis courses Center for Environmental Research and Education (John Stolz) 	2011-2014
Robert Morris University	<ul style="list-style-type: none"> Engineering Department – Bridge Tours (Priya Manohar) 	2014
St. Vincent College	<ul style="list-style-type: none"> Programming for Environmental Science for elementary teacher education Programming for Environmental Science majors (Angela Belli) 	2011
University of Pittsburgh	<ul style="list-style-type: none"> Cancer Institute Environmental and Occupational Health (Jane Clougherty) Short Term Education Experience in Research (Pitt STEER) School of Education – Pre-service teacher education (in conjunction with Chatham University) Water Quality Field Study (Don Hopey) Sustainability and Environmental Studies (Ward Allebach) Pitt ARTS – Bridge Programs 	2011-2014
Washington & Jefferson College	<ul style="list-style-type: none"> Programming for Environmental Science Majors 	2012
California University of Pennsylvania	<ul style="list-style-type: none"> Programming for Environmental Science Majors 	2014
Indiana University of Pennsylvania	<ul style="list-style-type: none"> Programming for Geology and Ecology students 	2013-2014
University of Dayton	<ul style="list-style-type: none"> Private Charters 	2012-2013

²⁴ Provided by Jeff Jordan, personal communication, July 14, 2015

Corporate Charters

The market with the greatest potential for additional revenue generation seems to be private chartering of the vessel by corporate clients. For many companies in the Pittsburgh area, the vessel is ideally sized and may offer a customizable experience at a lower cost than competitors. Corporate charters have the highest margin per use of the vessel, and many corporate clients choose to host yearly events, which can provide Rivers of Steel a regular source of revenue. Improvements can be made to the quantity and quality of corporate charters which could further increase margins and total revenue in the next five years.

According to Phase One market research summarized in Table 4, revenue generated per customer on corporate charters is significantly higher than other vessel activities such as public sightseeing tours or group tours. Under optimistic conditions of 36 corporate tours per season with an average attendance of 70 and average fee of \$37 per customer, gross revenue could reach about \$93,000 by the fifth year following the acquisition of the vessel. Pessimistic projections of fewer tours and customers, along with lower fees, estimate corporate charter revenue at about \$31,500. For Phase Two projections, the Pro Forma incorporates the pessimistic performance projection in Year 1 following the acquisition and the optimistic performance projection by the fifth year following the acquisition.

Competition from Private Charters

In addition to established tour and charter providers such as Gateway Clipper and Just Ducky Tours, The Hill Group explored the market for private vessel contractors for signs of significant competition. Research on online bulletins such as Craigslist, Boatlocal.com, Yellow Pages, and Boat Pittsburgh found no significant competition from privately owned and contracted vessels in the charter market. Reasons for lack of competition in the Pittsburgh market include the high barriers to entry, including purchasing, licensing, and liability costs to individuals wishing to rent out their boats to others. Also, the vast majority of boat owners in the region have smaller vessels that would not result in direct competition with Rivers of Steel customers. Private charters which were advertised online were typically 5-10 person pontoon boats for families wishing to spend a day on the Pittsburgh rivers.

Testimony from Corporate Clients

To gauge the effectiveness of RiverQuest's charters in satisfying the needs of clients, The Hill Group contacted clients who had used the vessel for corporate charters in the past. Interviews conducted with a sample of RiverQuest's corporate clients suggest that their current charter service is satisfactory, although improvements can be made to better accommodate clients' various specifications. Multiple clients expressed that their experience was overwhelmingly positive and cited the vessel's flexibility, cost, and personal atmosphere as its major strengths. Vessel staff received consistently high reviews, as well as the physical layout of the vessel. Clients enjoyed having a greater degree of control to personalize their experience on the vessel than they could on similar alternatives.

Despite RiverQuest's strength in allowing charters to be customized to clients' specifications, multiple corporate clients suggested a more structured "menu" of charter packages be offered to clients to make the experience more turn-key. Instead of requiring clients to make their own accommodations for catering and bartending, Rivers of Steel could work with caterers to proactively provide a menu of catering options to clients during the booking process. Efforts to improve customer experience by providing catering supplies such as disposable plates,

flatware, and napkins could result in higher revenues. Generally, corporate clients suggested a greater attention be placed on customer service and making the booking and planning processes more inclusive and user-friendly. While they said changes could be made to improve the customer experience, clients expressed that RiverQuest charters were well worth their price, and they were looking forward to the reopening of the vessel for chartering.

Other suggested improvements to the charter experience were suggested by past corporate clients that could be explored by Rivers of Steel in the future. Potential capital improvements that were mentioned include more user-friendly and accessible bathrooms, upgrades to the sound system and audiovisual equipment to make presentations easier to conduct, and improved wheelchair accessibility to and onboard the vessel. The mobile gangway proposed in this report would be wheelchair accessible in order to accommodate these clients. Suggestions to improve the planning and scheduling of charters included a provision to reschedule charters due to inclement weather for little or no cost, described as an “escape clause” by the client. The Gateway Clipper currently allows clients to reschedule events due to inclement weather pending the review of an Executive Team. Depending on the availability of open scheduling dates, clients may change the date of their charter without additional cost²⁵.

If Rivers of Steel acquires RiverQuest, Rivers of Steel should focus on making the client’s experience as comfortable as possible in order to differentiate its exceptional customer service from its competitors. In planning and scheduling charters, Rivers of Steel must balance the advantages of providing a one-stop, turn-key experience with the flexibility to allow clients to customize their experience to their specific needs. RiverQuest charters have a positive reputation among past clients, and minor improvements could ensure they come to Rivers of Steel with their future business.

Integration into Existing Rivers of Steel Programming

Rivers of Steel is considering an acquisition of RiverQuest and the purchase of its vessel in order to better fulfill its mission to conserve, interpret, and develop historical, cultural, and recreational resources. The addition of the vessel can accomplish this goal through program synergies. Much of the vessel’s potential lies in its ability to supplement and enhance already successful Rivers of Steel programs. By adding a physical presence on Pittsburgh’s rivers to accompany its presence on the shores, Rivers of Steel can provide a more engaging and dynamic experience to its customers without sacrificing the focus or quality of its educational tours. Historical and cultural tours that explore Pittsburgh’s infrastructure, waterways, and community development are ideal for transferring to the vessel to enhance the content and customer experience. With multiple heritage locations along the rivers there is the opportunity to run concurrent tours and link multiple heritage sites on the same tour.

Conversations with Rivers of Steel staff suggest planning and development is needed to create programming that can combine the resources of the vessel with the content of Rivers of Steel heritage events and tours. In the short term, Rivers of Steel may choose to make minimal changes to its current tours that are applicable to a marine environment. Future programming should be tailored to the advantages provided by a physical presence on the Pittsburgh’s rivers. Receptive tourism should incorporate the vessel into existing receptive tours when practical and work to develop new receptive tours that advertise the unique capabilities of the vessel.

²⁵ Gateway Clipper private charter consultant, personal communication, November 25, 2015

Upgrading the Vessel

In the next five years, Rivers of Steel will need to make significant investments into the vessel itself. Physical improvements to the vessel generally fall into one of two categories: periodic maintenance and repair and capital upgrades. Periodic maintenance includes an estimate of yearly maintenance costs for the vessel as well as an intensive maintenance and repair session conducted at least once every five years. Capital upgrades are evaluated on their ability to generate higher revenue and quality of service versus their cost of implementation and projected maintenance.

Periodic Boat Maintenance: Haul-outs

In accordance with U.S. Coast Guard requirements, the vessel undergoes a full inspection of structural and operational equipment at least once every five years. The vessel must be removed from the water so inspectors can determine the working condition of its parts and systems in what is called a “haul-out”. The last haul-out completed by RiverQuest was in 2012 and revealed several necessary renovations and repairs, such as renewing sections of the hull and welding parts of the vessel. The total cost of the 2012 haul-out was \$91,444. Fixed costs related to dry dock setup, outside contractors, and RiverQuest personnel time spent amount to around \$32,000, making condition-specific maintenance costs about \$60,000 in 2012. The cost breakdown of the 2012 haul-out and repairs is detailed in the Table 8. According to the vessel captains²⁶, fewer variable costs are anticipated for the 2017 haul-out, and the total cost of the 2017 haul-out may be significantly lower.

Table 8: 2012 Dry Dock Fixed and Variable Costs²⁷

Item	Cost
Dry Docking Fees/Equipment	\$16,333
RiverQuest Staff Time/Contractors	\$15,246
Total Fixed Costs	\$31,579
Variable Maintenance	\$53,234
Variable Equipment	\$6,631
Total Variable Costs	\$59,865
Total Cost	\$91,444

By law, Rivers of Steel is required to complete the next haul-out inspection by 2017. According to vessel captains, scheduling the next haul-out and retrofit for the same time may be beneficial by consolidating fixed costs associated with removing the vessel from the water, labor, and equipment.

In addition to repairs made during scheduled haul-outs, vessel captains and crew have made a number of repairs to the vessel’s original parts and systems. Crew members have updated or replaced the wiring, air conditioning, and navigation systems that were inadequate. Crew members confirmed that non-power supply maintenance has historically been \$15,000 per year, which agrees with analysis performed in Phase One reports. If the proposed upgrade to the vessel power supply is completed, current yearly maintenance costs should decrease significantly. However, vessel captains anticipate there may still be maintenance costs

²⁶ Robert Tully and Ryan O'Rourke, personal communication, August 3, 2015

²⁷ 2012 Dry Dock Budget provided by Shayna Pitt, August 18, 2015

associated with the new power supply, and the total yearly maintenance cost may be greater than the original estimate of \$15,000²⁸.

Hull Electrolysis

As described by the RiverQuest captains, for years the vessel has been subjected to electrolysis, or the slow corrosion of the ship's metal hull, due to electrical currents that are always present in the water. Electrolysis is natural and effects all vessels to varying degrees depending on the metallic composition of the hull and other equipment. Temporary measures to repair electrolysis corrosion include removing and replacing patches of the sheet metal hull, while the long term solution is to install an active electric system that prevents electrolysis from occurring. After having previously installed an electrical anode system designed to counteract the electric currents that cause electrolysis, divers conducted an inspection of the hull in November 2015. Results from the dive indicate the hull is in good condition, with no anticipated serious degradation in the future, although a final report of the hull's condition is pending. Rudder and shaft anodes may need to be purchased in 2016, but should not cost more than \$200 to replace²⁹.

Feasibility of Potential Vessel Upgrades

According to the crew, there are several potential upgrades that may improve the vessel's capacity to operate and generate revenue. Estimating the feasibility of these upgrades requires comparing the anticipated benefits of the upgrades, such as additional revenue generated or reduced future maintenance costs, with the cost of purchasing and installing the upgrade.

Mobile/Stowable Gangway

To enable Rivers of Steel to transport passengers to and from a variety of docks, an onboard portable gangway is ideal. Installing a gangway onboard the vessel will provide Rivers of Steel the freedom to engage in tours, charters, and river transportation to and from many more locations. Additional revenue generating opportunities may result from the operational flexibility afforded by a mobile gangway, making it a top priority among potential vessel upgrades. It is recommended that any gangway that is purchased be able to be mounted on either side of the vessel, as crew members will not always be able to load passengers with a particular side facing the dock.

The Hill Group contacted Yacht Boarding Systems, a mobile gangway manufacturing company in Florida, to estimate the cost of manufacturing and shipping a gangway customized to Rivers of Steel's specifications. The total cost of manufacturing and shipping a 12-foot-long stowable, wheelchair accessible gangway is estimated at \$5,500-\$6,500 before taxes³⁰. Included in the estimate is a 12-foot-long handrail and two sets of mounting equipment, one for each side of the vessel. Additional features such as a second hand rail and gangway extension pieces will cost extra. According to a Yacht Boarding Systems employee, installing the mobile gangway is straightforward and may be done by a crew with knowledge of the vessel.

The Hill Group contacted the U.S. Coast Guard to learn about policies regulating vessels with multi-site mooring capability. According to a U.S. Coast Guard employee, there are no

²⁸ Robert Tully and Ryan O'Rourke, personal communication, August 3, 2015

²⁹ Robert Tully and Ryan O'Rourke, personal communication, November 9, 2015

³⁰ Yacht Boarding Systems employee, personal communication, August 6, 2015

regulations preventing Rivers of Steel from using a mobile gangway to moor anywhere on the three rivers, as long as the property owners give Rivers of Steel permission to use their dock/shore³¹.

External Storage Unit

In order to efficiently transition between the classroom setting and charter setting, crew members must have a space to move tables, chairs, and other supplies off of the vessel and into a storage space. Crew members suggested a mobile storage unit at the site of the vessel such as a trailer be utilized to quickly load and unload the vessel. Owning a storage space could be convenient and save money on labor needed to transport vessel equipment. Used cargo containers used for shipping are typically 8' x 8' and either 20 feet or 40 feet long. The cost of buying and delivering a storage unit large enough to store all unnecessary equipment during charters ranges from \$2,000 to \$4,000 depending on the size, desired quality of the unit, and shipping distance³². It is recommended that Rivers of Steel contact the Carnegie Science Center and attempt to obtain a bus space in the parking lot near the vessel for easiest access. Otherwise, additional space on or near the vessel dock may need to be constructed. An alternative solution to the storage problem could be storing materials in the Carnegie Science Center building during private charters. In addition to exploring the possibility of buying or renting a mobile storage unit, Rivers of Steel may wish to contact the Carnegie Science Center to discuss a mutually beneficial arrangement.

Updated Thermostat System

The vessel currently does not have a battery backup feature on its thermostat. A battery backup allows the thermostat to remain in real time even when the vessel is disconnected from onshore power. The lack of a battery backup has prevented RiverQuest crew members from programming a temperature schedule on the vessel and has led to energy inefficiencies. Installing a new programmable thermostat that is hard-wired to the vessel power supply and its own battery backup is recommended in order to reduce energy costs and increase operational efficiency. Cost estimates for installing an updated system range from \$75 to \$120, depending on the desired specifications of Rivers of Steel and its crew members³³.

New Fiber-optic Lighting System

RiverQuest captains have explored the idea of upgrading their current outdoor lighting system to an LED Fiber optic system. If the lighting system is to be replaced, an LED system is recommended due to its reliability and low maintenance cost, as well as its energy efficiency. In order to maintain the vessel's status as a green passenger vessel, the vessel must show a commitment to utilizing energy efficient systems, and installing an LED system qualifies as an energy efficient system. According to the captains, an investment in an LED Fiber Optic system would last for the conceivable lifetime of the ship and require little to no maintenance. Quotes from vendors price a potential system upgrade at \$5,000³⁴.

³¹ U.S. Coast Guard employee, personal communication, August 20, 2015

³² CubeDepot.com, accessed October 2, 2015.

http://cubedepot.com/cubes/page3.jsp?type=CONTAINER&size=FT_40&radius=150&location=Carnegie%2C+PA+15106&latitude=40.4088514&longitude=-80.11494140000002,

³³ Lowes.com, accessed October 2, 2015. http://www.lowes.com/Heating-Cooling/Thermostats/Programmable-Thermostats/_/N-1z10xtr/pl?cm_sp=RoughPlumbing-_Plumbing|PopularCat-_Merch|programmable&cm_cr=null_5_pl#

³⁴ Captain Tully estimate (Forthcoming)

New Dock Construction at Carrie Furnace

Building an additional dock at or near the Rivers of Steel headquarters in Homestead could expand the programming capability of the vessel. With docks in Homestead and the North Shore, Rivers of Steel could provide a greater array of shorter (1 hour) and longer (2 hours or more) tours covering a greater area of the Monongahela River. Vessel tours could incorporate Rivers of Steel properties such as the Bost Building and Carrie Furnace. Estimating the cost of building a dock relies on a few major factors: the square footage of dock surface desired, the number and type of pilings used, and the conditions of the riverbed. Assuming an L-shaped piling dock similar in shape and size to the current dock at the Carnegie Science Center is constructed, the cost of construction including installation range would be about \$100 per square foot. A preliminary estimate of constructing a dock at the Carrie Furnace property ranges from \$80,000 to \$100,000 depending on the desired square footage and quality of materials³⁵. However, it was stressed by the River Salvage employee that no estimate would be accurate until contractors are able to visit the potential construction site in person and discuss the exact specifications of the dock with the vessel captains and Rivers of Steel management. To gain a better understanding of the potential cost of construction of a new dock, Rivers of Steel is encouraged to seek quotes from local contractors. However, due to the high initial cost of construction, it is not recommended that Rivers of Steel construct a new dock at Carrie Furnace until demand and revenue stabilize and can more accurately predicted.

Upgraded Galley

Expanding the capacity of the vessel galley could enable for greater revenue generation through self-catered charters and public tours. For past charters, RiverQuest has contracted with caterers to provide premade meals, but an upgraded galley may enable Rivers of Steel to capture a portion of the revenue generated from selling food and beverages on the vessel. However, the total cost of installing an upgraded galley, staffing, food preparation, and FDA licensing are prohibitive in the short term. Supplies and equipment for large-scale food preparation are estimated to be at least \$17,500³⁶. Significant structural upgrades would need to occur, including the installation of an exhaust hood over cooking stations, additional water supply and plumbing for increased water demand, and possible updates to the vessel electrical system. Hiring part-time, on-call cooking and catering staff would be necessary, and a staff of one chef, two cooks, two servers, and two busboys/dishwashers could cost \$350 per four hour charter³⁷. Future demand for onboard catering is uncertain, and retaining part-time cooks and catering personnel may not be cost-effective in the short term. In its current state, RiverQuest crew members are satisfied with partnering with catering companies who are responsible for all food and drink on the vessel, and catering fees have not been cited as a negative factor by past corporate clients. The current location and size of the vessel kitchen puts significant limits on the capacity of even an upgraded galley, and it is unlikely that Rivers of Steel would have the capability to effectively cater medium and large events in the short term. It is recommended that Rivers of Steel wait to provide onboard catering for vessel events until after cash flow stabilizes and higher priority upgrades and repairs are completed.

³⁵ Rick Sacoulas, Vice President, River Salvage Company, Inc, personal communication, August 31, 2015

³⁶ "Restaurant Equipment", "Smallwares", "Restaurant Dinnerware", "Storage and Transport", WebrestaurantStore.com estimates, accessed September 22, 2015

³⁷ Bureau of Labor Statistics, Occupational Outlook Handbook, January 8, 2014

Additional Rooftop Deck

At the beginning of Phase Two, Rivers of Steel had interest in increasing the revenue generating potential of the vessel by adding additional seating capacity to the vessel's top deck. Researchers spoke to the vessel captains to assess the feasibility of adding another passenger-accessible deck, and they strongly advised against such an upgrade³⁸. The captains cited concerns that the vessel's center of balance would be compromised, and height restrictions posed by Allegheny River bridges would prevent the vessel from traveling on that river. Due to these concerns, this potential capital upgrade is not recommended.

³⁸ Ryan O'Rourke and Robert Tully, personal communication, August 3 and November 13, 2015

Integrated Financial Projections

The analysis of required staffing and optimistic estimates of revenue from educational and other tours coupled with the vessel expense estimates developed for the RiverQuest/Rivers of Steel Merger Analysis (2014) presents an estimated budget for the combined entity (see Table 9).

Table 9: Phase Two Projected Annual Revenue and Expense Estimates

Revenue	Year 1	Year 2	Year 3	Year 4	Year 5	Notes
Total Operating Revenue*	\$310,695	\$334,528	\$360,671	\$389,394	\$421,001	See Appendix E
Total Grants**	1,573,796	1,605,272	1,637,377	1,670,125	1,703,527	Basil Report, Reduced NPS Funding, indexed to inflation
RQ-Educational Tours***	12,250	17,938	23,625	29,313	35,000	Used P1 Estimates (Pessimistic-Optimistic Growth)
RQ-Corporate Charter Tours***	31,500	46,935	62,370	77,805	93,240	Used P1 Estimates (Pessimistic-Optimistic Growth)
RQ-Public Sightseeing Tours***	12,000	27,000	42,000	57,000	72,000	Used P1 Estimates (Pessimistic-Optimistic Growth)
RQ-Group Tours***	12,000	24,750	37,500	50,250	63,000	Used P1 Estimates (Pessimistic-Optimistic Growth)
Total Revenue	\$1,952,241	\$2,056,423	\$2,163,543	\$2,273,887	\$2,387,768	

*Source: Rivers of Steel 2015 Budget Approved by Board

**Source: Basil 2015 Year End Report

***Source: Optimistic Revenue Projections from P1 Report

Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Notes
Total Employee Compensation*	\$1,252,478	\$1,315,102	\$1,380,857	\$1,449,900	\$1,522,395	See Appendix C; +5% yearly raises
Audit and Legal Fees*	31,620	32,252	32,897	33,555	34,227	RoS 2015 Budget, indexed to inflation
Construction*	100,000	102,000	104,040	106,121	108,243	Jeff estimates \$100k per year, indexed to inflation
Consultants*	91,895	93,733	95,608	97,520	99,470	Basil Report, indexed to inflation
Insurance*	67,271	68,616	69,989	71,389	72,816	RoS 2015 Budget, indexed to inflation
Loan and Capital Lease Interest*	6,630	6,763	6,898	7,036	7,177	RoS 2015 Budget, indexed to inflation
Travel and Car Expense*	33,556	34,227	34,912	35,610	36,322	RoS 2015 Budget, indexed to inflation
Professional Expenses*	11,035	11,256	11,481	11,711	11,945	15% increase due to new hires, then indexed to inflation
Office Expenses*	160,000	163,200	166,464	169,793	173,189	Estimated existing per employee cost, added for new office staff + inflation
Advertising*	45,000	45,900	46,818	47,754	49,684	Jeff suggests 30-60k budget
Printing, Photog., and Duplication*	6,120	6,242	6,367	6,495	6,624	RoS 2015 Budget, indexed to inflation
Equipment Leases/Maint.*	17,660	18,013	18,374	18,741	19,116	RoS 2015 Budget, indexed to inflation
Depreciation*	77,374	77,374	77,374	77,374	77,374	Straight line depreciation (2014-2015 budgets)
Rivers of Steel Guided Tours*	97,241	104,047	111,331	119,124	127,462	7% Increase in expenses (same as revenue growth)
Misc. Operating Expense*	23,611	24,083	24,565	25,056	25,557	RoS 2015 Budget, indexed to inflation
Pass-Thru Grant Disbursements*	54,962	56,061	57,182	58,326	59,492	RoS 2015 Budget, indexed to inflation
Misc. Grant Program Expenses*	0	0	0	0	0	RoS 2015 Budget, indexed to inflation
RQ-Parts/Supplies***	32,179	42,432	52,685	62,938	73,191	2014 M.A., fuel costs escalated by 5x to account for vessel use growth
RQ-Equipment – Purchase***	6,571	6,702	6,836	6,973	7,112	2014 M.A., Indexed to Inflation
RQ-Equipment – Rentals***	3,213	3,277	3,343	3,410	3,478	2014 M.A., Indexed to Inflation
RQ-Printing/Product.***	3,825	3,902	3,980	4,059	4,140	2014 M.A., Indexed to inflation

Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Notes
RQ-Operating Expenses***	228,120	232,682	237,336	242,083	246,924	2014 M.A., Indexed to Inflation
RQ-Travel***	357	364	371	379	386	2014 M.A., Indexed to inflation
RQ-Professional Development***	1,377	1,405	1,433	1,461	1,491	2014 M.A., Indexed to inflation
RQ-Purchase Service-Admin***	17,029	17,369	17,717	18,071	18,433	2014 M.A., Indexed to Inflation
RQ-Purchase Service-Programs(Inc. maintenance)***	22,086	84,107	22,978	23,438	23,907	2014 M.A. plus maintenance (See Appendix E), indexed to inflation
RQ-Insurance***	37,699	38,453	39,222	40,007	40,807	2014 M.A., Indexed to Inflation
Tech Upgrade – Web Reservations	10,200	10,404	10,612	10,824	11,041	P1 estimate, indexed to inflation
Vessel Capital Upgrades	8,120	5,000	4,000	0	0	See Appendix F
Total Expenses	\$2,447,229	\$2,604,966	\$2,645,670	\$2,749,148	\$2,862,003	
Net Revenue	(\$494,988)	(\$548,543)	(\$482,127)	(\$475,261)	(\$474,234)	

*Source: Rivers of Steel 2015 Budget Approved by Board

**Source: Optimistic Revenue Projections from P1 Report

***Source: Expenses as modeled in the RiverQuest/Rivers of Steel Merger Analysis (2014)

Table 10 synthesizes the net revenue projections from the Phase Two Projected Annual Revenue and Expense Estimates to estimate expected net revenue for the three year and five year period following the acquisition.

Table 10: Three-Year and Five-Year Net Revenue Projections

Three-Year Net Revenue	(\$1,525,658)
Five-Year Net Revenue	(\$2,475,153)

Considerations for Rivers of Steel

Rivers of Steel has enjoyed a long history of success dating back to its creation nearly 20 years ago. Through its work in historic preservation, cultural conservation, environmental and natural resource conservation, recreation, education, interpretation, economic development, and tourism, the organization has steadily provided a link between Pittsburgh's colonial and industrial heritage to the present and future economic and cultural life of the region. All the while, it has maintained fidelity to most of the goals of its original management plan.

One aspect of its original vision that remains unfulfilled, however, is a consistent physical presence on the three rivers. The acquisition of RiverQuest may be an opportunity to effectively develop this long-awaited initiative in a manner that complements and amplifies its burgeoning receptive services business, expands its educational and arts programs, and preserves the regional asset that is RiverQuest for the next generation of students.

However intriguing this opportunity may be, the decision to acquire RiverQuest ought to be in the context of objective analysis of the financial and operational impact it may have on Rivers of Steel. The preceding analysis echoes much of what the RiverQuest/Rivers of Steel Merger Analysis (2014) indicated. Despite compelling strategic fit and mission alignment, there are a number of costs (possibly more than \$1.6 million over three years not including the propulsion retrofit) and risks associated with acquiring RiverQuest that Rivers of Steel must review, understand, and consider as it plans for the future, including but not necessarily limited to:

1. The vessel requires a propulsion system upgrade in order to operate (which was detailed in the RiverQuest/Rivers of Steel Merger Analysis). RiverQuest has only secured a portion of these funds (approximately \$300,000)³⁹, and additional unanticipated maintenance and upgrades may be required in the future and may be significant expenditures for Rivers of Steel.
2. It is unlikely that vessel operations will be financially self-sufficient. Even at optimistic revenue projections and streamlined staffing levels, the vessel operates at a net loss. RiverQuest attempted in the past to diversify vessel uses and revenues, but it was unable to do so for various reasons described throughout this report.
3. In order to attempt to grow educational and other tour volume, investments may be necessary to hire a Sales and Marketing Coordinator, increase marketing and advertising, and provide a user-friendly method for customers to buy tickets and schedule tours online.
4. Because full self-sufficiency is unlikely, Rivers of Steel may need to invest in a full-time Director of Development to pursue foundation, corporate, government, and individual funds. This is an opportunity to grow support for traditional and new Rivers of Steel programming.

³⁹ Shayna Pitt, personal conversation, November 23, 2015

5. The primary audience and users of the vessel, regional school districts, are historically averse to price increases. Escalating prices to market or near-market rates may negatively impact demand, especially in this competitive environment with perceived programming alternatives in which schools are expected to decrease spending.
6. The book value of the vessel is significant, particularly once the propulsion system is retrofitted. However, selling this type of vessel, if needed in the future, may be difficult due to local market conditions. RiverQuest has commented that past conversations about selling the vessel, however cursory and anecdotal, have not yielded success.
7. Vessel activity at the volume modeled in the optimistic revenue projections may require a culture shift for incumbent RiverQuest staff, who are used to only one underway tour per day. Optimistic revenue projections estimate at least one education tour every other day during the student tour season, one public sightseeing tour per day for the entire tour year, a public group tour every two days for the entire tour year, and approximately one corporate charter per week for the entire tour season. This projects that Rivers of Steel will use this vessel for as many of the receptive services tours that have traditionally been outsourced to other river tour operators as possible. The inclusion of a portion of this previously redirected vessel tour revenue has been incorporated into Phase One revenue projections and subsequently the Phase Two Pro Forma.
8. Potential damage to the vessel hull by electrolysis may significantly increase future repair and maintenance costs. The results of a scheduled maintenance dive indicate no major costs associated with hull electrolysis will be necessary at this time, although a formal dive report is pending.
9. Investment in new and upgraded vessel equipment is recommended. A mobile gangway, external storage unit, upgraded lighting system, and new programmable thermostat may increase the operational capacity of the vessel, raise revenue, and cut costs.
10. Additional vessel staff may need to be hired as tour volume increases. The updated pro forma incorporates the addition of new vessel staff in proportion to anticipated increases in tours and charters.
11. Rivers of Steel must work to prevent jeopardizing revenue and resources by the addition of the vessel. Staff have voiced concerns over the possibility of the vessel diverting sales and resources from already successful Rivers of Steel programs. Potential funding for the acquisition of the vessel could be used to further renovate assets such as the Carrie Furnace site, which requires more capital improvements to realize its potential for revenue generation. Also, time spent trying to develop marketing, sales, and programming for the acquired vessel could be spent strengthening receptive tour services, as well as soliciting group tours and private events. The decision to invest in acquiring the vessel must weigh the potential benefits of operating the vessel against the potential benefits of investing in Rivers of Steel's current assets.

If these potential risks seem insurmountable and outside of the organization's tolerance, it may decide against the acquisition. If Rivers of Steel is comfortable with these potential risks and determines that the strategic benefit of acquiring the vessel, preserving best-in-class educational programming, and augmenting its own programs and services in a manner that may never again be possible outweighs the costs, then it may consider the following next steps to help ensure an effective acquisition.

1. Gain commitments from local, regional, or national foundations for multi-year operating support for vessel activities without jeopardizing ongoing commitments to Rivers of Steel's existing programs and operations, leveraging the public interest in preserving a well-recognized regional asset while operating it more efficiently and effectively.
2. Engage a third-party marine vessel maintenance expert to conduct a thorough inspection and investigation of potential maintenance, upgrade, and retrofit costs beyond the acknowledged need for a propulsion system upgrade. Also engage this subject matter expert to consult on the financial and operational implications of the propulsion retrofit and its impact on other vessel systems.
3. Pursue dialogue with Rivers of Steel program partners such as the Pennsylvania Departments of Environmental Protection and Conservation of Natural Resources to identify programming opportunities for the vessel and public revenue sources that can support their operation.
4. Pursue dialogue with local universities, government agencies, and other researchers to identify opportunities to deploy the vessel for scientific research and related revenue sources that can support their operation. Some dialogue has already started in Phase Two, as several past local university partners, government agencies, and researchers were interviewed to measure current demand for the vessel's capacity as a mobile research lab. While it is worthwhile to pursue higher education and research partnerships as a way to fulfill Rivers of Steel's mission and broaden its customer base, they have not represented a steady or sizable revenue stream. Long-term, frequent, and profitable charters by these organizations are unlikely and do not appear to be as fruitful as corporate charters.
5. Contact incumbent seasonal, part-time Education Crew staff of RiverQuest to gauge their desire and ability to continue their association with the educational program.
6. Develop scenario and contingency plans for potential vessel risks, including emergency situations and unplanned maintenance and upgrades, and quantify their impact on Rivers of Steel finances and reputation.

Appendix A: Primary and Secondary Sources

Nine individuals from both organizations were interviewed to inform this Phase One and Phase Two analysis:

1. Corrine Bechtel, Director of Tourism, Rivers of Steel
2. August R. Carlino, President/CEO, Rivers of Steel
3. Jeffrey Jordan, Co-Executive Director Programs and Operations, RiverQuest
4. Jeffrey T. Leber, Vice President/COO, Rivers of Steel
5. Captain Ryan O'Rourke, Boat Operations Manager and Captain, RiverQuest
6. Shayna Pitt, Co-Executive Director Development and Admin, RiverQuest
7. Frank Reed, Board Chairman, Rivers of Steel
8. James C. Roddey, Board President, RiverQuest
9. Captain Robert Tully, Boat Captain, RiverQuest

Requests for public and private charter and group tour information and rates were made of:

1. Carnegie Science Center
2. Gateway Clipper Fleet. Inc.
3. Just Ducky Tours

Many operational and financial reports provided by both organizations were consulted in this Phase One analysis:

1. RiverQuest/Rivers of Steel Merger Analysis, completed in 2014 by Cosentino Consulting LLC and Mendes Consulting LLC
2. Rivers of Steel Organizational Chart, updated April 2015
3. Rivers of Steel 2015 Budget Approved by Board
4. RiverQuest Organizational Chart, updated March 2015
5. RiverQuest estimates of Direct Operating Costs for Educational Tours
6. RiverQuest estimates of fixed and variable costs of vessel operation
7. RiverQuest operating budgets, 2011-2014
8. RiverQuest estimates of charter tour operation expenses
9. RiverQuest job descriptions
10. RiverQuest staff roster, roles, and annual/hourly wages
11. RiverQuest dock insurance policy
12. RiverQuest IT inventory
13. RiverQuest 2012 dry dock cost breakdown
14. Rivers of Steel salary and benefits breakdown
15. RiverQuest corporate charter list
16. RiverQuest higher education partner list

Additional stakeholders from various organizations provided insight or feedback to help hone Phase One and develop Phase Two findings and considerations:

1. Annabelle Clippinger, Former University Partner, PittARTS Program
2. Patrick Cranston, RiverQuest IT Consultant
3. Mickey Denner, Former Corporate Client, Allegheny Conference
4. Priya Manohar, Professor of Engineering, Robert Morris University

5. Naomi Rolley, Former Corporate Client, Langan Engineering
6. Rick Sacoulas, Vice President, River Salvage Company Inc.
7. John F. Stolz, Director, Center for Environmental Research and Education
8. Jeanne VanBriesen, Professor of Civil and Environmental Engineering, Carnegie Mellon University
9. Employee, United States Coast Guard, Pittsburgh Marine Safety Unit
10. Employee, Sales Division, Yacht Boarding Systems, Inc.
11. Private charter consultant, Gateway Clipper Fleet

Appendix B: Current and Future Job Descriptions

The following job descriptions are as developed by RiverQuest over the past several years. The major duties and responsibilities contained in each are not expected to change upon acquisition. However, the reporting responsibilities and some secondary duties may change as dictated by the needs of Rivers of Steel.

RiverQuest Position Description Education Crew Member (PT/seasonal)

Reports to: Education Manager, and designated management staff on board, including Captain

Supervisory Responsibility: None. Those advancing to Crew Leader status supervise part-time education coworkers during daily operations.

Duties & Responsibilities:

Primary: (95%)

- Key Accountability: Deliver quality river-based educational programming to diverse audiences. (75%)
- Master content and equipment needed to teach on board and landside education programs, both in Pittsburgh and at satellite locations. (10%)
- Set-up and clean-up of equipment, vessel and landside areas prior to and following program delivery (5%)
- Participate in staff meetings and training sessions (5%)

Secondary: (5%)

- Assist Education Coordinator in maintenance and inventory of equipment and supplies
- Assist Education Manager and Director of Education in carrying out program evaluation procedures as needed.
- Carry out administrative, marketing, development and coordination duties within specific program areas as assigned by Education Manager.

**These duties are not an exhaustive list of the duties normally performed under this position title.*

RiverQuest Position Description Deckhand (FT)

Nature & Scope: The Senior Deckhand reports directly to the Pilot and provides support in the operation and maintenance of the vessel.

Duties & Responsibilities:

- Assists the master pilot in the operation and maintenance of the vessel.
- Prepare the vessel for underway operations and coordinates other deckhands to help prepare the vessel.
- Responsible for deck operations, including, line handling, knots docking/undocking, locking through, stops for sampling, basic navigation while underway.
- Prepares the vessels for underway operation and coordinates the work of other deckhands to prepare vessel for underway operations.
- Carries out procedures related to emergency conditions, including, man overboard, fire, abandon ship, foul weather, medical emergency and collision.
- Applies first aid and CPR to passengers if necessary.
- Conducts general maintenance of boat when not in operation, including periodical engine maintenance work, plumbing, painting, repair/renovation work, cleanup, etc.
- Maintains working knowledge of pilot house, including all navigational equipment, engine alarms/indicators, controls, gauges and communications procedures.
- Maintains working knowledge of main and auxiliary machinery, steering systems, alarms, refueling techniques, and emergency procedures (fuel electrical, ventilation, etc.)
- Provides assistance to the teaching crew in preparation of vessel for classes.
- Provide educational support to teachers when requested.

Essential Job Functions: ability to move freely throughout both Pittsburgh Voyager vessels; physically able to perform designated duties associated with the protection and evacuation of passengers during emergency situations.

Job Requirements: a minimum of one year experience operating or decking on a vessel similar to M/V Explorer; a USCG license can substitute for the experience requirement; good mechanical skills; the desire to work with students, teachers and the public; successful completion of the RiverQuest Deckhand Initial Training Course; Red Cross certification in CPR/AED/First Aid within six months of employment; ACT 33/34 clearance; participation in the USCG required random drug and alcohol testing program.

** These duties are not an exhaustive list of the duties normally performed under this position title. Updated: 6/20/12 (JJ, RT)*

RiverQuest Position Description Unlicensed Engineer (FT/PT)

Nature & Scope: The unlicensed engineer position is required by the USCG as specified in the Certificate of Inspection. The engineer assists, and reports to, the captain in the operation, servicing, and monitoring of the boat's mechanical and electrical systems.

Duties and Responsibilities:

- Assists in servicing the engine room components prior to the operation of the boat.
- Assists in insuring the boat is safe for operation.
- Assists the senior deckhand in preparing the boat to get underway.
- Assists the deckhands in switching from shore to boat power.
- Assists the deckhands in handling lines during docking maneuvers.
- Maintains knowledge of all of the boat's mechanical and electrical systems.
- Assists the crew during normal operations.
- Assists in troubleshooting problems that occur prior to sailing and while underway.
- Maintains knowledge of the boat's emergency procedures.
- Assists the captain and deckhands during all emergencies.
- Assists the captain and deckhands in maintaining the boat in a ship-shape condition.

Essential Job Functions: The unlicensed engineer must be physically able to maneuver around all areas of the boat including the steering locker, tank locker, engine room and anchor locker. The unlicensed engineer must have a thorough knowledge of all the boat's mechanical and electrical systems.

Job Requirements: Completion of the RiverQuest Technical Training Program for the M/V Explorer. Good mechanical skills. Completion of the RiverQuest Initial Deckhand Training Program. Completion of CPR and First Aid Training within six months of employment. Act 33/34 clearance. Mandatory participation in the USCG mandated drug and alcohol testing program.

**These duties are not an exhaustive list of the duties normally performed under this position title.* UPDATED: 6/20/12 (RT, JJ)

RiverQuest Position Description Captain (FT)

Nature and Scope: The captain reports to the Executive Director or his/her designee, and is responsible for the safe operation of the vessel and the safety of the passengers and crew.

Duties and Responsibilities:

- Operates the vessels of RiverQuest for all programming.
- Ensures the crew completes the necessary preparations for getting underway.
- Performs the necessary safety checks and pre-voyage inspections, gathers weather and river condition information, and other tasks to ensure vessel is ready for safe operation.
- Ensures the vessel is in ship-shape condition for the scheduled program. For education programs this means all of the required equipment is available and in good operating condition. For business charters this means the boat is clean, both inside and out, non-essential equipment is stowed, and the cabin is set up as directed by management.
- Briefs the crew as to any non-normal conditions that may affect operations.
- Ensures a safety briefing is conducted prior to any voyage with passengers aboard.
- Manages the crew in deck operations, line handling, docking, locking through, sampling, and navigation while underway.
- Conducts periodic drills.
- Assist in the training of all staff on safety, operations, and maintenance.
- Maintains a high level of knowledge of the pilothouse including navigational equipment, system alarms/indicators, controls, gauges and communication equipment.
- Maintains a high level of knowledge of the boat's mechanical and electrical systems.
- Maintains a high level of knowledge of the boat's emergency procedures.
- Ensures compliance with all RiverQuest policies and procedures.
- Ensures compliance with the conditions of the USCG COI for the vessel being operated.

Essential Job Functions: ability to move freely throughout the vessel including climbing steps and ladders, opening hatches; perform the duties associated with the safe operation of the vessel; direct the normal and emergency operation of the vessel.

Job Requirements: possess a USCG 100 ton Master's License; have a minimum of 360 days operating or serving as a deckhand on a vessel similar to the M/V Explorer; maintain the physical fitness requirements of the USCG and applicable CFRs; have good mechanical skills; have a desire to work with students and teachers; have an ACT 33/34 clearance; pass a pre-employment drug screening and continue participation in the RiverQuest USCG required drug and alcohol testing program; successfully complete a Red Cross certification in CPR/First Aid/AED within six months of being employed by RiverQuest; complete all training required.

*These duties are not an exhaustive list of the duties normally performed under this position title. UPDATED: 6/20/12 (RT, JJ)

RiverQuest Position Description Director of Education (FT)

Reports to: Executive Director

Supervisory Responsibility: Education Manager

Key Accountability:

Responsible for overseeing development, promotion, implementation and evaluation of RiverQuest programs for school students, teachers, general public, and specialty charter audiences.

Duties & Responsibilities:

Primary: 80%

- Supervise management of all aspects of Formal (school) and Informal (non-school) education programs, including school programs, professional development workshops for teachers and university students, summer camps and related programs, education charters and other interpretive programs. (50%)
- Supervise promotion of education programs in all areas, in conjunction with Executive Director and Director of Development. (10%)
- Develop department budgets and manage program activities within budget constraints. (10%)
- Lead development of new education programs in conjunction with RiverQuest management, staff, and Education Committee. (10%)

Secondary: (20%)

- Assist Education Manager in yearly and program-based evaluation of part-time education staff. (5%)
- Assist Education Manager in providing primary point of contact for teachers beyond the registration process. (2.5%)
- Work with Executive Director and Director of Operations to build partnerships with organizations that enhance the quality, reach and impact of programs. (5%)
- Support Director of Development in developing special project grant requests to support education programs. (2.5%)
- Work with management and contractors to promote offerings through print and web-based media. (2.5%)
- Coordinate vessel-specific program needs and stipulations with Director of Fleet Operations. (2.5%)

**These duties are not an exhaustive list of the duties normally performed under this position title.*

The following job descriptions are developed by consultants for Rivers of Steel. These are subject to change upon review by Rivers of Steel.

Rivers of Steel Heritage Corporation Director of Development

Organization

Rivers of Steel Heritage Corporation conserves, interprets and develops historical, cultural and recreational resources throughout western Pennsylvania, including the eight counties that comprise the Rivers of Steel National Heritage Area. Rivers of Steel seeks to link our colonial and industrial heritage to the present and future economic and cultural life of the region and the communities it serves. Its vision is to become a nationally recognized brand that not only celebrates our past but also embraces our future, by connecting people to their environs. To achieve these ends, it fosters and promotes resource conservation and development, heritage tourism, cultural and educational programs and economic revitalization in partnership with hundreds of local communities in the greater Pittsburgh area, and along the Monongahela, Allegheny and Ohio River valleys, the very places that gave birth to the most powerful industrial heartland the world has ever seen.

Position

Reporting to and in partnership with the Executive Director (ED), the Director of Development (Director) will spearhead development efforts as Rivers of Steel Heritage Corporation continues to grow. A new position in the organization, the Director will have the opportunity to build the development function.

Responsibilities

- Develop and execute the organization's annual fundraising plan
- Secure financial support from individuals, foundations, and corporations
- Manage the implementation of DonorPro and oversee staff responsible for data entry and gift processing
- Develop and maintain ongoing relationships with major donors
- Creating and executing a strategy for a large sustained base of annual individual donors
- Overseeing organization of special events
- Developing and tracking proposals and reports for all foundation and corporate fundraising

Qualifications

- BA (required), MA (a plus)
- 5-plus years' experience in development
- Demonstrated excellence in organizational, managerial, and communication skills
- Knowledge of DonorPro donor management software

Rivers of Steel Heritage Corporation Sales and Marketing Coordinator

Organization

Rivers of Steel Heritage Corporation conserves, interprets and develops historical, cultural and recreational resources throughout western Pennsylvania, including the eight counties that comprise the Rivers of Steel National Heritage Area. Rivers of Steel seeks to link our colonial and industrial heritage to the present and future economic and cultural life of the region and the communities it serves. Its vision is to become a nationally recognized brand that not only celebrates our past but also embraces our future, by connecting people to their environs. To achieve these ends, it fosters and promotes resource conservation and development, heritage tourism, cultural and educational programs and economic revitalization in partnership with hundreds of local communities in the greater Pittsburgh area, and along the Monongahela, Allegheny and Ohio River valleys, the very places that gave birth to the most powerful industrial heartland the world has ever seen.

Position

Reporting to the Vice President/COO, the Sales and Marketing Coordinator will coordinate sales, marketing, outreach, and communication functions in partnership with the Director of Receptive Tourism and the Director of Arts and Education. In particular, this Coordinator will champion outbound communication with the purpose of increasing the number and frequency of customers for receptive tours, heritage events, vessel activities, and possibly other customer-serving programs.

Responsibilities

- Implements marketing and advertising campaigns by assembling and analyzing sales forecasts; preparing marketing and advertising strategies, plans, and objectives; planning and organizing promotional presentations
- Tracks program and service line sales and costs by analyzing and entering sales, expense, and new business data
- Prepares marketing reports by collecting, analyzing, and summarizing sales data
- Supports other staff by providing sales data, market trends, forecasts, account analyses, new product information
- Researches competitive programs and services by identifying and evaluating product characteristics, market share, pricing, and advertising; maintaining research databases
- Plans meetings and trade shows by identifying, assembling, and coordinating requirements; establishing contacts; developing schedules and assignments; coordinating mailing lists
- Monitors budgets by comparing and analyzing actual results with plans and forecasts
- Updates job knowledge by participating in educational opportunities; reading trade publications
- Accomplishes organization goals by accepting ownership for accomplishing new and different requests; exploring opportunities to add value to job accomplishments.

Qualifications

- BA (required), MA (a plus)
- 5-plus years' experience in sales, marketing, and communications
- Demonstrated excellence in organizational, managerial, and communication skills

Rivers of Steel Heritage Corporation Receptionist/Accounting Clerk

Organization

Rivers of Steel Heritage Corporation conserves, interprets and develops historical, cultural and recreational resources throughout western Pennsylvania, including the eight counties that comprise the Rivers of Steel National Heritage Area. Rivers of Steel seeks to link our colonial and industrial heritage to the present and future economic and cultural life of the region and the communities it serves. Its vision is to become a nationally recognized brand that not only celebrates our past but also embraces our future, by connecting people to their environs. To achieve these ends, it fosters and promotes resource conservation and development, heritage tourism, cultural and educational programs and economic revitalization in partnership with hundreds of local communities in the greater Pittsburgh area, and along the Monongahela, Allegheny and Ohio River valleys, the very places that gave birth to the most powerful industrial heartland the world has ever seen.

Position

Reporting to the Vice President/COO, the receptionist/accounting clerk is the organization's first point of contact for office visitors and guests and also assists in the recording and reconciliation of financials, accounts receivable, and accounts payable in support of the Vice President/COO and Controller.

Responsibilities

- Welcomes visitors by greeting them, in person or on the telephone; answering or referring inquiries
- Directs visitors by maintaining employee and department directories; giving instructions
- Maintains security by following procedures; monitoring logbook; issuing visitor badges
- Maintains safe and clean reception area by complying with procedures, rules, and regulations
- Maintains accounting records by making copies; filing documents
- Assists with accounts payable and receivable processes
- Reconciles bank statements by comparing statements with general ledger
- Maintains accounting databases by entering data into the computer; processing backups
- Verifies financial reports by running performance analysis software program
- Protects organization's value by keeping information confidential
- Updates job knowledge by participating in educational opportunities
- Contributes to team effort by accomplishing related results as needed

Qualifications

- BA (preferred)
- Academic or professional background in arts and environmental education preferred
- Experience with social, cultural, arts, or environmental programming preferred
- Experience in customer-facing roles with emphasis on written and verbal communication and service
- 5-plus years' experience with budgeting, financial reporting and reconciliation, bookkeeping, and/or accounts payable and receivable processes
- Demonstrated excellence in organizational, managerial, and communication skills

Rivers of Steel Heritage Corporation
Director of Arts and Education

Organization

Rivers of Steel Heritage Corporation conserves, interprets and develops historical, cultural and recreational resources throughout western Pennsylvania, including the eight counties that comprise the Rivers of Steel National Heritage Area. Rivers of Steel seeks to link our colonial and industrial heritage to the present and future economic and cultural life of the region and the communities it serves. Its vision is to become a nationally recognized brand that not only celebrates our past but also embraces our future, by connecting people to their environs. To achieve these ends, it fosters and promotes resource conservation and development, heritage tourism, cultural and educational programs and economic revitalization in partnership with hundreds of local communities in the greater Pittsburgh area, and along the Monongahela, Allegheny and Ohio River valleys, the very places that gave birth to the most powerful industrial heartland the world has ever seen.

Position

Reporting to the Vice President/COO, the Director of Arts and Education is the organization's champion for public programs and services that encompass arts, heritage, and history, as well as vessel-based programs for environmental education.

Responsibilities

- Identifies curricular connections between the organization's mission and regional education community needs to design and develop programs for a growing audience of K-12 and college level students and teachers
- Designs, develops, deploys, and evaluates arts, heritage, history, and vessel-based programs for regional customers including teachers, students, tourists, and the general public
- Deepens participation of visitors by producing dynamic public programs related to the organization's exhibitions and/or focused on its target audiences
- Expands the reach of programs and services by cultivating strategic partnerships with the regional educational community, in partnership with the Sales and Marketing Coordinator
- Develops and implements evaluation tools to measure, interpret, and analyze the outcomes of education and public programs relative to strategic goals
- Designs and conducts training programs for staff, interns, and volunteers
- Performs other duties as assigned within the scope of responsibility and requirements of the position

Qualifications

- BA (required), MA (a plus)
- Academic or professional background in arts and environmental education preferred
- 5-plus years' experience in educational/public program development role
- Demonstrated excellence in organizational, managerial, and communication skills

Appendix C: Potential New Staff Pro Forma

Information in Table 11 is already included in the Phase Two Pro Forma provided earlier in this report.

Table 11: Rivers of Steel Current and Projected Future Staff

Position/Title	Number	Name	Salary	Benefits	Total Compensation (Year 0)	Notes
President/CEO	1					Existing RoS Data
Executive Assistant	1					Existing RoS Data
VP/COO	1					Existing RoS Data
Administrative Services Coordinator	1					Existing RoS Data
Controller	1					Existing RoS Data
Dir. of Archives + Museum	1					Existing RoS Data
Dir. Tourism	1					Existing RoS Data
PT Tour Coordinator	1					Existing RoS Data
Consultants	4					Basil Report
Dir. Development	1					2015 PANO Average*
Marketing/Sales Coordinator	1					2015 PANO Average*
Receptionist/Account Clerk	1					2015 PANO Average*
Dir. Education	1					Existing RQ Data
Boat Captain	2					Existing RQ Data
Senior Deckhand	2					Existing RQ Data
Unlicensed Engineer	2					Existing RQ Data
Junior Deckhand	2					Existing RQ Data
Education Crew	10					Internal estimate
Total	34					

*PANO averages only included base salary. Benefits were calculated as 30 percent of base salary.

Appendix D: RiverQuest Charters 2011-2014

Information in Table 12 is provided for future marketing and outreach activities of Rivers of Steel.

Table 12: Charters (Not Educational Program), 2011-2014

[illegible]

Appendix E: Operating Revenue Estimates

Information in Table 13 is already included in the Phase Two Pro Forma provided earlier in this report.

Table 13: Operating Revenue Estimates

Operating Revenue	2015 Budget	Projected Change per year	Y1	Y2	Y3	Y4	Y5	Notes ⁴⁰
Guided Tours	\$64,640	7%	\$71,104	\$76,081	\$81,407	\$87,105	\$93,203	2015 budget notes, indexed to inflation
Receptive Tours	85,000	5%	89,250	93,713	98,398	103,318	108,484	2015 budget notes, indexed to inflation
Service Fee	52,100	15%	59,915	68,902	79,238	91,123	104,792	2015 budget notes, indexed to inflation
Other Income	7,042	2%	7,183	7,326	7,473	7,622	7,775	2015 budget notes, indexed to inflation
Donations	22,000	10%	24,200	26,620	29,282	32,210	35,431	2015 budget notes, indexed to inflation
Interest Income	1,340	-3.50%	1,293	1,248	1,204	1,162	1,121	2015 budget notes, indexed to inflation
Net Income from Special Events	38,000	5%	39,900	41,895	43,990	46,189	48,499	2015 budget notes, indexed to inflation
Net Souvenir Sales	17,000	5%	17,850	18,743	19,680	20,664	21,697	2015 budget notes, indexed to inflation
Total	\$287,122		\$310,695	\$334,528	\$360,671	\$389,394	\$421,001	

⁴⁰ Budget Notes provided by Jeff Leber, September 17, 2015

Appendix F: Potential Vessel Capital Upgrades and Maintenance

Information in Tables 14 and 15 is already included in the Phase Two Pro Forma provided earlier in this report.

Table 14: Potential Capital Upgrade Costs

Upgrades	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Notes
Gangway	\$8,000.00	\$0	\$0	\$0	\$0	\$8,000.00	Yacht Boarding Systems Quote
Storage Unit	0	0	4,000.00	0	0	4,000.00	One-time purchase, CubeDepot.com Estimate
Thermostat	120.00	0	0	0	0	120.00	Loews.com price
Lighting System	0	5,000.00	0	0	0	5,000.00	Captain Tully Estimate
Dock	0	0	90,000.00	0	0	90,000.00	River Salvage Estimate Recommended
Galley Upgrades						0	Not Recommended
Recommended Upgrades Total	8,120.00	5,000.00	4,000.00	0	0	17,120.00	

Table 15: Potential Maintenance Costs

Maintenance	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Notes
Haul-out: Fixed	0	31,579.00	0	0	0	31,579.00	Same as 2012 cost
Haul-out: Variable	0	30,000.00	0	0	0	30,000.00	50% of 2012 cost
Regular Maintenance	14,280.00	14,565.60	14,856.91	15,154.05	15,457.13	74,313.69	Indexed to inflation
Maintenance Total	\$14,280.00	\$76,144.60	\$14,856.91	\$15,154.05	\$15,457.13		



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